Northern Territory

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NORTHERN TERRITORY TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2015
Findings from the Ecstasy and Related Drugs Reporting System (EDRS)

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NORTHERN TERRITORY TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2015

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
ACPR	Australasian Centre for Policing Research
A&TSI	Aboriginal and/or Torres Strait Islander
AIHW	Australian Institute of Health and Welfare
AODTS MDS	Alcohol and Other Drug Treatment Services Minimum Data Set
ATS	amphetamine type stimulant
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
BZP	1-benzylpiperazine
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-tetrahydro-cannabinol
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/injection

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

* As appropriate

EXECUTIVE SUMMARY

The 2015 NT Trends in Ecstasy and Related Drug Markets report represents the thirteenth 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

- 101 participants were interviewed in the 2015 NT EDRS (59 male and 42 female).
- Participants were young (mean age of 24 years) and most commonly spoke English as their first language. Just under half (45%) of participants were born overseas, with the majority arriving in Australia in 2014/15.
- Most participants were heterosexual, single, living in rental accommodation and employed full-time.
- Two participants reported being currently in drug treatment.
- Overall, the 2014 and 2015 were mostly similar in demographic composition.

Patterns of drug use

- Participants had experience with a wide range of drugs, having used an average of 11 different drug types during their lifetimes and 8 different drug types over the past six months.
- Sixteen per cent reported having ever injected a drug.

- Proportions reporting lifetime and recent use of particular substances remained stable from 2014 to 2015 with the exception of recent use of OTC codeine which increased from 5% to 16%.
- Cannabis was the main drug of choice for the majority of the sample in 2015, followed by ecstasy and alcohol. In 2014, the main drug of choice was ecstasy.
- Over half of the group had recently binged (i.e. used for more than 48 hours continuously) 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 15 days over the past six months (i.e. at least fortnightly).
- Participants had used a median of 2 pills during a 'typical' occasion of use (range 0.5-8).
- Swallowing was the main route of administration (78%).
- The majority of participants (91%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco, cannabis, cocaine, speed and crystal methamphetamine.
- Over half (55%) of participants used other drugs to help them come down from ecstasy the last time they used it (most commonly cannabis and ketamine).
- Ecstasy was most commonly last used at a nightclub (42%).
- The proportion of the NT 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*: $40 per pill, $45 per capsule, stable.
- *Purity*: Currently medium and fluctuating.
- *Availability*: Currently easy to very easy to obtain and stable.

MDMA crystal

- *Price*: $300 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 availability had increased and was easily accessible.

Methamphetamine

Consumption patterns

Speed

- Over half (58%) of NT participants had ever used speed and one-third had done so recently.

- Speed was used on a median of 2 days over the preceding six months and was primarily snorted.
- The quantity of use appeared to decrease slightly from 2014 to 2015.

Base

- A minority of the sample had used base in their lifetime (19%) or recently (3%).
- The median age at which base was first used was 17 years (range 14-18).

Crystal methamphetamine

- Almost half (48%) had ever used crystal methamphetamine and one-third had done so recently.
- Of those who had recently used crystal methamphetamine, it was used on a median of 6 days over the preceding six months and was most commonly smoked.
- The frequency and 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 law enforcement KE reported that crystal methamphetamine was currently the main drug they had contact with over the past six months, and all KE reported crystal as the most problematic drug currently.

Market characteristics

Speed

- *Price*: $400 per gram and stable.
- *Purity*: Currently medium and mostly stable.
- *Availability*: Mixed reports on current availability, mostly stable over past six months.

Base

- Numbers too small to report.

Crystal methamphetamine

- *Price*: $150 per point and stable.
- *Purity*: Currently medium to high, mixed reports on purity change over past six months.
- *Availability*: Currently easy to very easy to obtain, stable.

General methamphetamine market characteristic observations

- KE reported an increase in the use of crystal methamphetamine due to increasing availability and lower prices for crystal methamphetamine.

Cocaine

Consumption patterns

- The majority of RPU (72%) had tried cocaine at least once, and over half (52%) had used it recently.
- Cocaine was used on a median of 2 days (i.e. quarterly) over the preceding six months.
- The frequency and the quantities of cocaine used remained stable from 2014.
- 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.

Market characteristics

- *Price*: $300 per gram and stable.
- *Purity*: Low to medium and mostly stable.
- *Availability*: Currently difficult and stable.

LSD

Consumption patterns

- The majority (64%) of the sample had tried LSD at least once and one-third had used it recently.
- LSD was used on a median of 2 days over the preceding six months (i.e. quarterly).
- LSD was most often purchased and used within private settings.

Market characteristics

- *Price*: $25 per tab and mostly stable.
- *Purity*: Currently high and stable.
- *Availability*: Currently difficult and stable.

Ketamine

Consumption patterns

- Two-fifths of the sample had tried ketamine at least once and 18% had used it recently.
- Ketamine was used on a median of 3 days over the preceding six months, which remains stable with 2014 figures.
- 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 2015.

GHB

Consumption patterns

- GHB had been used by a small proportion of participants in their lifetime (15%) and recently (3%). This finding remains similar to previous years.

Market characteristics

- There was no NT data reported on the price, purity or availability of GHB for 2015.

Cannabis

Consumption patterns

- Almost every participant had tried cannabis at least once (92%) and the vast majority had used it recently (82%).
- Cannabis was used on a median of 90 days (i.e. every second day) over the preceding six months, which was a noticeable increase from 2014 (30 days).
- Both forms of cannabis (hydro and bush) are commonly purchased and consumed within private settings in the NT.
- 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*: $27.50 per gram; $450 per ounce and stable.
- *Potency*: Currently high and stable.
- *Availability*: Currently very easy to obtain and stable.

Bush
- *Price*: $25 per gram; $400 per ounce and stable.
- *Potency*: Currently medium and stable.
- *Availability*: Currently easy to very easy to obtain and stable.

General cannabis market characteristic observations
- KE agreed that hydro was the main form of cannabis available in the NT. Availability is easy to obtain, potency has remained consistent and price is stable.

Other drug use

Alcohol
- Almost all NT participants reported lifetime and recent use of alcohol.
- KE reported that alcohol continued to be one of the most problematic drugs, particularly among young people who often binge on alcohol.

Tobacco

- The majority (85%) of the NT sample had used tobacco at least once and had smoked within the past six months (79%).

E-cigarettes

- Forty-six percent of the NT sample reported they had used e-cigarettes in their lifetime and 27% had used e-cigarettes recently.

Benzodiazepines

- One-third of the NT sample had recently used benzodiazepines. Illicit use was more common than licit use (27% vs. 10%).

Antidepressants

- Three per cent of participants had recently used antidepressants.

Inhalants

- Similar proportions reported lifetime and recent use of both amyl nitrite (31%; 8%) and nitrous oxide (33%; 13%).

MDA

- Twenty-one percent of the NT sample reported they had used MDA in their lifetime and 10% 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 one-in-ten had used mushrooms in the past six months.

Pharmaceutical stimulants

- Sixteen per cent of the group had recently used pharmaceutical stimulants. Illicit use was more common than licit use (31% vs. 6%).

Over the counter (OTC) drugs

- Compared to 2014, a significantly greater proportion of participants in 2015 reporting recent codeine use.

Antipsychotics

- Four NT participants reported lifetime use of antipsychotics.

Performance and image enhancing drugs (PIED)

- Two participants reported recent use of PIEDs.

New psychoactive substance (NPS) use

- Two-thirds reported having ever used NPS and one-third reported using NPS in the last six months.
- The most common psychoactive substances used among Darwin EDRS participants included other synthetic cannabinoids, Kronic, mephedrone and DMT.
- KE reported concern over the public's knowledge regarding safety of NPS.

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 hospital admissions in which the principal diagnosis was amphetamines, cocaine or cannabis in the NT in 2013/14 were similar to prior years.

Service usage

- Ten participants reported that they had recently accessed a medical or health service in relation to their drug use.
- Treatment episodes for ecstasy and cocaine have remained relatively low over time in the NT. In contrast, there were notably increases in numbers of presentations where amphetamine or cannabis was the principal drug of concern from 2012/13 to 2013/14.

Mental health

- One-in-five had recently experienced a mental health problem, and half of those 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 RPU.

Risk behaviours

- Sixteen per cent had ever injected a drug and 9 participants had done so recently.
- Most of the sample had recently had penetrative sex with a casual partner. Less than half the sample did not use a sexual barrier on the last occasion (regardless of whether or not they were intoxicated).
- Of the 89 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 vast majority (82%) of the group fell in the 'harmful drinking' range.
- Fourteen per cent of the sample scored within the problematic dependent ecstasy use category and 22% scored within the problematic dependent methamphetamine use category.

Law enforcement-related trends associated with ERD use

- Fourteen participants had reportedly been arrested over the past year.
- One-third had committed a crime within the past month; most commonly drug dealing and property crimes.
- In 2013/14, there was a decrease in the consumer arrests in the NT for amphetamines compared to 2012/13. 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, and one-third of participants had perceived changes in drug use among their social group.

Special topics of interest

- Online purchasing and NPS use:
    - Two-fifths of NT participants reported that their friends had purchased an illicit drug online.
    - Sixteen per cent of the NT EDRS sample reported that they had purchased an illicit drug online, and 11 participants had done so in the past 12 months.
    - Purchases of illicit drugs were made from either international webstores or dark net marketplaces.
- NPS health policy:
    - Very few participants reported that any of the NPS were legal, with higher proportions correctly reporting that these substances are illegal. However, often the majority were unsure of the legal status of various NPS.

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 2015 NT EDRS revealed changes in drug markets and indications of drug-related harms.

Bingeing

Over half 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 national EDRS average being 36%. 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.

New psychoactive substances

With two-thirds reporting having ever used NPS and over one-third reporting use of NPS in the last six months, there is a need to continue monitoring these substances and acquiring a better understanding of the harms associated with these drugs. There is currently a lack of research on the health and behavioural outcomes of using NPS. The associated risks of NPS use need to be identified to inform decisions on appropriate interventions and harm reduction strategies.

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.

Tobacco and cannabis use

The vast majority of ERD users reported recent tobacco and cannabis use. Furthermore, the frequency of cannabis use among recent users rose notably from 30 days in 2014 to 90 days in 2015. At a population level, 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). There is a need for interventions that target the smoking of these substances amongst both RPU and the general population.

Mental health and service utilisation

In terms of psychological distress levels, almost two-thirds of the sample reported ‘distress’ to some degree. Distress among the EDRS sample were higher than

Australian general population rates, and over time there has appeared to be increasing levels of distress among ERD users. Despite this high prevalence, only one-fifth 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 2015 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. KE identified the lack of alternative transport options in Darwin as a possible contributing factor. Research is warranted to assess the reasons for driving under the influence.

1 INTRODUCTION

The Ecstasy and related Drugs Reporting System (EDRS) is an ongoing monitoring system funded in 2015 by the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund. It is run in a similar manner to the Illicit Drug Reporting System (IDRS). 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 (see 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.

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 (3,4-methylenedioxymethamphetamine – MDMA), methamphetamine, cocaine, LSD (*d*-lysergic acid diethylamide), ketamine, GHB (gamma-hydroxybutyrate) and MDA (3,4-methylenedioxyamphetamine). 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 2015 provides a summary of trends from the thirteenth year of monitoring ERD markets in the Northern Territory (NT).

1.1 Aims

The aims of the 2015 NT EDRS were to:

1. describe the demographic characteristics of a sample of current REU/RPU users interviewed in Darwin in 2015;

2. examine the patterns of ecstasy and related drug 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 ecstasy and related drugs 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 ecstasy and related drug market that may require further investigation; and

6. compare key findings of this study (2015) with those reported in previous years.

2 METHODS

The 2015 EDRS used the methodology trialled in the feasibility study (see 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 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 pain-killers/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 relatively new in the market and 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 – 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 has become apparent that the ecstasy market and the regularity of its consumption may be changing. Researchers experienced significant difficulty recruiting a NT EDRS sample of meaningful size from 2010-2012 (2010 N=28; 2011 N=11; 2012 N=12). Due to this difficulty, from 2012 onwards, RPU have also been recruited to provide information on ERD markets.

2.1.1 Recruitment

A total of 101 RPU residing in the Darwin metropolitan region were interviewed for the 2015 NT EDRS. Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements in entertainment street press, social media such as Facebook, interviewer contacts, and 'snowball' procedures (Biernacki & Waldorf, 1981). 'Snowballing' is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug users 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). Initial contact was established through advertisements or, more frequently, through interviewers' personal contacts. 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 Australia in the six months prior to interview. Further to

this, eligible participants were required to have purchased at least one psychostimulant in the NT (that is, been able to answer questions on the price, purity and availability of an ERD based on the Darwin market). Unlike other jurisdictions, no restrictions were placed on the length of time participants had resided in the NT due to the transient nature of Darwin residents. All participants were required to be at least 16 years of age due to ethical constraints.

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 focused primarily on the preceding six months, and assessed demographic characteristics; patterns of ecstasy use and related drug use, including: frequency and quantity of use and routes of administration; 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 2015 (including online purchasing and NPS use, NPS health policy and cognitive enhancers). An additional special area of interest that has been devised exclusively for the NT report was a backpackers' module, which aims to provide preliminary data on the characteristics and risk factors of backpackers who use ERD in Darwin.

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 2015 were compared with data collected from previous years where meaningful sample sizes were collected (2007, 2008, 2009, 2013, 2014). As previously

[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.

detailed, due to the small sample sizes recruited from 2010-2012, 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).

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 either through professional networks of project staff or recommendations, and in some instances through 'cold calls'.[2]

A total of 13 KEs were interviewed in 2015. 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 2015 EDRS came from a wide range of occupations which fell into three major categories: law enforcement; health care provision; and retail sales workers.

[2] People who were thought suitable to act as KE were contacted and invited to participate in a key expert (semi-structured) interview.

2.3 Other indicators

To complement and validate data collected from REU/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 Crime Commission (ACC) – 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:

- 101 participants were interviewed in the 2015 NT EDRS (59 male and 42 female).
- Participants were young (mean age of 24 years) and most commonly spoke English as their first language. Just under half (45%) of participants were born overseas, with the majority arriving in Australia in 2014/15.
- Most participants were heterosexual, single, living in rental accommodation and employed full-time.
- Two participants reported being currently in drug treatment.
- Overall, the 2014 and 2015 were similar in demographic composition.

3.1 Overview of the NT EDRS sample

There were 101 participants sampled in the 2015 NT EDRS. Table 1 presents the demographics of the sample across time. The mean age of the 2015 sample was 24 years (median 23, range 17-46) and three-fifths (59%) were male.

The majority (96%) spoke English as their first language and were born in Australia (55%). Seven per cent identified as being of Aboriginal and/or Torres Strait Islander (A&TSI) descent.

Most participants identified as heterosexual (92%), followed by 5% as bisexual, 2% as a gay male and 1% as a lesbian. Most participants reported being currently single (67%) and were either residing in rental accommodation (45%), a boarding house/hostel (27%) or their family home (22%).

The median number of years of school education completed was 12 years (range 8-12), and 66% had completed high school education (Year 12 or above). The majority had completed either a trade or technical qualification (42%) or a university or college degree (25%).

Over half (55%) of the sample reported being currently employed full-time, with an additional 29% working part-time or casually at the time of interview. Fourteen participants were currently unemployed and one participant was both working and studying. Mean weekly income for the NT EDRS sample was $920 per week (range $50-$2,500), and wage or salary was reported as the main source of income in the last month for the majority of participants (90%). Two participants reported that they were currently in any form of drug treatment and seven participants reported a lifetime prison history.

Overall, the demographic characteristics between the 2014 and 2015 samples were similar. The only difference was in relation to employment, whereby the 2015 sample consisted of significantly more full-time participants (32% vs. 55%, $p<.002$) and significantly fewer unemployed participants (30% vs. 14%, $p<.009$) than the 2014 sample.

Table 1: Demographic characteristics of EDRS participants, NT

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Mean age (years)	30	28	31	25	23	**24**
Male (%)	71	64	61	69	57	**59**
English-speaking background (%)	100	93	99	87	98	**96**
A&TSI (%)	11	13	12	0	5	**7**
Heterosexual (%)	63	64	60	91	96	**92**
Mean number of school years	11	11	11	12	11	**11**
Tertiary qualifications (%)	22	27	40	76	56	**67**
Employed full-time (%)	56	58	55	59	32	**55** ↑
Full-time students (%)	5	4	5	2	0	**1**
Unemployed (%)	8	6	22	13	30	**14** ↓
Mean weekly income ($) (range)	Data not available until 2009		572 (200-1,333)	1,140 (300-3,000)	898 (50-4,346)	**920 (50-2,500)**
Prison history (%)	9	0	11	0	7	**7**
In drug treatment (%)	0	0	0	0	1	**2**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
Note: ↑, significant increase (95% CI $p<0.05$) from 2014 to 2015; ↓, significant decrease (95% CI $p<0.05$) from 2014 to 2015.

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 11 different drug types during their lifetime and 8 different drug types over the past six months.
- Sixteen per cent reported having ever injected a drug.
- Proportions reporting lifetime and recent use of particular substances remained stable from 2014 to 2015 with the exception of recent use of OTC codeine which increased from 5% to 16%.
- Cannabis was the main drug of choice for the majority of the sample in 2015, followed by ecstasy and alcohol. In 2014, the main drug of choice was 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.[3] Experience with a broad range of drugs was very common. In 2015, we saw the average number of drugs used within the lifetime for NT participants (median: 11) and the average number of drugs used recently (median: 8) increase from 2014 (Table 2). Sixteen per cent of EDRS participants reported having ever injected a drug. A more thorough analysis of injecting drug use behaviours among this sample can be found in section 7.1 'Injecting risk behaviour'.

Table 2 presents the proportion of EDRS participants reporting lifetime and recent drug use across time. The only notable difference found from 2014 to 2015 was a significant increase in the proportion of participants reporting recent use of OTC codeine (5% to 16%).

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 2015, the drug of choice among the largest proportion of NT participants was cannabis (28%), followed by ecstasy (19%) and alcohol (15%). Smaller proportions of the sample nominated cocaine (12%), speed (8%), LSD (7%) and crystal methamphetamine (5%) 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 (39%), alcohol (31%) or ecstasy (18%). However, those participants who reported a discrepancy between their drug of choice and drug used most often attributed this to the factors of availability (38%), impact on daily functioning (21%) or price (19%).

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

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

	2007 (N=65)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Median no. drug types ever used	7	6	8	9	9	**11**
Median no. drug types used last 6 mths	6	3	5	5	6	**8**
Ever injected any drug (%)	26	16	31	16	4	**16**
Alcohol						
ever used (%)	100	98	100	98	99	**99**
used last 6 mths (%)	100	87	90	96	96	**97**
Cannabis						
ever used (%)	100	93	93	98	97	**92**
used last 6 mths (%)	96	40	60	71	84	**82**
Tobacco						
ever used (%)	91	73	88	76	75	**85**
used last 6 mths (%)	77	40	65	58	68	**79**
Cocaine						
ever used (%)	35	36	52	64	64	**72**
used last 6 mths (%)	9	2	23	33	39	**52**
LSD						
ever used (%)	70	60	47	64	63	**64**
used last 6 mths (%)	33	16	10	40	43	**32**
Methamphetamine powder (speed)						
ever used (%)	83	67	82	53	58	**58**
used last 6 mths (%)	55	24	61	33	39	**31**
Methamphetamine crystal (ice)						
ever used (%)	35	18	28	36	39	**48**
used last 6 mths (%)	24	0	15	20	27	**36**
Methamphetamine base						
ever used (%)	49	35	52	7	11	**19**
used last 6 mths (%)	27	9	28	2	5	**3**
Ketamine						
ever used %	33	6	13	40	37	**42**
used last 6 mths (%)	8	0	0	9	15	**18**

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

	2007 (N=65)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
MDA						
ever used (%)	30	15	19	16	20	**21**
used last 6 mths (%)	5	2	5	4	13	**10**
GHB						
ever used (%)	15	6	13	13	10	**15**
used last 6 mths (%)	0	0	0	2	2	**3**
Mushrooms						
ever used (%)	46	33	45	44	45	**51**
used last 6 mths (%)	5	2	3	13	11	**12**
Benzodiazepines[*]						
ever used (%)	15	16	12	31	40	**32**
used last 6 mths (%)	8	2	3	11	17	**21**
Pharmaceutical stimulants[*]						
ever used (%)	15	23	22	18	33	**36**
used last 6 mths (%)	8	8	6	2	13	**16**
Nitrous oxide						
ever used (%)	21	13	15	27	23	**33**
used last 6 mths (%)	3	2	2	9	10	**13**
Amyl nitrite						
ever used (%)	30	29	33	29	21	**31**
used last 6 mths (%)	12	4	22	11	6	**8**
Antidepressants[*]						
ever used (%)	8	15	6	13	20	**13**
used last 6 mths (%)	0	0	3	2	7	**3**
Heroin						
ever used (%)	11	7	10	11	4	**8**
used last 6 mths (%)	0	0	2	0	1	**2**
Methadone						
ever used (%)	1	0	6	0	1	**3**
used last 6 mths (%)	0	-	3	-	0	**0**

[*] Includes licitly and illicitly obtained

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

	2007 (N=65)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Buprenorphine						
ever used (%)	1	0	3	0	2	**0**
used last 6 mths (%)	0	-	2	-	0	**0**
Other opiates[*]						
ever used (%)	11	7	9	16	14	**15**
used last 6 mths (%)	0	0	5	2	3	**5**
OTC codeine						
ever used (%)	Data not collected until 2009		33	16	13	**17**
used last 6 mths (%)			25	4	5	**16**
OTC stimulants[**]						
ever used (%)	Data not collected until 2009		49	9	11	**7**
used last 6 mths (%)			19	2	5	**4**
Antipsychotics						
ever used (%)	Data not collected until 2010			4	2	**4**
used last 6 mths (%)				2	1	**2**
Steroids[***]						
ever used (%)	Data not collected until 2010			7	4	**8**
used last 6 mths (%)				0	4	**2**
E-cigarettes						
ever used (%)	Data not collected until 2014				47	**46**
used last 6 mths (%)					27	**27**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
Note: OTC (over the counter)
[*] Includes licitly and illicitly obtained
[**] For non-pain use only
[***] For non-medicinal use only

Participants were asked how frequently they had used ERD in the past month. Relatively equal proportions of NT EDRS participants reported using this class of drugs fortnightly (30%), weekly (29%) or monthly (22%). Fourteen per cent reported more than weekly use.

Over half (56%) 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 1-48). The median length of the longest binge was 70 hours (range 48-168). Among those who had recently binged, the majority had used more than five standard drinks of alcohol (75%), ecstasy (70%), tobacco (61%) and cannabis (51%) during a binge session. Other drugs used during binge sessions included crystal methamphetamine (37%), cocaine (23%), speed (21%), LSD (18%), ketamine (11%), MDA (7%), GHB (4%), nitrous oxide (4%), less than five standards drinks of alcohol (2%), energy drinks (2%), NPS (2%), mushrooms (2%) and over the counter codeine (2%).

4.2 Ecstasy use

Summary:

- Ecstasy was used on a median of 15 days over the past six months (i.e. at least fortnightly).
- Participants had used a median of 2 pills during a 'typical' occasion of use (range 0.5-8).
- Swallowing was the main route of administration (78%).
- The majority of participants (91%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco, cannabis, cocaine, speed and crystal methamphetamine.
- Over half (55%) of participants used other drugs to help them come down from ecstasy the last time they used it (most commonly cannabis and ketamine).
- Ecstasy was most commonly last used at a nightclub (42%).
- The proportion of the NT 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'.

On average, participants in the 2015 EDRS had used ecstasy for the first time at 18 years of age (median 17, range 12-36). Participants reported using ecstasy regularly (at least monthly) at a mean age of 19 years (median 18, range 14-39).

4.2.1 Ecstasy use among EDRS participants

Table 3 presents an outline of patterns of ecstasy use among the EDRS sample. Participants were asked about their use of different forms of ecstasy (pills, powder, capsules and MDMA crystals). Almost every participant (98%) reported having used ecstasy pills ('pills') during the preceding six months. Approximately one-third (34%) reported having ever used ecstasy powder and fifteen per cent had done so recently. Over half (60%) reported having ever used ecstasy capsules ('caps') and two-fifths (44%) had used them over the preceding six months. The majority (83%) reported having used MDMA crystals in their lifetime, and two-thirds (65%) had used these recently. Pills were first used at a median age of 17 years (range 12-36), powder at 19 years (range 14-30), caps at 20 years (range 13-36) and MDMA crystals at 18 years (range 15-36).

All participants in the 2015 NT EDRS sample reported that they had recently used ecstasy. Ecstasy was used on a median of 15 days (range 3-96) over the preceding six months. Over the preceding six months, approximately one-fifth of the sample had used ecstasy monthly or less (22%), one-third (30%) had used it fortnightly, 29% has used ecstasy weekly and about 14% had used ecstasy more than once a week. Six per cent of the sample reported that they had not used ecstasy in the past month.

The majority (76%) 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 0.5-8) over the preceding six months. The median number of pills consumed in the 'heaviest' session over the preceding six months was 4 (range .5-30).

The majority of EDRS participants reported that swallowing was their main route of administration (78%) for ecstasy, with the remaining participants reporting mainly snorting (21%) or shelving/shafting it (1%). Participants were asked to identify each method of administration they had used over the preceding six months for ecstasy 'pills'. Swallowing (82%) and snorting (43%) were the primary methods of administration reported for recent use, with small minorities reporting shelving/shafting (6%) and smoking (1%).

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=43)	2014 (N=100)	**2015 (N=101)**
Mean age first used ecstasy (years)	21	21	23	18	17	**18**
Ecstasy 'favourite' drug (%)	37	44	37	7	33	**19**
Median days used ecstasy last 6 mths	15	15	12	8.5	12	**15**
Use ecstasy weekly or more (%)	30	20	22	17	33	**26**
Median ecstasy pills in 'typical' session	2	2	2	2	2	**2**
Typically use >1 pill (%)	55	70	74	63	64	**76**
Recently binged on ecstasy (%)	55	58	37	22	56	**40**
Ever injected ecstasy (%)	15	9	19	0	1	**1**
Mainly swallowed ecstasy last 6 mths (%)	95	98	89	84	85	**78**
Mainly snorted ecstasy last 6 mths (%)	0	2	6	16	15	**21**
Mainly injected ecstasy last 6 mths (%)	5	0	5	0	0	**0**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

The majority of EDRS participants (91%) reported using other drugs in combination with ecstasy the last time they used it. The drugs most commonly used with ecstasy were alcohol (73% of those who reported last using other drugs with ecstasy had more than five standard alcoholic drinks), tobacco (57%), cannabis (50%), cocaine (11%), speed (10%) and crystal methamphetamine (9%).

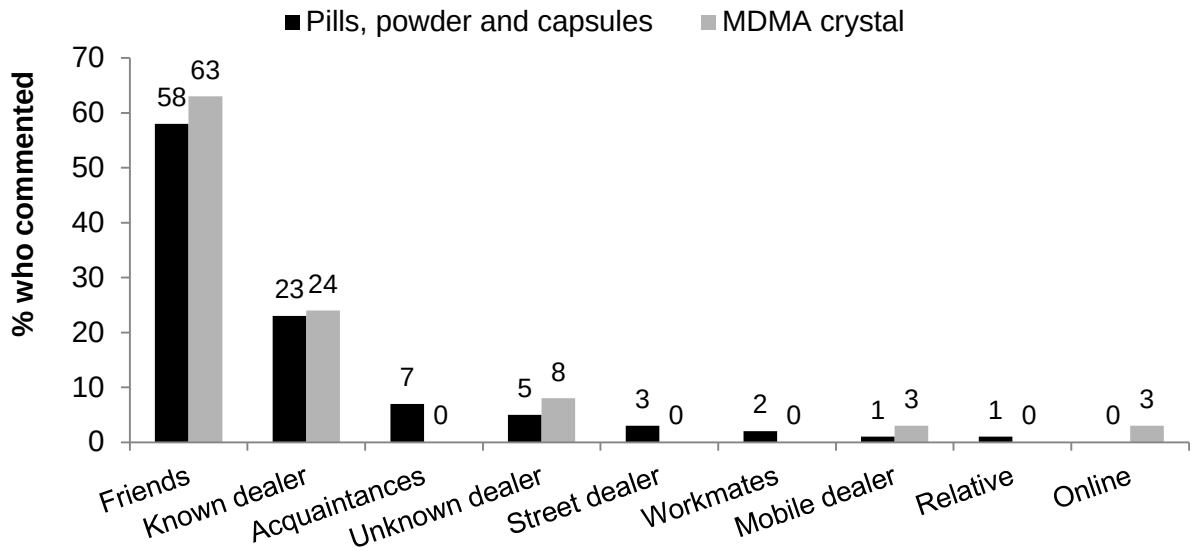
Over half (55%) of the sample used other drugs to help them come down from ecstasy the last time they used it. Among these respondents, the most commonly reported drugs used to come down from ecstasy were cannabis (89%) and ketamine (6%).

The majority of the group (64%) reported that most (52%) or all (12%) of their friends had used ecstasy over the last six months. Two-fifths reported that 'about half' (17%) and 'a few' (20%) of their friends had used ecstasy recently. Interestingly, 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 (58%; 63%), followed by a known dealer (23%; 24%) (Figure 1).

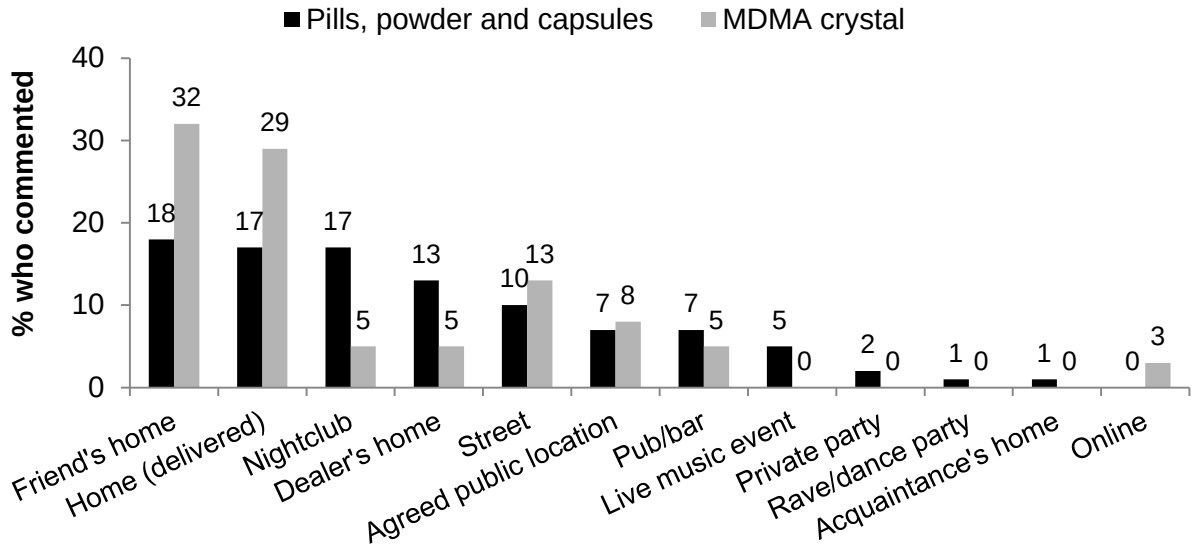
Figure 1: Last source ecstasy was purchased from among EDRS participants*, NT



Source: EDRS participant interviews 2015
* Pills, powder and capsules n=97; MDMA crystal n=38.

Participants reported last purchasing ecstasy pills, powder and capsules from a mixture of public and private settings. The most common locations reported were mostly private settings, such as a friend's home (18%; 32%), home delivered (17%; 29%) or the dealer's home (13%; 5%).

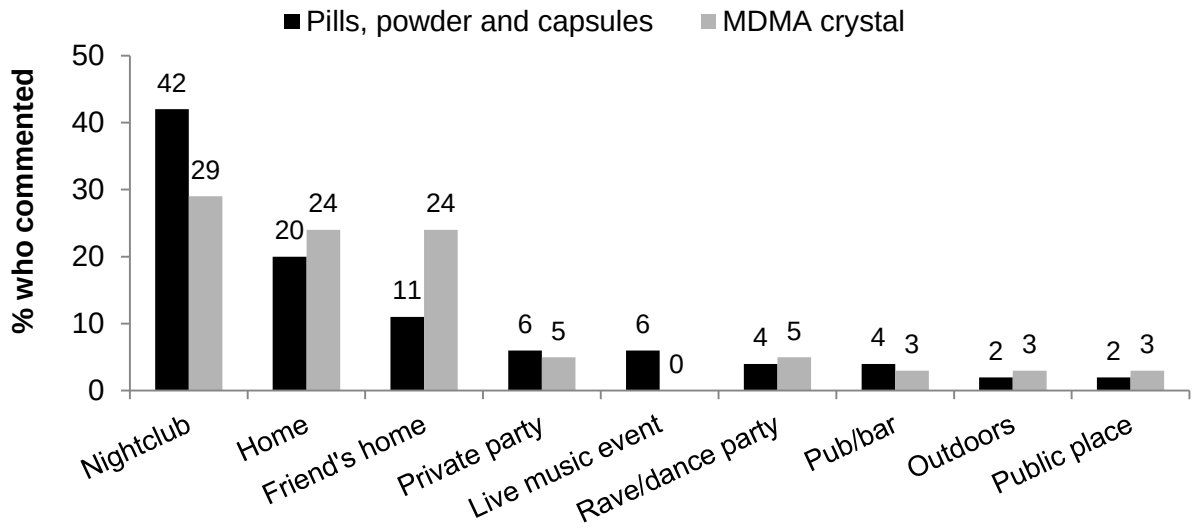
Figure 2: Last location ecstasy was purchased from among EDRS participants*, NT



Source: EDRS participant interviews 2015
* Pills, powder and capsules n=97; MDMA crystal n=38.

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



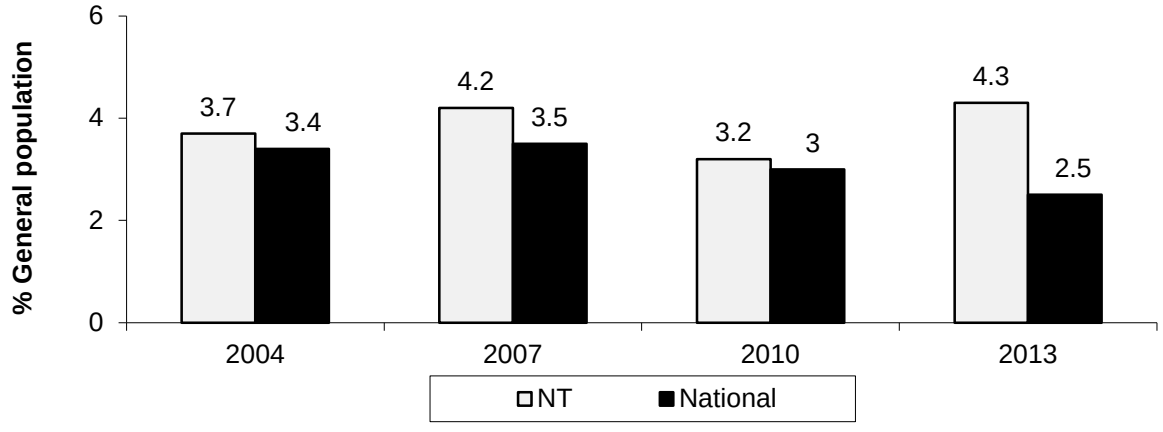
Source: EDRS participant interviews 2015
* Pills, powder and capsules n=97; MDMA crystal n=38.

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 speculated that ecstasy binges may be related to other drug consumption such as alcohol use, where judgement can be further impaired. It was also noted by a KE that, similarly to alcohol, ecstasy is now a widely accepted substance that is used recreationally by young people when they go out.

A health KE reported that more people had consumed ecstasy with other substances as a primary or secondary drug. It was also mentioned that regular ecstasy users, who can use large amounts over a weekend due to high tolerance levels, use alcohol and cannabis for comedown.

4.3 Methamphetamine use

Summary:

Speed

- Over half (58%) of NT participants had ever used speed and one-third had done so recently.
- Speed was used on a median of 2 days over the preceding six months and was primarily snorted.
- The quantity of use appeared to decrease slightly from 2014 to 2015.

Base

- A minority of the sample had used base in their lifetime (19%) and few reported recent use (3%).
- The median age at which base was first used was 17 years (range 14-18).

Crystal methamphetamine

- Almost half (48%) had ever used crystal methamphetamine and one-third had done so recently.
- Of those who had recently used crystal methamphetamine, it was used on a median of 6 days over the preceding six months and was most commonly smoked.
- The frequency and 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 KE reported that crystal methamphetamine was currently the main drug law enforcement KE has contact with over the past six months, and the most problematic drug currently due to its addictive and harmful properties.

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, 2014).

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.

'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. It is usually of relatively low purity (approximately 10%) (McKetin, McLaren, & Kelly, 2005).

'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; its purity has been found to be approximately twice that of speed (21%) (McKetin et al., 2005).

The crystal form (also called ice, shabu, or crystal meth) is 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 has an estimated purity of 80%. A form of methamphetamine with a crystalline appearance has been detected which has a lower purity (19%); this lower purity crystalline methamphetamine may reflect either methamphetamine base with a crystalline appearance or crystal methamphetamine cut with crystalline adulterants (McKetin et al., 2005).

Historically, methamphetamine has predominantly been imported into Australia (Topp & Churchill, 2002). However, in the last decade the number of clandestine laboratories (most of which manufacture ATS) detected nationally has increased 95%, from 381 in 2004-05 to 744 in 2013-14 (ACC, 2015). The NT accounted for 11 clandestine laboratory detections in 2013-14.

4.3.1 Methamphetamine use among EDRS participants

Methamphetamine powder (speed)

Just over half of the sample (58%) had ever used speed and about one-third (31%) had used it during the preceding six months. Speed was first used at a median age of 18 years (range 14-22). Speed was used on a median of 2 days (range 1-40) over the preceding six months. The majority (71%) 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=22). The median amount used in a 'typical' or 'average' session in the preceding six months was 0.5 gram (range 0.1-2). The median amount used in the 'heaviest' use session was the same on average to 'average' use, 0.5 gram (range 0.1-12). The most common route of administration for speed

users in the preceding six months was snorting (55%). Other routes of administration included swallowing (32%), smoking (29%) and injecting (10%).

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	83	67	82	53	58	**58**
Used last 6 mths (%)	55	24	61	33	39	**31**
Of those who had used recently:						
Median days used last 6 mths (range)	(n=36) 4 (1-180)	(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)**
Median quantities used (grams):						
Typical (range)	1 (.2-2.5)	1 (.2-2)	1 (.3-3.5)	1 (.1-2)	1 (.2-2.5)	**.5 (.1-2)**
Heavy (range)	1 (0.2-8)	1.5 (.2-6)	1 (.5-20)	1 (.1-5)	1 (.4-4.0)	**.5 (.1-12)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

Methamphetamine base

Nineteen per cent of the sample had ever used base and the median age at which base was first used was 17 years (range 14-18). Three participants in the NT EDRS sample had reported base use over the preceding six months. Due to small numbers reporting, no findings are presented on recent base use and consumption patterns.

Similar to the trend observed for speed use in the NT, lifetime and recent use of base amongst NT EDRS participants has remained mostly stable (Table 5).

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	49	35	52	7	11	19
Used last 6 mths (%)	27	9	28	2	5	3
Of those who used recently:	(n=18)	(n=5)	(n=19)	(n=1)	(n=5)	(n=3)
Median days used last 6 mths (range)	4 (2-28)	N/A N/A	2 (1-180)	N/A N/A	N/A N/A	N/A N/A
Median quantities used (points):						
Typical (range)	1 (1-2)	N/A	1 (1-4)	N/A	N/A	N/A
Heavy (range)	2 (1-5)	N/A	1 (1-4)	N/A	N/A	N/A

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
N/A: Due to small numbers reporting, these figures were not reported.

Crystal methamphetamine

Almost half (48%) had ever used crystal methamphetamine, and one-third (36%) had used it over the six months prior to the interview. The median age of first use of crystal methamphetamine was 21 years (range 15-44). Crystal methamphetamine was used on a median of 6 days (range 1-120) over the preceding six months. Half (50%) of those who had recently used crystal methamphetamine had done so on a less than monthly basis, 14% had used between monthly and fortnightly, 14% had used crystal methamphetamine between fortnightly and weekly, and the remaining one-fifth (22%) 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 1.5 points (range 0.3-10) during 'typical' sessions of use and a median of 2.5 points (range 0.3-10) on the heaviest session of crystal methamphetamine use over the preceding six months. Recent users reported smoking as the most common route of administration for crystal methamphetamine (72%); however, smaller proportions also reported recently swallowing (14%), injecting (8%) and snorting (3%) crystal methamphetamine.

The proportions reporting the use of crystal methamphetamine have remained stable to levels seen in 2014 (Table 6). It has also been observed that the frequency of use and quantities used have remained relatively consistent.

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	35	18	28	36	39	**48**
Used last 6 mths (%)	24	0	15	20	27	**36**
Of those used recently:	(n=16)	(n=0)	(n=10)	(n=9)	(n=27)	**(n=36)**
Median days used last 6 mths (range)	3 (1-80)	- -	5 (1-180)	3 (1-30)	5 (1-150)	**6 (1-120)**
Median quantities used (points):						
Typical (range)	1 (.5-3)	-	3 (1-3)	2 (1-4)	1 (.5-10)	**1.5 (.3-10)**
Heavy (range)	2 (.5-5.5)	-	3 (3)	4 (1-5)	3 (.5-10)	**2.5 (.3-10)**

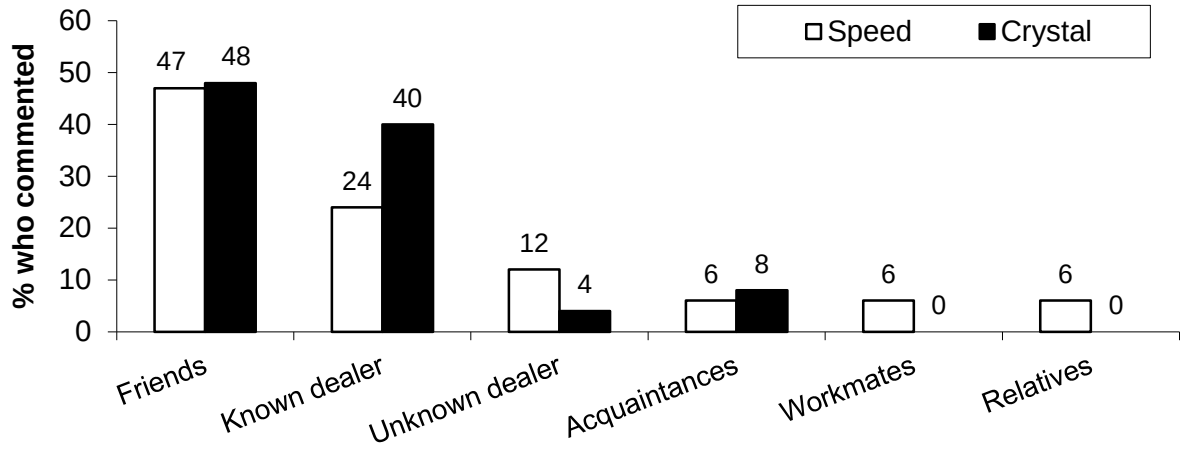
Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

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 (47% and 48% respectively), followed by a known dealer (24%; 40%).

Due to small numbers reporting, base purchasing patterns were not published.

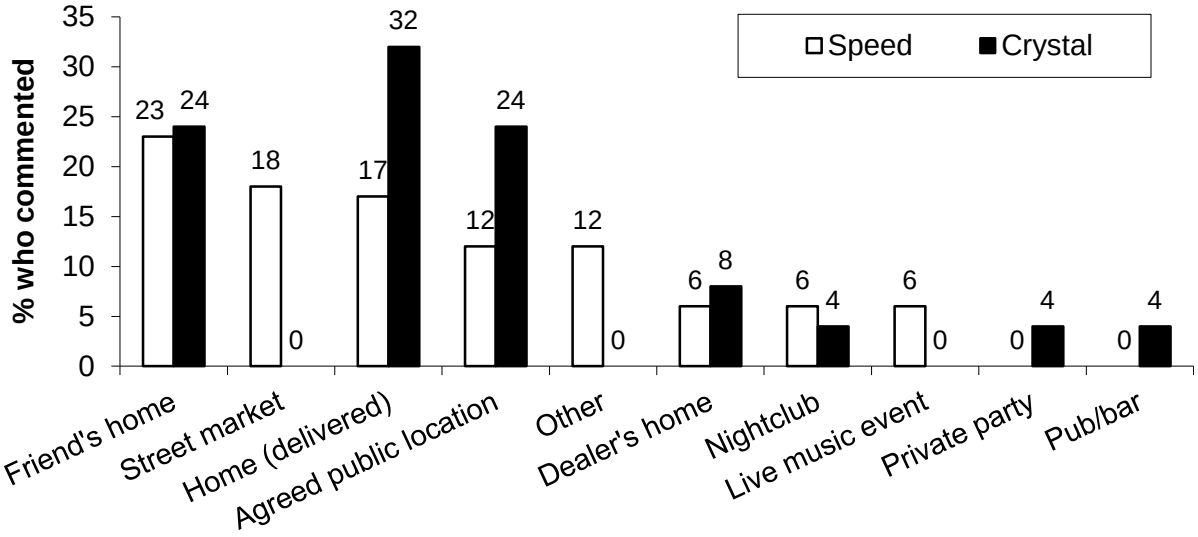
Figure 5: Last source methamphetamine was purchased from among EDRS participants, NT*



Source: EDRS participant interviews 2015
* Speed n=17; crystal methamphetamine n=25. Due to base n=2, numbers were too small to report.

The majority of those who had recently purchased speed and crystal methamphetamine had obtained it from a friend's home (23%; 24% respectively), their own home (17%; 32%) or an agreed public location (12%; 24%) (Figure 6).

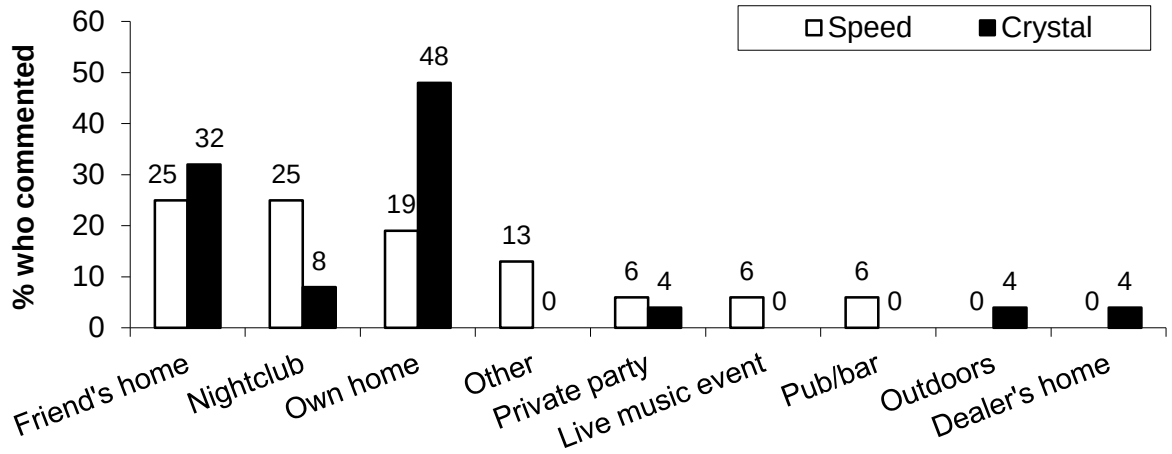
Figure 6: Last location methamphetamine was purchased from among EDRS participants, NT*



Source: EDRS participant interviews 2015
* Speed n=17; crystal methamphetamine n=25. Due to base n=2, numbers were too small to report.
'Other' responses include family member's home and hotel.

Participants who had recently used speed reported that they had last used it across a number of locations, including at a friend's home (25%), a nightclub (33%) or their own home (19%). The majority of participants who used crystal methamphetamine reported that they had last used it in a private setting, most commonly their own home (48%) or a friend's home (32%) (Figure 7).

Figure 7: Last location methamphetamine use by form among EDRS participants, NT*



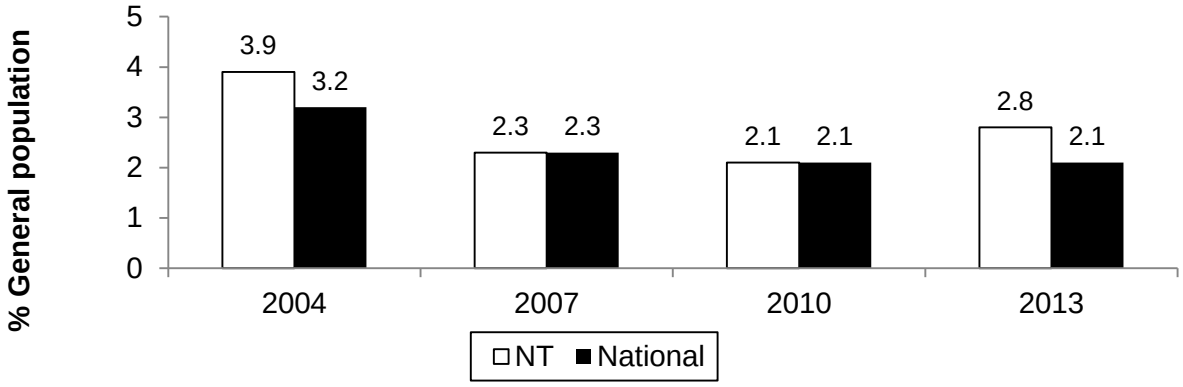
Source: EDRS participant interviews 2015
* Speed n=16; crystal methamphetamine n=25. Due to base n=2, numbers were too small to report. 'Other' responses include hotel and hostel.

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 has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au/reports/?p=IDRS).

Key expert comments

Although there was no mention of base by KE during the interviews, it was clear that methamphetamine (mostly in the form of crystal methamphetamine) was a cause 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 common routes of administration for crystal methamphetamine were currently injecting and smoking. The profile of crystal methamphetamine users appears mixed, with KE reporting that they often come from a range of socio-economic groups, ages and geographical areas. One KE reported that there is an apparent increase in the understanding among the heavy users of the drug that its effects are brutal and destructive. More so than previously, users seem to be expressing their desire to stop using and get away from the drug, however the majority seem incapable of making any significant action towards this. Unlike other substances like cannabis or MDMA where the users are conscious of their uptake and do so with little to no remorse believing it is a recreational substance of choice, crystal methamphetamine users do not for the most part have the same mindset and most identify themselves as being severely addicted with little choice but to use.

KE reported that crystal had been associated with violence; various forms of crime including property, drug-dealing and violent offending crimes; mental health issues such as psychosis, anxiety, mood disorders and suicidality; and financial, employment and relationship difficulties.

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. This financial incentive, coupled with growing demand, has resulted in an increase in the number of clandestine lab detections, including a number of ‘one-pot’ style clandestine labs discovered in the NT, which is a new and dangerous method of manufacturing methamphetamine. The recent emergence of smaller low level cooks locally doing small productions for personal use and low level supply is of concern due to the risks involved in production and the addictiveness of the product. Officers and forensics ability to respond to these situations is currently lagging and urgently needs to develop to keep up with the growing "make your own" trend.

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.

4.4 Cocaine use

Summary:

- The majority of the group (72%) had tried cocaine at least once, and over half (52%) had used it recently.
- Cocaine was used on a median of 2 days (i.e. quarterly) over the preceding six months.
- The frequency and the quantities of cocaine used remained stable from 2014.
- 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 even talcum powder have been found.

The majority (72%) of RPU in 2015 had ever used cocaine, and over half (52%) had used it during the six months prior to the interview. The median age at which cocaine was first used was 19 years (range 14-45).

4.4.1 Cocaine use among EDRS participants

Participants who had used cocaine over the preceding six months had done so on a median of 2 days (range 1-50). The majority (77%) had used cocaine on a less than monthly basis, and 8% had used between monthly and fortnightly, or fortnightly to weekly, or more than weekly basis respectively.

The majority (71%) 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 0.1-4) and the median amount used on the heaviest occasion was 1 gram (range 0.1-10). The majority (83%) of recent users of cocaine reported to have snorted it over the preceding six months, with smaller proportions reporting that they had swallowed (8%) or injected (2%) it.

Table 7 presents data across time on the prevalence, frequency and quantity of cocaine use among EDRS participants interviewed in the NT. In 2015 there was a non-significant increase in the number of participants reporting the lifetime and recent use of cocaine.

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

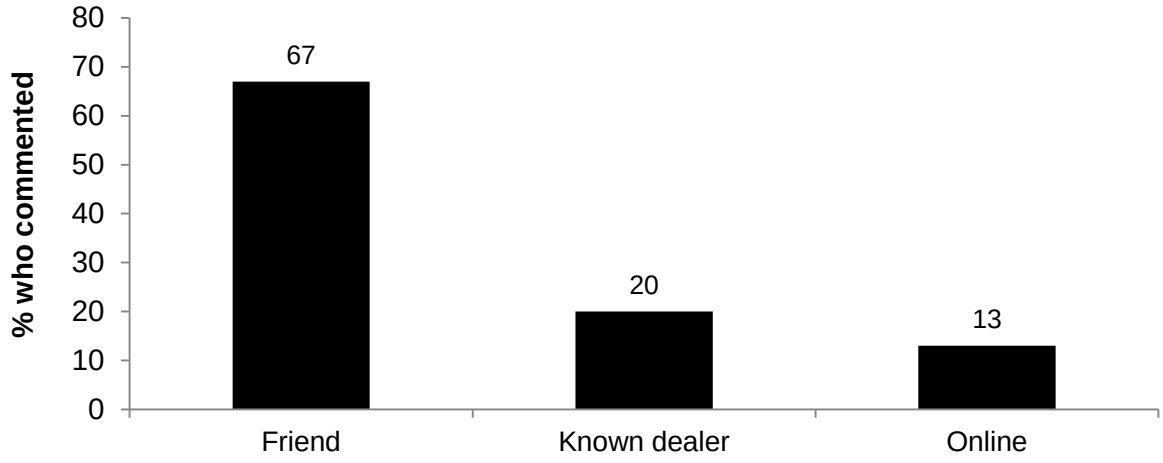
	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used %	35	36	52	64	64	**72**
Used last 6 mths %	9	2	23	33	39	**52**
Of those who recently used:	(n=3)	(n=1)	(n=15)	(n=15)	(n=39)	**(n=52)**
Median days used	2	N/A	2	4	2	**2**
last 6 mths (range)	(1-8)	N/A	(1-12)	(1-30)	(1-24)	**(1-50)**
Median quantities used (grams):						
Typical (range)	N/A	N/A	0.5 (0.3-1)	1 (0.3-2)	1 (0.5-2.5)	**.5 (.1-4)**
Heavy (range)	N/A	N/A	0.5 (0.3-2)	1.5 (0.3-8)	1 (0.5-8)	**1 (.1-10)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
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=15), two-thirds last purchased cocaine from a friend (67%), while the remaining users had last purchased from an unknown dealer (20%), or online (13%) (Figure 9).

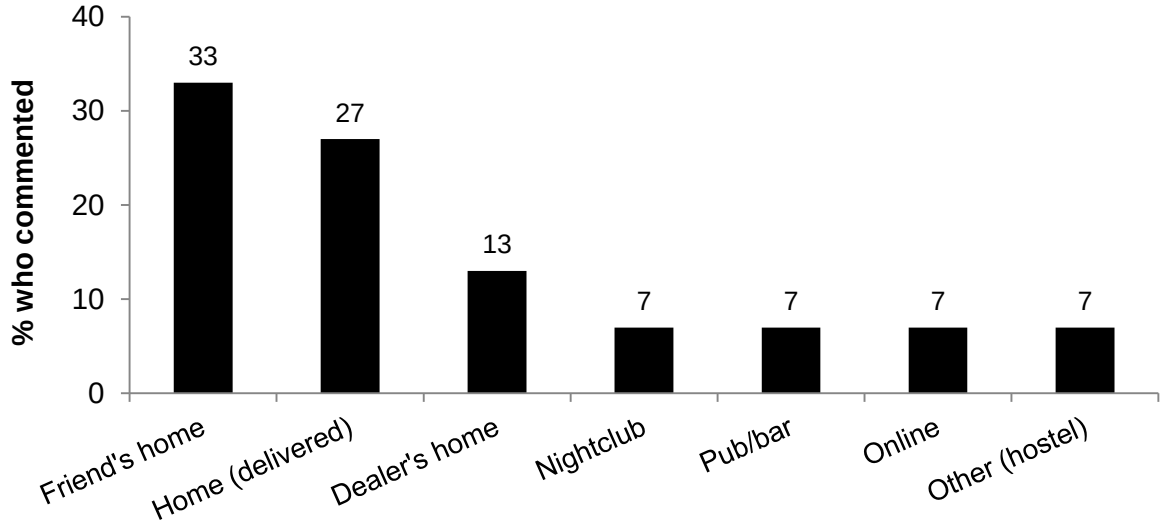
Figure 9: Last source cocaine was purchased from among EDRS participants, NT



Source: EDRS participant interviews 2015

Participants reported last purchasing cocaine mostly in private settings. The most common locations reported included a friend's home (33%), delivered to their home (27%) or a dealer's home (13%) (Figure 10).

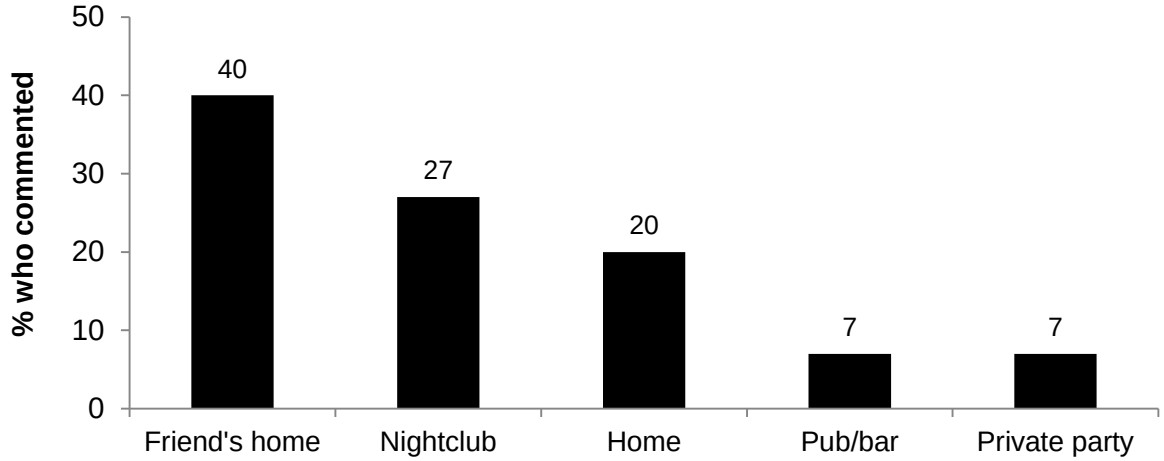
Figure 10: Last location cocaine was purchased from among EDRS participants, NT



Source: EDRS participant interviews 2015

Of those who reported on the last venue where they spent the most time intoxicated, the majority reported last using cocaine in a private setting, including a friend's home (40%) or their own home (20%). However, one-third reported public settings such as a nightclub (27%) or pub/bar (7%) (Figure 11).

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



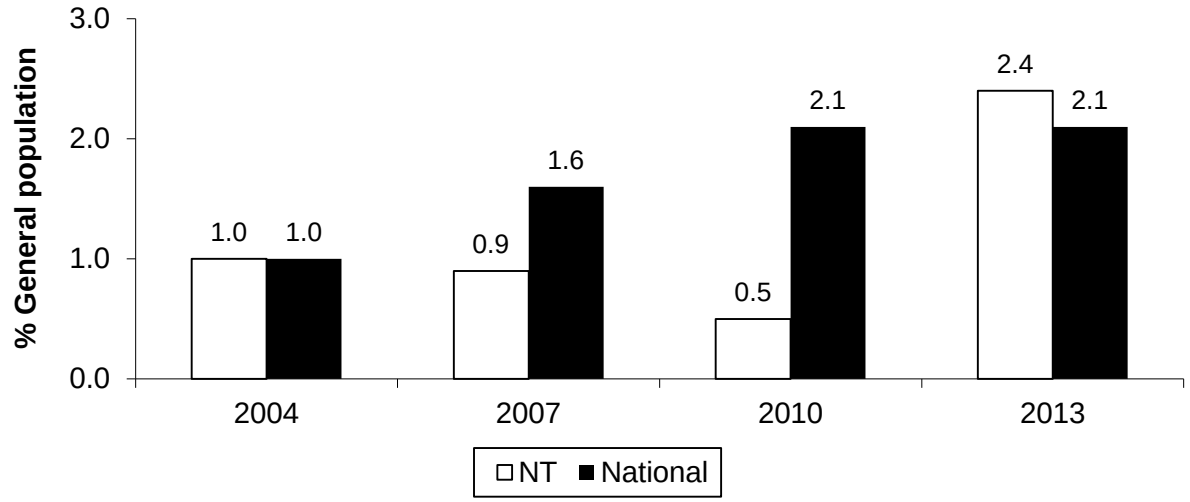
Source: EDRS participant interviews 2015

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 Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au/reports/?p=IDRS).

Key expert comments

One law KE reported that cocaine was mostly used by individuals with a higher socioeconomic status. Another KE reported that cocaine dealers were also dealing methamphetamine, expanding the supply of methamphetamine within the NT.

4.5 LSD use

Summary:

- The majority (64%) of the sample had tried LSD at least once and one-third had used it recently.
- LSD was used on a median of 2 days over the preceding six months (i.e. quarterly).
- 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 trips are often cut into halves or quarters and shared with others.

The majority (64%) 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 18.5 years (range 15-40).

4.5.1 LSD use among EDRS participants

LSD was used on a median of 2 days (range 1-14) over the preceding six months (Table 8). Of those who had used LSD, the majority (77%) had done so on a less than monthly basis, 9% had used it between monthly and fortnightly, 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 1 tab (range 0.5-9) during an average session of use, and 2 tabs (range 0.5-9) during the heaviest session of use in the preceding six months (Table 8). All recent users of LSD had swallowed it in the last six months.

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.

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

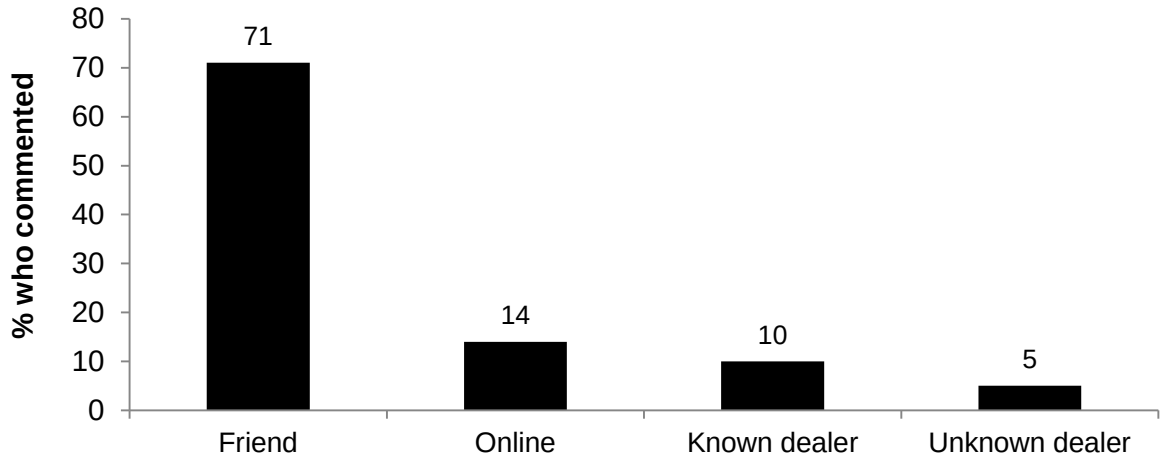
	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	70	60	47	64	63	**64**
Used last 6 mths (%)	33	16	11	40	43	**32**
Of those who recently used:	(n=22)	(n=9)	(n=7)	(n=18)	(n=43)	**(n=32)**
Median days used last 6 mths (range)	3 (1-14)	1.5 (1-8)	3 (1-12)	2 (1-15)	3 (1-24)	**2 (1-14)**
Median quantities used (tabs):						
Typical (range)	1 (1-3)	2 (.5-3)	1 (.8-2)	1 (1-3)	1 (.3-6)	**1 (.5-9)**
Heavy (range)	1.5 (1-8)	3 (.5-11)	1 (.8-3)	1 (1-5)	1.5 (.3-8)	**2 (.5-9)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.5.2 Last source, purchase location and use location of LSD

Among those who commented (n=21), almost three-quarters last purchased LSD from a friend (71%). The remaining recent LSD users had last purchased the drug from an online source (14%), a known dealer (10%) or an unknown dealer (5%) (Figure 13).

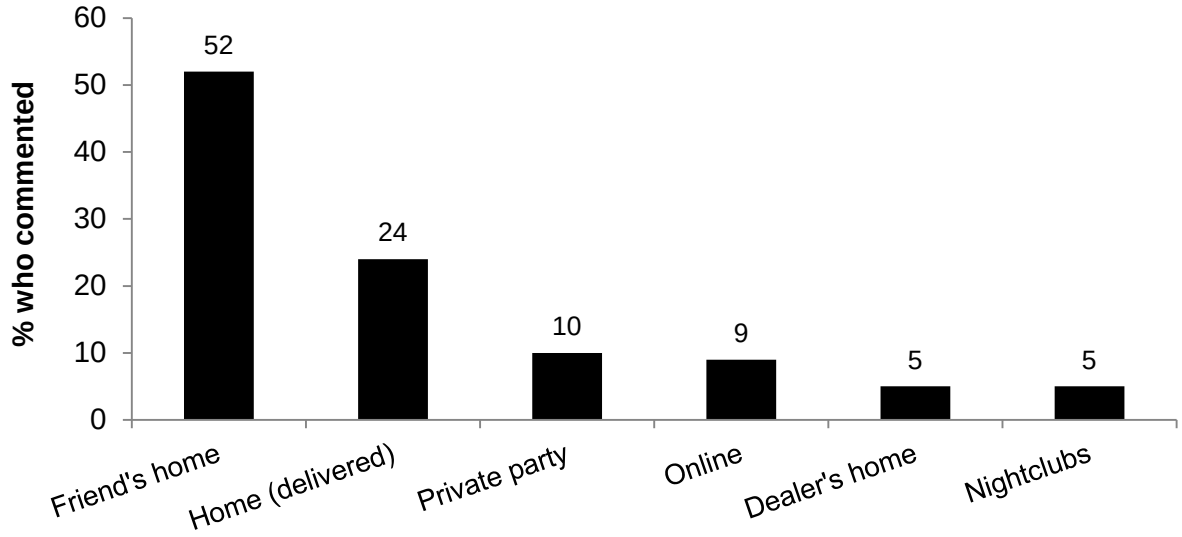
Figure 13: Last source LSD was purchased from among EDRS participants, NT



Source: EDRS participant interviews 2015

The largest proportion of participants reported last purchasing LSD in private settings. The most common private locations included a friend's home (52%) and their own home (24%) (Figure 14).

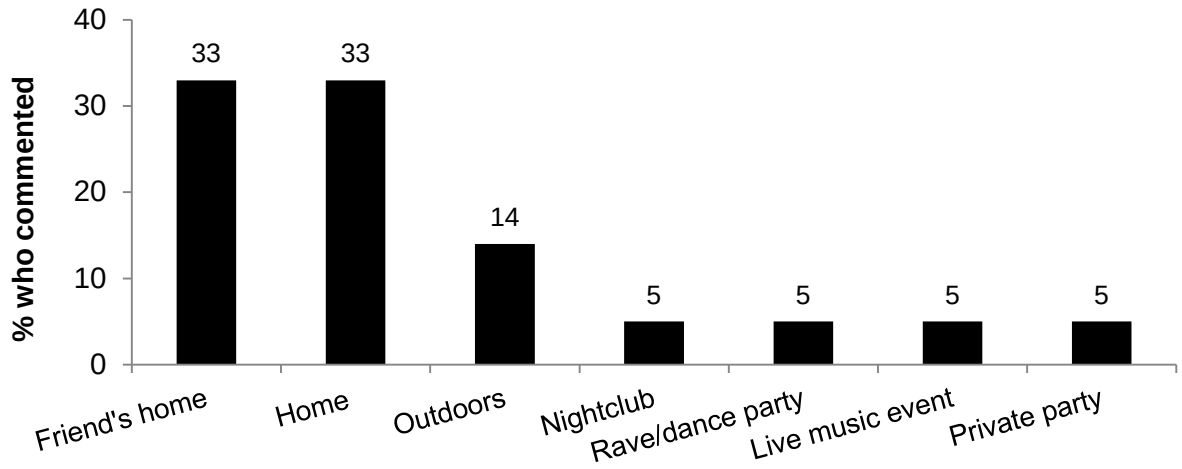
Figure 14: Last location LSD was purchased from among EDRS participants, NT



Source: EDRS participant interviews 2015

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 friend's home (33%), their own home (33%) or outdoors (14%) (Figure 15).

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



Source: EDRS participant interviews 2015

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 18% had used it recently.
- Ketamine was used on a median of 3 days over the preceding six months, which remains stable with 2014 figures.
- 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).

Two-fifths (42%) of the 2015 NT sample reported having ever used ketamine and 18% had done so recently. Ketamine was first used at a median age of 19 years (range 16-24).

4.6.1 Ketamine use among EDRS participants

Ketamine had been used on a median of 3 days (range 1-30) by EDRS participants who had recently used ketamine. Just over half of recent users reporting using ketamine less than monthly (54%), with the remaining participants reporting either monthly to fortnightly (23%), fortnightly to weekly (8%), or more than weekly use (15%).

Eighteen recent users of ketamine reported their use in terms of 'bumps'.[4] They reported using a median of 3 bumps on a typical occasion (range 2-5) and 4 bumps on the heaviest occasion (range 2-10) over the preceding six months. The most common route of administration reported by those who had used ketamine in the past six months was snorting (72%), followed by swallowing (22%). Only three recent ketamine users reported on their source, purchase location or use location of their most recent use of ketamine. Due to small numbers this data is not presented.

[4] 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'. A bumper is a small glass nasal inhaler, purchased from tobacconists, used to store and administer powdered substances such as ketamine.

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	33	6	13	40	37	**42**
Used last 6 mths (%)	8	0	0	9	15	**18**
Of those who recently used:	(n=5)	(n=0)	(n=0)	(n=4)	(n=15)	**(n=18)**
Median days used last 6	N/A	-	-	N/A	3	**3**
mths (range)	N/A	-	-	N/A	(1-10)	**(1-30)**
Median quantities used (bumps):						
Typical (range)	N/A	-	-	N/A	4.5 (1-8)	**3 (2-5)**
Heavy (range)	N/A	-	-	N/A	6.5 (1-12)	**4 (2-10)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
N/A: Due to small numbers reporting, these figures were not reported.

Key expert comments

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

4.7 GHB use

Summary:

- Compared to other illicit drugs, GHB had been used by a smaller proportion of participants in their lifetime (15%) and recently (3%). This finding remains similar to previous years.

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.

Fifteen participants (15%) had ever used GHB and three EDRS participants (3%) reported having done so recently. GHB was first used at a median of 21 years (range 19-22).

4.7.1 GHB use among EDRS participants

Due to small numbers reporting, no findings were able to be published on recent GHB consumption patterns. However, Table 10 shows that lifetime and recent use rates in 2015 are similar to those recorded in 2014.

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	15	6	13	13	10	**15**
Used last 6 mths (%)	0	0	0	2	2	**3**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

Key expert comments

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

4.8 Cannabis use

Summary:

- The vast majority had tried cannabis at least once (92%) and the vast majority had used it recently (82%).
- Cannabis was used on a median of 90 days (i.e. every second day) over the preceding six months, which was a noticeable increase from 2014 (30 days).
- 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 Center, 2008). Cannabis remains the dominant illicit drug in Australia in terms of arrests, seizures and use (Australian Crime Commission, 2014).

Almost every participant in the 2015 NT EDRS (92%) 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 8-25).

4.8.1 Cannabis use among EDRS participants

Recent cannabis users reported having used it on a median of 90 days (range 1-180), which equates to every second day. The frequency of cannabis use is significantly greater in 2015 than prior years. While one-fifth (18%) of users had used cannabis on a less than monthly basis, and 4% had used on a monthly to fortnightly or fortnightly to weekly basis respectively, the majority had used cannabis more than weekly (72%), of which 34% were using daily. The majority of recent users of cannabis had smoked it over the past six months (81%), 11% had recently ingested it and 5% had inhaled it.

Recent users of cannabis were asked how much they had smoked on their last occasion of use. Eighteen participants quantified their last use in terms of cones and reported having smoked a median of 2 cones (range 1-20) on their last occasion of use. Thirty-nine EDRS participants quantified their use in terms of joints and reported having smoked a median of 1 joint (range 0.3-7) 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.

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

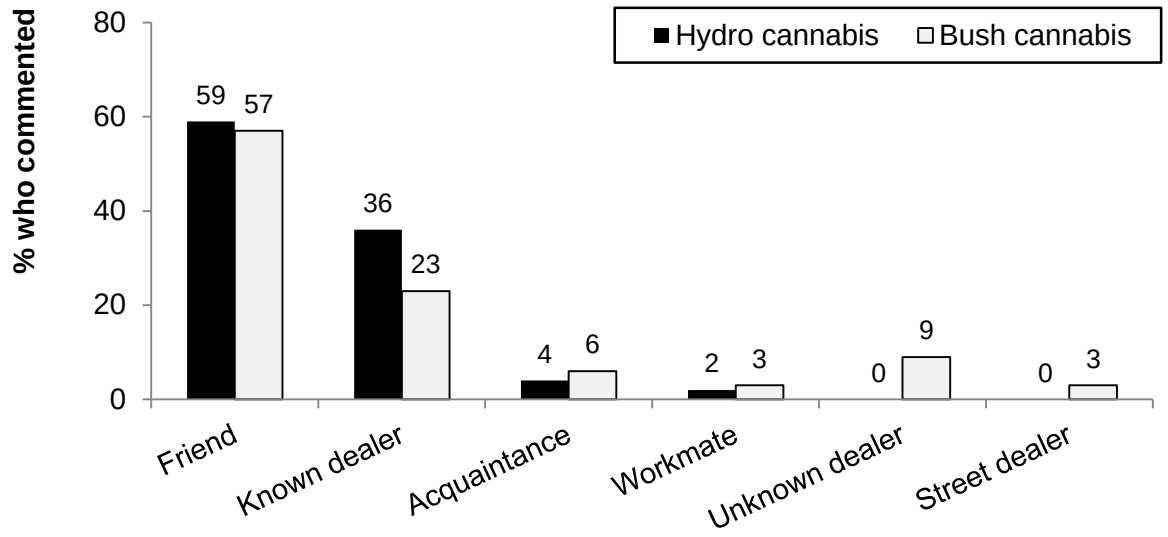
	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever used (%)	100	93	93	98	97	**92**
Used last 6 mths (%)	95	40	60	71	84	**82**
Of those who recently used:	(n=63)	(n=22)	(n=40)	(n=31)	(n=82)	**(n=82)**
Median days used last 6 mths (range)	15 (1-180)	6 (1-180)	37 (1-180)	24 (1-180)	30 (1-180)	**90 ↑ (1-180)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
Note: ↑, significant increase (95% CI $p<0.05$) from 2014 to 2015.

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

Both hydro (59%) and bush (57%) were most commonly purchased from friends. Notable proportions also reported purchasing hydro and bush from known dealers (36%; 23%) (Figure 16).

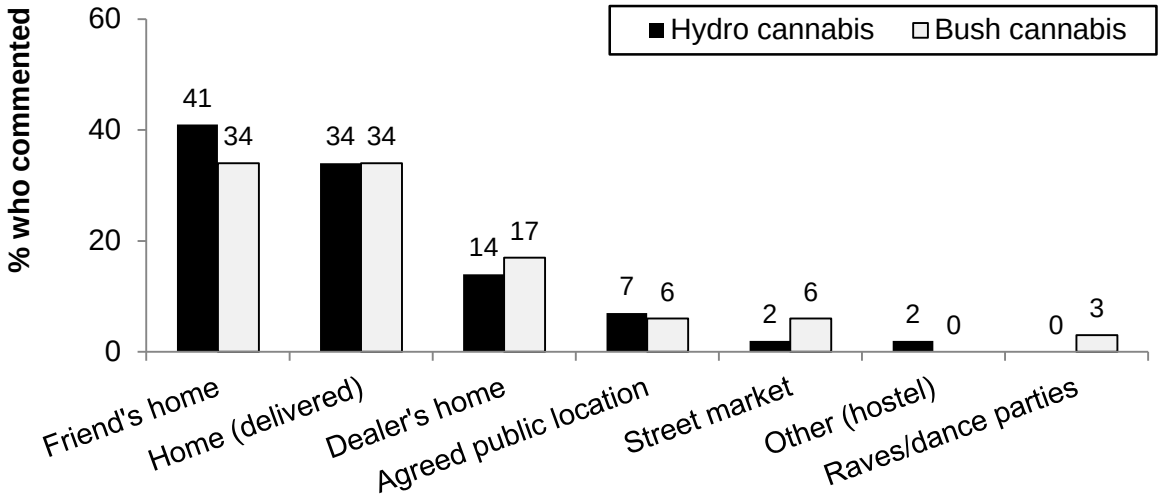
Figure 16: Last source that hydro and bush cannabis were purchased* from among EDRS participants, NT



Source: EDRS participant interviews 2015
* Of those who commented (n=56 for hydro, n=35 for bush)

The largest proportion of participants reported last purchasing both hydro and bush cannabis at a friend's home (41% and 34% respectively) or having it delivered to their own home (34% and 34% respectively) (Figure 17).

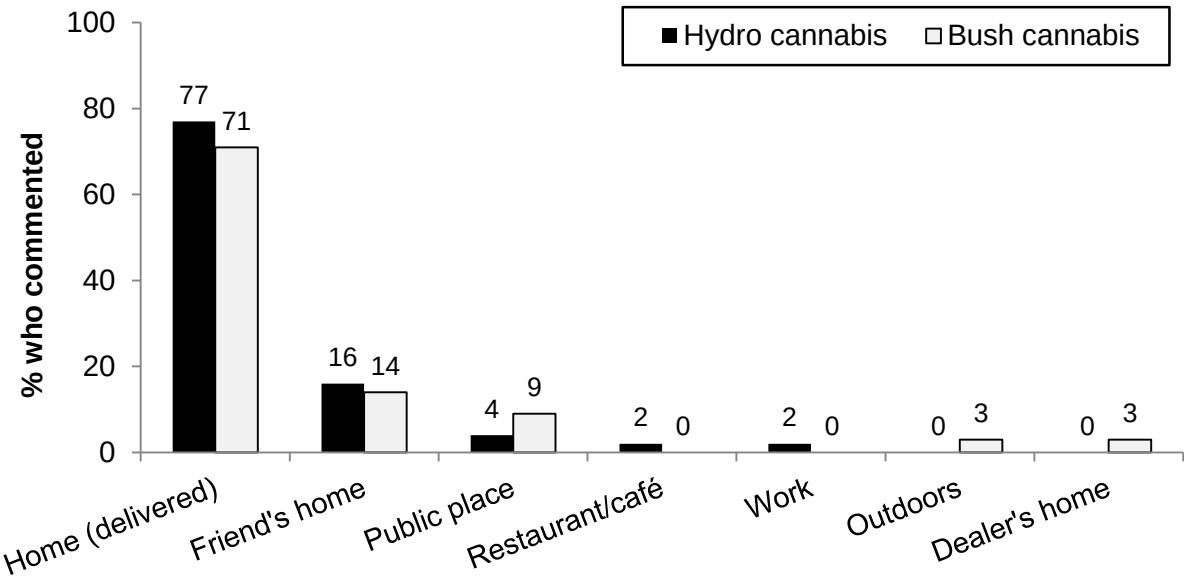
Figure 17: Last location that hydro and bush cannabis were purchased* from among EDRS participants, NT



Source: EDRS participant interviews 2015
* Of those who commented (n=56 for hydro, n=35 for bush)

Most participants who had recently used hydro or bush reported last use in a private setting, including at their own home (77% and 71% respectively) or a friend's home (16% and 14% respectively) (Figure 18).

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



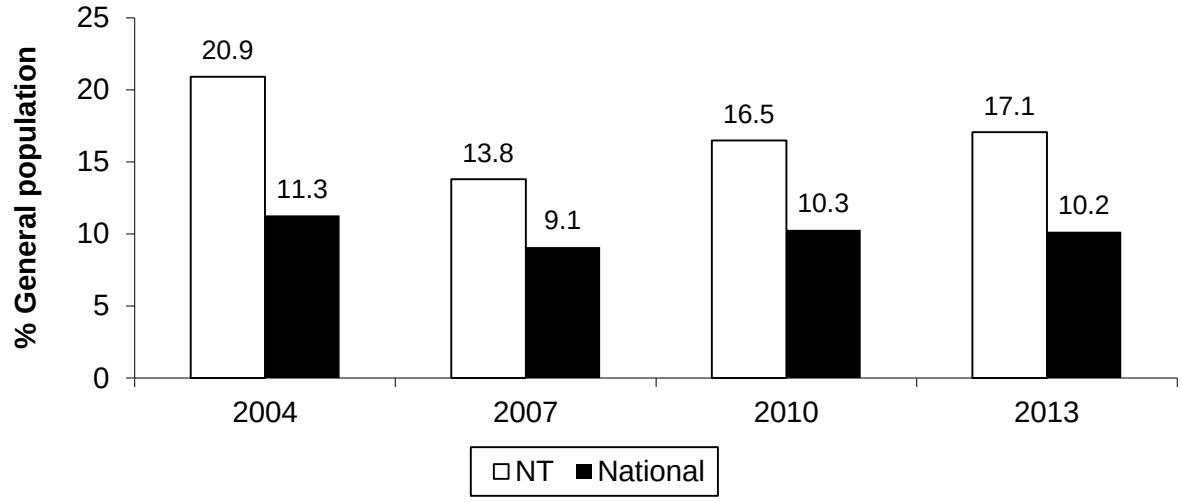
Source: EDRS participant interviews 2015
* Of those who commented (n=56 for hydro, n=35 for bush)

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, whereas the national rate remained mostly 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 Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au/reports/?p=IDRS).

Key expert comments

Health KE reported that cannabis was one of the two the main illicit drugs used by drug users who they had the most contact with in the past 6 months. KE reflected on the harms associated with widespread and long-term cannabis use. It was reported that cannabis is commonly used by young people from their early teenage years, cannabis use is normalised within some environments and intergenerational cannabis use being prevalent in certain locations. Associated concerns raised included drug-induced psychosis, difficulty quitting due to the social connections made with other cannabis users, and the potential to be exposed to the legal system at a young age due to the illegality of cannabis.

4.9 Other drug use

Summary:

Alcohol

- Almost all NT participants reported lifetime and recent use of alcohol.
- KE reported that alcohol continued to be one of the most problematic drugs, particularly among young people who often binge on alcohol.

Tobacco

- The majority (85%) of the NT sample had used tobacco at least once and had smoked within the past six months (79%).

E-cigarettes

- Forty-six percent of the NT sample reported they had used e-cigarettes in their lifetime and 27% 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 (27% vs. 10%).

Antidepressants

- Three per cent of participants had recently used antidepressants.

Inhalants

- Similar proportions reported lifetime and recent use of both amyl nitrite (31%; 8%) and nitrous oxide (33%; 13%).

MDA

- Twenty-one percent of the NT sample reported they had used MDA in their lifetime and 10% 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 one-in-ten had used mushrooms in the past six months.

Pharmaceutical stimulants

- Sixteen per cent of the group had recently used pharmaceutical stimulants. Illicit use was notably more common than licit use (31% vs. 6%).

Over the counter (OTC) drugs

- Compared to 2014, a significantly greater proportion of participants in 2015 reporting recent codeine use.

Antipsychotics

- Four NT participants reported lifetime use of antipsychotics.

Performance and image enhancing drugs (PIED)

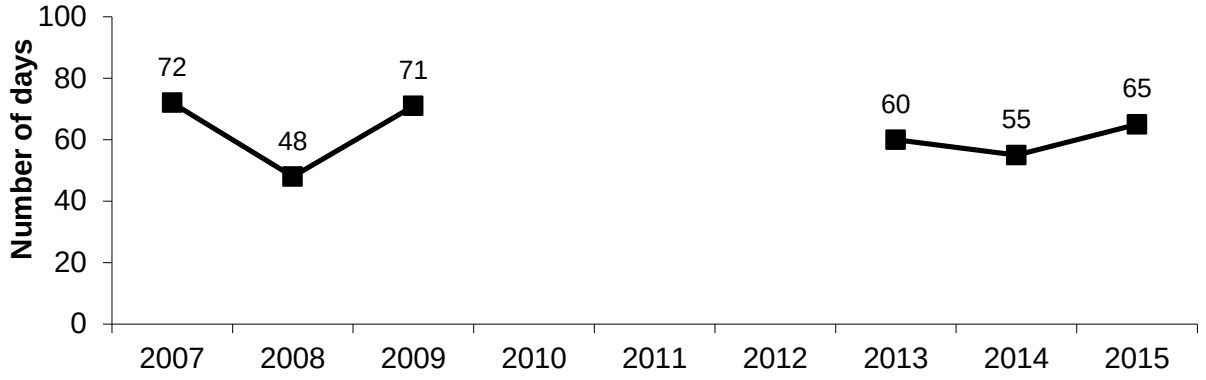
- Two participants reported recent use of PIEDs.

4.9.1 Alcohol

Almost the entire 2015 NT sample reported having used alcohol at least once (99%) and in the past six months (97%). Participants had first used alcohol at a median age of 14 years (range 7-19). Participants reported having consumed alcohol on a median of 65 days (range 3-180) over the preceding six months and the majority of EDRS participants had used alcohol on a greater than weekly basis (64%), with 14% 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 the time points. 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 2007, 2008, 2009, 2013, 2014, 2015

Key expert comments

The majority of health KE (3 of 5) commented that alcohol was currently the most problematic drug in the NT, particularly in terms of alcohol-related health and social consequences that impact individuals, families and entire communities. While the demographics of users vary widely across the NT, many KE identified the association between problematic alcohol use and other mental health conditions (anxiety, depression).

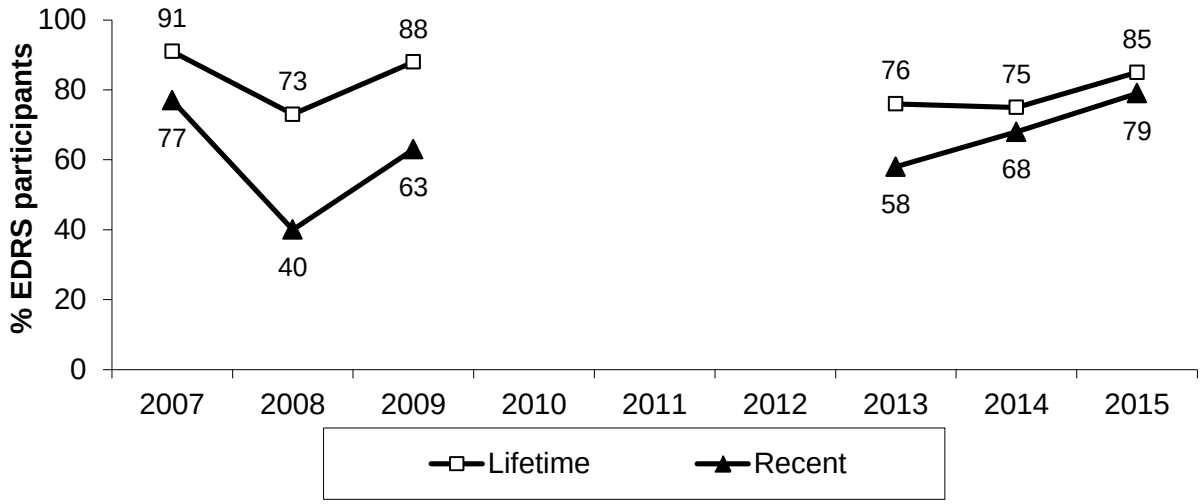
KE reported that the oversupply and over consumption of alcohol in the NT is a significant driver of crime and community unrest. Specifically, alcohol consumption has been associated with a large proportion of violent offences, including assaults and domestic violence incidents. Concerns were also raised about the vulnerability of Indigenous Australians who consume alcohol at problematic levels, and for young people who are susceptible to alcohol-related injuries. It was reported by a KE that alcohol restrictions appear to have decreased related crime and violence in the NT.

A number of KE reported that young people often consumed alcohol in conjunction with other illicit substances and they often binged on alcohol. Age differences in KE comments emerged, including that younger people drink once or twice a week but binge, whereas the older cohort drinks daily at lower but still harmful levels. Younger people experience more short-term health issues, including accidental injury, whereas older people exacerbate age related health issues and may use alcohol for pain management.

4.9.2 Tobacco

The majority (85%) of EDRS participants interviewed in 2015 reported lifetime tobacco use and the majority (79%) reported recent use. Tobacco was first used at a median age of 14 years (range 7-22). The majority of those who had recently used tobacco were daily (68%) smokers. Tobacco had been used on a median of 180 days (range 2-180) over the preceding six months and There has been an upward trend in the proportion of EDRS participants using tobacco in their lifetime and recently since 2013 (Figure 21).

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



Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.9.3 E-cigarettes

Forty-six percent of the NT sample reported they had used e-cigarettes in their lifetime and 27% had used e-cigarettes in the six months prior to interview. Median days used was reported at five days, that is, once every month (range 1-180 days). Median age of first use is 22 years (range 15-44 years). The majority of recent users reported that their e-cigarettes contained nicotine (78%) and just over half (52%) reported that they had used e-cigarettes as a smoking cessation tool.

4.9.4 Benzodiazepines

One-third (32%) of the sample reported having ever used any benzodiazepines and one-fifth (21%) reported having done so recently. Among those who had recently used them, benzodiazepines had been used on a median of 3 days (range 1-48) in the last six months. Compared to 2014 figures, there has been a non-significant decrease in the proportion who have used benzodiazepines in their lifetime and non-significant increase in recent use in 2015 (Figure 22).

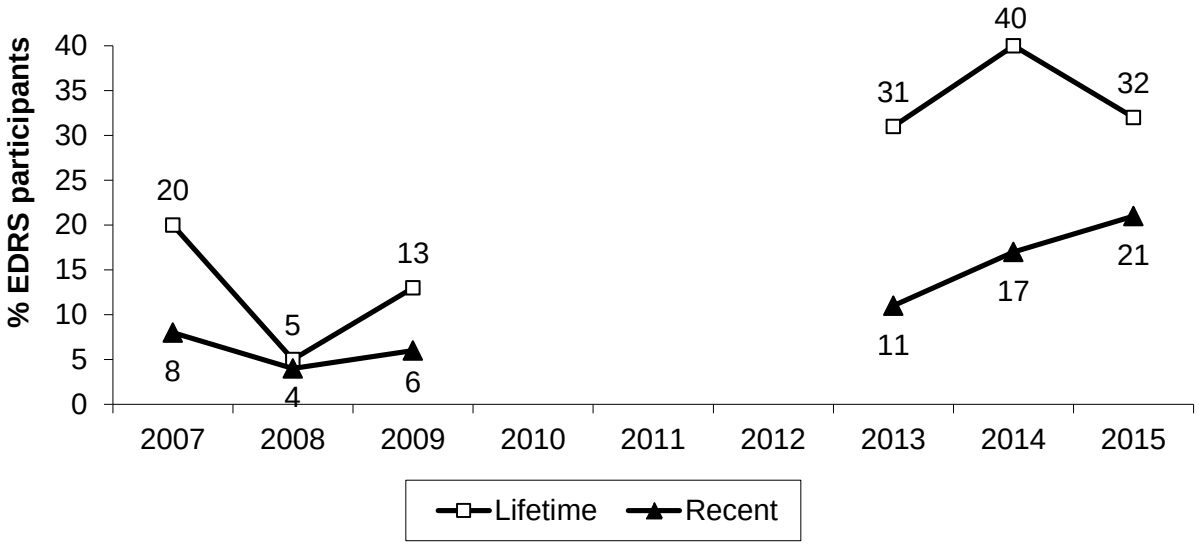
Licit benzodiazepines

One-tenth (10%) of EDRS participants reported having ever used licitly obtained benzodiazepines and five participants (5%) had done so recently. Licit benzodiazepines were first used at a median age of 17 years (range 14-22). Of the five recent users, they had used licit benzodiazepines on a median of 3 days (range 1-4) over the six months prior to the interview and reported swallowing as their only route of administration over this period.

Illicit benzodiazepines

One-quarter (27%) of EDRS participants had ever used illicitly obtained benzodiazepines, and seventeen participants (17%) had done so over the preceding six months. They were first used at a median age of 17 years (range 15-22) and were either swallowed (71%) or snorted (24%). Illicit benzodiazepines had been used on a median of 4 days (range 1-48) in the last six months.

Figure 22: Proportion of EDRS participants reporting lifetime and recent benzodiazepine use, NT



Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.9.5 Antidepressants

Thirteen participants reported having ever used antidepressants and 3% had done so over the preceding six months. Figure 23 presents data from 2007 onwards on the reported lifetime and recent use of any antidepressants.

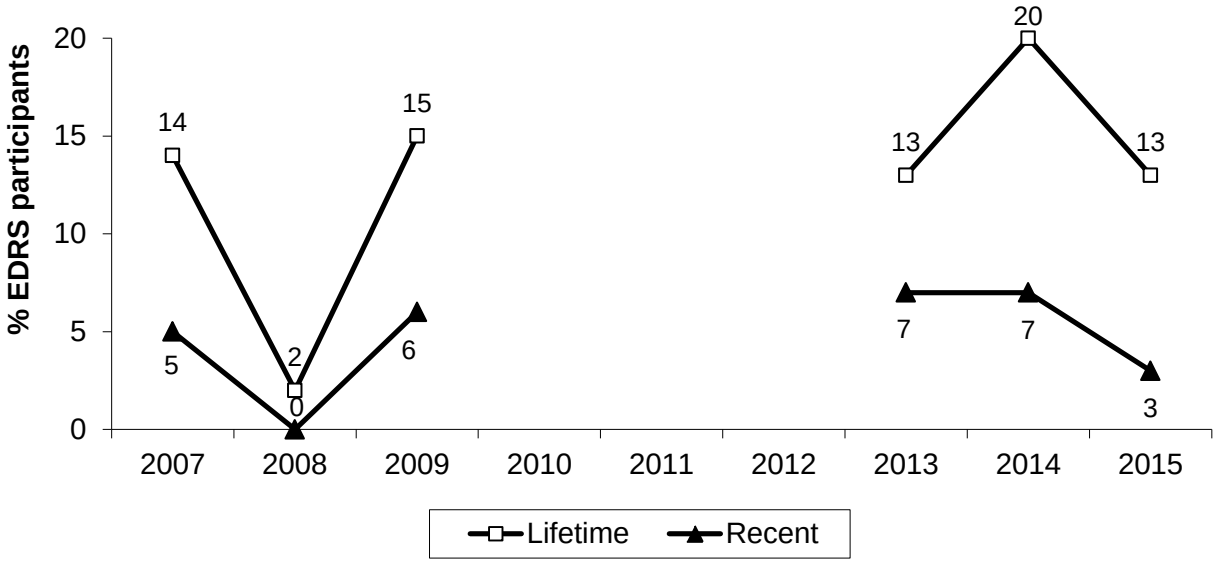
Licit antidepressants

One-tenth (11%) had ever used licitly obtained antidepressants and 3% had done so over the preceding six months. Licit antidepressants were first used at a median age of 23 years (range 22-32). Those who had recently used it had done so on a median of 4 days (range 1-135) over the preceding six months, and all reporting swallowing as their route of administration.

Illicit antidepressants

Three participants (3%) reported having ever used illicit antidepressants, with one participant reporting that they had used them over the past six months.

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



Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.9.6 Inhalants

Amyl nitrite

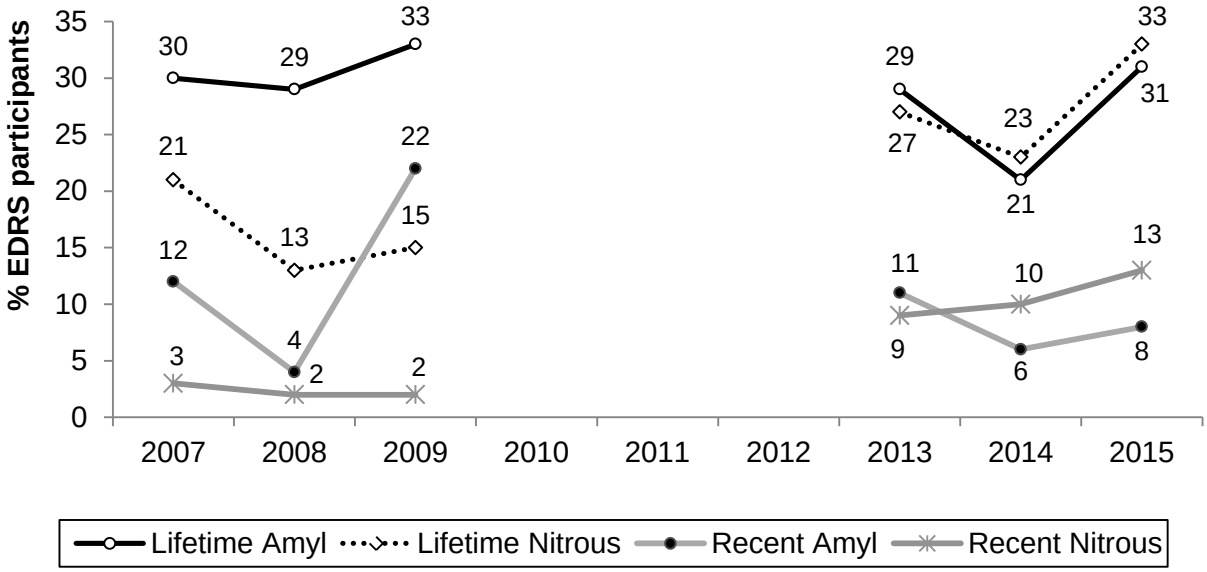
Approximately one-third (31%) of EDRS participants interviewed had ever used amyl nitrite, and eight participants (8%) had used it over the preceding six months. Amyl nitrite was first used at a median age of 17 years (range 15-22). Those who had recently used it had done so on a median of 4 days (range 1-15) over the preceding six months.

Nitrous oxide

One-third (33%) of the sample reported having ever used nitrous oxide and 13% had done so recently. Nitrous oxide was first used at a median age of 17 years (range 15-22). Among those who had used it over the last six months, nitrous oxide had been used on a median of 4 days (range 1-10) during this time, with the majority reporting that they used it on a less than monthly basis (77%).

Figure 24 presents trends across time of the proportions of the EDRS samples that had ever used, and had recently used, both amyl nitrite and nitrous oxide. The proportions reporting lifetime and recent use of both drugs showed a non-significant upward trend from 2014 to 2015.

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



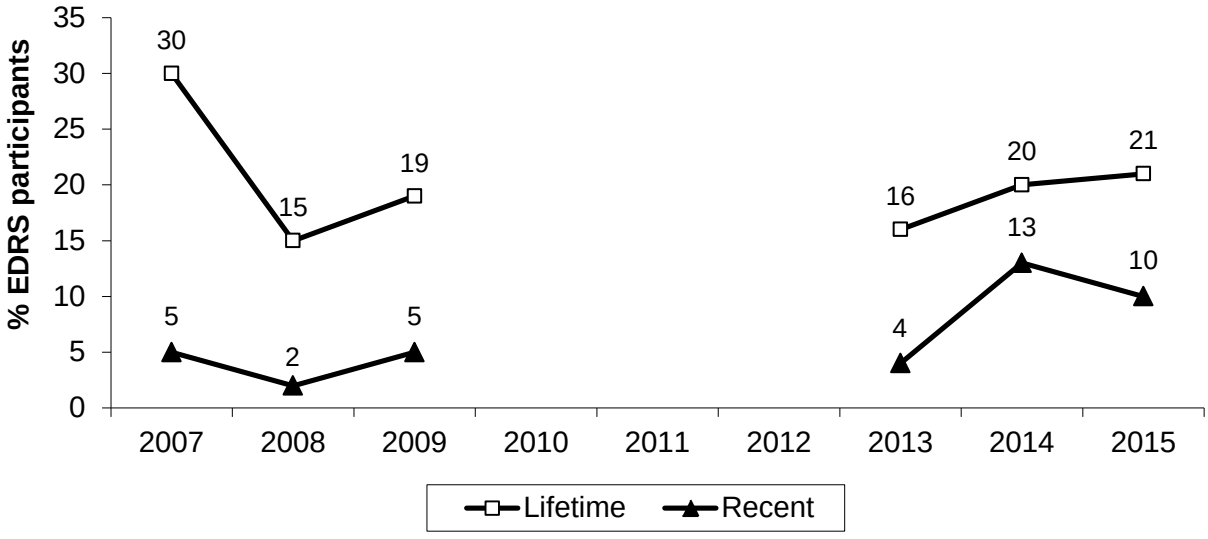
Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.9.7 MDA

Twenty-one per cent of participants in the 2015 EDRS reported having ever used MDA. Ten participants (10%) reported they had used it over the preceding six months. Among those who had used it over the last six months, MDA had been used on a median of 4.5 days (range 1-10) during this time, with over two-thirds (70%) reporting less than monthly use. Participants reported the most common route of administration of MDA was swallowing (60%) followed by snorting (30%).

The proportion of EDRS participants who have used MDA recently and in their lifetime has remained stable in 2015 (Figure 25).

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



Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.9.8 Heroin and other opiates

Heroin

Eight EDRS participants reported that they had ever used heroin, with two participants reporting using it in the preceding six months. The median age that heroin was first used was 20 years (range 16-24). Due to small numbers reporting recent use of heroin, data was not published on the median days of use and routes of administration.

Methadone and buprenorphine

Three participants in the 2015 NT EDRS reported lifetime use of methadone, however none reported recent use. No participants reported lifetime use of buprenorphine.

Other opiates

While nine respondents (9%) had ever used a licitly obtained opiates (other than methadone or buprenorphine), only two participants (2%) had used a licitly obtained opiate recently. Nine participants (9%) had ever used illicitly obtained opiates (other than heroin, methadone or buprenorphine). Three participants had used them over the six months prior to the interview.

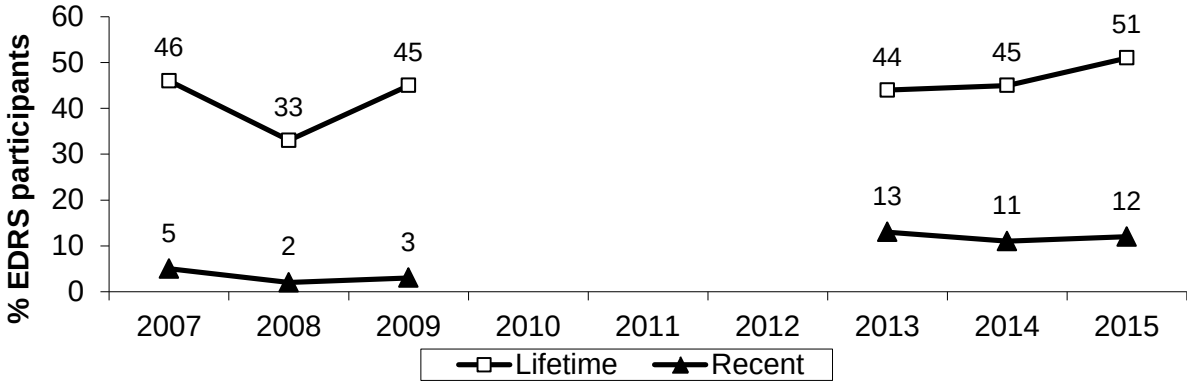
Opiate use in other populations

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 Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (http://ndarc.med.unsw.edu.au/group/drug-trends#menu_item_5).

4.9.9 Mushrooms

Half (51%) of the EDRS participants interviewed in 2015 reported having ever used mushrooms and 12% had done so over the preceding six months. Mushrooms were first used at a median age of 19 years (range 15-29). The majority of those who had recently used mushrooms had done so on a less than monthly basis (75%) and the main route of administration was swallowing (91%). Lifetime and recent use of mushrooms appears to have remained relatively stable from 2014 to 2015 (Figure 26).

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



Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

4.9.10 Pharmaceutical stimulants

One-third (36%) of participants in 2015 reported having ever used pharmaceutical stimulants and 16% had done so within the six months preceding the interview. The proportions reporting lifetime and recent use of pharmaceutical stimulants remained stable from 2014 to 2015.

Licit pharmaceutical stimulants

Six participants reported having used licitly obtained pharmaceutical stimulants and three participants had used them recently. Licitly obtained pharmaceutical stimulants were first used at a median age of 20 years (range 18-22).

Illicit pharmaceutical stimulants

Just under one-third (31%) had ever used illicitly obtained pharmaceuticals and 13 participants had done so over the preceding six months. Illicit pharmaceutical stimulants were first used at a median age of 21 years (range 13-44). Recent users reported using illicit pharmaceutical stimulants on a median of 3 days (range 1-48), with participants reporting that they either swallowed (77%) or snorted (23%) them.

4.9.11 Over the counter drugs

Codeine

Seventeen per cent of the sample reported having ever used over the counter (OTC) codeine-containing products for non-pain use and almost all of these participants (16%) reported having done so over the preceding six months. Compared to 2014, a significantly greater proportion of participants in 2015 reported recent codeine use. These products were first used at a median age of 18.5 years (range 11-25). Recent users reported using OTC codeine on a median of 2.5 days (range 1-180), with participants reporting that they either swallowed (69%) or snorted (6%) them.

Stimulants

Seven per cent of the sample reported having ever used over the counter stimulants (such as Sudafed and Codral) for non-medicinal use and four participants (4%) had used them recently. These products were first used at a median age of 17.5 years (range 17-19). Given such a small sample of recent users, details regarding frequency and quantity of use are not presented.

4.9.12 Antipsychotics

Four participants in 2015 reported having ever used antipsychotics and two 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)

Eight participants reported lifetime use of steroids, two of whom reported steroid use in the preceding six months in the 2015 NT EDRS sample. The median age of first use of PIED was 20.5 years (range 20-21). Due to a small sample of recent users, data on frequency and quantity of use are not presented.

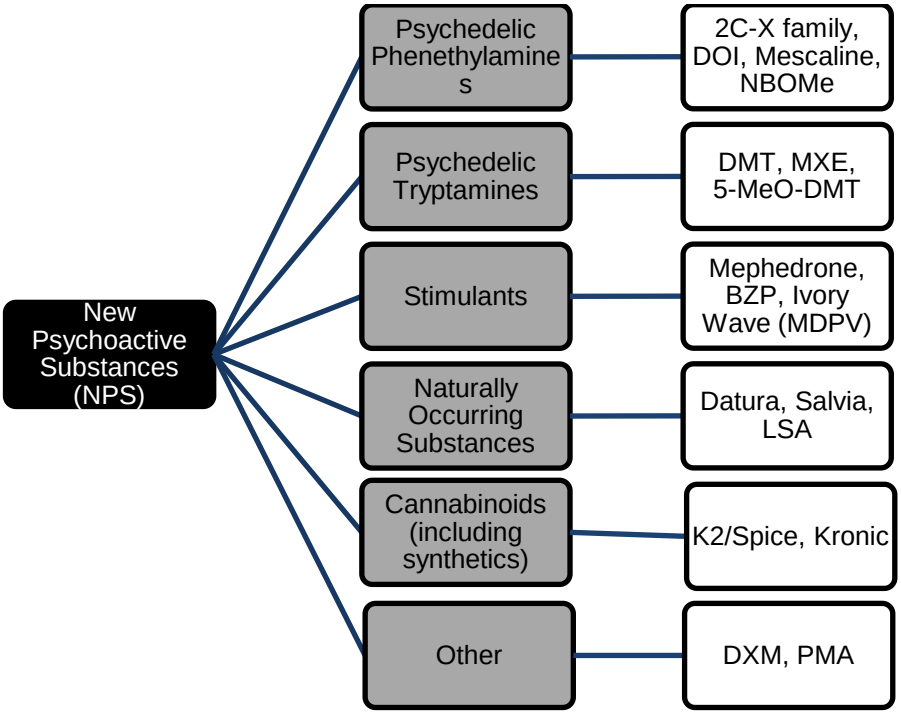
4.10 New psychoactive substance (NPS) use

Summary:

- Two-thirds reported having ever used NPS and one-third reported using NPS in the last six months.
- The most common psychoactive substances used among Darwin EDRS participants included other synthetic cannabinoids, Kronic, mephedrone and DMT.
- KE reported concern over the public's knowledge about the safety of NPS.

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.[5]
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.[6]
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[7] but has been reportedly sold as powder.

[5] Erowid: http://www.erowid.org/chemicals/doi/doi.shtml
[6] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/dmt
[7] 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).[8]
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.[9]
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).[10]
		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.[11]

[8] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/mephedrone
[9] Erowid: http://www.erowid.org/chemicals/bzp/bzp_basics.shtml
[10] Drugscope: http://www.drugscope.org.uk/Media/Press+office/pressreleases/ivory_wave_MDPV
[11] 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.[12]
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.[13]
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.[14]
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.

[12] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/salvia
[13] Erowid: http://www.erowid.org/chemicals/dxm/dxm_basics.shtml
[14] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/pma

Amongst the 2015 NT EDRS sample, 69% reported having ever used NPS and 30% reported using NPS in the last six months. The most common NPS ever used among participants were other synthetic cannabinoids (29%), Kronic (24%), mephedrone (21%) and DMT (21%). Those most common NPS recently used were other synthetic cannabinoids (11%), 2C-B (11%) and herbal highs (8%) (Table 13). Compared to 2014, significantly fewer participants in 2015 reported lifetime use of capsules with unknown contents and K2/Spice, and a significantly greater proportion reported 2C-B use.

Table 13: NPS use among EDRS participants, NT

	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Other synthetic cannabinoids			
ever used (%)	7	38	**29**
used last 6 mths (%)	4	6	**11**
Kronic			
ever used (%)	38	24	**24**
used last 6 mths (%)	13	3	**5**
Capsule (contents unknown)			
ever used (%)	11	22	**5****
used last 6 mths (%)	7	9	**3**
Salvia			
ever used (%)	7	18	**19**
used last 6 mths (%)	4	5	**2**
K2 / Spice			
ever used (%)	7	17	**7***
used last 6 mths (%)	0	2	**1**
Mephedrone			
ever used (%)	7	16	**21**
used last 6 mths (%)	2	5	**3**
DMT			
ever used (%)	16	15	**21**
used last 6 mths (%)	2	8	**6**
Herbal highs			
ever used (%)	33	11	**16**
used last 6 mths (%)	18	3	**8**
2C-I			
ever used (%)	7	11	**7**
used last 6 mths (%)	2	3	**1**
2C-B			
ever used (%)	9	8	**20***
used last 6 mths (%)	2	2	**11***

** p<0.05; ** p<0.001*

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

	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Methylone			
ever used (%)	4	5	**7**
used last 6 mths (%)	4	2	**5**
2C-E			
ever used (%)	0	5	**3**
used last 6 mths (%)	0	0	**0**
DXM			
ever used (%)	4	4	**9**
used last 6 mths (%)	0	3	**6**
MPTP			
ever used (%)	0	3	**5**
used last 6 mths (%)	0	3	**2**
NBOMe	Data not collected until 2014		
ever used (%)		3	**5**
used last 6 mths (%)		3	**2**
MDPV / Ivory Wave			
ever used (%)	2	3	**4**
used last 6 mths (%)	2	0	**2**
LSA			
ever used (%)	2	2	**2**
used last 6 mths (%)	0	1	**2**
5-MeO-DMT			
ever used (%)	0	2	**1**
used last 6 mths (%)	0	1	**0**
Benzo Fury / 6-APB			
ever used (%)	0	2	**0**
used last 6 mths (%)	0	1	**0**
Datura			
ever used (%)	2	2	**1**
used last 6 mths (%)	0	0	**0**
Mescaline			
ever used (%)	7	1	**6**
used last 6 mths (%)	4	0	**0**
BZP			
ever used (%)	4	0	**2**
used last 6 mths (%)	0	0	**0**

** p<0.05; ** p<0.001*

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

	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
MDAI			
ever used (%)	0	1	**1**
used last 6 mths (%)	0	0	**1**
PMA			
ever used (%)	0	1	**4**
used last 6 mths (%)	0	0	**0**
Methoxetamine / MXE			
ever used (%)	0	0	**3**
used last 6 mths (%)	0	0	**0**
5-IAI			
ever used (%)	0	0	**0**
used last 6 mths (%)	0	0	**0**
DOI (Death on Impact)			
ever used (%)	0	0	**0**
used last 6 mths (%)	0	0	**0**
Other substituted cathinone			
ever used (%)	Data not collected until 2014	0	**2**
used last 6 mths (%)		0	**0**

Source: EDRS participant interviews 2013, 2014, 2015
** p<0.05; ** p<0.001*

Key expert comments

KE reported concern over the public's knowledge about the safety of NPS. KE felt there may be a limited understanding of how NPS are created and metabolised. Furthermore, there were reports that people assumed 'herbal highs' were herbal products, and were unaware they also contain synthetic chemicals. Potential effects from this include consuming NPS with a false sense of safety and unknowingly consuming at dangerous levels.

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY

5.1 Ecstasy

Summary:

Pills, powder and capsules

- *Price*: $40 per pill, $45 per capsule, stable.
- *Purity*: Currently medium and fluctuating.
- *Availability*: Currently easy to very easy to obtain and stable.

MDMA crystal

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

- KE reported that ecstasy availability had increased and was easily accessible.

5.1.1 Price

The majority (97%) of participants were able to comment on the price of ecstasy pills in Darwin. The median price was reported by users to be $40 per pill (range $15-67), $250 per gram of powder (range $40-600), $45 per capsule (range $20-60) and $300 per gram of MDMA crystal (range $20-450) (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 (48%) or fluctuated (28%), whereas the majority reported that the price of MDMA crystal had remained stable (69%).

Participants were asked questions regarding their purchasing of ecstasy over the last six months. Participants reported that they had purchased ecstasy from a median of 3 people (range 1-16). While one-third (38%) of the sample usually purchased ecstasy for themselves only, the majority (62%) had purchased ecstasy for themselves and others. When asked about how frequently they purchased ecstasy, the majority of participants reported that they had bought ecstasy either monthly or less (53%), followed by fortnightly to monthly (29%). The median number of pills purchased was 4 (range 1-100).

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Median price $ (range)						
Per pill	50 (35-60)	50 (30-50)	50 (17-70)	35 (15-50)	40 (20-60)	**40 (15-67)**
Per gram powder	N/A	N/A	N/A	N/A	350 (40-600)^	**250 (60-400)^**
Per capsule	N/A	N/A	N/A	N/A	40 (25-70)	**45 (20-60)**
Per gram crystal	Data not available until 2013			N/A	400 (40-600)	**300 (20-450)**
Price change of ecstasy pills, powder, capsules:						
Increased (%)	12	0	5	23	28	**15**
Stable (%)	76	80	83	50	52	**48**
Decreased (%)	9	4	3	4	7	**9**
Fluctuated (%)	3	9	9	23	13	**28**
Price change of crystal:						
Increased (%)	Data not available until 2014				6	**3**
Stable (%)					70	**69**
Decreased (%)					6	**10**
Fluctuated (%)					18	**17**

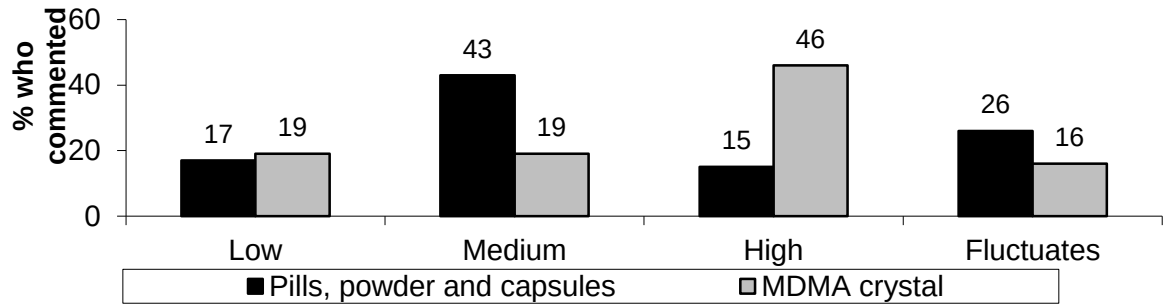
Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
Note: Response option 'don't know' was removed from analyses from 2010 onward
^ Small numbers reporting, interpret with caution
N/A: No data available

5.1.2 Purity

Current purity

Figure 28 presents EDRS participants' reports of ecstasy purity in 2015. 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. The largest proportion of participants clearly indicated that MDMA crystal was of high purity.

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

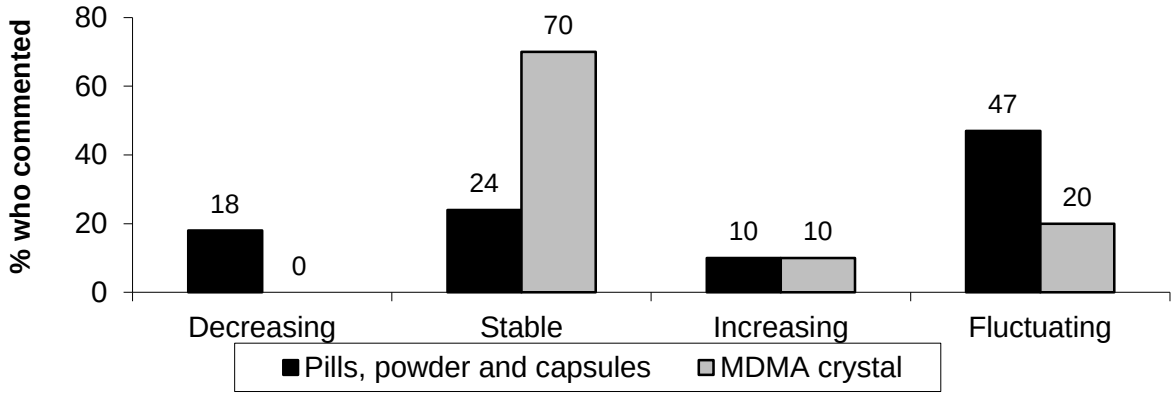


Source: EDRS participant interviews 2015
Note: Response option 'don't know' was removed from analyses from 2010 onward
* Of those who commented (pills, powder and capsules n=96; MDMA crystal n=37).

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 either fluctuated (47%) or remained stable (24%). Participants reported that the purity of MDMA crystal remained mostly stable (70%) over this time.

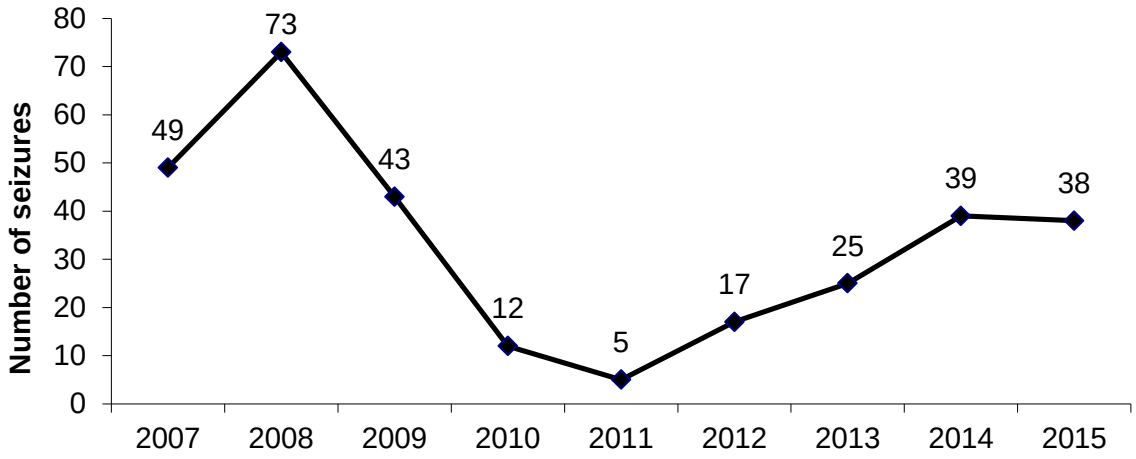
Figure 29: EDRS participants' reports of changes in ecstasy purity in the past six months*, NT



Source: EDRS participant interviews 2015
Note: 'Don't know' responses removed
* Of those who commented (pills, powder and capsules n=78; MDMA crystal n=30).

Figure 30 presents data on the number of ecstasy 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. From 2011 to 2014, there was an upward trend in the number of ecstasy seizures in the NT, with 38 seizures recorded for 2015.

Figure 30: Number of ecstasy seizures, NT, 2007-2015

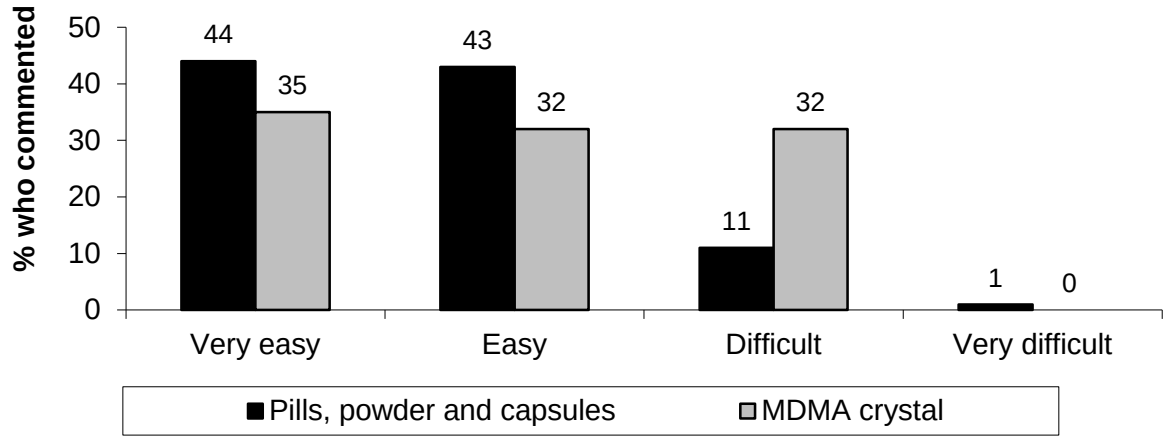


Source: NT Police Real-time Online Information Management System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure; however, no toxicological analyses are undertaken to establish the content of drugs found.

5.1.3 Availability

The majority (87%) 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 (35% and 32%) see Figure 31.

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

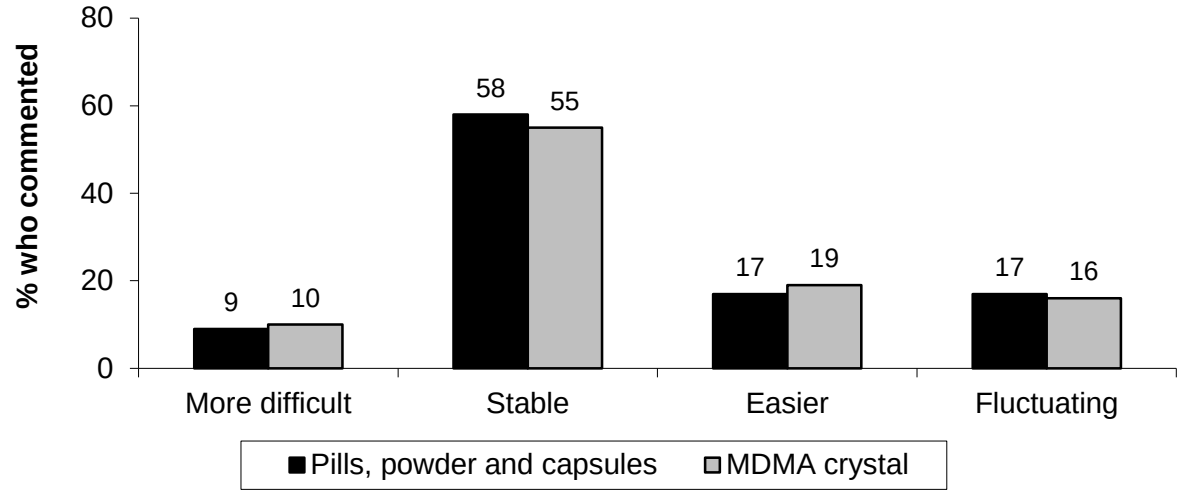


Source: EDRS participant interviews 2015
Note: Response option 'don't know' was removed from analyses from 2010 onward
* Of those who commented (pills, powder and capsules n=97; MDMA crystal n=37).

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 (58% and 55% respectively).

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



Source: EDRS participant interviews 2015
Note: 'Don't know' responses removed
* Of those who commented (pills, powder and capsules n=79; MDMA crystal n=31).

Key expert comments

A number of KE reported that ecstasy availability had increased and was easily accessible in the NT. KE reported that an ecstasy pill sold for $30 to $55, depending on the purity. One law enforcement KE reported intelligence indicates that most large-scale distribution occurs in conjunction with these types of events.

5.2 Methamphetamine

Summary:

Speed

- *Price*: $400 per gram and stable.
- *Purity*: Currently medium and mostly stable.
- *Availability*: Mixed reports on current availability, mostly stable over past six months.

Base

- Numbers too small to report.

Crystal

- *Price*: $150 per point and stable.
- *Purity*: Currently medium to high, mixed reports on purity change over past six months.
- *Availability*: Currently easy to very easy to obtain, stable.

- KE reported increase in the use of crystal across all community groups, which is possibly due to increasing availability and lower prices for crystal.

5.2.1 Price

Speed

Nine 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 $400 per gram (range $300-600) and $100 per point (range $25-500). Small numbers reported on speed and these figures must be interpreted with caution (Table 16). The majority of participants (62%) who commented believed the price of speed had remained stable over the preceding six months.

Base

Only two 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-one 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 $150 (range $100-180) (Table 15). The majority of participants (60%) who commented on changes to the price of crystal methamphetamine over this time reported that it had remained stable.

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

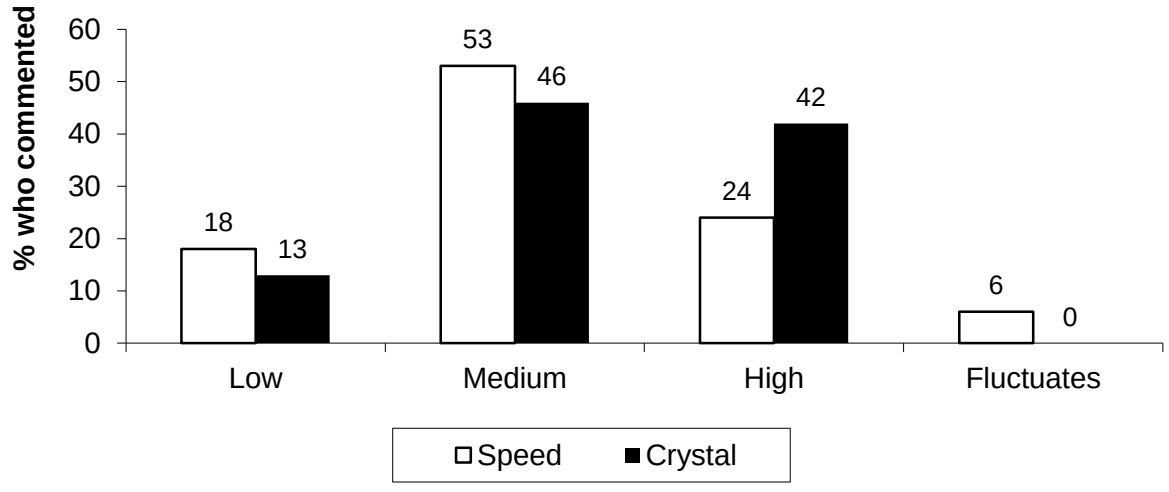
$	2007	2008	2009	2013	2014	**2015**
Speed	n=23	n=8	n=24	n=5	n=24	**n=9**
Point	N/A	N/A	50	N/A	100^	**100^**
(range)	N/A	N/A	(50)	N/A	(60-150)	**(25-500)**
Gram	250	300^	300	N/A	350	**400^**
(range)	(100-350)	(15-700)	(100-800)	N/A	(80-900)	**(300-600)**
Base	n=12	n=1	n=3	n=0	n=3	**n=2**
Point	35^	N/A	N/A	N/A	N/A	**N/A**
(range)	(30-40)	N/A	N/A	N/A	N/A	**N/A**
Gram	350^	N/A	N/A	N/A	N/A	**N/A**
(range)	(200-500)	N/A	N/A	N/A	N/A	**N/A**
Crystal	n=9	n=0	n=3	n=4	n=19	**n=21**
Point	45^	N/A	N/A	N/A	150^	**150**
(range)	(40-50)	N/A	N/A	N/A	(80-400)	**(100-180)**
Gram	250^	N/A	N/A	N/A	850^	**800^**
(range)	(100-350)	N/A	N/A	N/A	(30-1200)	**(600-1200)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
^ 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.

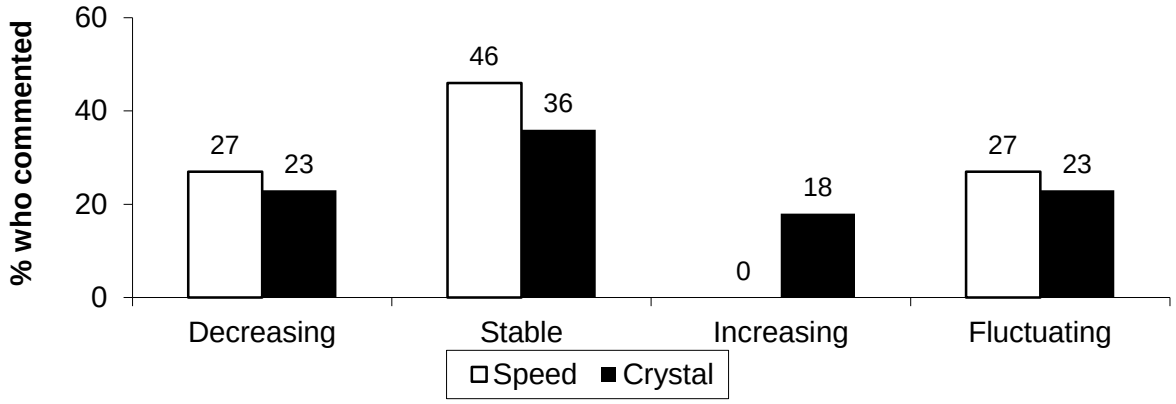
Figure 33: EDRS participants' reports of current methamphetamine purity*, NT



Source: EDRS participant interviews 2015
Note: 'Don't know' responses removed
* Of those who commented (speed n=17; crystal methamphetamine n=24). Due to base n=2, 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. The reported purity of speed and crystal methamphetamine was mixed. The largest proportion of participants reported speed purity as stable (46%) and equal proportions reported it as decreasing (27%) or fluctuating (27%). Similarly, crystal methamphetamine users reported purity to be either stable (36%), decreasing (23%) or fluctuating (23%), with the remaining 18% reporting that crystal methamphetamine purity had increased over the past six months.

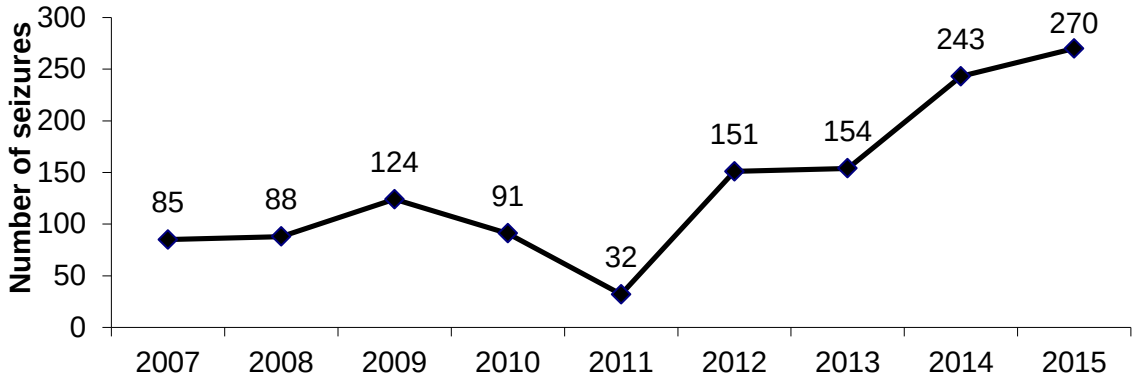
Figure 34: EDRS participants' reports of changes in methamphetamine purity in the past six months*, NT



Source: EDRS participant interviews 2015
Note: 'Don't know' responses removed
* Of those who commented (speed n=11; crystal methamphetamine n=22). Due to base n=2, numbers were too small to report.

Figure 35 presents data on the number of amphetamine/methamphetamine 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. The number of amphetamine/methamphetamine seizures in the NT has risen markedly since 2011, with 2015 data indicating that 270 amphetamine/ methamphetamine seizures had been made in the NT during the year.

Figure 35: Number of amphetamine/methamphetamine seizures, NT, 2007-2015

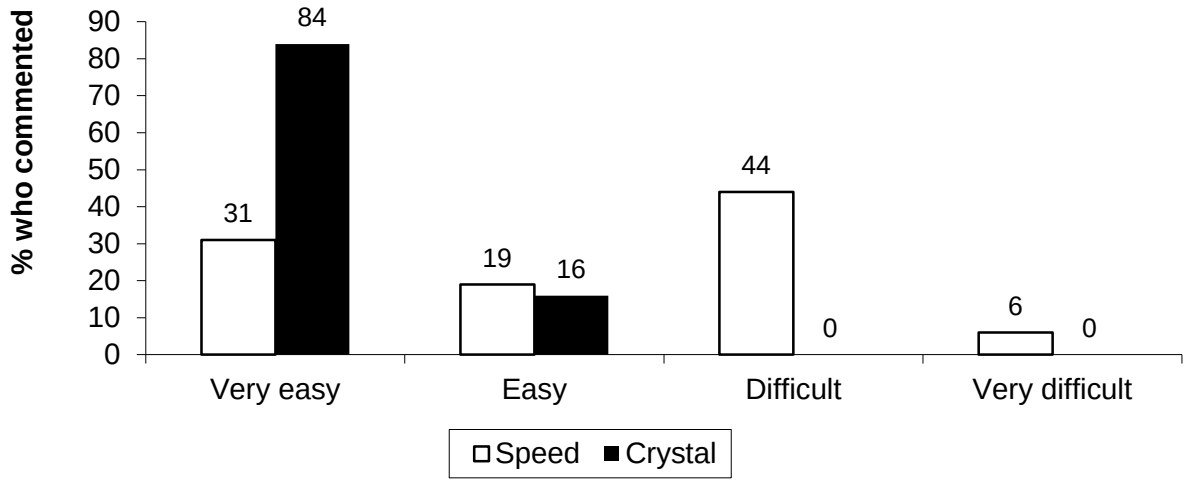


Source: NT Police Real-time Online Information Management System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure; however, no toxicological analyses are undertaken to establish the content of drugs found.

5.2.3 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; one-half reported that speed was currently easily available, whereas the other half reported some level of difficulty accessing it (Figure 36).

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



Source: EDRS participant interviews 2015
Note: 'Don't know' responses removed
* Of those who commented (speed n=16; crystal methamphetamine n=25). Due to base n=2, 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 (71%). Similarly for crystal methamphetamine, participants reported availability had either remained stable (70%) or had become increasingly easier (30%).

Key expert comments

KE reported that there had been an increase in the use of crystal across the community. There is increasing availability and lower prices for crystal, although compared to other jurisdictions, the NT has recorded some of the highest prices for crystal in the country.

KE reported that higher crystal purity was associated with more referrals of young users to treatment facilities. KE also reported that young people are being offered crystal by their dealers when they purchase other drugs, which may be a contributing factor of uptake.

5.3 Cocaine

Summary:

- *Price*: $300 per gram and stable.
- *Purity*: Low to medium and mostly stable.
- *Availability*: Currently difficult and stable.

5.3.1 Price

Fourteen participants were able to comment on the price of cocaine in the NT. The median price per gram was $300 (range $50-450). The median price has decreased slightly since the previous data collection point in 2014 (Table 16).

The majority of participants (56%) 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 an additional 22% reporting it had fluctuated.

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

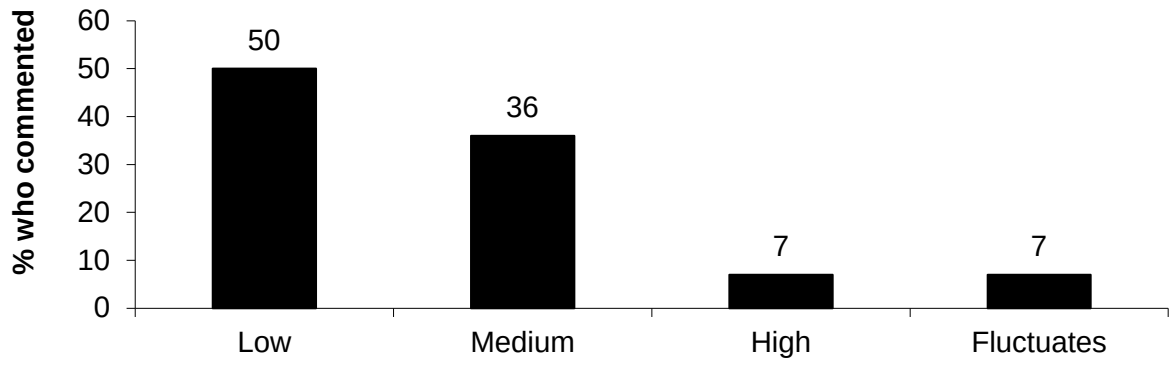
$	2007 (n=5)	2008 (n=2)	2009 (n=5)	2013 (n=6)	2014 (n=13)	**2015 (n=14)**
Per gram (range)	350^ (250-1200)	350^ (300-400)	325^ (50-350)	325^ (300-450)	350 (100-800)	**300 (50-450)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
^ Small numbers reporting, interpret with caution

5.3.2 Purity

Fourteen EDRS participants were able to comment on the current purity of cocaine. Half of the participants rated cocaine purity as 'low' (50%), followed by 36% who reported cocaine purity as 'medium' (Figure 37). There was general agreement among participants that cocaine purity had remained stable (80%) over the preceding six months.

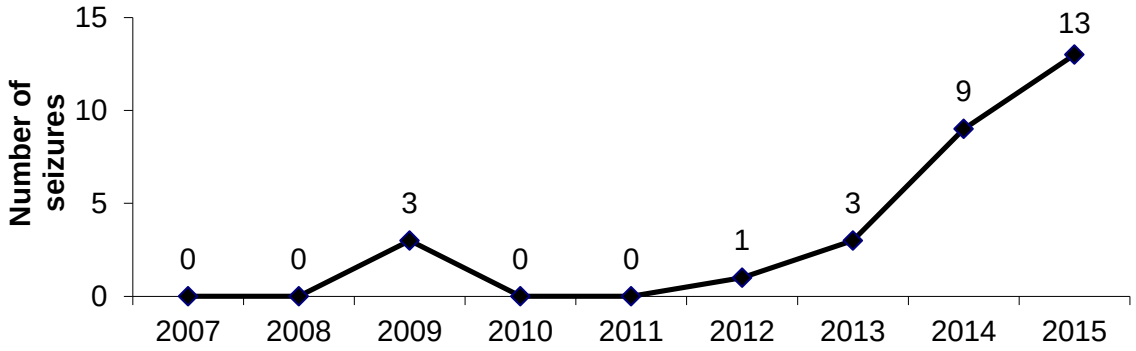
Figure 37: EDRS participants' reports of current purity of cocaine*, NT



Source: EDRS participant interviews 2015
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=14)

Figure 38 presents data on the number of cocaine 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. The number of cocaine seizures has continued to remain low over time in the NT, with 13 cocaine seizures occurring during 2015.

Figure 38: Number of cocaine seizures, NT, 2007-2015

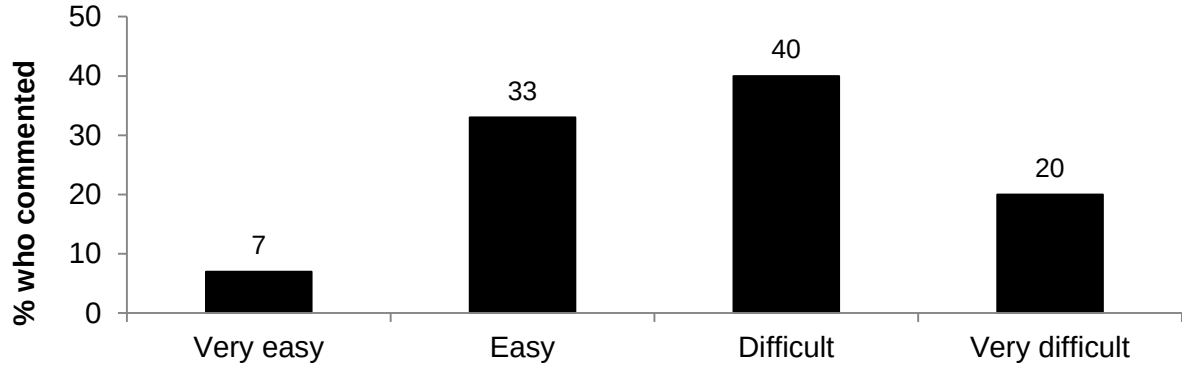


Source: NT Police Real-time Online Information Management System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure; however, no toxicological analyses are undertaken to establish the content of drugs found.

5.3.3 Availability

Fifteen participants commented on the availability of cocaine in the NT. Of these, the majority reported cocaine was currently 'difficult' (40%) or 'very difficult' (20%) to obtain (Figure 39). Almost all participants who commented (n=10) stated that the availability of cocaine had remained stable over the preceding six months (90%).

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



Source: EDRS participant interviews 2015
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=15)

Key expert comments

One law enforcement KE commented that cocaine purity in the NT varies, and local cocaine dealers are limited in numbers, thus impacting availability.

5.4 LSD

Summary:

- *Price*: $25 per tab and mostly stable.
- *Purity*: Currently high and stable.
- *Availability*: Currently difficult 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 $25 (range $10-40) and remained stable compared to 2014. The majority reported that the price had either remained stable (48%) or fluctuated (27%) over the past six months.

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

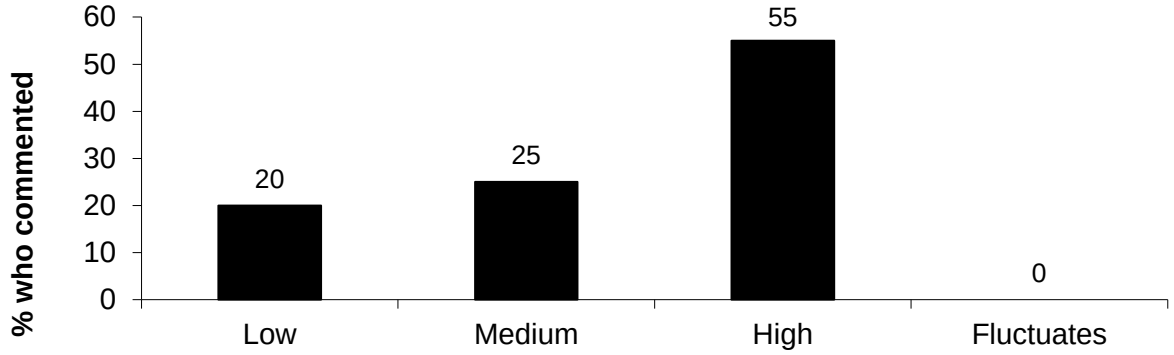
$	2007 (n=24)	2008 (n=5)	2009 (n=3)	2013 (n=9)	2014 (n=23)	**2015 (n=21)**
Per tab	25	20^	25^	35^	25	**25**
(range)	(20-30)	(15-20)	(20-40)	(20-50)	(10-40)	**(8-50)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
^ Small numbers reporting, interpret with caution

5.4.2 Purity

Twenty participants commented on the purity of LSD. Of these, 55% reported that LSD was currently of 'high' purity and 25% reported 'medium' purity (Figure 40). The majority reported that purity had remained stable (63%) over the past six months.

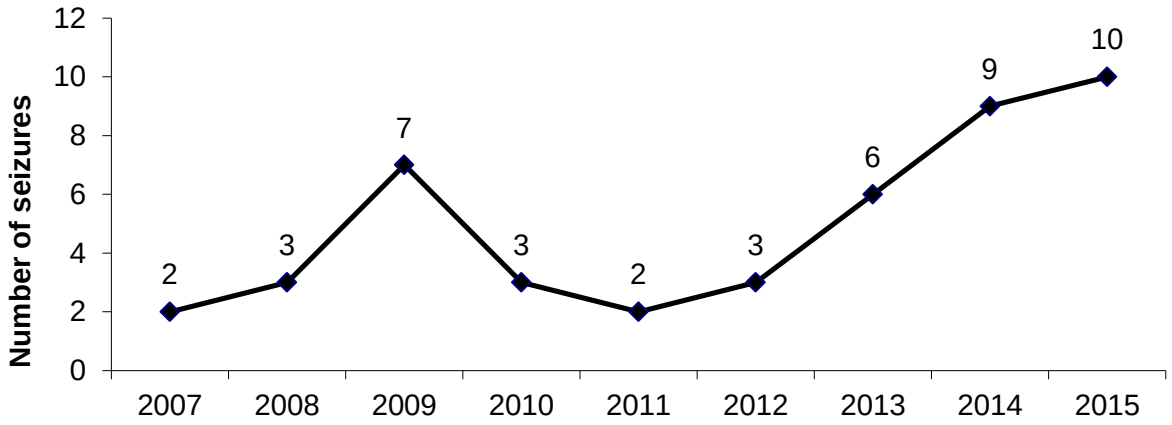
Figure 40: EDRS participants' reports of current purity of LSD*, NT



Source: EDRS participant interviews 2015
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=20)

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 ten or less seizures per year.

Figure 41: Number of LSD seizures, NT, 2007-2015

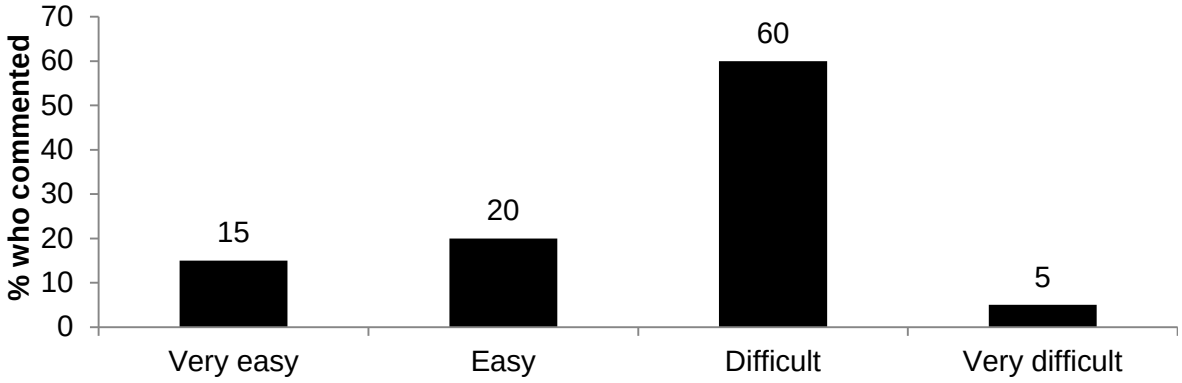


Source: NT Police Real-time Online Information Management System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure; however, no toxicological analyses are undertaken to establish the content of drugs found.

5.4.3 Availability

Twenty participants commented on the availability of LSD. The majority of respondents (65%) reported that LSD was currently 'difficult' or 'very difficult' to obtain and 35% reported that it was easy (Figure 42). The majority of those who commented on availability of LSD reported that it had remained stable (65%) over the past six months.

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



Source: EDRS participant interviews 2015
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=20)

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 2015.

Only three participants in the NT EDRS provided information on the price, purity or availability of ketamine in Darwin for 2015. Due to small numbers, 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 2015.

No participants in the NT EDRS provided information on the price, purity or availability of GHB in Darwin for 2015.

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*: $27.50 per gram; $450 per ounce and stable.
- *Potency*: Currently high and stable.
- *Availability*: Currently very easy to obtain and stable.

Bush

- *Price*: $25 per gram; $400 per ounce and stable.
- *Potency*: Currently medium and stable.
- *Availability*: Currently easy to very easy to obtain and stable.

- KE agreed that hydro was the main form of cannabis available in the NT. Availability is easy to obtain, purity has remained consistent and price is stable.

5.7.1 Price

Table 18 presents the reported price for one ounce and one gram of hydro and bush cannabis.[15] 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 for hydro and bush per ounce have remained stable and there has been a non-significant decrease in the median prices per gram.

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

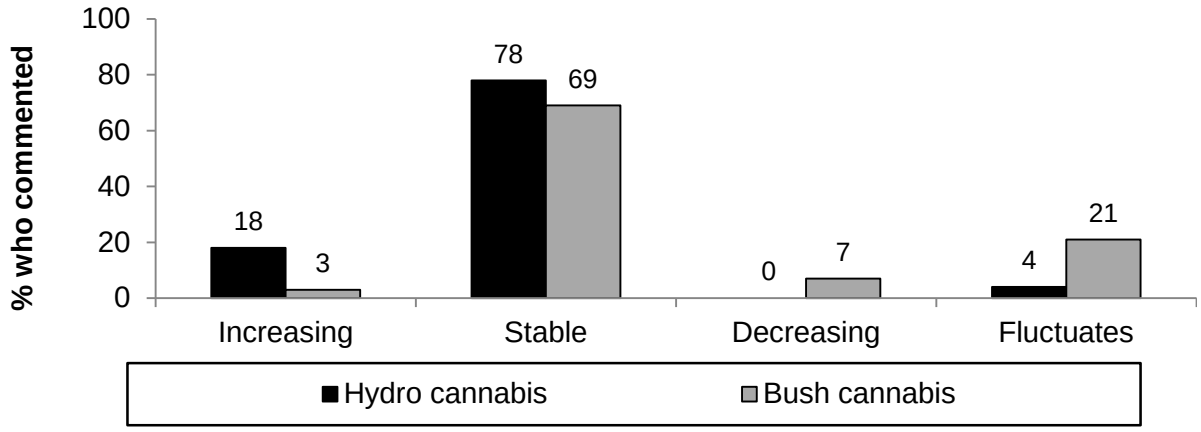
$	2007	2008	2009	2013	2014	**2015**
Hydro						
Per ounce	n=22	n=2^	n=6^	n=3^	n=20	**n=18**
(range)	350	350	360	320	450	**450**
	(200-500)	(350)	(150-500)	(300-400)	(280-500)	**(200-500)**
Per gram	n=4^	n=3^	n=8^	n=2^	n=21	**n=16**
(range)	22.5	20	30	40	30	**27.5**
	(15-30)	(17-30)	(10-30)	(30-50)	(20-60)	**(20-30)**
Bush						
Per ounce	n=7^	n=3^	n=3^	n=2^	n=13	**n=7^**
(range)	300	300	320	200	400	**400**
	(180-400)	(250-300)	(250-400)	(150-250)	(100-450)	**(250-450)**
Per gram	n=1^	n=3^	n=6^	n=1^	n=14	**n=5^**
(range)	30	20	22.5	30	30	**25**
	(30)	(10-20)	(10-50)	(30)	(15-30)	**(20-30)**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
^ Small numbers reporting, interpret with caution

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

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 (78%) and bush (69%) (Figure 43).

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

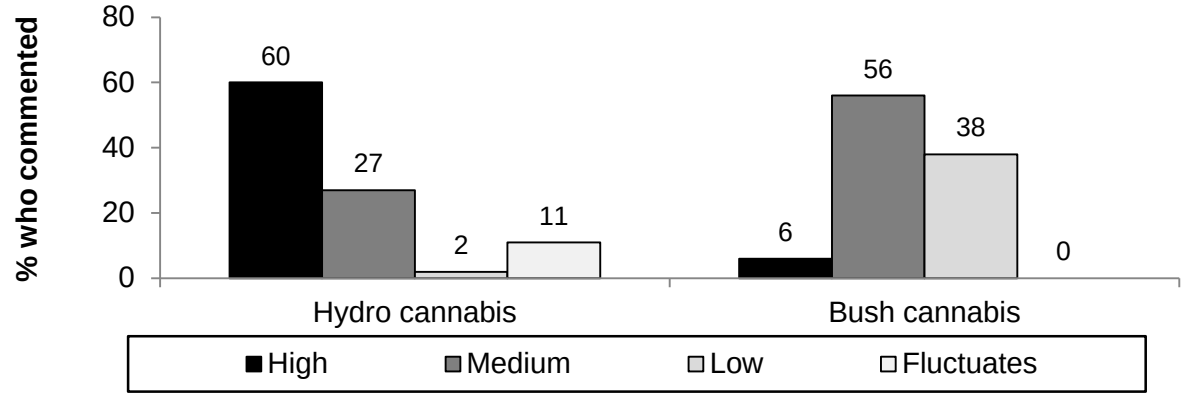


Source: EDRS participant interviews 2015
Note: 'Don't know' responses removed from analyses
* Of those who commented (n=51 for hydro, n=29 for bush)

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 (60%), and the majority of those who commented on bush potency reported that it was currently of 'medium' or 'low' potency (56% and 38% respectively).

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

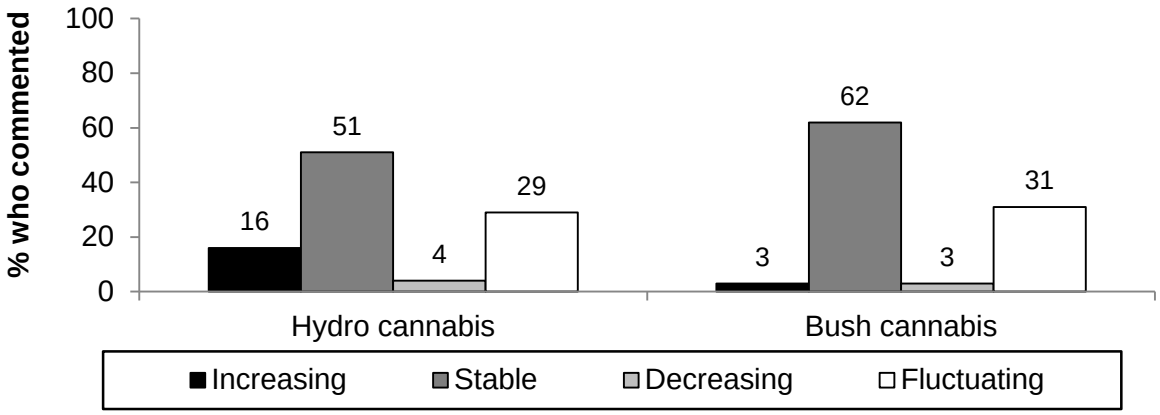


Source: EDRS participant interviews 2015
* Of those who commented (n=55 for hydro, n=34 for bush)

Participants were asked to comment on changes in the potency of cannabis over the preceding six months (Figure 45). Over half reported that the potency of hydro and bush had remained relatively stable over this time (51% and 62% respectively) and almost one-third of

participants reported that potency of hydro and bush had fluctuated (29% and 31% respectively).

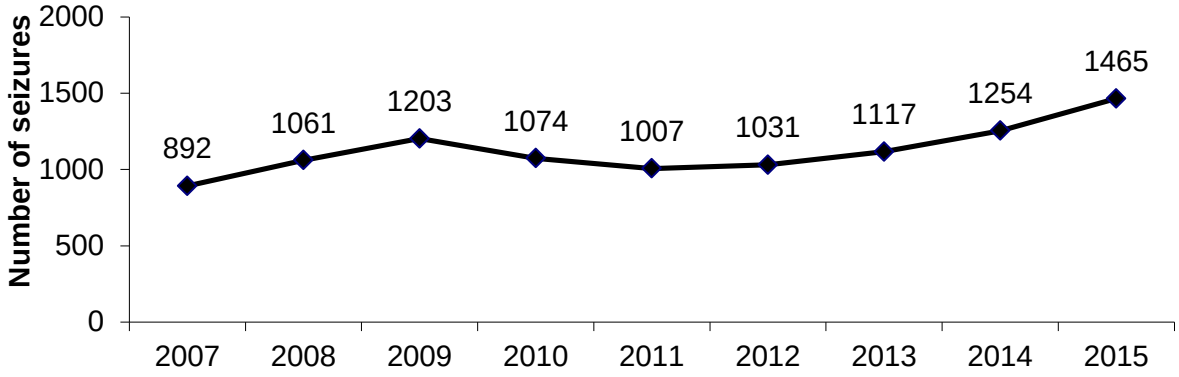
Figure 45: EDRS participants' reports of change in potency of hydro and bush cannabis over the last six months*, NT



Source: EDRS participant interviews 2015
* Of those who commented (n=49 for hydro, n=29 for bush)

Figure 46 presents data on the number of cannabis 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. There has been a steady increase in the number of cannabis seizures per year, with 2015 recording the highest number of seizures in the NT over the past nine years.

Figure 46: Number of cannabis seizures, NT, 2007-2015

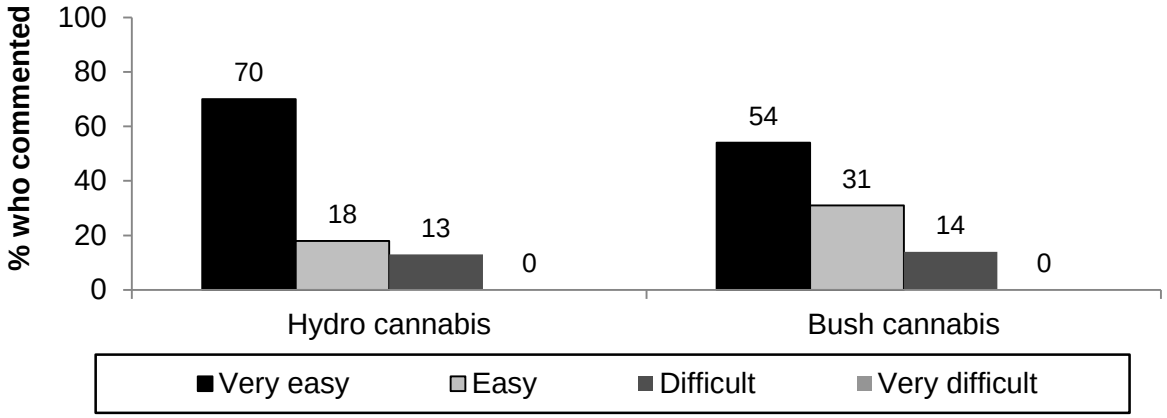


Source: NT Police Real-time Online Information Management System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure; however, no toxicological analyses are undertaken to establish the content of drugs found.

5.7.3 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' (70%) or 'easy' (18%) to obtain. Similarly, the majority of respondents reported that bush was 'very easy' (54%) or 'easy' (31%) to obtain in Darwin.

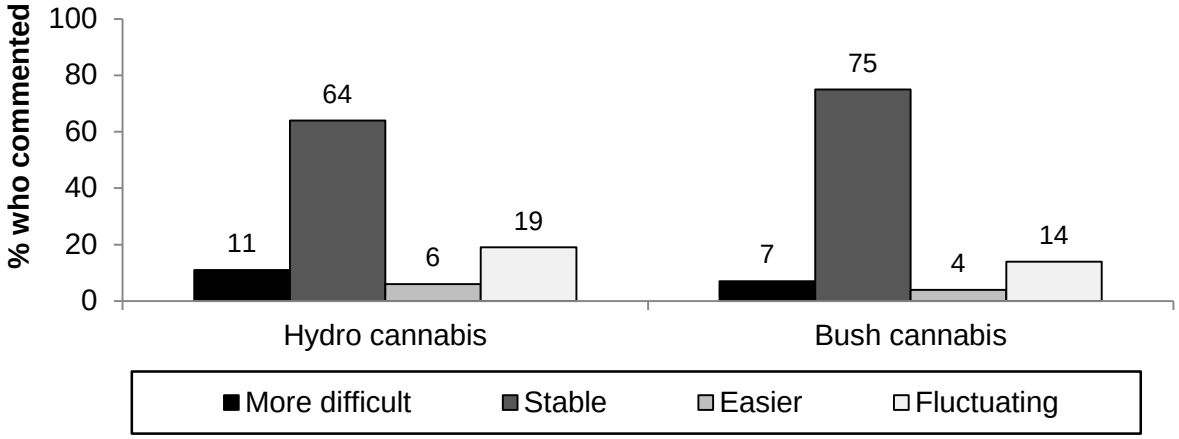
Figure 47: EDRS participants' reports of current availability of hydro and bush cannabis*, NT



Source: EDRS participant interviews 2015
* Of those who commented (n=56 for hydro, n=35 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 (64% and 75% respectively) (Figure 48).

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



Source: EDRS participant interviews 2015
* Of those who commented (n=47 for hydro, n=28 for bush)

Key expert comments

KE agreed that hydro was the main form of cannabis available in the NT. Cannabis was reportedly readily availability, potency has remained consistent and price is mostly stable (higher prices are often observed in remote communities).

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 hospital admissions in which the principal diagnosis was amphetamines, cocaine or cannabis in the NT in 2013/14 were similar to prior years.

Service usage

- Ten participants reported that they had recently accessed a medical or health service in relation to their drug use.
- Treatment episodes for ecstasy and cocaine have remained relatively low over time in the NT. In contrast, there were notably increases in numbers of presentations where amphetamine or cannabis was the principal drug of concern from 2012/13 to 2013/14.

Mental health

- One-in-five 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 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 (31%) reported having overdosed on a stimulant drug throughout their lifetime. Participants reported having experienced a median of 2 overdoses (range 1-40), and that their last overdose had occurred a median of 5 months ago (range 1-144).

Nineteen participants reported having overdosed on a stimulant drug within the preceding 12 months. These overdoses most commonly occurred within private settings, including at their

own home (30%), at a friend's home (30%) or at a private party (5%). The majority of participants who overdosed reported that a sober person was present to assist them (80%).

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. Ecstasy was reported by the majority of participants as the main drug (63%). Smaller proportions reported crystal methamphetamine (16%), speed (11%), ketamine (5%) and PMA (5%). The majority of these participants (75%) had been using multiple drugs on the occasion they overdosed, most commonly alcohol, cannabis, cocaine, LSD and ketamine.

Of the participants who overdosed within the preceding year, the most severe symptoms reported included increased body temperature (n=8), increased heart rate (n=8), dizziness (n=7), irregular rapid breathing (n=6), panic (n=6), extreme anxiety (n=4), chest pain (n=3), nausea (n=3), paranoia (n=3) and visual hallucinations (n=3). Half of these participants (50%) did not receive any immediate treatment on the last occasion of stimulant overdose. The remaining half reported that they were either monitored by friends or attended a hospital emergency department. One participant sought information about stimulant overdose or treatment after their overdose session, which was receiving information from their GP.

Participants were asked how long they had been partying prior to overdosing on the last occasion. The participants had been partying for a median of 6 hours (range 2-48), and just over half (55%) reported that their last stimulant overdose occurred during a heavy session.

6.1.2 Depressant overdose

Fourteen per cent of the 2015 sample of EDRS participants reported having ever overdosed on a depressant drug. Those who had overdosed reported having done so on a median of 3 occasions (range 1-100) with the most recent having occurred a median of 6 months prior to the interview (range 1-360). Nine participants reported having overdosed on a depressant drug within the year preceding the interview.

Alcohol (89%) and heroin (11%) were identified as the main drugs that participants attributed their most recent depressant overdose to. The majority (78%) who had recently overdosed on a depressant drug reported having used cannabis and ecstasy on that occasion.

The nine participants were asked where they were when they last overdosed within the past 12 months. Most participants reported private locations, including a friend's home (n=3), their own home (n=2) or a private party (n=1). Four of the nine participants reported that there had been a sober person present at the time of overdose who was able to assist them.

Five participants reported the most severe symptom of their depressant overdoses as either suppressed breathing, collapsing, losing consciousness or vomiting. Six of the nine 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, received oxygen or were monitored by friends. Similarly to stimulant overdoses, one participant sought information about drug overdose or treatment following their depressant overdose, which was to get information from their GP.

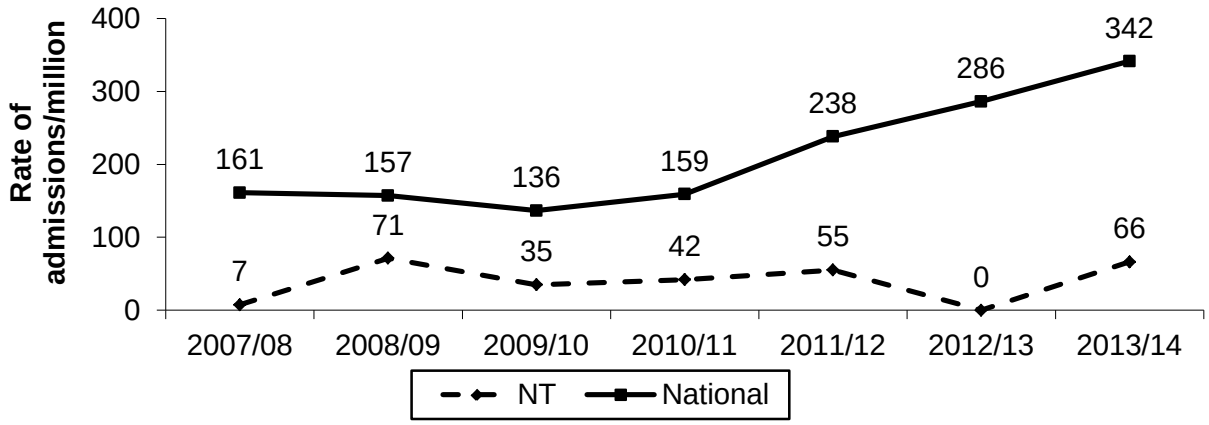
Participants reported that on their last occasion of overdosing on a depressant drug, they had been partying for a median of 7 hours (range 2-24). Just over half (56%) reported that the overdose had occurred on a heavy session rather than on a normal night out.

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. The trend of amphetamine-related hospital admissions in the NT has remained mostly stable, which is in contrast to the national rate which has increased over time.

Figure 49: Rates per million persons of principal amphetamine-related hospital admissions among persons aged 15-54, NT and nationally, 2007/08-2013/14

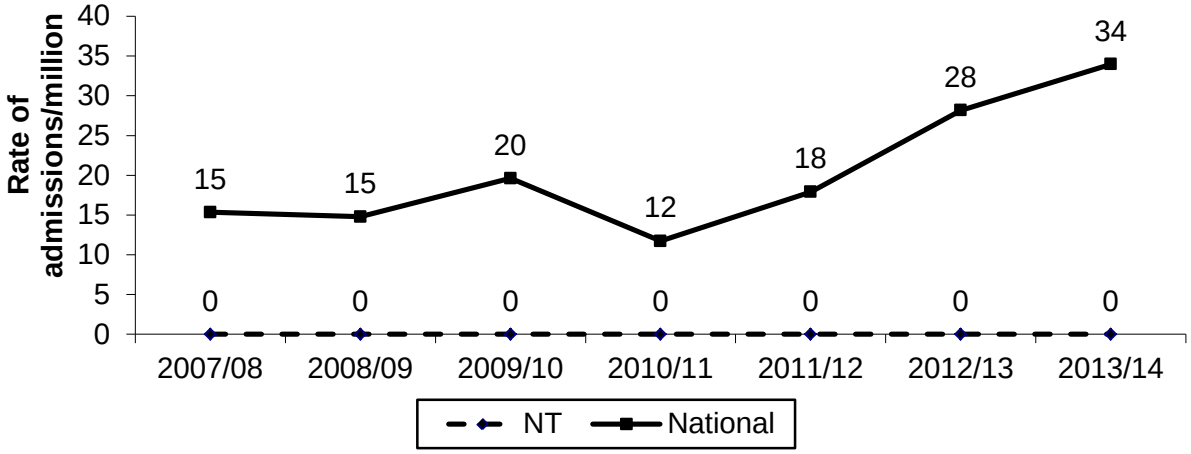


Source: AIHW; NT Health; Roxburgh and Breen (2016)
Note: Data for 2014/15 were unavailable at time of publication

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 34 per million persons in 2013/14, 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, 2007/08-2013/14

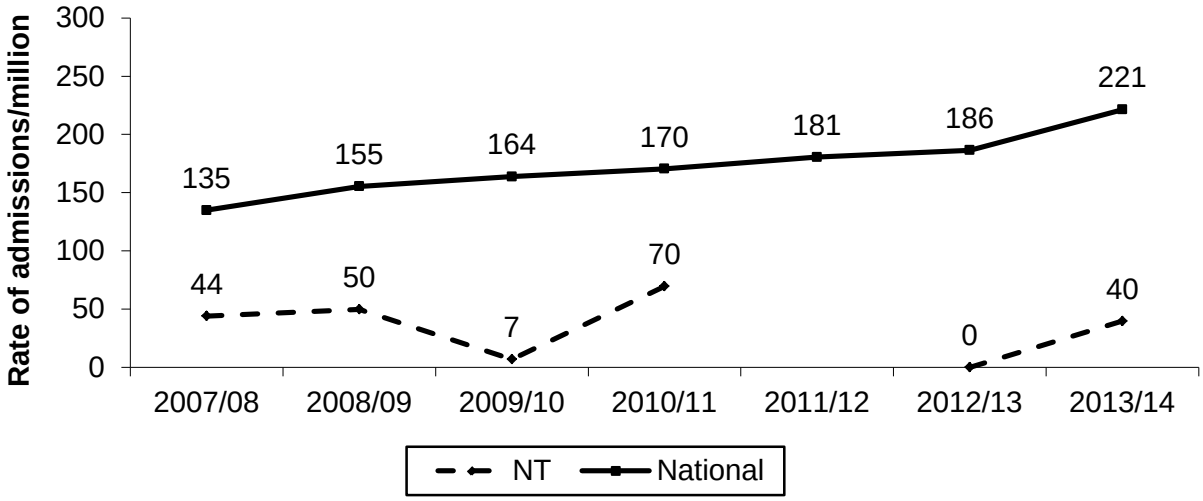


Source: AIHW; NT Health; Roxburgh and Breen (2016)
Note: Data for 2014/15 were unavailable at time of publication

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 2013/14 representing the highest rate recorded. The rate reported for NT cannabis-related hospital admissions in 2013/14 was on par with previous years.

Figure 51: Rates per million persons of inpatient hospital admissions where cannabis was the principal diagnosis aged 15-54 years, NT and nationally, 2007/08-2013/14

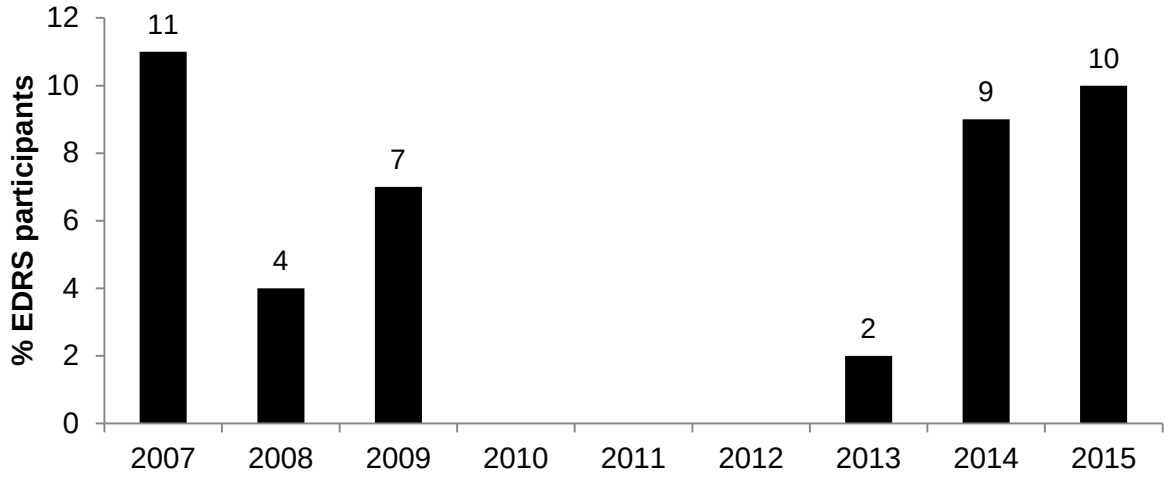


Source: AIHW; NT Health; Roxburgh and Breen (2016)
Note: The NT rate for 2011/12 is not presented because numbers were too small. Data for 2014/15 were unavailable at time of publication.

6.3 Help-seeking behaviour

Participants were asked if they had accessed any medical or health services in relation to their alcohol and/or drug use in the last six months. Ten participants (10%) interviewed in 2015 reported that they had done so (Figure 52).

Figure 52: Proportion of EDRS participants who recently accessed a medical or health service in relation to drug use, NT



Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

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. Seven participants reported that they had thought about it but had not made contact with any services or health professionals. The reasons that participants reported that they did not make contact included that 'I worked it out on my own' (n=4), 'the service would not be able to help them' (n=1), 'didn't know what services were available' (n=1) and 'distance to services' (n=1).

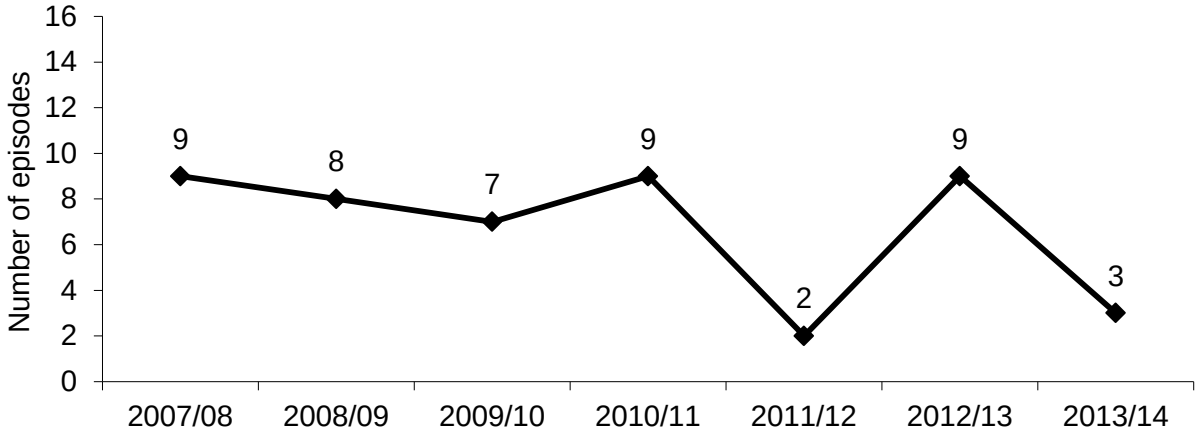
To ascertain whether participants had any contact with health professionals, participants were asked whether they had been to any health services for any reason in the preceding six months. Almost three-quarters of the sample (70%) reported accessing a health service in the past six months. The most common health professionals these participants reported consulting during this time included a GP (79%), dentist (24%), emergency department (21%) and/or a specialist doctor (10%). Other health services accessed by smaller proportions of the sample include a psychologist (7%), other health professionals such as chiropractors or physiotherapists (7%), hospital admission as an inpatient (7%), drug and alcohol counsellor (4%), hospital admission as an outpatient (4%), ambulance attendance (3%) and/or a psychiatrist (1%).

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 has continued to remain low in the NT from 2007/08 to 2013/14 (Figure 53).

Figure 53: Number of ecstasy treatment episodes, NT 2007/08 to 2013/14

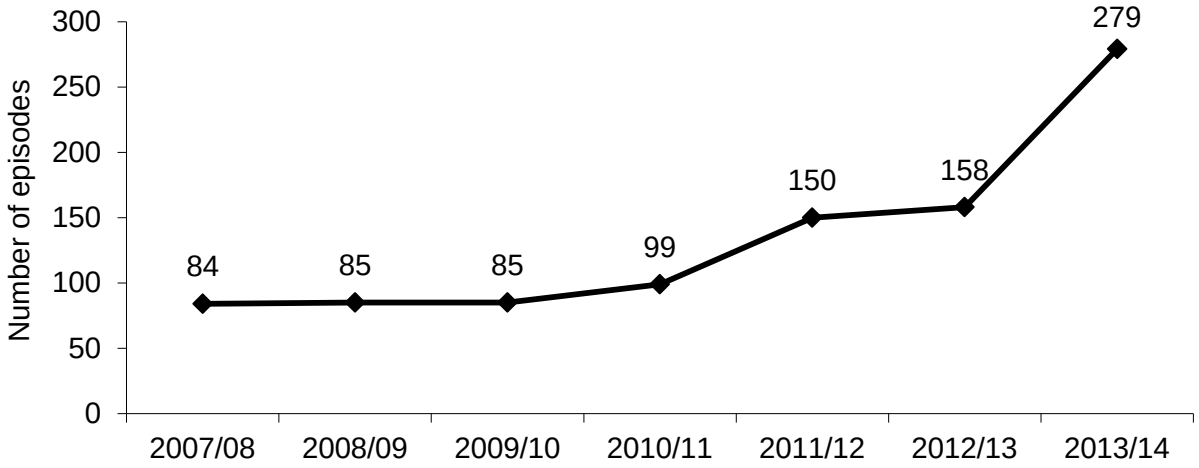


Source: AODTS NMDS (AIHW, 2015)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

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 since 2009/10 (Figure 54); with the number of episodes almost doubling from 2012/13 to 2013/14.

Figure 54: Number of methamphetamine treatment episodes, NT 2006/07 to 2012/13

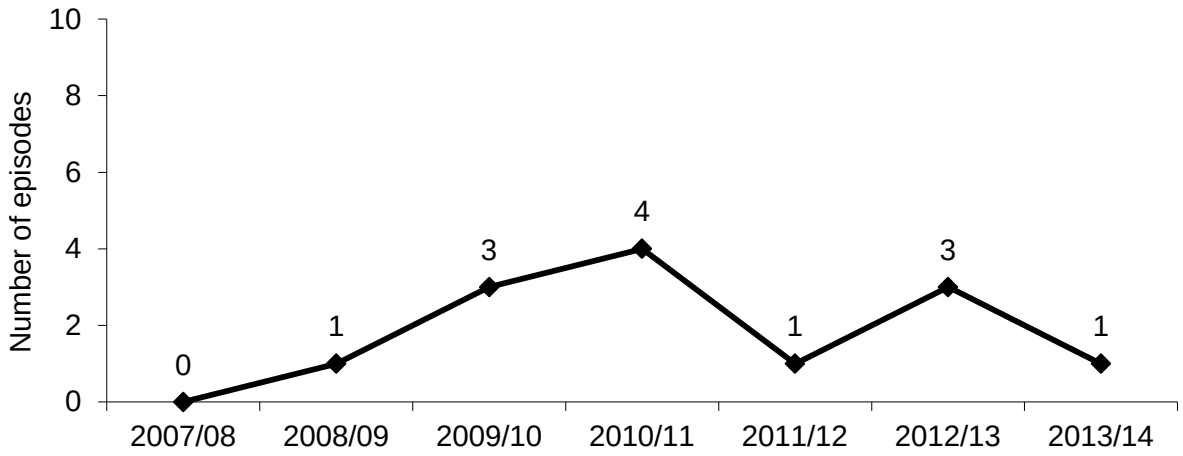


Source: AODTS NMDS (AIHW, 2015)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

6.4.3 Cocaine

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

Figure 55: Number of cocaine treatment episodes, NT 2007/08 to 2013/14

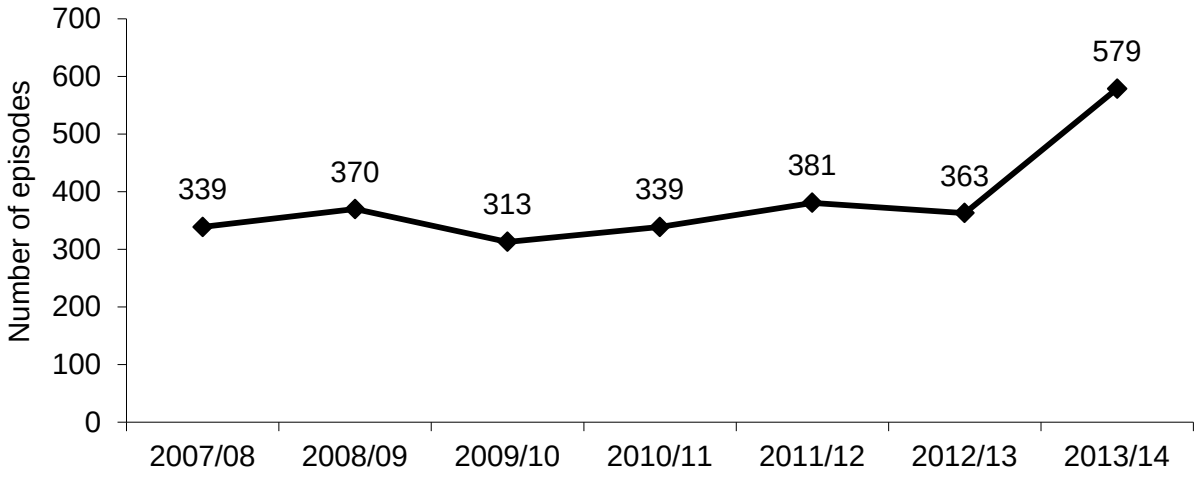


Source: AODTS NMDS (AIHW, 2015)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

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. These data show that while presentations for cannabis have remained mostly stable over time in the NT, there was a noticeable recent increased from 2012/13 to 2013/14.

Figure 56: Number of cannabis treatment episodes, NT 2007/08 to 2013/14



Source: AODTS NMDS (AIHW, 2015)
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-five (20%) had recently experienced a mental health problem, which is lower 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 by far (depression 80%; anxiety 70%). Half (50%) of those who experienced a mental health problem sought assistance from a health professional, and one-in-five (20%) had been prescribed medication (most commonly antidepressants and benzodiazepines).

Table 19: Mental health problems among EDRS participants, NT

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

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

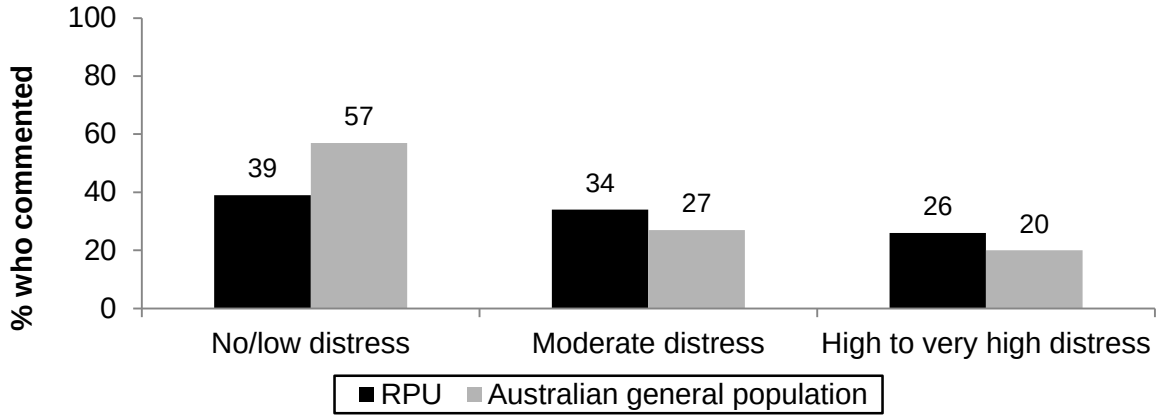
6.5.2 Kessler Psychological Distress Scale (K10)

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 10-44). Two-fifths of participants' scores fell into the 'no/low distress' (39%) category. The remaining participants displayed distress to some degree, including 'moderate distress' (34%) or 'high to very high distress' (26%) (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.

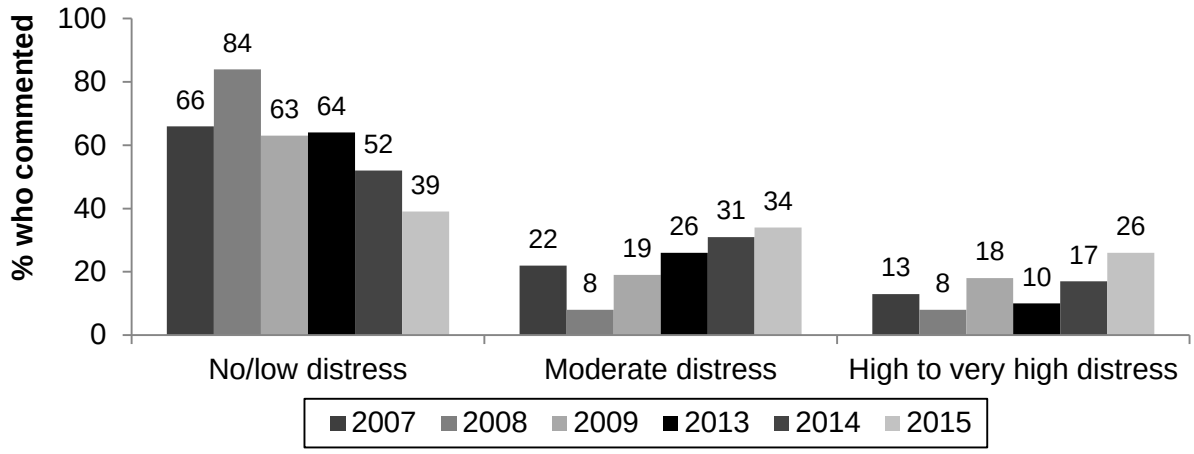
Figure 57: K10 scores for EDRS participants compared with the general Australian population, NT



Source: EDRS participant interviews 2015; Australian Institute of Health and Welfare (2014)

Figure 58 presents data across time on the proportions of each sample from 2007 to 2015 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 2007, 2008, 2009, 2013, 2014, 2015

7 RISK BEHAVIOURS

Summary:

- Sixteen per cent had ever injected a drug and 9 participants had done so recently.
- Most of the sample had recently had penetrative sex with a casual partner. Less than half the sample did not use a sexual barrier on the last occasion (regardless of whether or not they were intoxicated).
- Of the 89 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 vast majority (82%) of the group fell in the 'harmful drinking' range.
- Fourteen per cent of the sample scored within the problematic dependent ecstasy use category and 22% scored within the problematic dependent methamphetamine use category.

7.1 Injecting risk behaviour

Sixteen per cent of participants had ever injected a drug and 9% had done so within the past six months (Table 20).

Table 20: Injecting risk behaviour among EDRS participants, NT

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=101)**
Ever injected (%)	26	16	31	16	4	**16**
Injected last 6 mths (%)	15	7	25	4	2	**9**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

7.1.1 Lifetime injectors

Patterns of lifetime injecting drug use

The median age of initiation for respondents who had ever injected was 20 years (range 14-23). Of these participants (n=16), almost half reported that the first drug injected was speed (n=7), with the other participants reporting steroids (n=4), other opiates (n=2), heroin (n=1), crystal methamphetamine (n=1) or pharmaceutical stimulants (n=1).

7.1.2 Recent injectors

Patterns of recent injecting drug use

Participants who had injected a drug in the six months prior to the interview (n=9) reported having injected any drug a median of 20 times (range 2-38) over this period. Participants were asked about the last time they had injected a drug. Participants reported last injecting steroids (44%), followed by speed (22%), crystal methamphetamine (22%) and heroin (11%). The majority last injected in their own home (89%).

Injecting risk behaviour

None of the respondents reported having used a needle after someone else in the past six months. Four participants reported using injecting equipment after someone else had used it, including filters, water and swabs.

Context of injecting

Five participants reported usually injecting alone and the other four recent injectors reported commonly injecting with their close friends and regular sex partner. The majority reported that they had not injected while ‘under the influence’ or ‘coming down’ from ecstasy and other drugs over the past six months (67%).

Obtaining needles

Respondents were asked to identify where they had obtained needles from over the preceding six months. Participants most commonly identified the chemist (n=3), NSP (n=2), hospital (n=1), a medical centre (n=1), a friend (n=1) or a family member (n=1).

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 (80%) 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 80 participants who reported penetrative sex with a casual partner, the vast majority (96%) reported having done so while under the influence of alcohol or drugs (Table 21). The drugs most commonly used were alcohol, ecstasy, cannabis and crystal methamphetamine.

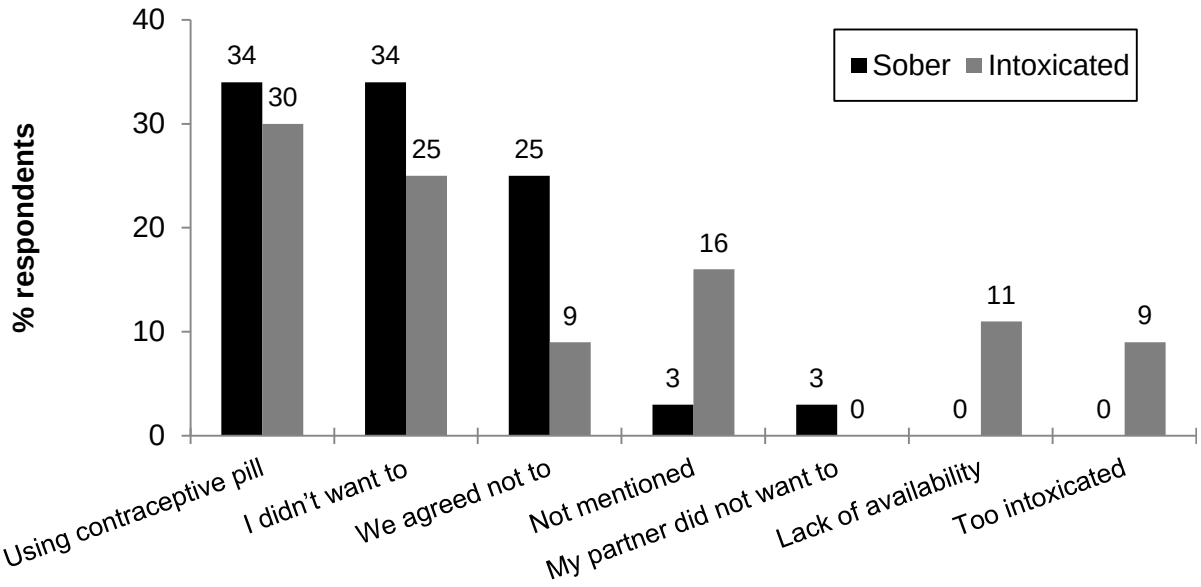
Table 21: Trends in sexual activity with casual partners in the past six months among EDRS participants, NT

	2007 (N=67)	2008 (N=55)	2009 (N=67)	2013 (N=43)	2014 (N=99)	**2015 (N=100)**
Casual penetrative sex (%)	92	62	60	70	72	**80**
No. of sexual partners (%)[*]						
1 person	38	21	28	7	14	**10**
2 people	13	32	22	12	19	**21**
3-5 people	25	32	22	26	42	**27**
6-10 people	16	12	15	21	14	**13**
10+ people	8	6	11	5	11	**9**
Penetrative sex with casual partner while on drugs[*]	97	79	72	84	82	**96**
Drugs used (%)						
Alcohol	72	85	56	35	75	**86**
Ecstasy	85	82	88	62	44	**53**
Cannabis	38	7	18	42	32	**51**
Crystal methamphetamine	3	-	6	12	17	**19**
Cocaine	-	-	-	19	5	**13**
LSD	-	-	-	12	9	**4**
Speed	22	4	21	8	9	**9**
MDA	-	-	-	-	7	**-**
GHB	-	-	-	-	2	**3**
Mushrooms	-	-	-	-	2	**-**
Ketamine	-	-	-	4	-	**5**
Base	2	-	6	-	-	**-**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015
[*] 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. Similar proportions of the sample reportedly used a protective sexual barrier when they were sober (44%) and when they were last under the influence of drugs or alcohol (43%). The major reasons for not using protection were either that they were already using the contraceptive pill or they did not want to use a protective sexual barrier (Figure 59).

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



Source: EDRS participant interviews 2015

Lastly, participants were asked about their sexual health check-up history. Two-thirds of the sample (66%) 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, 21% of the sample has been diagnosed with a sexually transmitted infection (STI), of which, 3% of diagnoses had been made in the last year (all were chlamydia).

7.3 Driving

In 2015, participants were asked a series of questions regarding driving and the use substances (Table 22). The majority (87%) had driven a vehicle in the preceding six months. Of those who had driven, over half (59%) had done so over the legal blood alcohol limit.[16] Those who had driven over the legal limit reported having done this on a median of 4 occasions (range 1-48) in the preceding six months, and the majority (74%) were on their full drivers licence. One-third (34%) of those who had driven during the last six months had been subject to a roadside breath test within that time. Two participants reported having tested over the legal blood alcohol limit at least once.

Approximately two-thirds (62%) of those who had recently driven had done so after using an illicit drug on a median of 5 occasions (range 1-180). The drugs most commonly used prior to driving included cannabis (72%) and ecstasy (46%) (Table 24).

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

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	**2015 (N=101)**
Driven a vehicle in the past six months (%)	82	86	73	80	**87**
Driven over the limit of alcohol* (%)	74	30	88	54	**59**
Driven after taking an illicit drug* (%)	76	49	55	36	**62**
Of those who had driven after taking a drug:					
Drug (%)	n=41	n=23	n=27	n=13	**n=54**
Cannabis	63	17	41	62	**72**
Ecstasy	76	91	85	46	**46**
Cocaine	2	-	-	15	**13**
Crystal methamphetamine	10	-	11	8	**13**
Speed	46	4	26	39	**9**
LSD	15	4	4	8	**7**
Oxycodone	-	-	-	-	**4**
Benzodiazepines	-	-	-	8	**2**
Base	15	4	7	-	**2**
Heroin	-	-	-	-	**2**
Morphine	-	-	-	-	**2**
Mushrooms	-	-	-	8	**-**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2015
* Of those who had driven a car in the last six months

Participants were asked questions focusing on the last occasion on which they drove after taking an illicit drug. The drugs reported as having been taken on the last occasion were cannabis (67%), ecstasy (32%), speed (31%), cocaine (7%) and crystal methamphetamine (7%). Participants reported having driven a median of 60 minutes (range 0-2880) after taking an illicit drug. Only five participants who had driven a vehicle in the past six months had been tested by a police roadside drug testing van in their lifetime. All five participants reported a negative result from being tested for driving under the influence of illicit drugs.

[16] 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 by the World Health Organization 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 15 (range 2-34). The majority (82%) 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 current sample, one-fifth (18%) scored in zone 1 (low risk drinking or abstinence), two-fifths of the sample (38%) scored in zone 2 (alcohol in excess of low-risk guidelines), one-tenth (12%) scored in zone 3 (harmful or hazardous drinking) and the remaining one-third (33%) scored in zone 4 (possible alcohol dependence – may be referred for evaluation and possible treatment).

7.5 Ecstasy and methamphetamine dependence

In 2015, participants were asked questions from the Severity of Dependence Scale (SDS) adapted to investigate ecstasy and methamphetamine dependence. The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. The SDS focuses on the psychological aspects of dependence, including impaired control of drug use, and preoccupation with, and anxiety about, use. The SDS is a reliable measure of the dependence construct with demonstrated psychometric properties for heroin, cocaine, amphetamine and methadone maintenance patients (Dawe, Loxton, Hides, Kavanagh, & Mattick, 2002). A total score was created by summing responses to each of the five questions. Possible scores range from 0 to 15.

To assess ecstasy dependence, a cut-off score of 3 or more was used, as this has been found to be a good balance between sensitivity and specificity for identifying problematic dependent ecstasy use (Bruno, Gomez, & Matthews, 2011). Fourteen per cent of the 101 NT participants recorded a score of 3 and above. The median ecstasy SDS score was 0 (range 0-5). Half of participants (54%) obtained a score of zero on the ecstasy SDS and a further 18% obtained a score of 1 on the scale, indicating the majority of respondents reported no or few symptoms of dependence in relation to ecstasy use. These findings are supported by responses of the majority of participants reporting ‘never or almost never’ thinking that their use of ecstasy was out of control and that they would find it ‘not difficult to stop or miss a prospective dose of ecstasy’ (85% respectively).

To assess methamphetamine dependence, the cut-off of 4 and above, which is a more conservative estimate, has been used previously in the literature as a validated cut-off for methamphetamine dependence (Bruno et al., 2009b; Topp & Mattick, 1997). Of the 51 participants who completed this section, 22% per cent scored 4 or above. The median methamphetamine SDS score was 1 (range 0-15). Half of participants (51%) obtained a score of zero on the methamphetamine SDS and a further 8% obtained a score of 1 on the scale, indicating the majority of respondents reported no or few symptoms of dependence in relation to methamphetamine use. These findings are supported by responses of the majority of participants reporting ‘never or almost never’ thinking that their use of methamphetamine was out of control and that they would find it ‘not difficult to stop or miss a prospective dose of methamphetamine’ (75% respectively). However, one-third (37%) reported that they thought their methamphetamine use was out of control either sometimes (24%), often (8%) or always (6%).

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

- Fourteen participants had reportedly been arrested over the past year.
- One-third had committed a crime within the past month; most commonly drug dealing and property crimes.
- In 2013/14, there was a decrease in the consumer arrests in the NT for amphetamines compared to 2012/13. 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, and one-third of participants had perceived changes in drug use among their social group.

8.1 Reports of criminal activity among EDRS participants

Fourteen per cent of EDRS participants interviewed in 2015 had reportedly been arrested over the preceding 12 months. These arrests were for a number of offences, including public order (50%), violent crime (43%), alcohol and driving (29%), property crime (21%), the use/possession of drugs (14%), the use/possession of weapons (14%), drug dealing/trafficking (7%), and other drugs and driving (7%).

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 2015.

Table 23: Criminal activity reported by EDRS participants, NT

	2007 (N=66)	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	**2015 (N=99)**
Any crime past month (%):	18	18	33	13	30	**32**
Drug dealing	10	18	31	7	19	**26**
Property crime	5	0	3	7	10	**11**
Fraud	0	2	0	2	0	**1**
Violent crime	1	0	5	2	9	**6**
Victim of a violent crime	*Data not collected until 2015*					**11**
Arrested past 12 months (%)	5	2	9	7	18	**14**

Source: EDRS participant interviews 2007, 2008, 2009, 2013, 2014, 2015

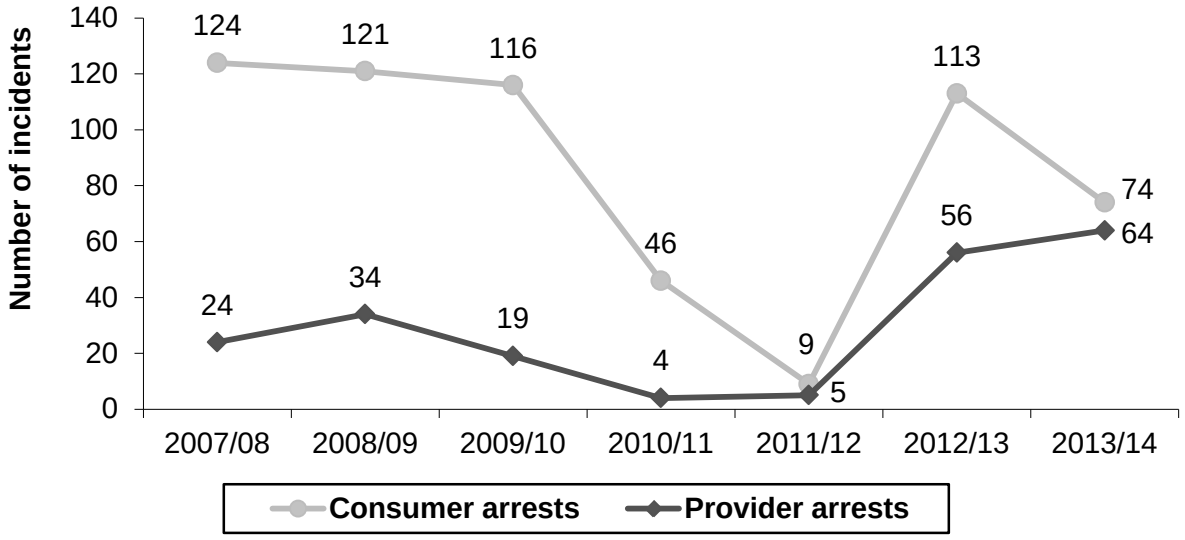
Twenty-six participants had dealt drugs in the month leading up to the interview. Of these, the majority had dealt drugs less than once a week (62%). Seven participants reported dealing a few times per week. Eleven EDRS participants had committed a property crime over the last month, which was mostly less than once per week (n=4) or once a week (n=4). The participant who had committed fraud or violent crime over the last month reported doing so less than once a week. Lastly, eleven participants reported being the victim of a violent crime, with all reporting the perpetrator was either under the influence of alcohol and drugs (91%) or alcohol only (9%).

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 decrease in the number of consumer arrests in the NT from 2012/13 to 2013/14, while provider arrests remained stable.

Figure 60: Recorded incidents of amphetamine arrests in the NT, 2007/08-2013/14

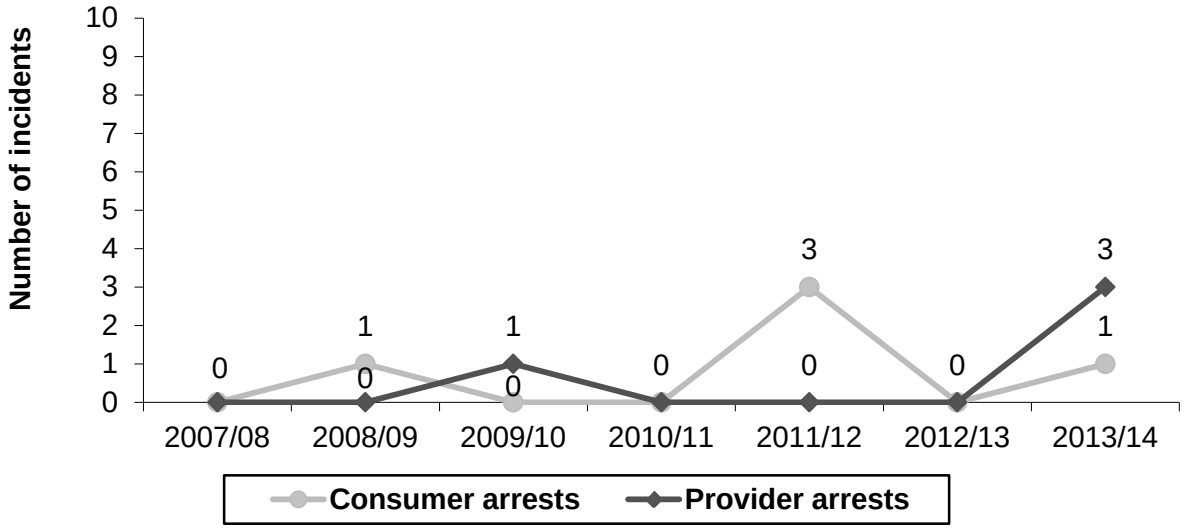


Source: ACC (2009, 2010, 2011, 2012, 2013, 2014, 2015)

8.2.2 Cocaine

The number of recorded incidents for cocaine arrests has remained low and stable since in the NT 2007/08 (Figure 61).

Figure 61: Recorded incidents of cocaine arrests in the NT, 2007/08-2013/14

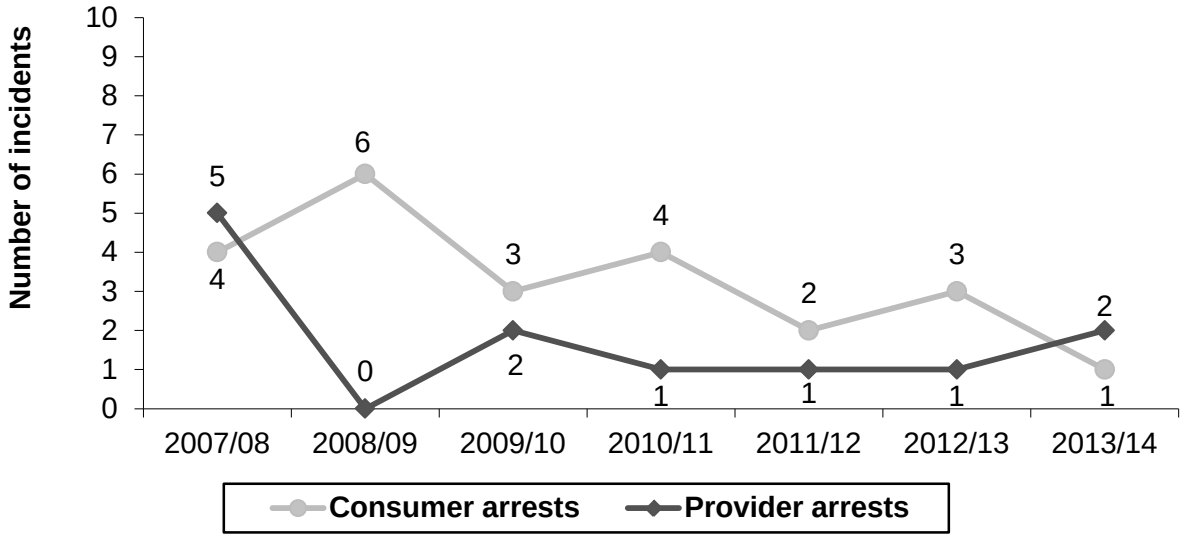


Source: ACC (2009, 2010, 2011, 2012, 2013, 2014, 2015)

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, 2007/08-2013/14

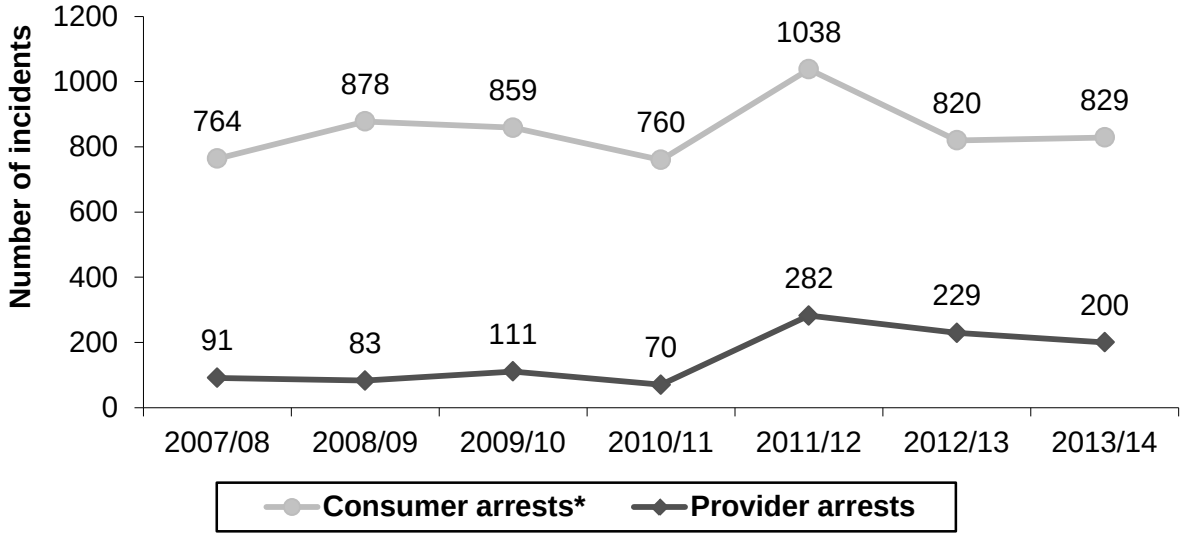


Source: ACC (2009, 2010, 2011, 2012, 2013, 2014, 2015)

8.2.4 Cannabis

Figure 63 shows the number of police-recorded consumer and provider arrests of cannabis in the NT. Compared to 2012/13, the number of arrests remained mostly stable for both consumer and provider offences in 2013/14.

Figure 63: Recorded incidents of cannabis arrests in the NT, 2007/08-2013/14

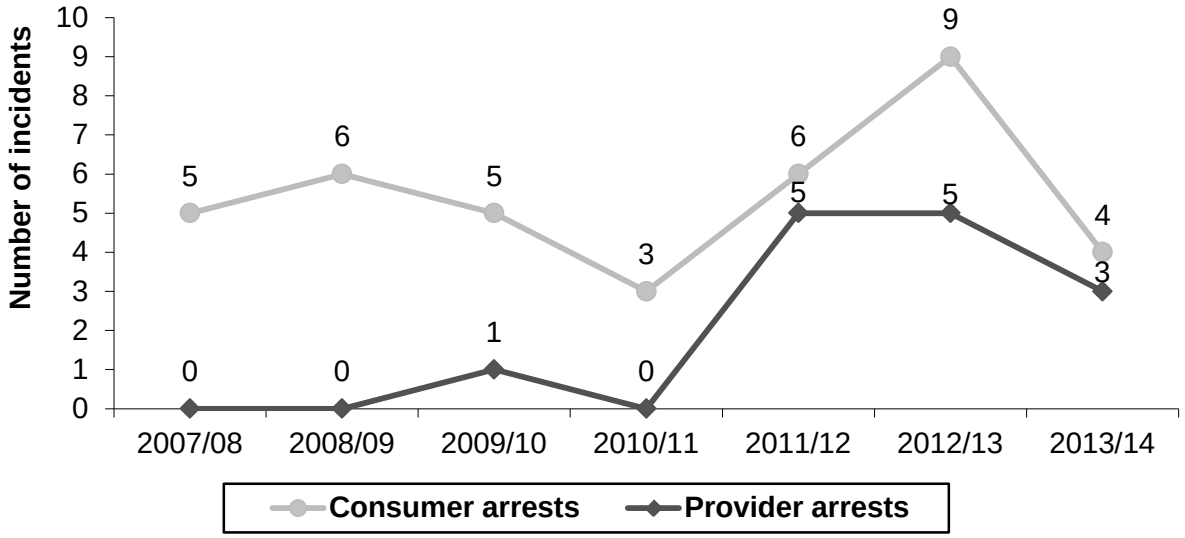


Source: ACC (2009, 2010, 2011, 2012, 2013, 2014, 2015)
* Consumer arrests for cannabis includes drug infringement notices

8.2.5 Steroids

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

Figure 64: Recorded incidents of steroid arrests in the NT, 2007/08-2013/14



Source: ACC (2009, 2010, 2011, 2012, 2013, 2014, 2015)

8.3 Perceptions of changes in peer drug use

The majority of participants (80%) reported that half or more of their friends had used ecstasy during the previous six months (12% ‘all’; 52% ‘most’; 17% ‘about half’). One-fifth (20%) of participants reported that ‘a few’ of their friends had used ecstasy.

One-third (35%) of participants had perceived changes in drug use amongst their social group. Some of the more common themes in participants’ comments included the following:

- Noticeable increase in the use of crystal methamphetamine, with one participant reporting that younger individuals were now using crystal methamphetamine.
- Reports that shelving/shafting was becoming a more popular route of administration, although the specific drug being shelved was not specified.
- Increasing synthetic drugs (NPS) available in Darwin.

9 SPECIAL TOPICS OF INTEREST

Summary:

- Online purchasing and NPS use:
  - Two-fifths of NT participants reported that their friends had purchased an illicit drug online.
  - Sixteen per cent of the NT EDRS sample reported that they had purchased an illicit drug online, and 11 participants had done so in the past 12 months.
  - Purchases of illicit drugs were made from either International webstores or dark net marketplaces.
- NPS health policy:
  - Very few participants reported that any of the NPS were legal, with higher proportions correctly reporting that these substances are illegal. However, often the majority were unsure of the legal status of various NPS.

9.1 Online purchasing and NPS use

In 2015, the EDRS continued to monitor the practice of purchasing drugs online among recreational drug users in Australia. Of particular interest is the use of 'dark web' market places that are only accessible using a specially routed, anonymous connection, making it possible for people around the world to get illicit drugs like MDMA and cocaine delivered to their door (Burns & Van Buskirk, 2013). There is particular focus, given the changes in legislation and negative health effects of particular NPS (such as NBOMe and synthetic cannabis), on the attainment of NPS online. This aim of this module is to investigate: (1) prevalence of online drug purchasing among the 2015 EDRS sample and (2) patterns of online drug purchasing, with a focus on NPS.

In 2015, two-fifths (44%) of NT participants reported that their friends had purchased an illicit drug online (a few 41%, about half 2% and most 1%). Participants were then asked about their personal lifetime purchase of an illicit drug online to which 16% of the NT EDRS reported that they had. Eleven participants reported that they had purchased an illicit drug online in the past 12 months. The majority of participants who had purchased in the past 12 months had done so more than once (see Table 24).

Table 24: Number of times recently purchased illicit drugs online, NT

How many online purchases of illicit drugs in the past 12 months? (%)	2015 (N=11)
Once	18
Twice	36
3-5 times	9
More than 5 times	36

Source: EDRS participant interviews 2015

Purchases of illicit drugs were made from either International webstores ('surface web'; n=1) or dark net marketplaces such as the Silk Road (n=5) or other dark net marketplaces (not specified) (n=5). If participants had purchased from a dark net marketplace, they were asked to specify whether the retailer they purchased from was international (n=5) or both Australian and international (n=2).

Participants were asked how long ago they had used an NPS and which NPS this was. The median number of days ago people reported using an NPS was 144 days (range 36-2160 days) and the NPS most reportedly used were synthetic cannabis (27%), the 2C-X family (23%) and mephedrone (13%). Participants were asked if the NPS they had last taken was personally purchased online (n=51), of whom 10% (n=5) reported that it had been. The remaining participants (n=42) were asked if the person from whom they last purchased an NPS had purchased it online, to which 10% (n=4) reported that it had been; the remainder reported negatively or that they did not know.

Table 25: Illicit substances reportedly purchased online recently, NT

Online substance purchased	2015 (N=11)
Traditional illicit substances (%)	N=11
Ecstasy (any form)	55
Cocaine	46
Ketamine	27
LSD	27
Steroids	27
Opioids	18
Pharmaceutical opioids	18
Cannabis	9
Benzodiazepines	9
Pharmaceutical stimulants	9
Methamphetamine (any form)	0
NPS illicit substances (%)	N=0

Source: EDRS participant interviews 2015

All participants that reported NPS use (N=56) were asked about their last occasion of use and whether any adverse unexpected effects were experienced (see Table 26). The most common adverse effect experienced by NT participants was paranoia (7%), followed by panic (4%), nausea or vomiting (4%), restless or anxious (4%) and chest pain (4%).

Table 26: Unexpected adverse NPS effects experienced on last occasion of use, NT

Unexpected adverse effect (%)	2015 (N=56)
Paranoia	7
Panicky	4
Nausea or vomiting	4
Restless or anxious	4
Chest pain	4
Shortness of breath	2
Seeing things that were not there	2
Overheating	2
Other effects	14

Source: EDRS participant interviews 2015
^ = small numbers interpret with caution
'Other effects' included: feeling down, burning nostrils, passing out and hallucinations.

9.2 NPS health policy

The laws about selling and possessing NPS are complex. We are interested in finding out what people understand the laws to be at the moment. The drugs we include below are ones that were most commonly reported in last year's EDRS.

The drugs asked about in the 2015 survey were 2CB, 2CI, DMT, mephedrone and NBOMe. Table 27 below illustrates participant responses. For most NPS, the largest proportion of participants were 'unsure' of the legal status of individual substances (most notably 2CB, 2CI and NBOMe). For DMT and mephedrone, similar proportions reported that these substances were either 'illegal' or they were 'unsure' whether they were legal in the NT. These findings indicate that overall, there is a lack of understanding among NT RPU regarding the legality of emerging NPS.

Table 27: Participant knowledge of the legality of NPS in the NT

%	**2014 (N=100)**	**2015 (N=100)**
2CB		
Legal	1	1
Illegal	37	44
Unsure	62	55
2CI		
Legal	1	0
Illegal	28	29
Unsure	71	71
DMT		
Legal	2	3
Illegal	53	55
Unsure	45	42
Mephedrone		
Legal	6	8
Illegal	53	46
Unsure	41	47
NBOMe		
Legal	*Data not collected until 2015*	0
Illegal		23
Unsure		77

Source: EDRS participant interviews 2014, 2015

9.3 Cognitive enhancers

Cognitive enhancing substances (CEs) are drugs that have the potential to improve intellectual ability across various cognitive domains (Smith et al., 2014). Whether CEs actually improve cognitive performance remains unclear. There is some evidence that at least some CEs improve cognitive performance in limited cognitive domains (Farah, Smith, Ilieva, & Hamilton, 2014). It is not known if these results are applicable to real-world settings. Despite mixed evidence of their efficacy, users may perceive them as effective (Ragan, Bard, & Singh, 2013).

Only two studies have examined the prevalence of CE use in Australia. Both studies used university samples, with estimates varying from 4% to 8.5% (Joshi, 2011; Mazanov, Dunn, Connor, & Fielding, 2013). Despite these varying estimates, it is clear that CE use, at least among Australian university students, is not insignificant.

All CEs are associated with a risk of harm, to varying degrees of severity. Case studies have documented adverse physical and/or psychiatric harms associated with CEs, some of which may be severe and/or permanent (Berman, Kuczenski, McCracken, & London, 2008; Oskooilar, 2005). Harms may also occur when CEs are illicitly obtained online or via others' prescriptions (Ragan et al., 2013).

At present, very little is known about the prevalence of CE use in Australia or how they are being used. EDRS participants are a recreational drug using sample, many of whom have performance demands from study or fulltime work placed upon them. There is some evidence that use of CEs may be more prevalent among illicit drug users (Mazanov et al., 2013). The EDRS investigated the prevalence of CE use in this group, along with their motivations for use and associated potential harms in order to better inform future harm reduction initiatives. Due to small numbers (n<10), NT findings will not be presented; for national findings, please refer to Sindicich, Stafford and Breen (2016).

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