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**NT TRENDS IN ECSTASY AND RELATED  
DRUG MARKETS 2010  
Findings from the Ecstasy and Related Drug  
Reporting System (EDRS)**

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**NT TRENDS IN ECSTASY AND  
RELATED DRUG MARKETS  
2010**



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

**Benjamin Phillips and Lucy Burns**

National Drug and Alcohol Research Centre  
University of New South Wales

**NDARC Technical Report No. 71**

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## ABBREVIATIONS

1,4B	1,4-butanediol
ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ACS	Australian Customs Service
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGAL	Australian Government Analytical Laboratories
AIHW	Australian Institute of Health and Welfare
AOD	alcohol and other drug(s)
AODTS	Alcohol and Other Drug Treatment Services
AUDIT	Alcohol Use Disorders Identification Test
A&TSI	Aboriginal and/or Torres Strait Islander
BBVI	blood-borne viral infection(s)
CNS	central nervous system
DIN	Drug Infringement Notice(s)
DSM-III-R	Diagnostic and Statistical Manual of Mental Disorders-III-Revised
DUI	driving under the influence
E	ecstasy
EDRS	Ecstasy and related Drugs Reporting System
ERD	Ecstasy and related drug(s)
FDS	Family Drug Support
GBL	gamma-butyrolactone
GHB	gamma-hydroxy-butyrate
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
IDRS	Illicit Drug Reporting System
IDU	injecting drug use
KE	key expert(s)
K10	Kessler Psychological Distress Scale
LSD	<i>d</i> -lysergic acid (lysergic acid diethylamide)
MDA	3,4-methylenedioxyamphetamine
MDEA	3,4-methylenedioxyethylamphetamine
MDMA	3,4-methylenedioxymethamphetamine
NDARC	National Drug and Alcohol Research Centre
NDS	National Drug Strategy
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NESB	non-English speaking background
NSP	Needle and Syringe Program(s)
NSW	New South Wales
NT	Northern Territory

NTAODTS	Northern Territory Alcohol and Other Drug Treatment Services
OD	overdose
PCP	phencyclidine
PDI	Party Drugs Initiative
PGSI	Problem Gambling Severity Index
PMA	para-methoxyamphetamine
PNS	peripheral nervous system
PWI	Personal Wellbeing Index
PWID	people who inject drugs
RBT	random breath test(ing)
REU	regular ecstasy user(s)
SDS	Severity of Dependence Scale
SMS	short message service
STI	sexually transmitted infection(s)
THC	delta-9-tetrahydro-cannabinol

## GLOSSARY OF TERMS

Binge	Use over 48 hours without sleep
Eightball	3.5 grams
Halfweight	0.5 gram
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 <i>Methodology</i> section for further details)
Key expert(s)	Also referred to as KE; persons participating in the Key Expert Survey component of the EDRS (see <i>Methodology</i> 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: injecting, smoking, snorting, snorting/shelving/shafting and/or swallowing
Opiates	Opiates are direct derivatives of the opium poppy, processed through purifying the various chemicals in the poppy.

Opioids	Opioids include all opiates but also include chemicals that have been synthesised in some way; e.g. heroin is an opioid but not an opiate, morphine is both an opiate and opioid.
Point	0.1 gram although may also be used as a term referring to an amount for one injection
Recent injection	Injection (typically intravenous) in the six months preceding interview
Recent use	Use in the six months preceding interview via one or more of the following routes of administration: injecting, smoking, snorting shelving/shafting and/or swallowing
Shelving/shafting	Use via insertion into vagina (shelving) or the rectum (shafting)
Use	Use via one or more of the following routes of administration: injecting, smoking, snorting, shelving/shafting and/or swallowing

### **Guide to days of use/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

Common terms used throughout the report	
<b>Regular ecstasy user (REU)</b>	a person who has used ecstasy on six or more separate occasions in the previous six months
<b>Recent use</b>	used at least once in the previous six months
<b>Sentinel group</b>	a surveillance group that points towards trends and harms
<b>Median</b>	the middle value of an ordered set of values
<b>Mean</b>	the average
<b>Frequency</b>	number of occurrences within a given time period

The 2010 NT Trends in Ecstasy and Related Drug Markets report represents the eighth year in which data has been collected in the Northern Territory (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' (MDMA) and other related drugs such as methamphetamine, cocaine, gamma-hydroxy-butyrate (GHB), 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); (b) surveys with key experts (KE) who have contact with REU through the nature of their work; and (c) the analysis of existing data sources that contain information on ecstasy and other drugs. REU are recruited because they are considered a sentinel group to detect illicit drug trends. The information from REU 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.

In 2010, only 27 REU were interviewed in Darwin for the EDRS despite the practice of similar recruitment methodology to previous years. The EDRS attempts to recruit 100 REU in each state and territory of Australia. Recruitment of REU appears to be much more difficult in Darwin, possibly due to a number of factors, such as the size of the population (smallest capital city in Australia), remote location or the price of ecstasy (greater in Darwin than in other capital cities). Recruitment methods applied in 2010 failed to attract the numbers seen in previous years (n=67 in 2009) which may have been due in part to: a decline in the frequency of use of ecstasy in potential candidates, an ineligibility of participants due to being of a traveller/backpacker status, and a change in interviewer personnel. As a result of the low number of participants, comparisons with previous years have been withheld and trends should be interpreted with caution.

Furthermore, whilst the EDRS attempts to interview at least 20 KE in each capital city, only eight were interviewed in Darwin. Attempts to locate and interview KE who were knowledgeable in ERD also proved difficult.

### **REU demographic and drug use characteristics**

The REU interviewed in 2010 were primarily young (range =19-34 years), predominately female, and all from English-speaking backgrounds. A very small minority identified as Aboriginal and/or Torres Strait Islanders (A&TSI). The vast majority (89%) of the sample identified as heterosexual. Participants mostly had finished secondary school education and the majority held tertiary qualifications and engaged in full-time employment. No participants were currently in any form of drug treatment and only two had a prior prison history.

### **Consumption patterns of drug use among REU**

Ecstasy was the drug of choice for one-third of the REU interviewed, followed equally by cocaine and cannabis. The proportion of REU who had ever injected a drug was approximately one-fifth (19%). As in previous years, methamphetamine powder (speed) was the drug most commonly first injected.

Tobacco was used on the highest median number of days over the six months prior to the interview (approximately daily) followed by alcohol and cannabis. The drug used at the earliest mean age was alcohol (14 years), followed equally by cannabis and tobacco (15 years).

## Ecstasy

Ecstasy was first used at a mean age of 18 years with participants moving toward regular<sup>1</sup> use within two years. Ecstasy was used on a median of 12 days over the preceding six months. One-quarter (26%) reporting using ecstasy weekly or more and the majority of participants reported typically using more than one tablet in a normal session. The median number of tablets used was two in an average session and three in a heavy session of use. Tablets were most commonly swallowed; however, snorting, shelving/shafting (vaginal/anal administration) and smoking were also mentioned.

Forty-one percent of those who had recently binged reported having used ecstasy during a binge episode and the majority (86%) reported typically using other drugs *with* ecstasy. Four-one percent also reported typically using other drugs when *coming down*<sup>2</sup> from ecstasy. Alcohol was the drug most commonly used *with* ecstasy, while cannabis was most commonly reported *to come down from* it. Ecstasy was most frequently used in nightclubs, followed by private locations such as a friend's home and own home.

### Price, purity and availability of ecstasy

The median price of ecstasy was \$35 in 2010 and 64% of participants reported that the price of ecstasy had remained stable over the preceding six months. Participants reported that, during this time, they had purchased a median of five tablets on each occasion and that they had purchased ecstasy from a median of three people. Three-quarters (74%) of participants usually purchased ecstasy for themselves and others (rather than solely for themselves or solely for others).

The purity of ecstasy in Darwin was reported to be low by half of participants (52%) and to have remained largely stable over the preceding six months. There were mixed reports on the availability of ecstasy. Ecstasy was most commonly purchased from friends in friends' homes.

The number of ecstasy seizures reported by the NT Police decreased from 61 in 2008/09 to 28 in 2009/10 and there also was a decrease in the average weight (15 grams; range: 0.2-147 grams) per seizure<sup>3</sup>, following a large seizure in 2008/09.

KE reports on the age of ecstasy users indicated that ecstasy was used by people of a broad age bracket (mid-teens to mid-30s). Many KE stated that they noticed a higher proportion of male ecstasy users than females. Almost all KE agreed that the use of ecstasy within the Indigenous population was relatively low.

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<sup>1</sup> Regular use is defined as at least one per month

<sup>2</sup> The acute recovery period following use of ecstasy.

<sup>3</sup> NB – there were two seizures made in 2008/09 which were much larger than the other seizures made. When these seizures were removed from the analysis, the average weight per seizure fell to 79.8 grams.



## **Methamphetamine**

The 2010 EDRS distinguished between three different forms of methamphetamine: methamphetamine powder (**speed**), methamphetamine base (**base**) and crystal methamphetamine (**ice/crystal**). Caution should be used when interpreting data on the price, purity and availability of methamphetamines since only small numbers of participants reported on these.

In 2010, all (100%) of the sample reported the lifetime use of **speed** and 59% reported having used it recently. Speed was used on a median of six days over the preceding six months. Participants reported using a median of 0.5 of a gram (5 points) in an average use session and one gram in a heavy session. Only one participant reported speed as their drug of choice and 30% reported having used speed during a recent binge episode.

Speed was purchased at a median price of \$350 per gram and the majority of participants reported that this price had remained stable over the preceding six months. Half of participants who commented on speed purity reported it to be medium; however, reports on changes in the purity of speed over the past 6 months were mixed. Speed was reported to be easy to very easy to access and to have been so for the preceding six months.

Approximately one-half (52%) of REU interviewed had ever used **base** and approximately one-third (30%) had done so over the preceding six months. Base was used on a median of two days over this period and was first used at a mean age of 22. Only one participant reported having recently used base during a binge episode.

There were insufficient numbers of participants able to comment on the price, purity or availability of base.

Approximately one-half (52%) of REU interviewed had ever used **ice/crystal** and one-fifth (22%) reported recent use. Ice/crystal was used on a median of four days over this period and first used at a mean age of 21.

Only low numbers of participants were able to comment on the price, purity or availability of ice/crystal.

There were only a few KE able to comment on methamphetamines in the NT. Of those able to, comment there was a consensus that there had been an increase in the availability of base in Darwin.

The number of meth/amphetamine seizures made by NT Police remained stable in the 12 months to June 2010, while the average weight of seizures increased over the same period.

## **Cocaine**

More than three-quarters of participants in 2010 reported lifetime use of cocaine, and almost one-half (52%) had used it over the preceding six months. Cocaine was first used at a mean of 20 years of age and was the drug of choice for one-fifth (22%) of participants and five (19%) participants reported having recently binged on cocaine. Cocaine was used on a median of two days over the preceding six months and only one participant reported fortnightly or more use.

Only a small number of participants were able to comment on the price, purity and availability of cocaine; however, the majority were in agreement that it was difficult to access cocaine in Darwin.

Comments on cocaine use among REU in Darwin by KE were extremely limited. They agreed that it was not readily available and that use was very low.

The number of cocaine seizures made by NT Police has been very low since 2005/06 and in 2009/10 this remained consistent in the 12 months to June 2010.

## **Ketamine**

Lifetime use of ketamine was reported by 41% of participants in 2010; however, only two participants reported having used ketamine over the six months preceding interview.

## **GHB**

As in the previous three years, no participants reported having recently used GHB and only five participants reported having ever used it. No participants were able to comment on the price, purity or availability of GHB in Darwin.

## **LSD**

Sixty-seven percent of the sample reported lifetime use of LSD and one-quarter (26%) reported having used it recently. The frequency of use of LSD was low at a median of one day over the preceding six months. Only a small number of participants were able to comment on the price, purity and availability of LSD in Darwin.

The number and average weight of LSD seizures made by the NT police continues to remain low.

## **MDA**

While approximately one-quarter of all participants reported having ever used MDA, only two participants had done so over the preceding six months.

## **Cannabis**

The reported lifetime use of cannabis remained high in 2010 with all (100%) participants reporting lifetime use and 70% of participants reported recent use. Cannabis had been used on a median of 24 days over the preceding six months. Cannabis was the drug of choice for

22% of participants and 15% of those who had recently binged had used cannabis during a binge episode. More than half (56%) of recent users of cannabis used it on a fortnightly or more basis. Cannabis was most commonly smoked, although three participants reported having recently swallowed it. Recent users who quantified their use in terms of cones reported having smoked a median of one cones on their last occasion of use. Those who quantified their use in terms of joints reported having smoked a median of 1.5 joints on their last occasion of use.

Again in 2010, the EDRS made a distinction between hydroponic cannabis (hydro) and outdoor-grown bush cannabis (bush). Participants were asked to distinguish between these forms when commenting on the price, purity and availability of cannabis. Only a small number of participants were able to comment on the price, purity and availability of cannabis in Darwin.

There was a general consensus among KE that use was primarily occurring among males, aged between late teens and mid-30s. Among KE that could comment, price was seen as stable and the availability of bush grown cannabis was believed to have increased.

In 2009/10, the number of cannabis seizures made by the NT Police remained stable, a decrease in both the total weight and the average weight per seizure compared to the same period in 2008/09.

## **Patterns of other drug use**

### **Emerging psychoactive substances**

Only one participant had reported lifetime use of the psychedelic phenethylamines- 2C-B, 2C-E and 2C-I -but no participants had reported any recent use. One participant reported both lifetime and recent use of mephedrone.

### **Alcohol**

The entire sample of REU in 2010 reported the lifetime use and recent use of alcohol (both 100%). Alcohol was first used at mean age of 14 years and used on a median of 72 days (twice weekly) over the preceding six months and 41% of those who had recently binged reported having used it during a binge episode and 17% reported usually consuming more than five standard drinks when bingeing. Alcohol was commonly used both *with* ecstasy and *to come down from* it; however, it was only the drug of choice for one participant. The use of alcohol appears to have remained steady and highly prevalent among REU in the NT.

### **Tobacco**

The vast majority (96%) of the sample reported having ever used tobacco and more than three-quarters (79%) reported having done so recently. Tobacco was used on a median of 172 days (approximately daily) over the preceding six months.

### **Benzodiazepines**

The use of benzodiazepines was not common among REU in Darwin in 2010. While 19% reported lifetime use of benzodiazepines, only two participants had used them over the preceding six months.

### **Amyl nitrite**

Over one-third (37%) of the sample reported lifetime use of amyl nitrite and 30% of participants reported using it in the preceding six months, yet the frequency of use was low at a median of one day.

### **Nitrous oxide**

One-third (33%) of REU reported the lifetime use of nitrous oxide but only 15% reported having used it recently.

### **Heroin and other opiates**

Only one participant (4%) reported having ever used heroin and no participants reported recent use in 2010. Similarly both lifetime and recent usage of methadone among REU in the NT remains low, with only one participant reporting lifetime and recent use. No participants reported ever or recent use of buprenorphine in 2010. Two participants reported having ever used other opiates and only one reported recent use without a prescription.

### **Antidepressants**

In 2010, only three participants reported having ever used illicit antidepressants and no participants reported having used them recently.

### **Pharmaceutical stimulants**

Approximately one-half (49%) of participants in 2010 reported having ever used pharmaceutical stimulants illicitly and one-fifth (22%) reported having used them over the preceding six months without a prescription.

### **Mushrooms**

Half (52%) of participants interviewed reported having ever used mushrooms; however, only two participants reported having used them over the preceding six months.

### **Over-the-counter codeine**

Forty-four percent of participants reported lifetime use of over-the-counter (OTC) codeine and one-third reported recent use.

### **Steroids**

In 2010 participants were asked about their use of steroids. Two participants reported lifetime use and only one reported recent use of steroids.

## **Energy drinks**

Three-quarters of participants had recently consumed energy drinks and alcohol and 15% had recently binged on them.

## **Health-related trends associated with drug use**

### **Overdose**

Participants were asked if they had ever overdosed on a stimulant drug or a depressant drug. In 2010, approximately one-half of all participants (48%) reported that they had ever (lifetime) overdosed on a stimulant drug a median of ten times (range=1-50). Of these, the majority (85%) had done so in the 12 months prior to interview, all of which were attributed to ecstasy. Approximately one-quarter (27%) reported having ever (lifetime) experienced a depressant overdose on a median of one occasions (range=1-50). Seven of these had done so in the 12 months prior to interview and each of them attributed the overdose primarily to the consumption of alcohol.

### **Help-seeking behaviour**

Only one participant (4%) reported having accessed any health or medical services over the six months preceding the interview in relation to their drug use.

### **Hospital admissions**

#### *Methamphetamines*

The rate of methamphetamine-related hospital admissions in the NT is relatively small and fluctuating compared to the national rate. The NT rate appears to have decreased slightly from a high of 45 per million in 2006/07 to a low of seven per million in 2007/08. Data for 2008/09 was unavailable at the time of writing.

#### *Cocaine*

The NT has had no cocaine-related inpatient hospital admissions since 1996/97 whereas the national rate since 1998/99 shows a fluctuating increase. Data for 2008/09 was unavailable at the time of writing.

#### *Cannabis*

The rate of inpatient hospital admissions where cannabis was involved in the primary diagnosis has been generally increasing across time nationally and in the NT until 2005/06. From 2006/07 and again in 2007/08, the NT decreased to 44 admissions per million. Data for 2008/09 was unavailable at the time of writing.

## **Mental and physical health problems and psychological distress**

### *Kessler Psychological Distress Scale*

In 2010, all 27 participants participated in the Kessler Psychological Distress Scale (K10) survey. Forty-one percent fell into the low/no distress category, 37% fell into the moderate distress

category and 22% fell into the high category. No participants fell into the very high distress category.

#### *Self-reported mental health*

Only four participants (15%) reported having recently experienced a mental health problem. All (100%) of those reporting an issue self-diagnosed depression and three people reported anxiety. Three of those who had experienced a mental health problem had sought the help of a health professional.

### **Risk behaviours**

#### **Injecting risk behaviour**

In 2010, less than one-fifth of participants (19%) reported having ever injected a drug and only two participants reported having injected in the last six months. One participant reported speed as the last drug injected and the other nominated steroids. No recent injectors reported having used a needle/syringe or injecting equipment after someone else or having lent or borrowed a needle/syringe.

#### **Sexual risk behaviour**

The majority of the sample (60%) reported having had penetrative sex with a casual partner (i.e. someone who was not a regular partner) in the six months preceding the interview. Only 15% of those who had recently had penetrative sex with a casual partner reported using a protective barrier every time. Of those who had recently had sex with a casual partner, 83% had done so while under the influence of drugs. Among those who had recently had sex while under the influence of drugs, ecstasy was most commonly reported drug used (90%), followed by alcohol (80%). While under the influence of drugs, 11% of REU used protective sexual barriers every time, 44% each used them sometimes and one-third never used them.

#### **Blood-borne viral infections (BBVI) and sexually transmitted infections (STI)**

In 2010 questions on BBVIs and STIs were included for the first time in the EDRS. Forty-three percent of participants reported that they have never been vaccinated for hepatitis B virus (HBV). Participants were also asked if they have been tested for hepatitis C virus (HCV). One-quarter (28%) reported that they had been tested for HCV in the past year. None of those tested reported positive diagnoses of HCV). Half (48%) had never been tested for HIV, one-third (33%) had been tested in the past year and one-fifth (19%) had been tested more than one year ago. None reported that they were HIV positive.

Fifty-nine percent of the sample reported having a sexual health check-up (such as a swab, urine, or other blood test) in the past year and one-fifth had never had a sexual health check-up. The majority had never been diagnosed with a sexually transmitted infection (STI); however, one-fifth had been diagnosed with chlamydia.

## **Driving risk behaviour**

All but one participant (96%) of the sample reported having driven a car over the six months prior to interview. Of those who had driven a car, 81% reported having driven under the influence of alcohol and the vast majority (91%) of these reported having driven over the legal blood alcohol limit on a median of four occasions. Over three-quarters (77%) of those who had driven reported having done so after consuming illicit drugs. Among those who had driven after taking illicit drugs, the majority (80%) reported having driven after using ecstasy, followed equally by cannabis and speed (both 45%).

## **Alcohol Quantity Frequency and Variability Assessment (AQFV)**

The Alcohol Quantity Frequency and Variability Assessment<sup>4</sup> (AQFV), a self-report measure which examines recent alcohol use, was included again in the 2010 EDRS. Participants reported an average of 10 standard drinks per drinking session and half of the median number of drink days were at high risk.

## **The Alcohol Use Disorders Identification Test (AUDIT)**

The AUDIT (Saunders, Aasland et al. 1993) was completed by REU participants in the EDRS for the third year running. The AUDIT was designed by the WHO as a brief screening scale to identify individuals with alcohol problems, including those in early stages. Ninety-two percent of the sample scored eight or more; these are levels at which alcohol intake may be considered hazardous. Table 35 presents an overview of AUDIT scores.

## **Criminal and police activity**

One-quarter (26%) of REU in 2010 reported having recently committed a crime. Among those that did, the type of crime committed most frequently was drug dealing. Very small numbers reported violent crime and property crime and one-fifth of participants reported having been arrested over the preceding 12 months.

Although all REU in 2010 were able to comment on changes in police activity toward drug users over the preceding six months, responses were varied. Thirty-seven percent believed it had increased, one-third (33%) reported that it had remained stable and 30% didn't know.

## **Special interest topics for EDRS 2010**

### *Body Mass Index*

For the first time in 2010 participants were asked their height and weight. With this information BMI was calculated among the sample to determine the relationship between BMI, drug use and the risk of disease. Among the NT sample the mean height was 1.74 metres and weight 72 kilograms. The mean BMI of participants was 23.5. Male participants were more likely to be 'overweight' compared to females.

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<sup>4</sup> Many thanks to Dr James Lemon, previously of NDARC, for his kind permission to use the AQFV assessment in the EDRS.

### *Sexual health*

In 2010, REU participants were asked if they had been tested for a sexually transmitted infection (STI) in the last two years. Among the participants who commented, three-quarters reported that they had been tested in the last two years for a STI by means of a blood test, urine sample or swab; only 11% reported that they had not considered taking a sexual health test. Among those who were tested, the main reasons given for testing were: due to unprotected sex, to be clear of an infection after a relationship had ended, to be clear of an infection before a new relationship began, and access to clinic was easy.



# 1 INTRODUCTION

In 2000, the National Drug Law Enforcement Research Fund (NDLERF) funded a two-year state trial of the feasibility of monitoring emerging trends in the markets for ecstasy and other related drugs using the extant Illicit Drug Reporting System (IDRS) methodology, as the IDRS did not capture the population using ecstasy and related drugs (ERD). It was considered feasible to monitor ERD markets and, in 2003, NDLERF funded the Party Drugs Initiative (PDI) in all states and territories to collect information on ERD drug markets. In the context of the EDRS, the terminology ‘ecstasy and related drugs’ includes all drugs that are routinely used in the context of entertainment venues, such as nightclubs or dance parties. This includes drugs such as ecstasy, methamphetamine, cocaine, LSD, ketamine, 3,4-methylenedioxyamphetamine (MDA) and gamma-hydroxy-butyrate (GHB). In 2009, the EDRS was solely funded by the Australian Government Department of Health and Ageing (AGDH&A).

The PDI was renamed the Ecstasy and related Drug Reporting System (EDRS) in 2006. The findings in this EDRS report provide a summary of characteristics in ERD use detected in Darwin in 2009, with comparisons to previous years’ data where available. These findings arise from the three data sources: interviews with current regular ecstasy users (REU); interviews with key experts (KE) – personnel who have contact with ecstasy users; and the collation of indicator data. The data sources are triangulated in order to minimise the biases and weaknesses inherent to each, and ensure that only valid characteristics are documented. Consistency between the IDRS and the EDRS was maintained where possible, since the IDRS has demonstrated success as a monitoring system. Consequently, the focus is on the capital city because new trends in illicit drug markets are more likely to emerge in large cities rather than regional centres or rural areas.

This is the eighth year the EDRS has been conducted in Darwin and the findings are contrasted to previous years where appropriate. Previous Darwin reports were: (Moon and Newman 2004; Newman 2005; Newman and Moon 2006; Moon and Newman 2007; Campbell and Degenhardt 2008; Scott and Burns 2009; Phillips and Burns 2010).

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

## 1.1 Study aims

As in previous years, the specific aims of the NT EDRS in 2010 were:

- to describe the characteristics of a sample of current ecstasy users interviewed in Darwin in 2010;
- to examine the patterns of ecstasy and other drug use of this sample;
- to document the current price, purity and availability of ecstasy and other related drugs available in Darwin;

- to examine participants' perceptions of the incidence and nature of ecstasy-related harm, including physical, psychological, financial, occupational, social and legal harms; and
- to identify emerging trends in the ERD market that may require further investigation.

## 2 METHODOLOGY

The 2010 EDRS used the same methodology as in previous years. This was trialed in the feasibility study (Breen, Topp et al. 2002) to monitor the trends in the markets for ERD. The three main sources of information used to document trends were:

- face-to-face interviews with current REU recruited in Darwin and Palmerston;
- interviews with KE who, through the nature of their work, have regular contact with ecstasy users in Darwin; and
- indicator data sources such as the purity of seizures of ecstasy analysed in the NT, and prevalence of use data drawn from the National Drug Strategy Household Surveys (NDSHS).

These three data sources were used to provide an indication of emerging trends in ERD use, ERD markets and related issues. Comparisons of data sources were used to determine convergent validity of trends. The data sources were also used in a supplementary fashion, in which KE reports served to validate and contextualise the quantitative information obtained through the REU survey and/or trends suggested by indicator data. Comparable methodology was followed in each site across Australia. Further information on methodology in other jurisdictions in 2010 can be found in the jurisdictional reports, available from the NDARC website ([www.ndarc.med.unsw.edu.au](http://www.ndarc.med.unsw.edu.au)).

### 2.1 Survey of REU

The sentinel population chosen to monitor trends in ERD markets consisted of people who regularly used tablets sold as ‘ecstasy’. Although a range of drugs are used by party-goers, ecstasy can be considered one of the main illicit drugs used in Australia. In 2001, ecstasy was the third most widely used illicit drug, recently and in a person’s lifetime, after cannabis and amphetamines. It has now overtaken methamphetamine as the second most widely used illicit drug after cannabis with 3.5% of the population aged 14 years or older reporting recent use of ecstasy in the 2007 NDSHS (Australian Institute of Health and Welfare 2008a).

A growing market for ecstasy (tablets sold purporting to contain MDMA) 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 Australia (e.g. LSD), 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, GHB). It has been suggested (Topp and Darke 2001) 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. Ecstasy may be the first party drug with which many young Australians who choose to use illicit drugs will experiment, and a minority of these users will go on to experiment with the less common related drugs such as ketamine 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, namely REU (Topp and Darke 2001). In addition, because there has been an indication of an increase in use and controversy regarding the neurotoxicity of ecstasy, more information on ecstasy users was considered beneficial. A sample of REU was

successfully recruited and interviewed over the last five years, and was able to provide information on ERD markets. Therefore, REU have been used again in 2010 to provide information on ERD markets.

### **2.1.1 Recruitment**

A total of 27 ecstasy users were interviewed for the 2010 NT REU survey, all of whom had resided in the Darwin or Palmerston metropolitan region in the previous 12 months. Participants were recruited through a purposive sampling strategy (Kerlinger 1986), which included advertisement by poster in selected entertainment venues, clubs, pubs and universities; interviewer contacts; and 'snowball' procedures. 'Snowballing' is a means of sampling hidden populations which relies on peer referral and is widely used to access illicit drug users in both Australian (Solowij, Hall et al. 1992; Ovendon and Loxley 1996; Boys, Lenton et al. 1997) and international (Dalgarno and Shewan 1996; Forsyth 1996; Peters, Davies et al. 1997) studies. On completion of the interview, participants were asked if they would be willing to discuss the study with friends who might be willing and able to participate.

### **2.1.2 Procedure**

Participants contacted the researchers by telephone, email or SMS (mobile phone short message service) and were screened for eligibility. To meet entry criteria, they had to be at least 17 years of age (due to ethical constraints), had used ecstasy at least six times during the preceding six months, and had been a resident of the Darwin or Palmerston metropolitan region for the past 12 months. As in the main IDRS, the focus was on the capital city because new trends in illicit drug markets are considered more likely to emerge in the urban areas rather than in remote or regional areas.

Participants were informed that the information provided was 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 travel and associated costs. Interviews took place at a suitable negotiated venue, and were conducted by 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 the National Drug and Alcohol Research Centre (NDARC) in 1997 (Topp, Hando et al. 1998; Topp, Hando et al. 2000), which incorporated items from a number of previous NDARC studies of users of ecstasy (Solowij, Hall et al. 1992) and powder amphetamine/methamphetamine (Hando and Hall 1993; Darke, Cohen et al. 1994; Hando, Topp et al. 1997). The interview schedule focused primarily on the previous six months and assessed demographic characteristics; patterns of ERD use, including frequency and quantity of use and routes of administration; the price, purity and availability of different drugs; help-seeking behaviour and other drug-related problems; psychological distress; driving under the influence (DUI); self-reported criminal activity; experience with 'sniffer' (drug detection) dogs; and general trends in the ERD markets, such as new types of drugs, new drug users and perceptions of police activity.

## 2.2 Data analysis

The one-way analysis of variance (ANOVA) procedure was used for continuous, normally distributed variables. Where continuous variables were skewed, medians<sup>5</sup> are reported and the Mann-Whitney *U*-test, a non-parametric equivalent of the *t*-test (Siegel and Castellan 1988), was employed. Categorical variables were analysed using chi-square analysis. Analyses were conducted using PASW Statistics for Windows, Version 18.0.

The data collected in 2010 was compared with data collected from comparable samples of ecstasy users from 2003 onward recruited as part of the PDI (2003-2005) and then the EDRS (2006-2010). As each of these samples was recruited using the same methods, meaningful comparisons can be made.

## 2.3 Survey of KE

The eligibility criterion for KE participation in the EDRS is regular contact, in their course of employment, with a range of REU throughout the preceding six months. Twelve KE from various metropolitan regions of Darwin provided information on the REU with whom they had had contact in the six months prior to interview. The interviews were conducted over the phone.

Eight KE were interviewed in 2010 that came from very diverse backgrounds and included law enforcement personnel, registered nurses, festival paramedics, youth workers and drug and alcohol workers. All KE stated that they were exposed to REU through the nature of their work. All KE reported having had at least weekly contact with REU. Almost all KE had contact with at least 20 REU over the six months prior to interview.

## 2.4 Other indicators

To complement and validate data collected from these user surveys and KE interviews, a number of secondary data sources were examined. These included data from health, survey, research and law enforcement sources.

Data sources included:

- the 2007 NDSHS (Australian Institute of Health and Welfare 2008a);
- NT Alcohol and Other Drug Program treatment services client database;
- Australian Crime Commission (ACC, formerly the Australian Bureau of Criminal Intelligence or ABCI);
- Alcohol and Drug Information Service (ADIS);
- Australian Federal Police (AFP); and
- the NT Police Illicit Drug database.

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<sup>5</sup> The median value lies in the middle of a series of data points arranged in order of size, i.e. it provides a more representative view of skewed data than the mean value.

### **3 OVERVIEW OF REU**

#### **3.1 Demographic characteristics of the REU sample**

Table 1 presents the demographic characteristics of the participants of the NT EDRS from 2003 to 2010. Twenty-seven REU were interviewed in 2010 with a mean age of 25 years (median=24, range=19-34). Forty-one percent of the sample was male.

All participants came from an English-speaking background, which is comparable with the preceding year. Four percent of the sample identified as Aboriginal and/or Torres Strait Islander (A&TSI).

Among the REU interviewed in 2010, 89% identified as heterosexual and 7% as lesbian. No one in 2010 identified as a gay male.

The highest level of education was 12 years of schooling completed (range=10-12 in 2010). The majority of REU went on to complete a course after leaving high school; 74% attended university and 12% completed a trade or technical qualification.

The majority of REU interviewed in 2010 were employed on a full-time basis (85%), 11% on a part-time or casual basis and 4% were both studying and employed. None of the sample reported being unemployed.

Seven percent of participants in 2010 reported ever having served a jail term. The proportion currently in drug treatment has fluctuated across the last seven years but has remained at 0% since 2007.

**Table 1: Demographic characteristics of REU sample, 2003-2010**

	2003 (N=104)	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Mean age (years)	33 (17-55)	24 (16-45)	24 (17-47)	29 (18-59)	30 (17-50)	28 (20-44)	31 (18-53)	<b>25 (19-34)</b>
Male (%)	70	73	57	57	71	64	61	<b>41</b>
English speaking background (%)	98	100	100	98	100	93	99	<b>100</b>
Aboriginal and/or Torres Strait Islander	20	11	10	8	11	13	12	<b>4</b>
Heterosexual (%)	73	83	88	80	63	64	60	<b>89</b>
Mean number school years*	10	11	11	11	11	11	11	<b>12</b>
Qualifications (%)								
Trade/technical	27	19	52	28	26	9	12	<b>12</b>
University/college	29	27	12	26	22	27	28	<b>74</b>
Employment								
Employed full-time (%)	17	49	32	51	56	58	55	<b>85</b>
Full-time students (%)	6	1	6	12	5	4	5	<b>0</b>
Unemployed (%)	61	30	35	22	8	6	22	<b>0</b>
Previous prison history (%)	36	16	13	24	9	0	11	<b>7</b>
Current drug treatment (%)	13	1	9	12	0	0	0	<b>0</b>

Source: EDRS REU interviews, 2003-2010

\* Question changed in 2005 from 'How many years of school did you complete?' to 'What grade of school did you complete?'

### 3.1.1 KE comments

KE reports on the age of REU indicated that ecstasy was used by people of a broad age bracket (mid-teens to early-40s); however, on average, users were aged between 18 and mid-30s. Almost all KE agreed that the use of ecstasy within the Indigenous population was relatively low.

## 4 CONSUMPTION PATTERN RESULTS

### 4.1 Drug use history and current drug use

One-third (33%) of all participants in the 2010 NT EDRS nominated ecstasy as their drug of choice. Other drugs reported as the drug of choice included cocaine (22%), and cannabis (22%).

Just under a one-fifth (19%) of the participants reported ever having injected a drug. For the majority of injectors (80%), speed was the drug first injected. Injecting drug use is discussed further in Section 15.1 of this report.

**Table 2: Drug of choice and injecting rates of REU sample, 2003-2010**

	2003 (N=104)	2004 (N=71)	2005 (N=82)	2006 (N=49)	2007 (N=65)	2008 (N=43)	2009 (N=67)	2010 (N=27)
<b>Drug of choice (%)</b>								
Ecstasy	36	47	61	37	37	44	49	<b>33</b>
Cannabis	10	28	10	16	14	7	8	<b>22</b>
Speed	13	10	18	8	11	12	15	<b>4</b>
Alcohol	-	4	2	12	26	26	15	<b>4</b>
LSD	6	4	0	6	0	2	0	<b>0</b>
Crystal	5	3	0	4	2	0	3	<b>0</b>
Heroin	18	1	1	4	0	0	2	<b>0</b>
Cocaine	3	1	4	4	3	0	6	<b>22</b>
Base	2	1	0	0	3	2	2	<b>0</b>
Benzodiazepines	1	0	0	0	0	0	0	<b>0</b>
Morphine	1	0	1	2	0	0	0	<b>0</b>
<b>Ever injected any drug (%)</b>	69	35	38	39	26	16	31	<b>19</b>
<b>(Of those who had ever injected)</b>	<b>(n=70)</b>	<b>(n=25)</b>	<b>(n=31)</b>	<b>(n=20)</b>	<b>(n=17)</b>	<b>(n=9)</b>	<b>(n=21)</b>	<b>(n=5)</b>
<b>Drug first injected (%)</b>								
Speed	67	60	70	65	71	89	86	<b>80</b>
Crystal	4	8	0	5	6	0	5	<b>0</b>
Base	-	20	0	0	6	11	0	<b>0</b>
Heroin	20	4	20	20	6	0	10	<b>0</b>
Steroids	-	4	0	0	6	0	0	<b>0</b>
LSD	-	4	3	0	0	0	0	<b>20</b>

Source: EDRS REU interviews, 2003-2010

Table 3 outlines the lifetime and recent usage of various drugs among REU in 2010. The most common drug used by REU over the six months prior to interview was alcohol (100%). Tobacco (78%), cannabis (70%) and methamphetamines (63%) and were the next most commonly used drugs. All participants reported lifetime use of alcohol, cannabis and speed (all 100%).

The drug used at the earliest mean age was alcohol (14 years), followed equally by cannabis and tobacco (both 15 years). These were followed by speed, mushrooms and ecstasy pills (18 years), LSD and nitrous oxide (19 years).



The drug used on the highest median number of days over the six months prior to interview was tobacco which was used just under daily (172 days, range=5-180) followed by alcohol which was used a median of twice a week (72 days, range=5-180). Cannabis was the next most frequently used drug (24 days, range=1-180), followed by nitrous oxide (22 days, range=10-25). No participants reported recent usage of GHB, ketamine, illicit antidepressants, buprenorphine or heroin (see Table 3).



**Table 3: Lifetime and recent polydrug use of REU, 2010**

	Used (% REU)		Age first used mean yrs 2010 [2009] (range)	Median days used last 6 months 2010 [2009] (range)
	Ever 2010 [2009]	Last 6 months 2010 [2009]		
Ecstasy pills	100 [100]	100 [100]	18 [23] (14-33)	12 [12] (4-48)
Ecstasy powder	33 [39]	15 [19]	21 [25] (16-33)	1 [2] (1-6)
Ecstasy caps <sup>#</sup>	100 [52]	89 [31]	22 [25] (17-34)	3 [6] (1-48)
Any methamphetamine	100 [82]	63 [64]		6 [4] (1-27)
Speed	100 [82]	59 [61]	18 [19] (10-26)	6 [3] (2-24)
Base	52 [52]	30 [28]	22 [22] (13-34)	2 [2] (1-6)
Crystal	52 [28]	22 [15]	21 [26] (16-28)	4 [5] (1-12)
Cocaine	78 [52]	52 [23]	20 [22] (15-24)	2 [2] (1-48)
LSD	67 [47]	26 [10]	19 [19] (12-27)	1 [3] (1-5)
MDA	26 [19]	7 [5]	23 [23] (18-28)	4 [2] (2-5)
Ketamine	41 [13]	7 [0]	22 [29] (14-31)	3 [0] (1-5)
GHB	19 [13]	0 [0]	23 [31] (18-29)	0 [0] (0)
Amyl nitrate	37 [33]	30 [22]	22 [21] (15-31)	1 [2] (1-12)
Nitrous oxide	33 [15]	15 [2]	n/a [22] (n/a)	n/a [1] (n/a)
Cannabis	100 [93]	70 [60]	15 [15] (10-22)	24 [37] (1-180)
Alcohol	100 [100]	100 [90]	14 [14] (11-16)	72 [50] (12-180)
Heroin	4 [10]	0 [2]	21 [21] (21)	0 [0] (0)
Methadone	4 [6]	4 [3]	20 [25] (20)	2 [2] (2)
Buprenorphine	0 [3]	0 [2]	n/a [n/a] (n/a)	0 [0] (0)
Other opiates*	7 [9]	4 [5]	15 [26] (15)	3 [42] (3)
Tobacco	96 [88]	79 [65]	15 [14] (12-21)	172 [180] (5-180)
Benzodiazepines*	19 [12]	7 [3]	21 [20] (17-25)	26 [2] (4-48)
Antidepressants*	11 [6]	0 [3]	21 [23] (17-23)	0 [0] (0)
Pharmaceutical stimulants*	48 [22]	22 [6]	20 [27] (15-28)	4 [2] (2-10)
Mushrooms	52 [45]	7 [3]	18 [19] (13-23)	1 [2] (1)
OTC codeine	52 [n/a]	49 [n/a]	17 [n/a] (11-27)	6 [n/a] (1-24)
Steroids	7 [n/a]	4 [n/a]	21 [n/a] (20-22)	90 [n/a] (90)

Source: EDRS REU interviews, 2010

Note: 2009 data in brackets

\* Illicit only

# Questions about ecstasy caps added in 2008

Forty-four percent of the REU interviewed reported bingeing on ecstasy and/or other related drugs during the six months preceding the interview. Bingeing is defined as using the drug on a continuous basis for more than 48 hours without sleep (Ovendon and Loxley 1996). Participants reported bingeing a median of four times over the last six months. The median length of the longest binge was 72 hours (range=48-96). Ecstasy was the most commonly reported drug used during a binge episode (92%), followed by alcohol (75%), speed (67%), and cocaine (42%).

#### **4.1.1 KE comments**

Most KE agreed that polydrug use was common among REU in Darwin. All KE commented that alcohol was the most problematic drug in terms of frequency and prevalence of use, level of consumption and associated risk.

Further analyses of the use of individual drugs along with ecstasy, as well as behaviour associated with the various drugs, are documented in the relevant sections of this report.

## 5 ECSTASY

'Ecstasy' is a street term for a number of substances related to MDMA or 3,4-methylenedioxymethamphetamine. MDMA is classed as a hallucinogenic amphetamine (White, Breen et al. 2003). Tablets sold as ecstasy may contain a range of substances that do not include MDMA, and are more likely to contain methamphetamine, perhaps in combination with a hallucinogenic such as ketamine. They may also contain illegal chemicals like MDA, para-methoxyamphetamine (PMA) or 3,4-methylenedioxyethylamphetamine (MDEA), or substances such as caffeine or paracetamol or nothing at all. The results presented in this section relate to the participants' use and knowledge of tablets sold as ecstasy.

### 5.1 Ecstasy use among REU

On average, REU interviewed in 2010 first used ecstasy at 18 years of age (median=17, range=14-33). Participants began regularly<sup>6</sup> using ecstasy at a mean age of 20 years (median=19, range=17-33). The median number of days participants had used ecstasy in the preceding six months was 12 days and 26% of participants reported using ecstasy weekly or more. A median of two tablets were used in a 'typical' session, while in a 'heavy' session a median of three were consumed. Over half (56%) of the sample typically used more than one tablet per session, in the six months prior to interview.

Among those who had recently binged, 41% reported having used ecstasy during a binge episode. Furthermore, 86% of participants reported typically using other drugs *with* ecstasy and 41% reported having typically used other drugs to *come down* from it.

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<sup>6</sup> Regular use is defined as using at least once a month.

**Table 4: Patterns of ecstasy use among REU, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	<b>2010 (N=27)</b>
Age first used ecstasy <sup>#</sup> (mean years)	19 (12-43)	19 (11-35)	18 (14-52)	21 (14-42)	21 (16-36)	23 (13-50)	<b>18 (14-33)</b>
Age started to use <sup>#</sup> regularly (mean years)	20 (14-43)	20 (15-40)	21 (16-52)	23 (15-42)	23 (16-36)	24 (12-50)	<b>20 (17-33)</b>
Median days used ecstasy last 6 months <sup>#</sup>	16 (6-72)	24 (6-120)	12 (6-72)	15 (6-96)	15 (6-48)	12 (4-72)	<b>12 (4-48)</b>
Use ecstasy weekly or more (%) <sup>#</sup>	39	52	33	30	20	22	<b>26</b>
Median ecstasy quantities used <sup>#</sup>							
‘usual’ session (range)	2 (0.5-6)	1 (1-6)	2 (1-7)	2 (0.5-6)	2 (0.5-4)	2 (1-5)	<b>2 (1-5)</b>
heavy session (range)	3 (0.75-14)	2 (1-12)	3 (1-12)	4 (1-13)	3 (1-48)	4 (1-12)	<b>3 (1.5-11)</b>
Typically use >1 tablet (%)	56	38	57	55	70	74	<b>56</b>
Used other drugs with ecstasy <sup>#</sup> (%)	89	96	98	100	86	77	<b>86</b>
Used drugs to come down from ecstasy <sup>#</sup> (%)	68	89	84	89	60	59	<b>41</b>

Source: EDRS REU interviews, 2004-2010

<sup>#</sup> includes pills, powder and capsules

Participants were asked which drugs they typically<sup>7</sup> used *with* ecstasy and also to *come down*<sup>8</sup> from it (Table 5). The drug most commonly used *with* ecstasy was alcohol (86%), followed by tobacco (62%), with the vast majority (81%) of those who drank alcohol when taking ecstasy drinking in excess of five standard drinks. Other drugs commonly used in conjunction *with* ecstasy included speed (31%) and cannabis (27%). Only 12% of participants in 2010 reported that they did not use other drugs when using ecstasy.

The drug most commonly used to come down from ecstasy was cannabis (30%), followed equally by alcohol and tobacco (11% each). Only 7% of participants who drank alcohol while coming down from ecstasy reported drinking more than five standard drinks on the last occasion of use.

<sup>7</sup> Where typical use was defined as two-thirds or more of the occasions of ecstasy use in the preceding six months.

<sup>8</sup> The acute recovery period following ecstasy use.

**Table 5: Drugs used in combination with ecstasy by REU, NT, 2005-2010**

	Use (%)											
	With ecstasy						Coming down from ecstasy					
	2005 (N=82)	2006 (N=51)	2007 (N=74)	2008 (N=55)	2009 (N=67)	2010 (N=27)	2005 (N=82)	2006 (N=51)	2007 (N=74)	2008 (N=55)	2009 (N=67)	2010 (N=27)
None	4	2	0	15	23	<b>12</b>	11	16	11	40	41	<b>59</b>
Speed	38	22	34	9	48	<b>31</b>	9	4	14	0	29	<b>0</b>
Base	9	4	9	4	13	<b>0</b>	3	0	0	0	0	<b>0</b>
Crystal	4	2	6	0	10	<b>4</b>	0	2	3	0	0	<b>0</b>
Cannabis	57	59	70	15	19	<b>27</b>	63	65	81	13	35	<b>30</b>
Alcohol	85	78	99	86	45	<b>86</b>	60	43	78	56	24	<b>11</b>
If yes, > 5 drinks?	97	75	83	75	39	<b>81</b>	98	77	74	59	12	<b>7</b>
Tobacco	72	71	71	20	23	<b>62</b>	65	57	75	9	3	<b>11</b>

Source: EDRS REU interviews, 2005-2010

The most common method of administration of ecstasy in the six months prior to interview was swallowing (96%), followed by snorting (89%), shelving/shafting (19%) and smoking (4%).

**Table 6: Route of administration of ecstasy by REU, NT, 2004-2010**

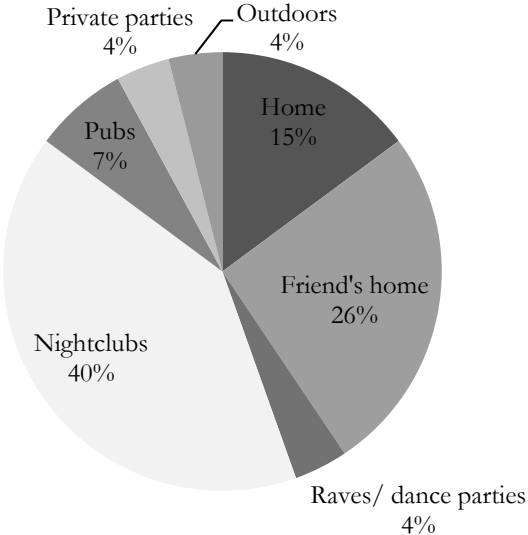
	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Administration last six months (%)							
Swallowed	97	98	96	100	100	97	96
Snorted	54	43	49	36	29	37	89
Injected	16	15	12	6	0	9	0
Smoked	13	6	4	2	2	3	4
Shelved/shafted*	9	4	4	14	13	19	19

Source: EDRS REU interviews, 2004-2010

\* Refers to refers to vaginal/anal administration

In 2010, over a third of the sample (40%) reported that the last venue at which they used ecstasy was a nightclub. This was followed by friends' homes (26%), and their own home (15%).

**Figure 1: Last location of most recent ecstasy use, NT, 2010**



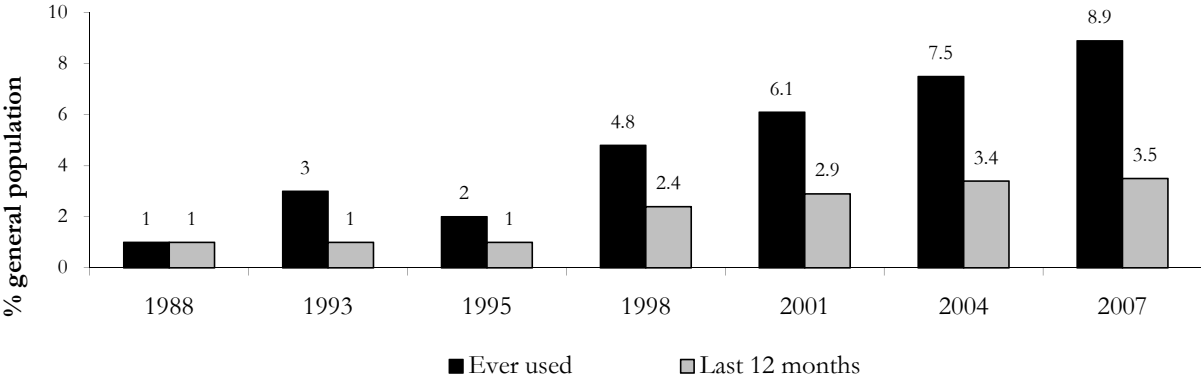
Source: EDRS REU interviews, 2010

**5.2 Use of ecstasy in the general population**

Figure 2 presents data collected for the NDSHS from 1988 (the year in which ecstasy was first included in the survey) to 2007. Over this time, both the reported lifetime and recent use of ecstasy has increased among the general Australian population over the age of 14 years. In 2007, 8.9% of Australians interviewed reported having ever used ecstasy, an increase from 1% in 1988. Furthermore, in 2007, 3.5% of Australians interviewed reported having used ecstasy within the 12 months preceding the interview, compared with only 1% in 1988 (Australian Institute of Health and Welfare 2008a).

In the 2007 NDSHS, 13.7% of Territorians, aged 14 years or over, reported the lifetime use of ecstasy and 4.2% reported having used it recently (within the 12 months prior to interview). This latter figure has increased from that reported in 2004 (3.7%) (Australian Institute of Health and Welfare 2008).

**Figure 2: Prevalence of ecstasy use among the population aged 14 years and over in Australia, 1988-2007**



Source: NDSHS, 1988-2008



## 6 METHAMPHETAMINE

Throughout the 1990s, the proportion of amphetamine-type substance 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). In the financial year 2000/01, the vast majority (91%) of all seizures of amphetamine were methamphetamine hydrochloride (Australian Bureau of Criminal Intelligence 2002).

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 hypothermic properties (Seiden, Sobol et al. 1993). Compared to amphetamine, methamphetamine has proportionally greater CNS than PNS stimulatory effects (Chesher 1993), and is a more potent form with stronger subjective effects.

In Australia today, the powder traditionally known as ‘speed’ is almost exclusively methamphetamine. The more potent forms of this family of drugs, known by terms such as ice, shabu, crystal meth, base and paste – identified as becoming more widely available and used in all jurisdictions (Topp and Darke 2001; Topp, Degenhardt et al. 2002) – are also methamphetamine.

The distinction between speed, base and 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 et al. 2005). Base (also called paste, wax, point or pure) is 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 at 21% (McKetin, McLaren 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 impurities. Crystal is predominantly manufactured in Asia and imported into Australia (Topp and Churchill 2002), although the first crystal laboratory was detected in Queensland in February 2002 (Australian Crime Commission 2003). 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 base with a crystalline appearance or crystal cut with crystalline adulterants (McKetin, McLaren et al. 2005).

## 6.1 Methamphetamine use among REU

### 6.1.1 Speed

All (100%) of REU interviewed in 2010 reported lifetime use of speed and 59% reported having used it recently (Table 7). The mean age at which speed was first used was 18 years (range=10-26).

Among recent users, speed had been used on a median of six days (range=2-24) over the preceding six months; however, no participants reported using speed on a weekly basis or more. The median quantity used in a typical episode of use was half a gram (range=0.5-1.0), and the median amount for heavy use was one gram (range=0.5-2.5) (Table 7).

Of those who commented among the entire sample of REU, only one participant (4%) reported that speed was their drug of choice and 30% of recent users (n=8) reported having recently used speed during a binge episode. Eight participants (30%) reported having used speed with ecstasy on the last occasion; and no participants reported typically using speed to come down from ecstasy.

**Table 7: Patterns of speed use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	83	90	88	83	67	82	<b>100</b>
Used last 6 months (%)	72	73	59	55	24	61	<b>59</b>
(Of recent users)	(n=51)	(n=60)	(n=30)	(n=36)	(n=13)	(n=41)	<b>(n=16)</b>
Median days used last 6 months (range)	6 (1-165)	6 (1-180)	4 (1-48)	4 (1-180)	2 (1-14)	3 (1-180)	<b>6 (2-24)</b>
Use weekly or more (%)	25	27	7	14	-	5	<b>0</b>
Median quantities used	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	<b>(grams)</b>
Typical (range)	0.5 (0.2-4)	1 (0.25-3)	1 (0.25-1)	1 (0.25-2.5)	1 (0.25-2)	1 (0.25-3.5)	<b>0.5 (0.5-1.0)</b>
Heavy (range)	1 (0.25-5)	1 (0.25-12)	1 (0.25-4)	1 (0.25-8)	1.5 (0.25-6.5)	1 (0.5-20)	<b>1 (0.5-2.5)</b>

Source: EDRS REU interviews, 2004-2010

Among recent users of speed, the most common route of administration was equally snorting and swallowing (both 75%); however, half (50%) reported having recently smoked speed and only one participant reported recent injection of speed. No participants reported having shelved or shafted speed.

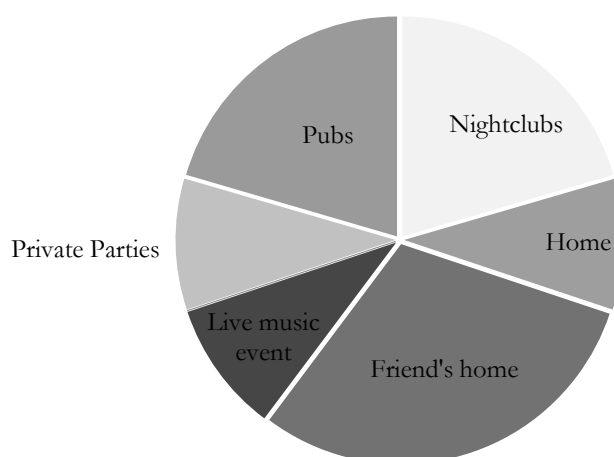
**Table 8: Route of administration of speed by recent users, 2004-2010**

	2004 (N=51)	2005 (N=60)	2006 (N=30)	2007 (N=36)	2008 (N=13)	2009 (N=67)	2010 (N=12)
Route of administration last 6 months (%)							
Injected	14	35	33	25	39	35	8
Swallowed	78	65	73	64	32	55	75
Snorted	75	50	60	86	69	73	75
Smoked	20	13	13	8	8	15	50
Shelve/shaft	-	2	-	3	-	-	-

Source: EDRS REU interviews, 2004-2010

Among those who commented, the most common location at which speed was last used was at a friend's home (25%) followed equally by nightclubs and pubs (both 17%) and equally a live music event, private party or the participant's own home (8% each) (Figure 3).

**Figure 3: Location of most recent speed use, %, 2010**



Source: EDRS REU interviews, 2010

### 6.1.2 Base

Approximately half (52%) of the sample in 2010 reported lifetime use of base and 30% reported having used it recently. Base was first used at a mean age of 22 years (range=13-34) and participants reported having used it on a median of two days (range=1-6) over the preceding six months. Participants reported having used a median of two points (range=1-3) in a typical use episode and a median of 2.5 points (range=1-8) on the heaviest use episodes over the preceding six months. Only one recent user reported having used base in a binge episode over the preceding six months (Table 9).

**Table 9: Patterns of base use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	59	36	53	49	35	52	<b>52</b>
Used last 6 months (%)	45	29	18	27	9	28	<b>30</b>
(Of recent users)	(n=32)	(n=24)	(n=9)	(n=18)	(n=5)	(n=19)	<b>(n=8)</b>
Median days used last 6 months (range)	3 (1-180)	6 (1-90)	2 (1-36)	4 (2-28)	4 (1-16)	2 (1-180)	<b>2 (1-6)</b>
Use weekly or more (%)	25	17	11	2	-	2	-
Median quantities used (points)							
Typical (range)	1 (0.1-2.5)	1 (0.5-7)	1 (0.6-2.5)	1 (1-2)	1 (1-20)	1 (1-4)	<b>2 (1-3)</b>
Heavy (range)	1 (0.1-10)	1 (0.5-10)	1 (1-2)	2 (1-5)	1 (1)	1 (1-4)	<b>2.5 (1-8)</b>

Source: EDRS REU interviews, 2004-2010

Swallowing continues to be the most common route of administration among the eight recent users of base. No participants reported recent injection, snorting, or shelving or shafting of base (Table 10).

**Table 10: Route of administration of base by recent users, 2004-2010**

	2004 (n=32)	2005 (n=24)	2006 (n=9)	2007 (n=18)	2008 (n=5)	2009 (n=19)	2010 (n=8)
Route of administration last 6 months (%)							
Injected	22	54	33	39	60	42	-
Swallowed	94	58	78	83	20	53	75
Snorted	34	29	22	33	40	21	-
Smoked	9	17	-	6	-	21	25
Shelved/shafted	-	-	-	-	-	-	-

Source: EDRS REU interviews, 2004-2010

There were insufficient numbers reporting on the locations of use of base again in 2009 to report them here; however, responses from 2004 to 2007 are presented in the respective reports. Readers are directed to the NDARC website (<http://ndarc.med.unsw.edu.au>) to access these past reports.

### 6.1.3 Ice/crystal

Just over half (52%) of the sample in 2010 reported lifetime use of crystal and 22% of participants reported having used it over the six months prior to interview. Crystal was first used at a mean age of 21 years (range=16-28). Three participants (11% of entire sample) reported recently bingeing on it and 4% (n=1) reporting using it with ecstasy on the last occasion. No participants reported having used crystal to come down from ecstasy, or using it weekly or more often. Table 11 presents data across time on patterns of use of crystal among REU in the NT.

**Table 11: Patterns of crystal methamphetamine use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (n=27)
Ever used (%)	58	52	49	35	18	28	<b>52</b>
Used last 6 months (%)	35	32	26	24	-	15	<b>22</b>
<b>(Of recent users)</b>	(n=25)	(n=26)	(n=13)	(n=16)	(n=0)	(n=10)	<b>(n=8)</b>
Median days used last 6 months (range)	3 (1-60)	4 (1-90)	2 (1-5)	3 (1-80)	-	5 (1-180)	<b>4 (1-12)</b>
Use weekly or more (%)	12	8	-	6	-	4	-
Median quantities used (points)	1 (0.5-4)	1 (0.25-5)	2 (0.25-5)	1 (0.5-3)	-	3 (1-3)	<b>2 (1-2)</b>
Typical (range)	2 (0.5-5)	1.5 (0.5-6)	2 (0.25-5)	2 (0.5-5.5)	-	3 (-)	<b>2 (1-2)</b>
Heavy (range)							

Source: EDRS REU interviews, 2004-2010

Smoking was the most common routes of administration among recent users of crystal. Among the eight participants that reported recent use, five reported smoking (83% each). Three participants reported swallowing (50%) and two participants reported snorting (33%). No participants reported either injecting or shelving as recent routes of administration (Table 12).

**Table 12: Route of administration of crystal methamphetamine by recent users, 2004-2010**

	2004 (n=25)	2005 (n=26)	2006 (n=13)	2007 (n=16)	2008 (n=5)	2009 (n=15)	2010 (n=6)
Route of administration last 6 months (%)							
Injected	24	35	54	19	-	60	-
Swallowed	64	46	23	25	-	20	<b>50</b>
Snorted	28	23	8	25	-	-	<b>33</b>
Smoked	32	42	54	63	-	60	<b>83</b>
Shelved/shafted	-	-	-	-	-	-	-

Source: EDRS REU interviews, 2004-2010

## 7 COCAINE

Cocaine is a stimulant, like methamphetamine (White, Breen et al. 2003) that is 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’ is a form of freebase cocaine (hydrochloride removed) which is particularly pure and it is infrequently encountered in Australia (Australian Crime Commission 2009).

Street cocaine is usually ‘cut’ or diluted with other substances, some which mimic the taste or appearance of cocaine. There is not a great deal of information on the adulterants found in street cocaine, although recent data has detected cocaine contaminated with the veterinary anthelmintic, Levamisole (Duflou, Brouwer et al. 2010).

### 7.1 Cocaine use among REU

Over three-quarters (78%) of the REU interviewed in 2010 reported lifetime use of cocaine and half (52%) reported having used it over the preceding six months, on a median of two days. Cocaine was first used at a mean age of 22 years (range=15-24).

Cocaine was the drug of choice for 22% of participants (n=6) in 2010. Five participants (19% of entire sample) reported having used cocaine during a binge episode over the preceding six months, three (11% of entire sample) having typically used it with ecstasy and none reporting cocaine to come down from ecstasy.

Table 13 presents data across time on the prevalence of use of cocaine among REU in the NT and the frequency and quantity of use among recent users. Due to the small numbers of participants reporting on the frequency and quantity of recent use in previous years, care should be taken when comparing these data across time.

**Table 13: Patterns of cocaine use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	39	39	55	35	36	52	<b>78</b>
Recently used (%) (Of recent users)	15 (n=11)	11 (n=9)	10 (n=5)	9 (n=3)	2 (n=1)	23 (n=15)	<b>52</b>
Median days used last 6 months (range)	1 (1-4)	3 (1-10)	3 (1-6)	2 (1-8)	-	2 (1-12)	<b>2 (1-48)</b>
Use fortnightly or more (n)	-	-	-	-	-	-	<b>7% (n=1)</b>
Median quantities used (grams)							
Usual (range)	0.5 (0.5-1)	2 (1-2)	0.5 (0.5)	1.25 (0.5-2)	0.5 (0.5)	0.5 (0.25-1)	<b>1 (0.25-4)</b>
Heavy (range)	0.75 (0.5-3)	3.5 (2-5)	1 (1)	2.75 (1-4.5)	4 (4)	0.5 (0.25-2)	<b>1 (0.5-4)</b>

Source: EDRS REU interviews, 2004-2010

Intranasal (snorting) was the most common route of administration for cocaine among REU in the NT in 2010. All (100%) of recent cocaine users reported snorting, while half (50%) reported recently swallowing cocaine. There were no reports of injection, smoking or shelving of cocaine. As only a small number of participants (n=5) were able to comment on the price, purity and availability of cocaine, comparisons with previous years' data will not be made here.

## **8 KETAMINE**

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, which 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' (White, Breen et al. 2003).

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 REU is probably diverted from veterinary sources making supply irregular compared with other illicit substances (Australian Crime Commission 2003; Australian Crime Commission 2008).

### **8.1 Ketamine use among REU**

Forty-one percent of participants (n=11) in 2010 reported the lifetime use of ketamine and only two participants reported having used it over the preceding six months. The mean age at which ketamine was first used was 22 years (range=14-31). No participants reported that ketamine was their drug of choice or that they had used it during a binge episode over the preceding six months.

Table 14 presents data across time showing the use of ketamine among REU in the NT. Due to the low numbers reporting recent use, results should be interpreted with caution.

**Table 14: Patterns of ketamine use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	32	13	26	33	6	13	<b>41</b>
Recently used (%)	18	7	6	8	-	-	<b>7</b>
<b>(Of recent users)</b>	(n=13)	(n=6)	(n=3)	(n=5)	(n=0)	(n=0)	<b>(n=2)</b>
Median days used last 6 months (range)	2 (1-4)	1 (1-30)	6 (1-20)	1 (1-12)	-	-	<b>3 (1-5)</b>
Use fortnightly or more (n)	0	1	1	1	-	-	-
Median quantities used (bumps)							
Usual (range)	2 (1-6)	1 (1)	1 (1)	4 (4)	-	-	<b>1 (1)</b>
Heavy (range)	2 (1-12)	1 (1)	1 (1)	8 (8)	-	-	<b>1 (1)</b>

Source: EDRS REU interviews, 2004-2010

As there were a very small number of recent users of ketamine, data on routes of administration and locations will not be presented in 2010. Readers are directed to previous years' reports available on the NDARC website (<http://ndarc.med.unsw.edu.au>) for data from 2003 onward.

## 9 GHB

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

GHB is a depressant and, when mixed with alcohol, the depressant effects are increased, which may lead to respiratory difficulties and overdose. GHB is highly dose-dependent, meaning there is an extremely small difference between the 'desired' dose and one that induces unconsciousness (White, Breen et al. 2003).

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, GBL (gamma-butyrolactone). The use of GBL, and a similar chemical, 1,4-B (1,4-butanediol), has also been documented (Ingels, Rangan et al. 2000). GBL and 1,4-B are metabolised into GHB in the body. They may be used as substitutes for GHB, but are known to be pharmacologically different.



## **9.1 GHB use among REU**

Five of the 27 participants (19%) interviewed for the 2010 EDRS in the NT reported having ever used GHB and only participants reported having used it recently. From 2006 onwards, there have been no participants reporting the recent use of GHB.

## **10 LSD**

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. Only a small amount is needed to cause visual hallucinations and distortions. These experiences are known as 'trips'.

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, so trips are often cut into halves or quarters and shared with others.

Unpleasant reactions to LSD include fear, anxiety and depression. LSD is manufactured in illicit laboratories and the majority of LSD is believed to be imported from overseas (Australian Crime Commission 2009)

### **10.1 LSD use among REU**

Two-thirds (67%) of REU interviewed in the NT in 2010 reported lifetime use of LSD and one-quarter (26%) reported having used it within the preceding six months. The mean age of first use was 19 years (range=12-27).

No participants reported that LSD was their drug of choice. Only one participant reported having used LSD during a binge episode, two participants reported typically using LSD with ecstasy; and no participants reported typically using LSD to come down from ecstasy.

LSD was used on a median of one day over the six months preceding the interview and no participants reported more than monthly use. Among recent users of LSD, the median quantity used in both a typical and the heaviest sessions were both one tab (typical range=0.5-3, heavy range=0.5-5) (Table 15).

**Table 15: Patterns of LSD use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	63	61	78	70	60	47	<b>67</b>
Recently used (%)	31	15	41	33	16	11	<b>26</b>
Mean age first used (range)	18 (13-29)	17 (11-28)	19 (14-40)	20 (15-46)	19 (16-28)	19 (12-32)	<b>19 (12-27)</b>
<b>(Of recent users)</b>	(n=22)	(n=12)	(n=21)	(n=22)	(n=9)	(n=7)	<b>(n=7)</b>
Median days used last 6 months (range)	1 (1-48)	2 (1-10)	2 (1-48)	3 (1-14)	1.5 (1-8)	3 (1-12)	<b>1 (3-5)</b>
Use fortnightly or more (%)	14	0	10	5	0	14	<b>0</b>
Median quantities used (tabs)							
Usual (range)	1 (0.25-5)	1 (1-3)	1 (0.5-10)	1 (1-3)	2 (0.5-3)	1 (0.75-2)	<b>1 (0.5-3)</b>
Heavy (range)	1 (0.25-14)	1.5 (1-3)	1 (0.5-10)	1.5 (1-8)	3 (0.5-11)	1 (0.75-3)	<b>1 (0.5-5)</b>

Source: EDRS REU interviews, 2004-2010

## 11 MDA

MDA (3,4-methylenedioxyamphetamine) is part of the phenethylamine family. Like ecstasy, MDA is classed as a stimulant hallucinogen. MDA has similar effects to ecstasy. It generally comes in capsule, powder or tablet form and may be in pills sold as ecstasy (White, Breen et al. 2003).

### 11.1 MDA use among REU

One-quarter (26%) of REU interviewed in 2010 had ever used MDA and only two participants had used it over the preceding six months. MDA was used on a median of four days over the six months preceding the interview and no participants reported fortnightly or more frequent use (Table 16). MDA was first used at a mean age of 23 years (range=18-28).

**Table 16: Patterns of MDA use among REU, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	28	12	16	30	15	19	<b>26</b>
Recently used (%)	10	2	2	5	2	5	<b>7</b>
<b>(Of recent users)</b>	(n=7)	(n=2)	(n=1)	(n=3)	(n=1)	(n=2)	<b>(n=2)</b>
Median days used last 6 months (range)	3 (1-24)	1 (1)	5 (5)	2 (1-8)	1 (1)	2 (1-2)	<b>4 (2-5)</b>
Use fortnightly or more (n)	1	-	-	-	-	-	<b>-</b>
Median quantities used (capsules)							
Usual (range)	1 (1-2)	2 (2)	3 (3)	2 (2-3)	1 (1)	2 (2)	<b>1 (1)</b>
Heavy (range)	2 (1-4)	2 (2)	8 (8)	3 (2-6)	1 (1)	2 (2)	<b>2 (2)</b>

Source: EDRS REU interviews, 2004-2010

Both participants (n=2) who recently used MDA reported using it in a binge episode and no participants reported having typically used it with ecstasy or to come down from it. Furthermore, no participant in 2009 reported that MDA was their drug of choice.

No data were available on the price, purity or availability of MDA in Darwin in 2010.

No KE were able to comment on the use of MDA in the NT.

## 12 CANNABIS

Cannabis is derived from the cannabis plant (*cannabis sativa*). While cannabis can be grown in almost any climate, it is being increasingly cultivated by means of indoor hydroponic technology. The main active ingredient in cannabis is delta-9-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, and hashish oil (National Drug and Alcohol Research Center 2008).

From 2006, the EDRS included a more detailed section about cannabis and made a distinction between indoor-cultivated hydroponic cannabis (hydro) and outdoor-cultivated bush cannabis (bush) for price, potency and availability. In 2009, only participants who were able to distinguish between hydro and bush provided information about the price, purity and availability of cannabis.

### 12.1 Cannabis use among REU

All participants (100%) reported ever using cannabis and 70% reported having used it recently. The mean age of first use of cannabis was 15 years (range=0-22).

Cannabis was the main drug of choice for 22% of the sample and four participants (15% of entire sample) reported having used cannabis during a recent binge episode. Twenty-seven percent of participants reported typically using cannabis with ecstasy and 30% reported typically using cannabis to come down from it.

Smoking was the most common route of administration, reported by all (100%) of recent users; only three participants (16% of recent users) reported having recently swallowed cannabis. Thirty-nine percent of recent users of cannabis had used it on a less than monthly basis, 6% between fortnightly and weekly, 39% on a greater than weekly basis and two participants (11% of recent users) reported daily use. None reported having used it between monthly and fortnightly.

Participants were asked to approximate how much cannabis they had used the last time they had smoked. Eight of the 19 recent smokers (42%) quantified their use in terms of cones and had smoked a median of one cone (range=1-4) on their last occasion of use. Eight recent smokers quantified their use in terms of joints and had smoked a median of one and a half joints (range=1-4) on their last occasion of use. Table 17 presents data across time on the use of cannabis among REU in the NT.

**Table 17: Patterns of cannabis use and route of administration by REU, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	100	99	100	100	93	93	<b>100</b>
Recently used (%)	87	79	86	95	40	60	<b>70</b>
<b>(Of recent users)</b>	(n=62)	(n=65)	(n=44)	(n=63)	(n=22)	(n=40)	<b>(n=19)</b>
Median days used last 6 months (range)	155 (1-180)	150 (1-180)	90 (1-180)	15 (1-180)	6 (1-180)	37 (1-180)	<b>24 (1-180)</b>
Use fortnightly or more (%)	74	89	65	57	13	27	<b>56</b>
Route of administration last 6 months (%)							
Swallowed	26	29	34	29	27	7	<b>16</b>
Smoked	100	98	100	95	95	66	<b>100</b>

Source: EDRS REU interviews, 2004-2010

## 13 OTHER DRUGS

### 13.1 Emerging psychoactive substances

In 2010 participants were asked about a range of new and emerging psychoactive substances. These include Psychedelic Phenethylamines; 2C-B, 2C-E, 2C-I, DOI ('death on impact'; 2,5-dimethoxy-4-iodoamphetamine). Psychedelic tryptamines such as 5 MeO-DMT (5-methoxy-dimethyltryptamine), DMT (dimethyltryptamine) and the stimulants mephedrone, BZP (1-benzylpiperazine) and ivory wave/MDPV (methylenedioxypropylvalerone: 3,4-methylenedioxy).

One participant had reported lifetime use of 2C-B, 2C-E, 2C-I but no participants had reported any recent use of any psychedelic phenethylamines. Mephedrone was the only other drug which had lifetime use (one participant). One participant reported recent use of mephedrone with a frequency of 10 days of use and an exclusive oral route of administration.

### 13.2 Alcohol

All participants (100%) in the 2010 NT EDRS reported ever using alcohol and all (100%) had also done so within the six months preceding the interview. Alcohol was first used at a mean age of 14 years (range=11-16). Among recent users, alcohol was used on a median of 72 days (range=12-180) and swallowing was the only reported route of administration.

Ninety-three percent of those who had recently consumed alcohol were greater than weekly drinkers. Alcohol was the drug of choice for only one participant (4% of the entire sample) and 41% of those who had recently binged had used alcohol during a binge episode. Furthermore, among recent users of alcohol, 17% reported usually consuming more than five standard drinks when bingeing, half (50%) reporting consuming more drinks than usual when using ecstasy, 81% reported drinking more than five standard drinks when using ecstasy and 11% reported typically using alcohol to come down from ecstasy.

Table 18 presents data across time on various markers of alcohol consumption among REU in the NT. The reported lifetime consumption has remained high across time and recent use remains stable.

**Table 18: Patterns of alcohol use of REU, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (n=27)
Ever used (%)	97	99	100	100	98	100	<b>100</b>
Recently used (%)	93	99	88	100	87	90	<b>100</b>
<b>(Of recent users)</b>	<b>(n=66)</b>	<b>(n=81)</b>	<b>(n=45)</b>	<b>(n=66)</b>	<b>(n=48)</b>	<b>(n=60)</b>	<b>(n=27)</b>
Median days used last 6 months (range)	48 (2-180)	60 (1-180)	50 (1-180)	72 (4-180)	48 (3-96)	71 (2-180)	<b>72 (12-180)</b>
Use fortnightly or more (%)	82	90	96	94	94	86	<b>100</b>
Alcohol mixed with ecstasy:							
>5 standard drinks with ecstasy	64	83	67	82	73	39	<b>81</b>
>5 standard drinks comedown from ecstasy	15	58	49	58	35	7	<b>7</b>

Source: EDRS REU interviews, 2004-2010

Almost all KE were able to comment on the use of alcohol among REU. There was a general consensus that alcohol was the most problematic drug currently in the NT and was being consumed at risky levels by REU, often in conjunction with other drugs. Associated risk behaviours such as driving, swimming and jetty jumping under the influence continued to occur among this group. The majority of KE commented that alcohol-related violence was a major focus of the local media currently and as a result there had been a heavier police presence, the establishment of a liquor accord and the introduction of shatter-proof glass in key entertainment areas of the city.

### 13.3 Tobacco

Tobacco continues to be one of the most frequently and commonly used drugs among REU in the NT. In 2010 the vast majority reported lifetime use (96%) and more than three-quarters (79%) reported recent usage. Among recent users, tobacco had been used on a median of 172 days, i.e. approximately daily (range=5-180) over the preceding six months. In contrast to many other drugs asked about in the EDRS, tobacco was primarily used either daily (48% of recent smokers) or on a greater than weekly (76%) basis.

Among REU interviewed in 2010, 62% of the sample reported usually using tobacco with ecstasy and 11% reported usually using tobacco to come down from ecstasy. One participant reported tobacco as their drug of choice.

Table 19 presents data across time on patterns of use of tobacco among REU in the NT. While there has been an increase from 2008 in both lifetime and recent use, it appears that, despite the very low numbers reporting recent use in 2008, there has been an overall general decline in recent use from 2006 onward. Thus it appears that while the numbers of smokers have fallen since 2006, those who have continued to smoke have remained weekly or daily smokers.

**Table 19: Patterns of tobacco use by REU, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	92	88	98	91	73	88	96
Recently used (%)	82	88	86	77	40	63	79
<b>(Of recent users)</b>	(n=58)	(n=72)	(n=44)	(n=51)	(n=22)	(n=40)	(n=21)
Median days used last 6 months (range)	180 (1-180)	180 (1-180)	180 (2-180)	180 (2-180)	170 (3-180)	180 (1-180)	172 (5-180)
Use fortnightly or more (%)	90	95	95	74	95	88	90

Source: EDRS REU interviews, 2004-2010

No KE commented on tobacco use among REU in Darwin. At the time of interview, smoking had only been banned in nightclubs or pubs in the NT for three months. A total ban came into effect in January 2010.

## 13.4 Benzodiazepines

Twenty-three percent of participants reported having ever used benzodiazepines but only two participants (7%) reported having used them over the six months prior to interview. The two recent users of benzodiazepines reported having used them on a median of 26 days (range=4-48) during this period. No participants reported that benzodiazepines were their drug of choice or that they had used them during a binge episode over the preceding six months. Furthermore, no participants reported usually using benzodiazepines with ecstasy or using them to come down from ecstasy.

### 13.4.1 Licit benzodiazepines

Only one participant reported having ever used licitly obtained<sup>9</sup> benzodiazepines and none reported having used them recently.

### 13.4.2 Illicit benzodiazepines

Five participants (19% of entire sample) reported having ever used illicitly obtained benzodiazepines but only two participants (7% of entire sample) had used them over the preceding six months. The mean age of first use was 21 years (range=17-25). Swallowing was the exclusive route of administration for all recent users.

## 13.5 Inhalants

### 13.5.1 Amyl nitrite

Over one-third (37%) of the sample in 2010 reported having ever used amyl nitrite and 30% of participants reported having used amyl nitrite over the preceding six months. Amyl nitrite was first used at a mean age of 22 years (range=15-31) and, among recent users, had been used on a median of one day (range=1-12) over the preceding six months.

<sup>9</sup> Licit – obtained with a valid prescription; illicit – obtained without a valid prescription.

No participants reported that amyl nitrite was their drug of choice and only one participant had recently used it during a binge episode. One participant reported that they usually used amyl nitrite with ecstasy; however, none reported using it to come down from ecstasy. Table 20 presents data across time on the use of amyl nitrite among REU in the NT.

**Table 20: Patterns of amyl nitrite use by REU, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Ever used (%)	41	31	47	30	29	33	37
Recently used (%)	25	6	10	12	4	22	30
<b>(Of recent users)</b>	(n=18)	(n=5)	(n=5)	(n=8)	(n=2)	(n=15)	(n=8)
Median days used last 6 months (range)	2 (1-24)	6 (2-180)	2 (1-6)	5.5 (1-10)	2 (1-3)	8 (1-25)	1 (1-12)
Use fortnightly or more (%)	17	1	1	-	-	33	4

Source: EDRS REU interviews, 2004-2010

### 13.5.2 Nitrous oxide

Nine participants (33%) in 2010 reported the lifetime use of nitrous oxide; however (as in the previous five years), only a small proportion (4 participants; 15% of entire sample) reported having used it within the six months prior to interview. No participant reported that nitrous oxide was their drug of choice, or that they had recently used it during a binge episode, or that they usually used it with ecstasy or to come down from it.

### 13.6 Heroin

Only one participant (4%) reported having ever used heroin; and no participants reported having used it recently.

### 13.7 Methadone

Reported lifetime and recent use of methadone continues to be low among REU in the NT in 2010. Only one participant (4%) reported lifetime use of methadone, and similarly only one participant reported use in the previous six months.

### 13.8 Buprenorphine

No participants in 2010 reported lifetime use or recent use of buprenorphine in the NT.

### 13.9 Other opiates

Only one participant reported having ever used any other opiates. Only one participant also reported having used them recently.

### 13.10 Antidepressants

In 2010, only 11% (3 participants) reported having ever used antidepressants and only two participants reported having used them recently. Of the two reporting recent use, both were prescribed.

### **13.11 Pharmaceutical stimulants**

The majority (56%) of participants in 2010 reported having ever used pharmaceutical stimulants; however, only six participants (22%) reported having used them over the preceding six months. No participants reported that pharmaceutical stimulants were their drug of choice, having recently used them in a binge episode, or having usually used them with ecstasy or to come down from ecstasy.

#### **13.11.1 Licit pharmaceutical stimulants**

Two participants (7%) reported having ever used, and no participants reported recent use of, licitly obtained pharmaceutical stimulants.

#### **13.11.2 Illicit pharmaceutical stimulants**

Thirteen participants (48%) reported having ever used illicitly obtained pharmaceutical stimulants and six participants (22%) reported having used them over the preceding six months. The mean age at which they were first used was 20 years (range=15-28).

### **13.12 Mushrooms**

Fifty-two percent of participants interviewed reported having ever used mushrooms; however, only two participants (7%) reported having used them over the preceding six months. The mean age at which they were first used was 18 years (range=13-23).

### **13.13 Over-the-counter codeine**

Forty-four percent of participants interviewed reported having ever using over-the-counter (OTC) codeine and one-third (33%) reported having used it over the preceding six months. The mean age at which they were first used was 17 years (range=9-23). Among recent users, it had been used on a median of three days (range=1-14) over the preceding six months.

No participants reported that OTC codeine was their drug of choice; no participants reported lifetime or recent injection of OTC codeine. No participants reported that they recently used it during a binge episode or usually used OTC codeine with ecstasy; however, one reported using it to come down from ecstasy.

### **13.14 Steroids**

Two participants (7% of all participants interviewed) reported having ever used steroids; and only one participant (4%) reported having used them over the preceding six months and the route of administration was injection.

### **13.15 Energy drinks**

Again in 2010, participants in the EDRS were asked about their use of energy drinks. All participants (n=27) commented and, of these, 74% had consumed energy drinks with alcohol in the last six months and 15% reported recent bingeing on energy drinks. Of those who had consumed energy drinks with alcohol, REU reported a median of three drinks (range: 1-74) were consumed on the last occasion. Thirty-eight percent reported that energy drinks were mixed with alcohol as they allowed them to party for longer. Nineteen percent of participants also reported



consuming energy drinks in the same episode as ecstasy in the past six months, with a further 37% reporting consumption of energy drinks on the last occasion of recent ecstasy use.

### 13.16 Other drugs

Only one participant reported having ever used the plant *Salvia divinorum* and no participants reported use of other drugs not covered above.

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

### 14.1 Ecstasy

#### 14.1.1 Price

All participants were able to comment on the price of ecstasy (Table 21). The median price per tablet on the last occasion of purchase was \$35. The majority (64%) of participants believed the price of ecstasy remained stable over the past 6 months. Equal amounts believed the price had decreased or had fluctuated (8% each) and 20% of participants in 2010 believed the price of ecstasy had increased (Table 21). The Australian Crime Commission reported the highest price in the country for street purchased ecstasy is the Northern Territory with prices ranging from \$40 to \$50 (Australian Crime Commission 2010).

**Table 21: Price of ecstasy purchased by REU and price variations, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Median last price ecstasy tab \$ (range)	50 (15-80)	50 (17-80)^	50 (30-60)	50 (18-60)	50 (30-50)	50 (17-70)	35 (25-50)
Price change (% of REU)							
Increased	9	11	6	12	0	5	20
Stable	66	73	78	76	80	83	64
Decreased	6	1	4	9	4	3	8
Fluctuated	20	15	6	3	9	9	8
Don't know	0	0	6	0	7	-	-

Source: EDRS REU interviews, 2004-2010

^ Small numbers reporting (n<10)

Table 22 presents data on the purchasing behaviour of REU interviewed in 2010. Respondents purchased a median of five tablets (range=1-50) at each purchase from a median of three people (range=1-12) over the preceding six months. Three-quarters (74%) of participants usually purchased ecstasy for themselves and others at the same time and 22% usually purchased ecstasy only for themselves.

**Table 22: Patterns of purchasing ecstasy, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
Median no. of people purchased from	3 (1-20)	3 (1-25)	3 (1-35)	3 (1-50)	2 (1-6)	2 (1-12)	<b>3 (1-12)</b>
Median no. of ecstasy tabs purchased	-	3 (1-30)	4 (1-35)	3.5 (1-350)	4 (1-25)	6 (1-50)	<b>5 (1-50)</b>
Purchased for (%)							
Self only	-	20	38	32	29	31	<b>22</b>
Self and others	-	79	58	68	71	67	<b>74</b>
Others only	-	0	0	0	0	2	<b>4</b>
No. times purchased in the last 6 months (%)							
1-6	87	26	31	44	29	21	<b>52</b>
7-12	6	34	35	30	51	58	<b>22</b>
13-24	6	37	26	24	20	18	<b>26</b>
25+	0	2	4	2	0	3	<b>0</b>

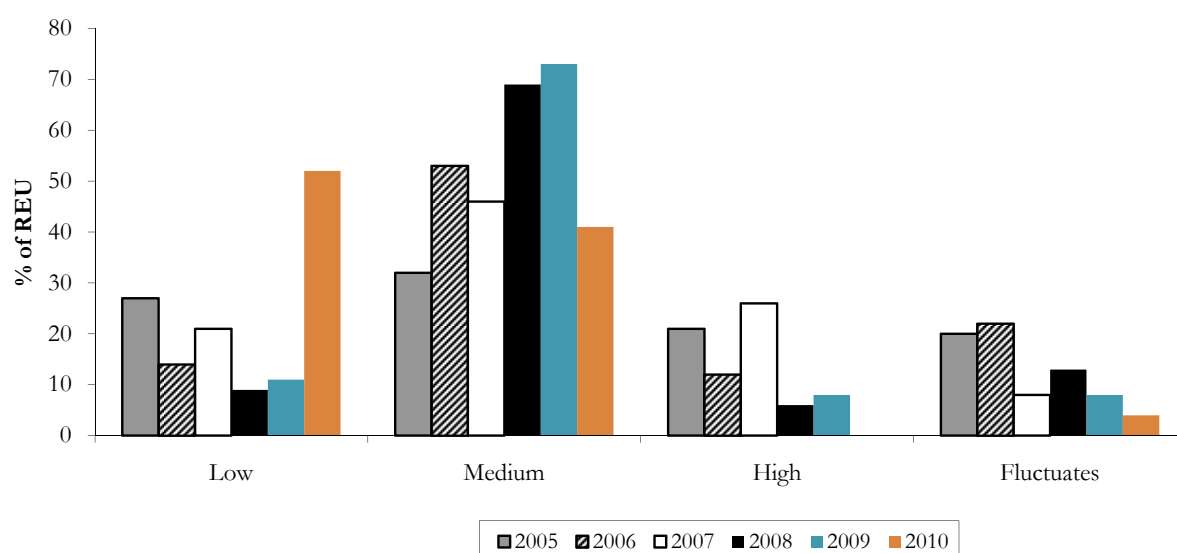
Source: EDRS REU interviews, 2004-2010

\* Among those able to purchase drugs other than ecstasy from their main dealer

#### 14.1.2 Purity

Half (52%) of all participants reported the purity of ecstasy in Darwin to be low. Forty-one percent reported that it was medium and only one person reported it had fluctuated over the six months prior to interview. No participants commented that ecstasy was currently high purity.

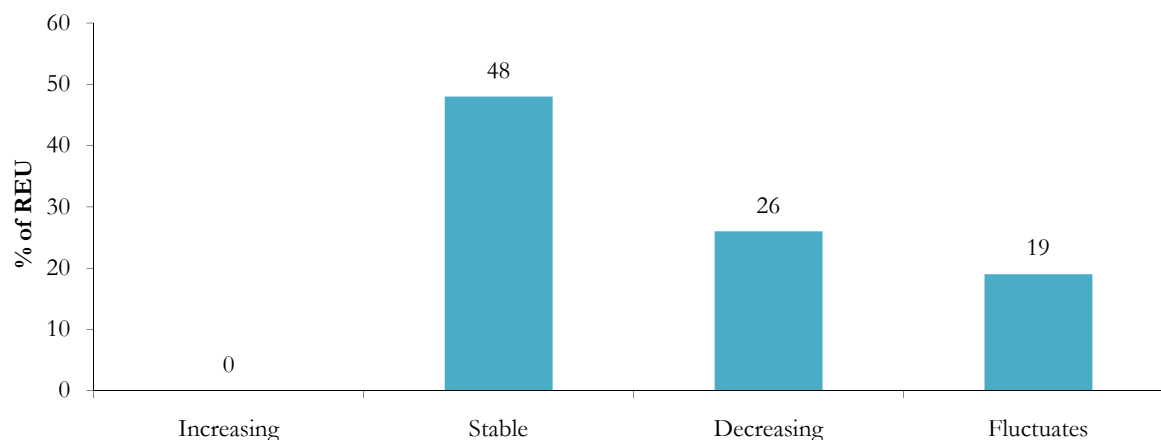
**Figure 4: REU reports of current ecstasy purity, NT, 2005-2010**



Source: EDRS REU interviews, 2005-2010

Figure 5 presents data reflecting participants' perceived change in purity of ecstasy over the preceding six months. Approximately half (48%) of the sample believed it had remained stable, a quarter (24%) believed it had decreased and one-fifth (19%) believed it had it had fluctuated.

**Figure 5: REU reports of change in purity of ecstasy in the preceding six months, NT, 2010**



Source: EDRS REU interviews, 2010

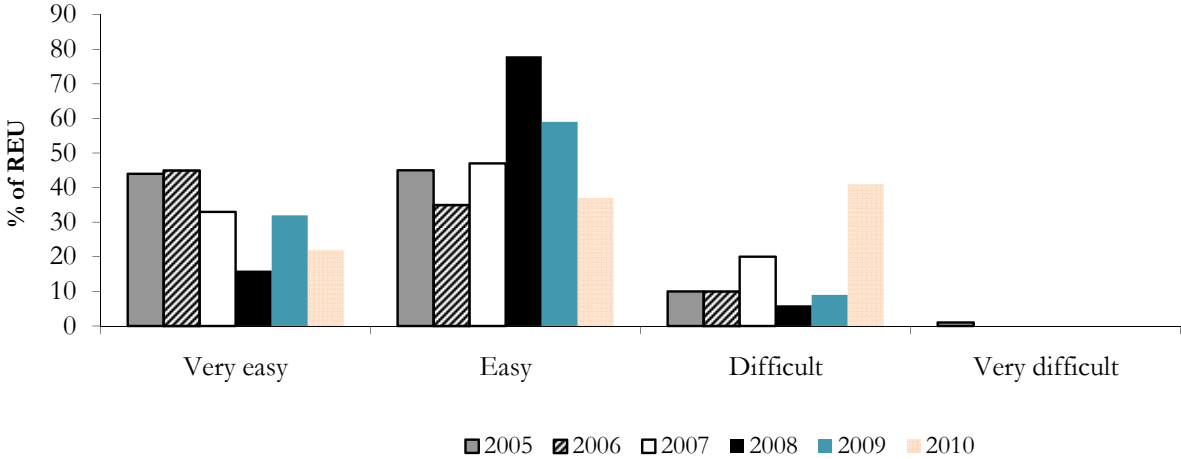
The above are all subjective estimates of purity and depend, among other factors, on users' tolerance levels. Clearly, laboratory analyses of the purity of seizures of ecstasy provide objective evidence regarding purity changes, and should therefore be more highly regarded than the reports of users. However, it is also important to note the limitation of the average purity figures calculated by forensic agencies, namely that not all illicit drugs seized by Australia's law enforcement agencies are analysed for purity. In some instances, seized drugs will be analysed only in a contested court matter. The purity figures, therefore, relate to a non-representative sample of the illicit drugs available in Australia. Furthermore, the purity of drugs seized by law enforcement agencies in the NT are not available because toxicological analyses are not routinely performed on seized drugs and therefore forensic purity data is discussed in this report.<sup>10</sup>

### 14.1.3 Availability

Participants' responses regarding the current availability of ecstasy were mixed. Most participants believed it was either easy or very easy to obtain ecstasy (37% and 22% respectively), yet 41% believed it was difficult to obtain. No respondents believed it was very difficult (Figure 6).

<sup>10</sup> Purity data collected by the AFP are available for the period 1999/00-2003/04 and were provided by the ACC (formerly the ABCI). These data, along with the number of seizures made by the AFP in the NT, are presented in the 2007 NT EDRS report which can be accessed at <http://notes.med.unsw.edu.au/> under 'drug trends'

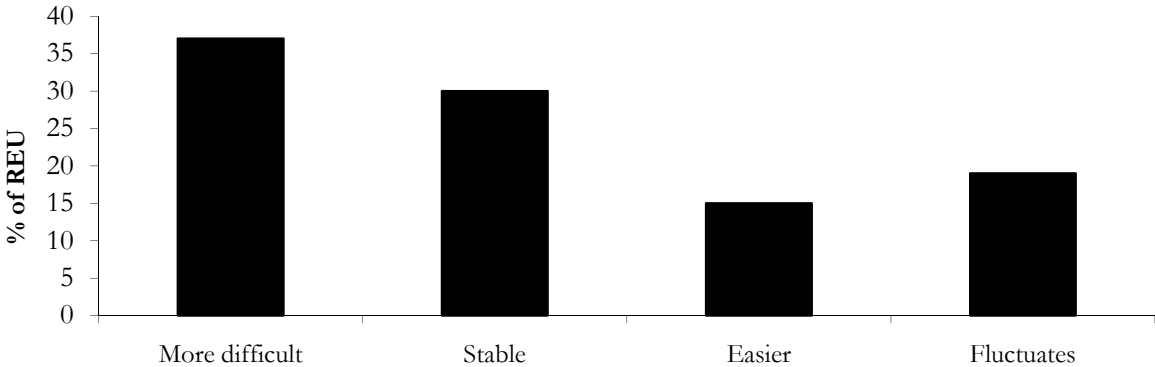
**Figure 6: REU reports of current availability of ecstasy, NT, 2005-2010**



Source: EDRS REU interviews, 2005-2010

Figure 7 presents respondents’ perceived change in the availability of ecstasy in the six months prior to interview. Responses were mixed with over one-third (37%) believing it had become more difficult to obtain ecstasy, 30% reporting it had remained stable, 19% reporting it had fluctuated and only 15% saying that it had become easier to obtain.

**Figure 7: REU reports of change in ecstasy availability in the preceding 6 months, NT, 2010**



Source: EDRS REU interviews, 2010

Of the participants in the 2010 EDRS, all had bought ecstasy at least once during the six months prior to interview. The majority had bought from friends (63%) on the last occasion of purchase, while the remainder were a mix of pubs and own home (both 11%), dealer’s home (7%), nightclubs and private parties (both 4%) (Table 23).

**Table 23: REU reports of source and location for scoring ecstasy in the preceding six months, NT, 2004-2010**

	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009*** (N=67)	2010 (N=27)
<b>Persons score from (%)#</b>							
Used not scored	6	2	6	0	0	0	0
Friends	73	82	78	80	82	57	82
Dealers	52	48	24	55	53	41	15
Acquaintances	39	20	22	23	24	2	0
Work colleagues	16	17	8	6	4	0	0
Unknown dealer	26	17	8	11	7	0	0
<b>Locations scored from (%)#</b>							
Used not scored	1	2	6	0	0	0	0
Friend's home	49	62	59	64	69	40	63
Nightclub	51	48	45	42	55	15	4
Dealer's home	30	35	20	50	47	16	7
At own home	38	32	51	21	6	9	11
Rave/doof/dance party	31	13	18	12	6	3	0
Pub	27	32	29	18	18	8	11
Agreed public location	35	44	28	18	9	2	0
Street	9	4	2	0	11	3	0

Source: EDRS REU interviews, 2004-2010

# Participants able to give more than one answer

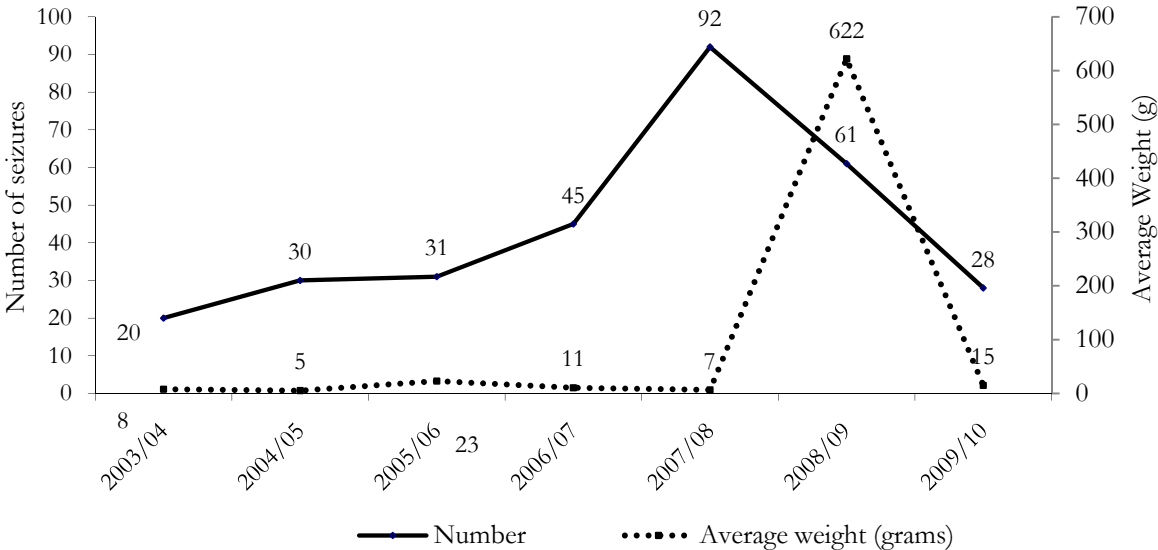
\*\*\* Note: Due to changes in the questionnaire to single response answers, direct comparisons with previous years should be interpreted with caution.

Figure 8 presents data on the number and average weight of ecstasy seizures made by the NT police. (Data are available since financial year 2003/04; data from previous years were managed through a paper-based system and are not deemed reliable.) It should be noted that the weight is that recorded at point of seizure, it is approximate and is not forensically tested. 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. This also means that the weights include mixtures, not the total weight of pure MDMA.

From 2003/04 to 2007/08, the number of ecstasy seizures has increased from 20 to 92 with a large increase noticeable between 2006/07 (45) and 2007/08 (92). In 2009/10 there were 28 seizures and a noted decrease in the average weight (15 grams; range: 0.2-147 grams) per seizure<sup>11</sup>, following a large seizure in 2008/09.

<sup>11</sup> NB – there were two seizures made in 2008/09 which were much larger than the other seizures made. When these seizures were removed from the analysis, the average weight per seizure fell to 79.8 grams.

**Figure 8: Number and average weight of ecstasy seizures, NT, 2003/04-2009/10**



**Source: NT Police Illicit Drug Seizure Database**

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

**14.1.4 KE comments**

The vast majority of KE in the Northern Territory were unable to comment on the price, purity or availability of ecstasy. Two KE believed that the availability of ecstasy had decreased over the last 6 to 12 months in Darwin.

**14.2 Methamphetamine**

**14.2.1 Price**

Table 24 presents data across time on the reported price of methamphetamines in the NT. Caution should be used when interpreting these data as increasingly fewer participants have been able to provide data on price, purity and availability of methamphetamines in recent years.

In 2010, 10 participants were able to comment on the price of speed. They reported that in the preceding six months, speed had cost a median of \$350 (range=\$50-\$400) per gram. Only one participant was able to comment on the price of base and ice/crystal methamphetamine (Table 24).

**Table 24: Price of various methamphetamine forms purchased by REU, 2004-2010**

	2004	2005	2006	2007	2008	2009	2010
<i>Median price \$</i>							
<i>Speed (range)</i>							
Point	-	-	80 (25-350)	-	-	50 (50)	<b>100 (50-150)^</b>
Gram	50 (50-700)	90 (25-300)	50 (40-100)^	250 (100-350)	300 (15-700)^	300 (100-800)	<b>350 (50-400)</b>
<i>Base (range)</i>							
Point	50 (15-80)	75 (30-400)	-	35 (35)^	-	55 (50-60)^	<b>50 (50)^</b>
Gram	-	-	100 (100)^	200 (140-300)^	400 (400)^	350 (300-400)^	-
<i>Crystal (range)</i>							
Point	50 (25-75)	80 (40-100)	50 (50-150)^	45 (40-50)^	-	100 (50-100)^	<b>100 (100)^</b>
Gram	-	-	300 (300)^	250 (100-1200)^	-	1000 (-)^	<b>1800 (1800)^</b>

Source: EDRS REU interviews, 2004-2010

^ n=<10 respondents

The ACC reported the price of crystal methylamphetamine in the NT decreased from with the \$650 to \$400 per gram in 2008/09 (Australian Crime Commission 2010).

Table 25 presents data on changes to the price of speed, base and ice/crystal over the preceding six months. Only nine participants were able to comment on price movements for speed over the last six months, and there were insufficient numbers of participants to comment on base or ice/crystal.

**Table 25: Methamphetamine price movements in the last six months, REU, 2009-2010**

	Speed (n=9) <sup>^</sup>	Base (n/a)	Ice/crystal (n/a)
Price change %			
Increased	33 (10)	n/a (33)	n/a (50)
Stable	57 (80)	n/a (50)	n/a (50)
Decreased	- (5)	n/a (-)	n/a (-)
Fluctuated	5 (5)	n/a (17)	n/a (-)

Source: EDRS REU interviews, 2010

NB: % of those that responded

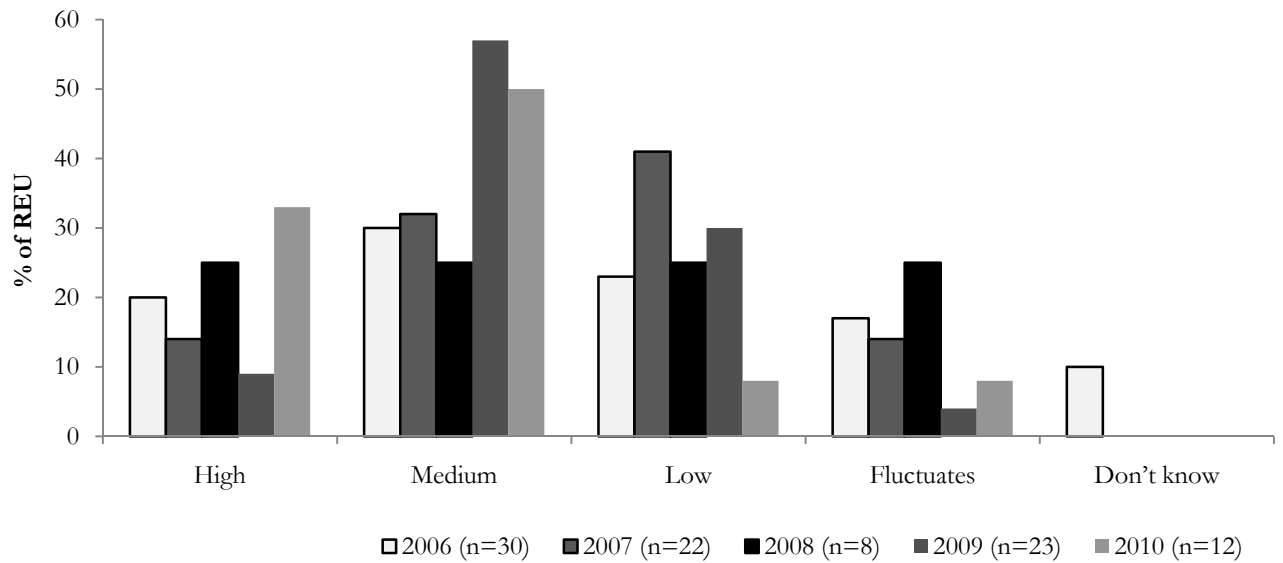
2009 data in brackets

^ n=<10 respondents

### 14.2.2 Purity

The half of participants (50%) who commented on the current purity of speed reported it was medium (Figure 9). One-third percent reported the purity was high and remaining participants were equally split (8% each) between low and fluctuating purity.

**Figure 9: REU reports of current purity of speed, % commented, REU, NT, 2006-2010**



Source: EDRS REU interviews, 2006-2010

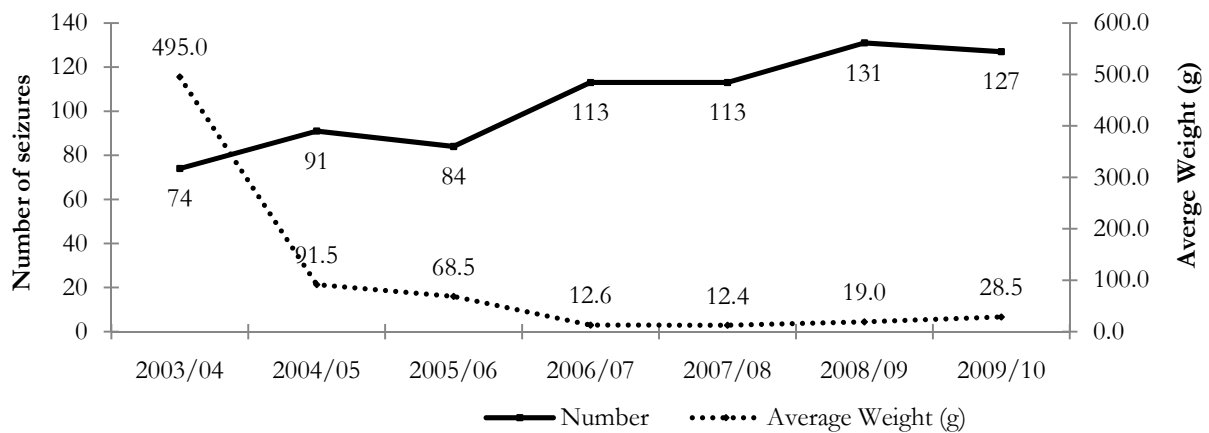
There were small numbers of participants commenting on the purity of base (n=2) and ice/crystal (n=4). Half (50%) of those commenting on ice/crystal reported current purity as high, while base was reported as equally low and high purity (50% each).

Figure 10 displays the number and average weight of methamphetamine seizures by the NT Police in the NT. Data are only available for the financial years 2003/2004 to 2008/2009 because previous years' data were managed through a paper-based system and were not deemed reliable. It should be noted that the weights recorded were of the total seizure and do not represent the weight of meth/amphetamine content of the seizure. Furthermore, as toxicological analyses are not used to ascertain the exact content of drugs seized, purity data are not available and drugs are classed according to the information available to police at the time of seizure.

The number of seizures made remained stable in the 12 months to June 2010 (127 vs. 131 in 2008/09). The average weight of seizures increased over the same period from 19.0 grams in 2008/09 to 28.5 grams in 2009/10 (Figure 10).



**Figure 10: Number and average weight of seizures of amphetamine/methamphetamine, NT, 2003/04-2009/10**



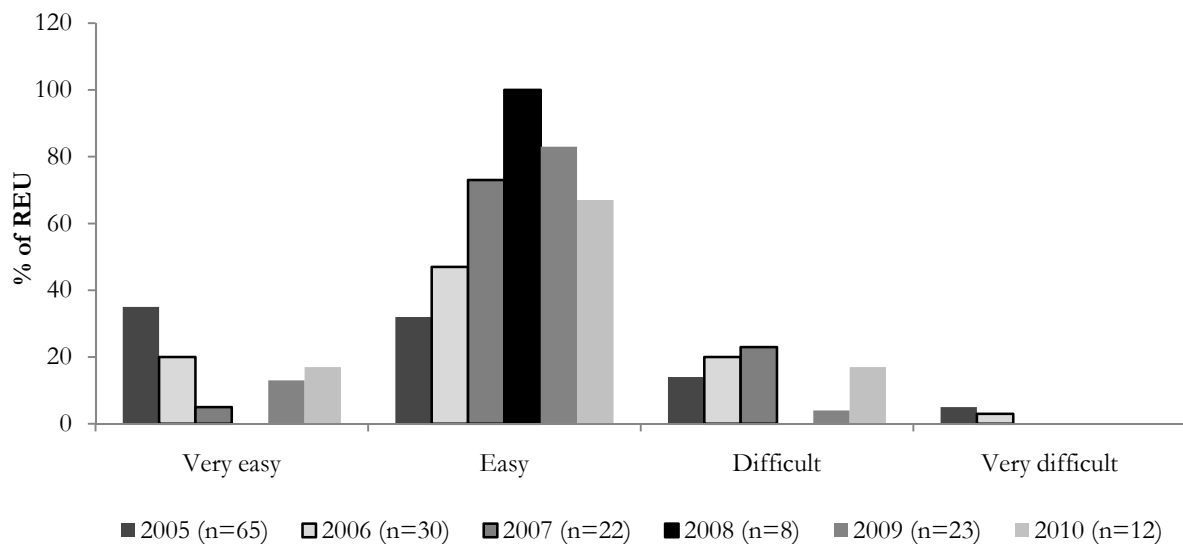
Source: NT Police Illicit Drug Seizure database

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

### 14.2.3 Availability

The majority (83%) of the participants who commented (n=12) on the availability of speed reported that it was currently easy or very easy to obtain (Figure 11). Furthermore, 82% of participants who commented reported that the availability of speed had remained stable over the preceding six months and only 9% commented that it had become more difficult to obtain.

**Figure 11: REU reports of current availability of speed, 2005-2010**



Source: EDRS REU interviews, 2005-2010

Comparable to previous years, only low numbers of participants were able to comment on the availability of base (n=2) or ice/crystal (n=4).

Participants were asked who they had purchased methamphetamines from over the preceding six months and the usual locations of purchase. Speed was most commonly purchased from friends.

The most common venue was a friend's home, followed by an agreed public location. Very low numbers of participants again in 2010 reported purchases of base (n=2) and ice/crystal (n=3) (Table 26).

**Table 26: REU reports of source and locations for scoring various methamphetamines in the last six months, % commented, 2008-2010**

	Methamphetamine								
	Speed			Base			Ice/Crystal		
	2008 (n=8)*	2009 (n=23)	2010 (n=12)	2008 (n=1)*	2009 (n=6)*	2010 (n=2)*	2008 (n=0)	2009 (n=5)*	2010 (n=3)*
<b>Source scored from</b>	13			-		<b>100</b>	-		
Friends	63	26	<b>75</b>	100	33	-	-	40	<b>100</b>
Known dealers	-	65	<b>17</b>	-	33	-	-	40	-
Workmates	13	4	-	-	-	-	-	-	-
Acquaintances	-			-			-		
Unknown dealers	13	-	-	-	-	-	-	-	-
Unknown dealers	38	-	-	100	-	-	-	-	-
<b>Locations scored</b>	13			-		<b>50</b>	-		
Home	-	4	-	-	50	-	-	-	-
Dealer's home	13	13	<b>8</b>	-	17	-	-	20	-
Friend's home	-			-		<b>50</b>	-	20	-
Friend's home	13	26	<b>50</b>	-	17	-	-	20	<b>100</b>
Raves/dance parties	13	-	-	-	-	-	-	-	-
Nightclubs		9	-						
Pubs		13	<b>8</b>						
Street		9	-					20	-
Agreed public location		22	<b>17</b>		17			-	-

Source: EDRS REU interviews, 2008-2010

\* Caution should be used when interpreting these data due to the small numbers reporting

There were only a few KE able to comment on methamphetamines in the NT. Of those able comment there was a consensus that there had been an increase in the availability of base and ice/crystal availability had continued to decline.

## 14.3 Cocaine

### 14.3.1 Price

Only five participants commented on the price of cocaine. The median price for one gram of cocaine in the preceding six months was \$400 (range=\$300-\$500). Due to the small numbers commenting this data should be interpreted with caution.

### 14.3.2 Purity

Five participants commented on the purity of cocaine. Three participants reported that it was currently low and one participant each believed it was currently high or didn't know. Reports of changes in the purity of cocaine over the preceding six months were varied. Three participants reported they 'don't know' and one each reporting it had decreased or fluctuated.

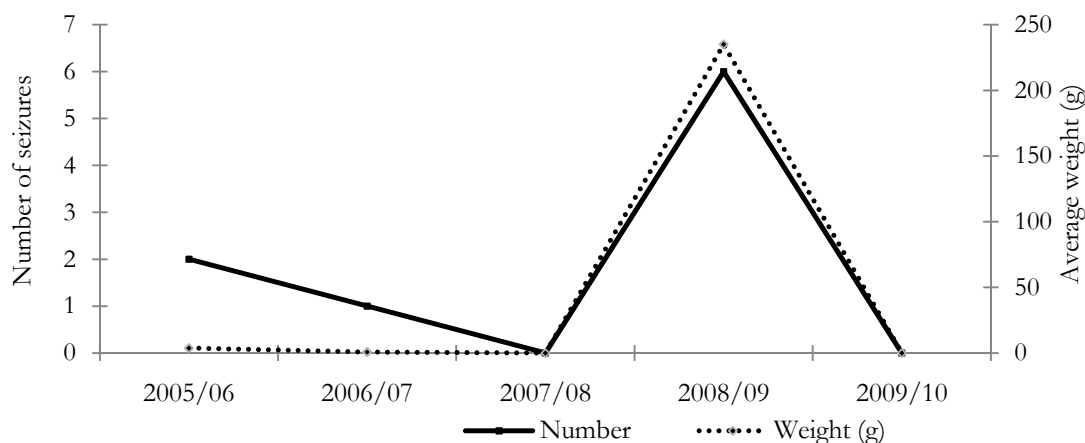
### 14.3.3 Availability

Of the five participants who commented on the availability of cocaine in the NT, four reported that it was currently difficult (n=2) or very difficult (n=2) to access. Three participants reported that availability had remained stable over the six months prior to interview; one participant reported it had become more difficult and other didn't know if availability had changed over this time.

Figure 12 displays the number and weights of cocaine seizures by the NT Police. Data are only available for the financial years 2005/06 to 2009/10. It should be noted that the weights recorded were of the total seizure and do not represent the weight of the cocaine content of the seizure. Furthermore, as toxicological analyses are not used to ascertain the exact content of drugs seized, purity data are not available and drugs are classed according to the information available to police at the time of seizure.

The number of cocaine seizures has been very low since 2005/06 and in 2009/10 this remained consistent with no seizures recorded in the 12 months to June 2010. This is a decrease from the two seizures recorded in 2008/09 (range: 4.8-137.2 grams).<sup>12</sup>

**Figure 12: Number and average weight of seizures of cocaine, NT, 2005/06-2009/10**



Source: NT Police Illicit Drug Seizure database

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

Comments on cocaine use among REU in Darwin by KE were extremely limited.

<sup>12</sup> NB – there was one cocaine seizure made in 2008/09 which was much larger (137.2 grams vs. 4.8 grams) than the other seizure made.

## **14.4 Ketamine**

As only one participant was able to comment on the price, purity and availability of ketamine, comparisons with previous years' data will not be made here.

No KE were able to comment on ketamine.

## **14.4 GHB**

No participant reported recent use of GHB and no participants were able to report on the price, purity or availability of GHB in the NT in 2010.

No KE were able to comment on the use of GHB among REU in Darwin.

## **14.6 LSD**

### **14.7.1 Price**

Only five participants were able to comment on the price of LSD; therefore, caution should be used when comparing data with previous years. The median price for one tab was \$25 (range=\$25-\$30). Of the five participants who commented, three reported that the price of LSD had remained stable; one each said it had either increased or decreased over the preceding six months.

### **14.7.2 Purity**

Six participants were able to comments on LSD purity. Comments on purity were mixed: three reported that it was currently high and one participant each reported that it was medium, low or that it fluctuates. Caution should be used when comparing data with previous years due to the small number of participants reporting again this year.

As to changes in the purity of LSD over the preceding six months, only four participants could comment; 75% of which believed it to be stable and the remaining participant reported that it had fluctuated.

In 2009/10 there were only four seizures of LSD reported by NT Police, comparable to one reported in 2008/09.

### **14.7.3 Availability**

Only seven participants could comment on the availability of LSD. Three participants each (43% of those that could comment) equally reported that it was currently difficult or easy to obtain. One participant reported the current availability as very easy.

Of the four participants who commented on changes to the availability of LSD over the preceding six months, three reported that it remained stable and one participant reported it had become more difficult.

LSD was primarily scored from friends in 2010 (six participants) or from workmates or acquaintances (one participant each).

No KE were able to comment on LSD in Darwin.

## 14.7 Cannabis

### 14.8.1 Price

Table 27 presents data on the current price of hydro and bush cannabis. Only five participants were able to comment on a gram of hydro with a median price of \$30. The four participants that were able to comment on a gram of bush cannabis prices reported a median price of \$30. An ounce of hydro was reported by six participants to be \$425 and two participants reported a median price of \$400 for an ounce of bush. Caution should be used when interpreting these data due to the small numbers of participants reporting. No participants were able to comment on the price, purity or availability of hashish or hashish oil.

**Table 27: Median price (\$) of most recent cannabis purchases by REU, NT, 2006-2010**

		2006	2007	2008	2009	2010
Hydro	Gram	25 (17)*	22.5 (4)*^	20 (3)*^	30 (8)*^	<b>30 (5)^</b>
	Ounce	300 (19)	350 (22)	350 (2)^	360 (6)^	<b>425 (6)^</b>
Bush	Gram	25 (3)^	30 (1)	20 (3)^	22.50 (6)^	<b>30 (4)^</b>
	Ounce	200 (6)^	300 (7)	300 (3)^	320 (3)^	<b>400 (2)^</b>
Hashish/hashish oil	Gram	30 (3)^	-	-	-	-
	Cap	55 (2)^	-	-	-	-

Source: EDRS REU interviews, 2006-2010

\* Number in brackets identifies the number of participants who commented

^ Small numbers reported (<10)

Table 28 presents user reports of recent changes in the price of cannabis in the NT. Again, care should be taken when interpreting the data due to low numbers reporting; the majority of participants have reported that the price of bush (71%) believed it to be stable. The price of hydro cannabis was mixed with 50% reporting and increase and 43% reporting it has remained relatively stable over the preceding six months (Table 28).

**Table 28: Price variations of cannabis in the past six months, % commented, REU, NT, 2010**

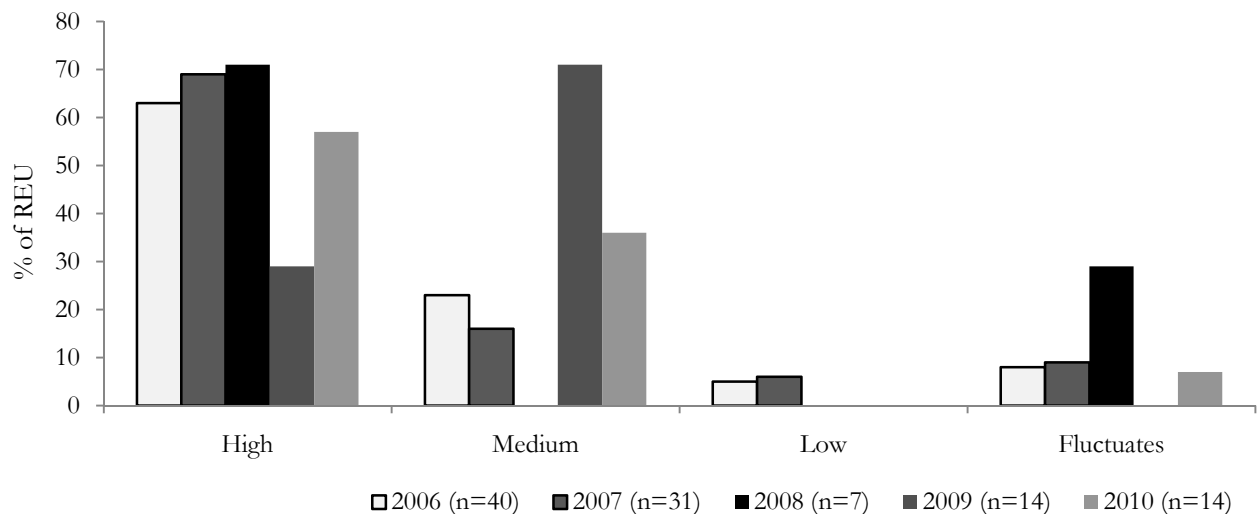
	2010 (N=27)	
	Hydro	Bush
Of those that responded (%)	(n=14)	(n=7)
Increasing	50	29
Stable	43	71
Decreasing	-	-
Fluctuating	7	-

Source: EDRS REU interviews, 2010

### 14.8.2 Potency

Figure 13 presents data on the current potency of hydro. Of the 14 participants who commented, the majority (57%) reported that it was currently high and 36% reported that it was medium.

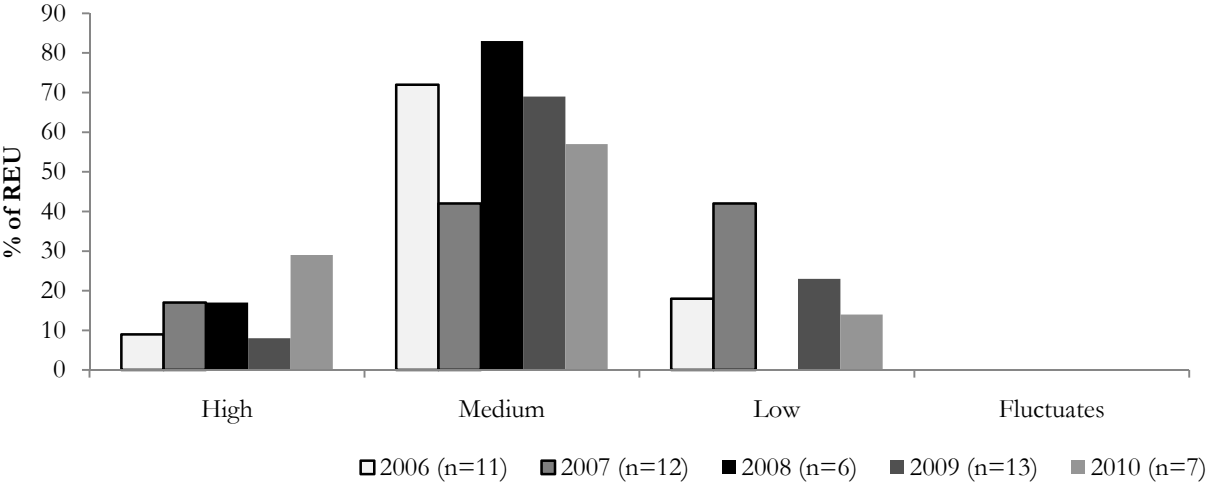
**Figure 13: REU reports of current potency of hydro, % commented, REU, NT, 2006-2010**



Source: EDRS REU interviews, 2006-2010

Figure 11 presents data on the current potency of bush. Unlike hydro, bush was generally believed to be of medium potency by the majority (57%) of the small number (n=7) that could comment.

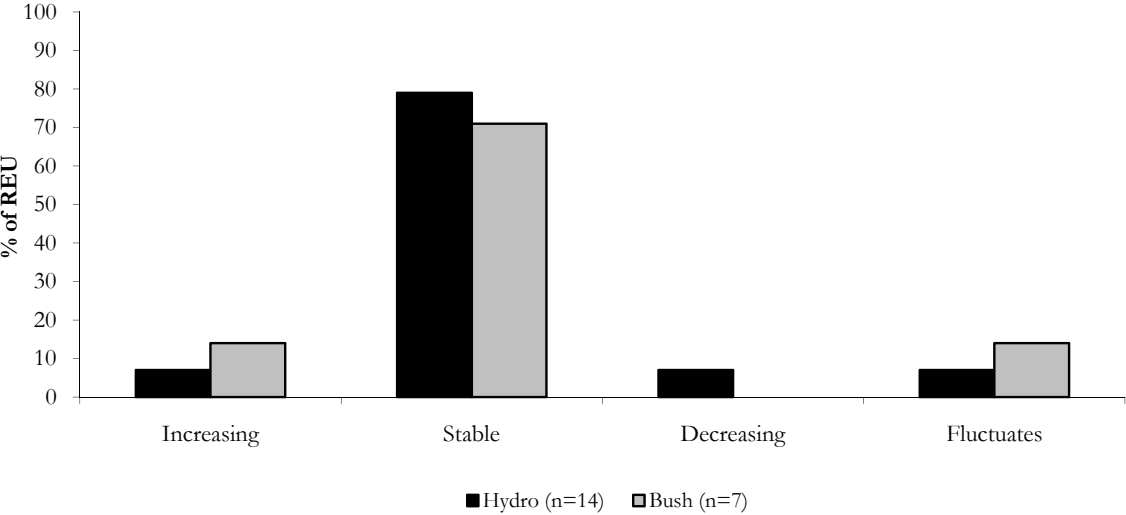
**Figure 14: REU reports of current potency of bush, % commented, REU, NT, 2006-2010**



Source: EDRS REU interviews, 2006-2010

Only a small number of participants were able to comment on changes in the potency in cannabis. The majority (71%) of the seven participants who commented on bush cannabis reported that the potency had remained stable over the preceding six months, similarly the majority (79%) of the 14 participants that could comment on hydro also believed it had remained stable (Figure 15).

**Figure 15: Change in potency of cannabis in past six months, % commented, REU, NT, 2010**

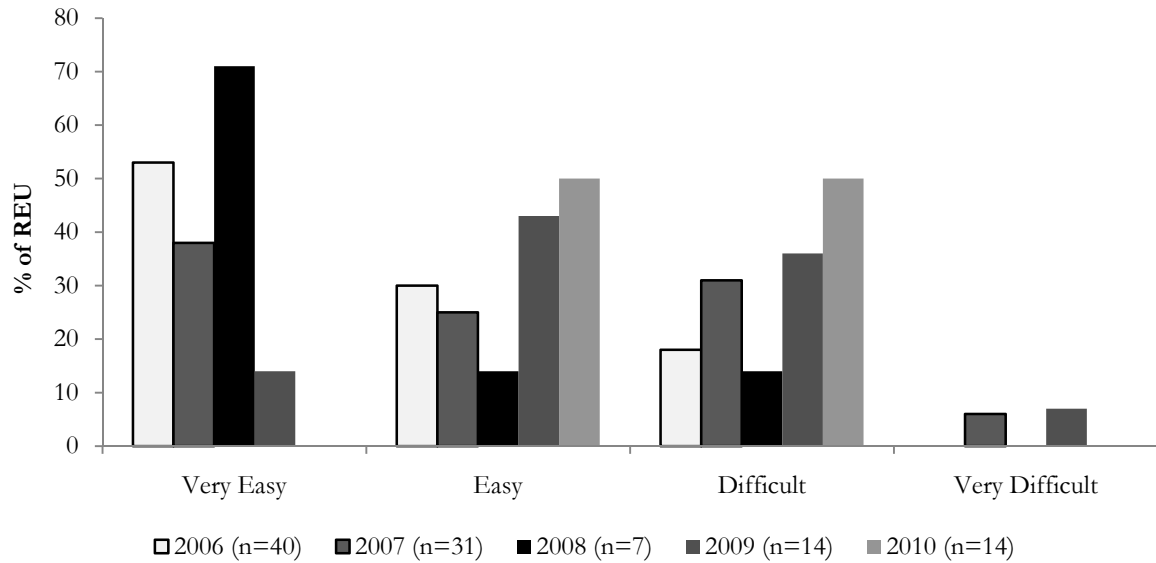


Source: EDRS REU interviews, 2010

**14.8.3 Availability**

Availability of hydro cannabis appears in the NT in 2010 to be mixed. Of the 14 participants that commented, half (50%) reported it as easy and another half (50%) believed it was difficult (Figure 16).

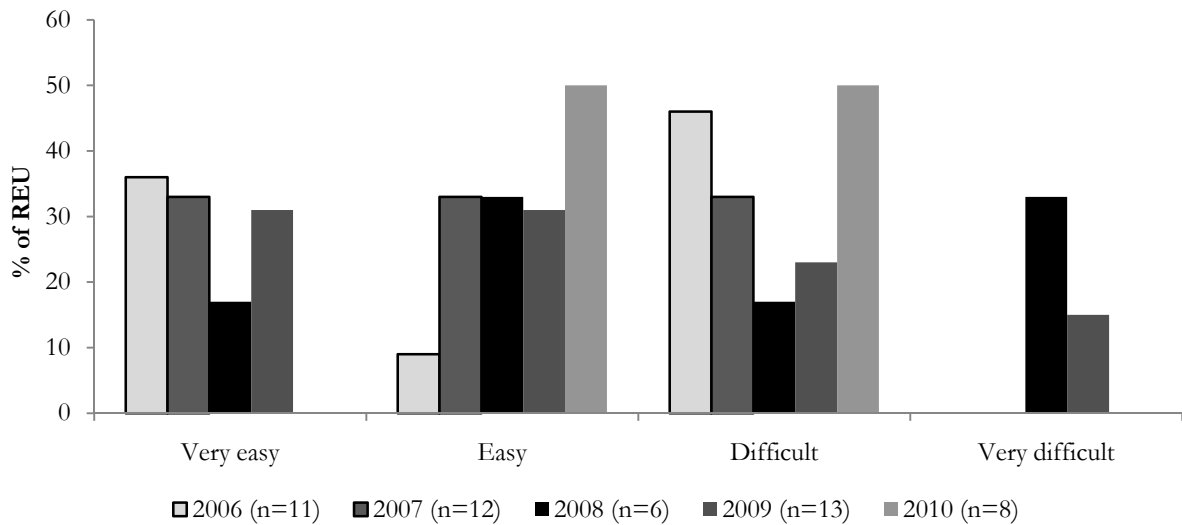
**Figure 16: Current availability of hydro, % commented, REU, NT, 2006-2010**



Source: EDRS REU interviews, 2006-2010

Only four participants could comment on the availability of bush cannabis. Equal proportions (50% each) reported that it was currently easy or difficult to obtain (Figure 17).

**Figure 17: Current availability of bush, % commented, REU, NT, 2006-2010**

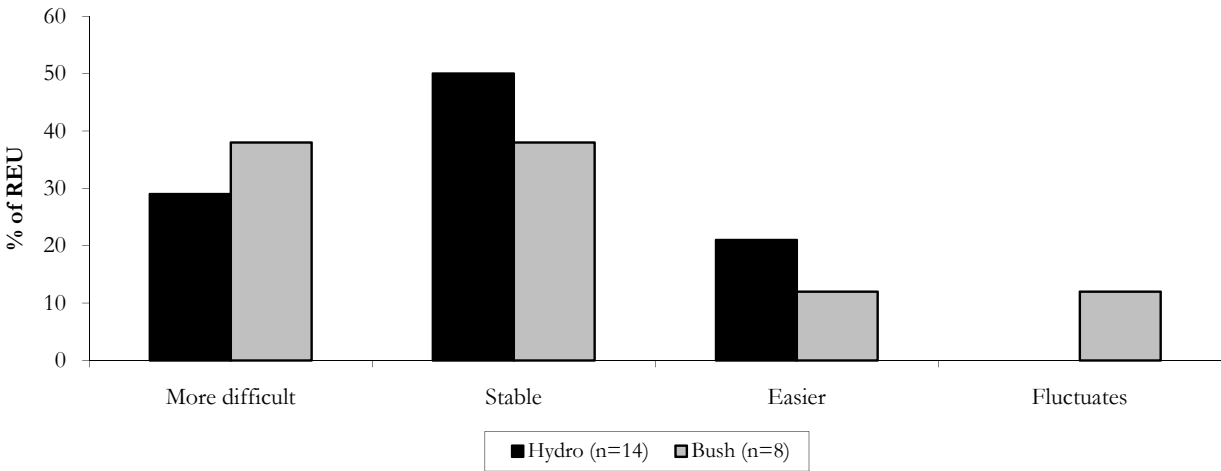


Source: EDRS REU interviews, 2010

Participants were asked whether the availability of bush and hydro had changed over the preceding six months (Figure 18). Availability of bush cannabis was mixed with equal proportions (38%) reporting it as either stable or more difficult over the past six months, whereas with hydro half (50%) believed it to be stable, with just over a quarter (29%) believing it had become more difficult to obtain.



**Figure 18: Changes in cannabis availability in the preceding six months, % commented, REU, NT, 2010**



Source: EDRS REU interviews, 2010

In 2009/10, there were 1,180 cannabis seizures (including hashish oil) made by the NT police with a total weight of 50 kg and an average weight of 51 grams. Compared to the same period last year the number of seizures remains stable (1,156 in 2008/09), yet there was a decrease in both the total weight (141 kg in 2008/09) and the average weight per seizure (122 grams in 2008/09).

Table 29 presents data on the people from whom hydro and bush cannabis were purchased and locations purchased from over the six months prior to interview. Both hydro and bush were most commonly purchased from friends. The location at which it was most commonly purchased in 2010 was a friend’s home.

**Table 29: REU reports of source and locations for scoring cannabis in the last six months, % commented, NT, 2006-2010**

	2006		2007		2008		2009		2010	
	Hydro	Bush	Hydro	Bush	Hydro	Bush	Hydro	Bush	Hydro	Bush
<b>Source scored from</b>	(n=40)	(n=11)	(n=30)	(n=12)	(n=7)	(n=5)	(n=15)	(n=13)	<b>(n=14)</b>	<b>(n=8)</b>
Street dealer	10	18	-	-	-	-	-	15	-	-
Friend	73	82	76	58	71	60	60	39	<b>57</b>	<b>50</b>
Known dealer	33	36	33	50	14	20	27	46	<b>21</b>	<b>25</b>
Workmates	10	9	7	-	14	-	-	-	-	-
Acquaintance	23	9	7	17	14	-	-	-	<b>7</b>	-
Unknown dealer	5	9	-	-	-	-	7	-	<b>7</b>	-
<b>Locations scored from</b>	(n=39)	(n=11)	(n=30)	(n=12)	(n=7)	(n=6)	(n=15)	(n=13)	<b>(n=13)</b>	<b>(n=7)</b>
Home delivery	64	11	27	0	-	-	33	15	<b>31</b>	<b>14</b>
Dealer's home	26	46	33	58	14	33	27	39	<b>23</b>	<b>14</b>
Friend's home	69	82	70	25	57	50	27	31	<b>46</b>	<b>57</b>
Acquaintance's house	26	9	0	17	14	-	-	-	-	-
Street market	8	18	0	17	-	-	-	-	-	-
Agreed public location	21	9	10	0	-	-	-	-	-	-
Work	3	0	3	0	29	-	-	-	-	-

Source: EDRS REU interviews, 2006-2010

The majority of KE were able to comment on the use of cannabis in Darwin. There was a general consensus that use was primarily occurring among males, aged between late teens and mid-30s. The price of cannabis in the NT was seen as stable; however, price differences were noted between Darwin and regional and remote areas of the NT. The availability of bush grown cannabis was seen to have increased.

## **15 HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE**

### **15.1 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 or panic, hallucinations) or symptoms consistent with a depressant overdose (e.g. reduced level of consciousness, respiratory depression, turning

blue, collapsing). As such, the following sections are based on participants' understanding of these definitions and their opinions as to whether they had overdosed.

### **15.1.1 Stimulant overdose**

In 2010, participants were asked about their experiences with stimulant and depressant overdoses. Symptoms of stimulant toxicity that may indicate a person has suffered a stimulant overdose include nausea and vomiting, chest pain, tremors, increased body temperature, increased heart rate, seizure, extreme paranoia, extreme anxiety, panic, extreme agitation, hallucinations and excited delirium.

In 2010, 13 participants (48%) reported that they had ever overdosed on a stimulant drug a median of ten times (range=1-50). Eleven participants reported overdosing on a stimulant drug in the 12 months preceding interview, all which were attributed to ecstasy.

Four participants reported having overdosed at a friend's house, three at a private party, and two at a nightclub and another two at home. The most common symptoms reported by the twelve participants who could comment and had recently overdosed included increased body temperature and increased heart rate (nine participants each), paranoia and delirium (five participants each), shallow irregular breathing (four participants) and extreme anxiety (three participants). Six participants (55%) reported receiving some form of treatment or intervention at the time of overdose. At the time of overdose, participants had been partying for a median of 10 hours (range: 6-62)

### **15.1.2 Depressant overdose**

In 2010, participants were asked about their experiences with depressant overdose. The following symptoms are consistent with a depressant overdose: reduced level of consciousness, respiratory depression, turning blue or collapsing. Ten participants (37% of entire sample) reported having ever experienced a depressant overdose on a median of one occasions (range=1-50). Seven of these had done so in the 12 months prior to interview and all of them attributed the overdose primarily to the consumption of alcohol. Five participants overdosed in a private setting (their own home, friend's home or private party) and one participant each overdosed in public settings: (nightclub and a rave/doof/dance party). Only one participant reported having consumed other drugs as well as alcohol. Vomiting was reported by all participants who had recently overdosed and other symptoms reported included losing consciousness and collapsing (three participants each) and one participant reported suppressed breathing. Only two participants received any form of treatment during their depressant overdose.

## **15.2 Help-seeking behaviour**

Only one participant (4% of entire sample) reported having accessed any health or medical services over the six months preceding interview in relation to their drug use. The services accessed were first aid, ambulance, emergency department admission and hospitalisation.

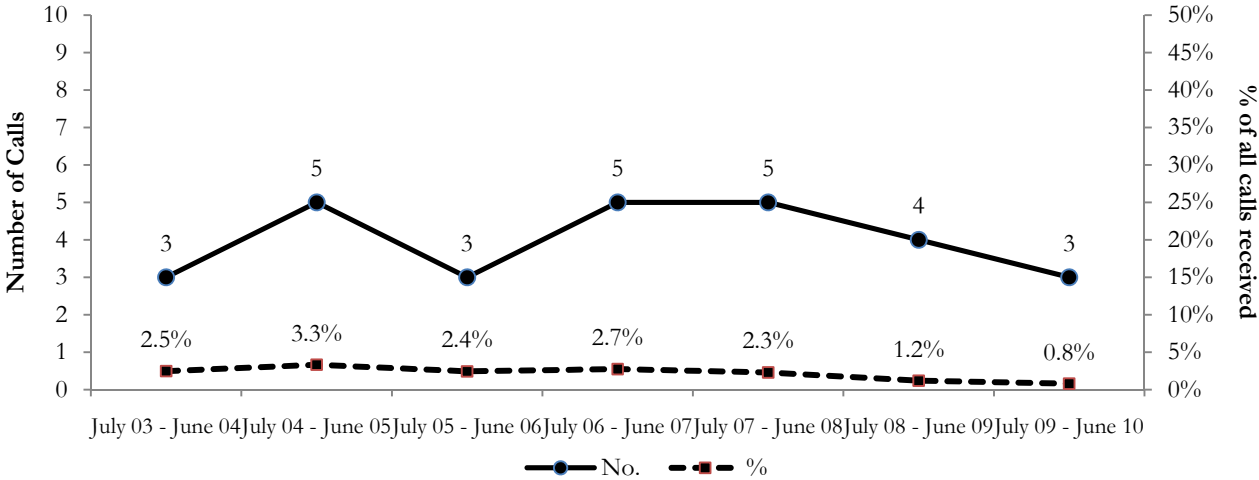
## **15.3 Drug treatment**

### **15.1.3 Ecstasy**

The NT Alcohol and Drug Information Service (ADIS) provides a telephone information and referral service in the NT. This service commenced in March 2003. Both the number of calls

received in which ecstasy was mentioned as well as the proportion of total calls in which ecstasy was mentioned has remained relatively stable across time, with a decrease noted in the 12 months to June 2010 (Figure 19).

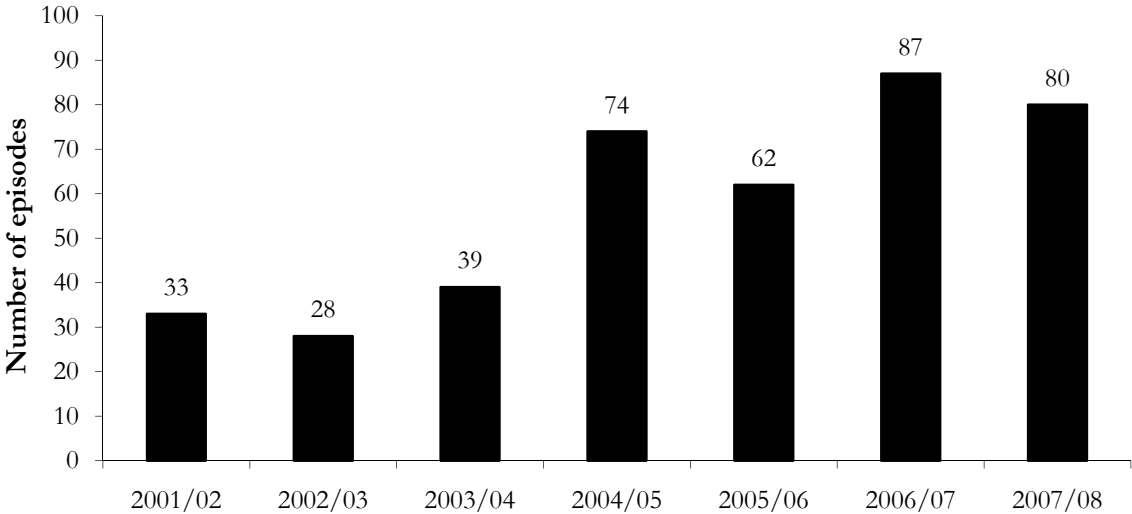
**Figure 19: Ecstasy-related calls made to the NT ADIS, July 2003 to June 2010**



**Source: Northern Territory Alcohol and Drug Information Service (ADIS)**  
 Note: More than one drug may be recorded per call and all drugs involved are not always recorded

Figure 20 displays the number of episodes of treatment in all NT alcohol and other drug treatment services (AODTS) where ecstasy was mentioned as either the principal or other drug of concern. In 2007/08, the most recent data available, there were 80 recorded treatment episodes where ecstasy was listed as a drug of concern, a slight decline from 87 in 2006/07. Despite this slight decline, there has generally been an increase across time in the number of treatment episodes where ecstasy was mentioned as a drug of concern.

**Figure 20: Number of closed episodes of treatment in NT AODTS with ecstasy as the principal or other drug of concern, 2001/02-2007/08.**

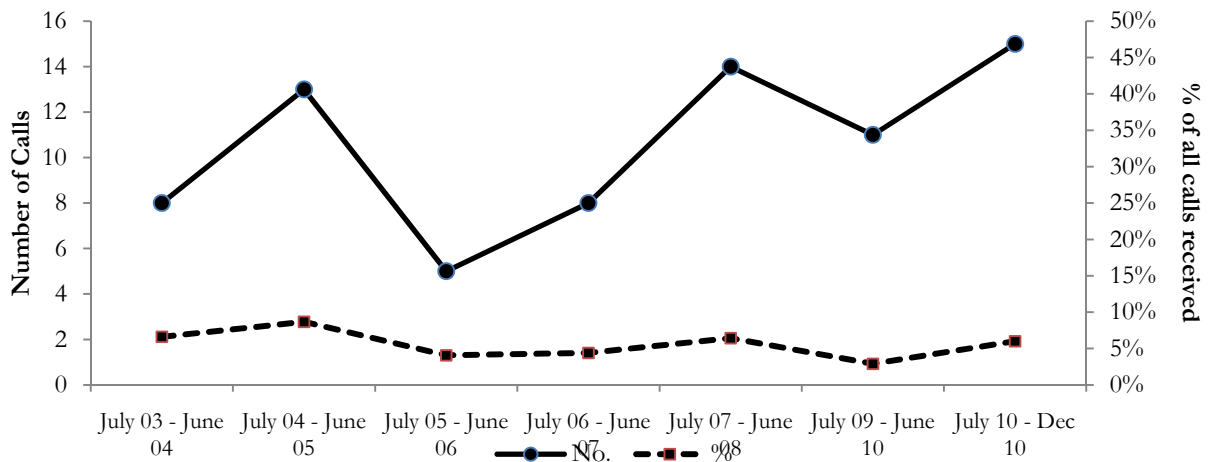


**Source: NT AODTS client database**  
 Note: 2008/09 data was unavailable at the time of print

### 15.1.4 Methamphetamine

Across time, the percentage of the overall calls in which methamphetamines were mentioned has remained relatively stable at less than 10% of all calls (Figure 21).

**Figure 21: Methamphetamine related calls made to the NT ADIS, July 2003 to June 2010**

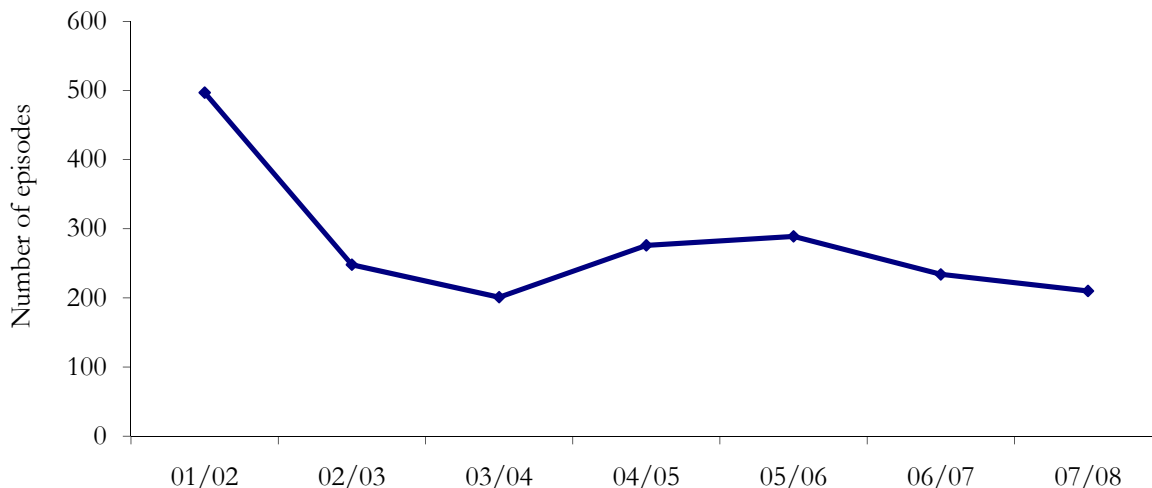


Source: Northern Territory ADIS

Note: More than one drug may be recorded per call and all drugs involved are not always recorded

Figure 22 shows the number of treatment episodes for own drug use in AODTS where amphetamine was the principal or other drug of concern. After a slight increase between 2003/04 and 2005/06, the number of treatment episodes recorded began to fall and has continued to do so from 2006/07 (234) to 2007/08 (210).

**Figure 22: Closed episodes in NT AODTS with amphetamines as the principal or other drug of concern, 2001/02-2007/08.**



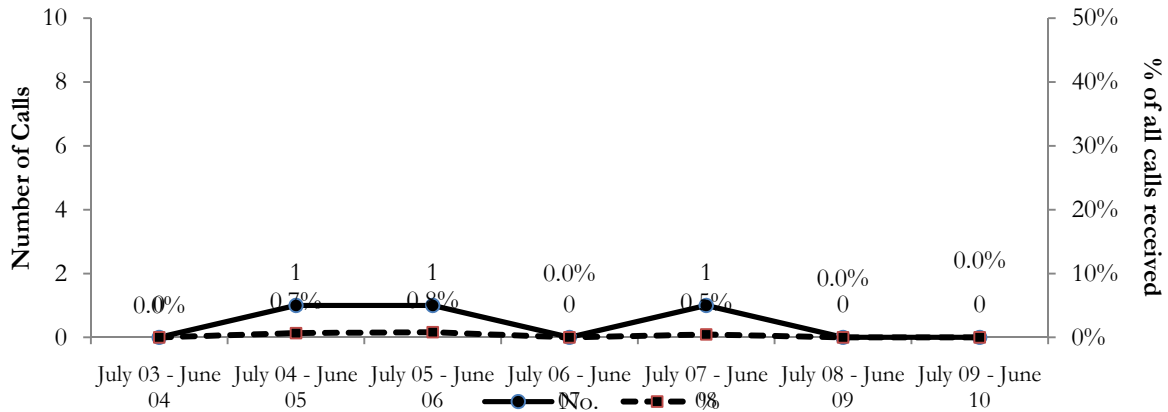
Source: NT AODTS client database

Note: 2008/09 data was unavailable at the time of print

### 15.1.5 Cocaine

From July 2003 to June 2010 there have been a total of three reported calls made to the NT ADIS in which cocaine was mentioned as a drug of concern (Figure 23).

**Figure 23: Cocaine-related calls made to the NT ADIS, July 2003 to June 2010**

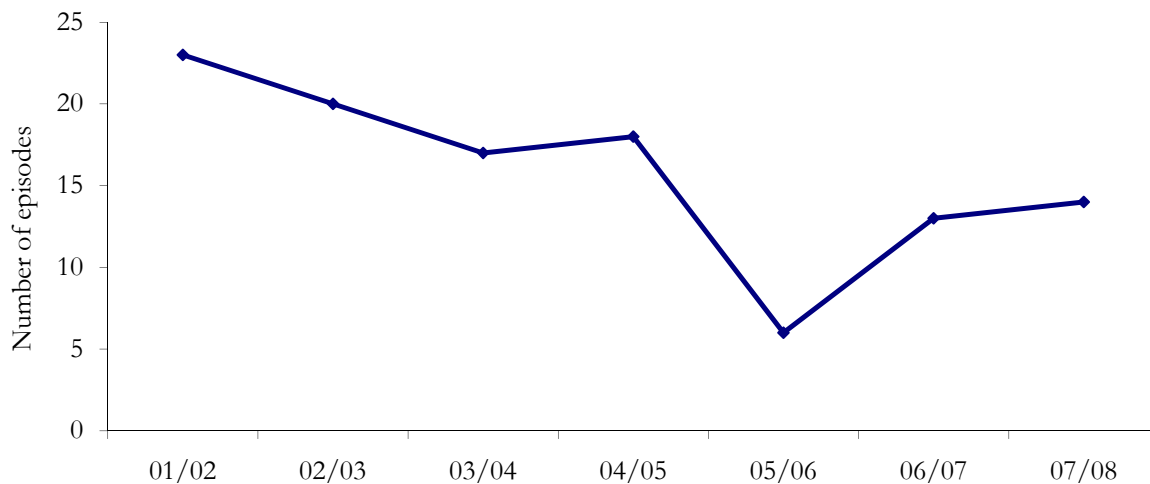


Source: Northern Territory ADIS

Note: More than one drug may be recorded per call and all drugs involved are not always recorded

Figure 24 presents the number of treatment episodes in AODTS where cocaine was the principal or other drug of concern. There has been an increase in the number of cocaine-related treatment episodes reported from 2005/06 (6) to 2007/08 (14).

**Figure 24: Number of closed treatment episodes in NT AODTS with cocaine as the principal or other drug of concern, 2001/02-2007/08.**



Source: NT AODTS client database

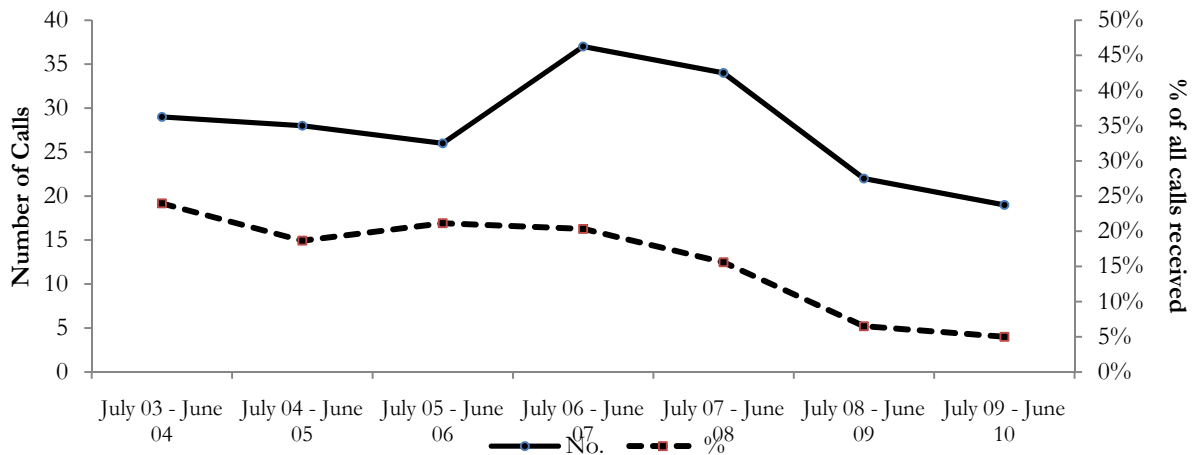
Note: 2008/09 data was unavailable at the time of print

### 15.1.6 Cannabis

The number of calls made to the NT ADIS in which cannabis was mentioned remained relatively stable in the 12 months to June 2010. There was 19 calls in the 12 months to June 2010, comparable with the 22 calls received in the 12 months to June 2009. The proportion of the total number of calls received in which cannabis was mentioned appears to have also remained

stable with 5% of all calls for the 12 months to June 2010, comparable with 6.5% of all calls in the 12 months to June 2009 (Figure 25).

**Figure 25: Cannabis related calls made to the NT ADIS, July 2003 to June 2010**

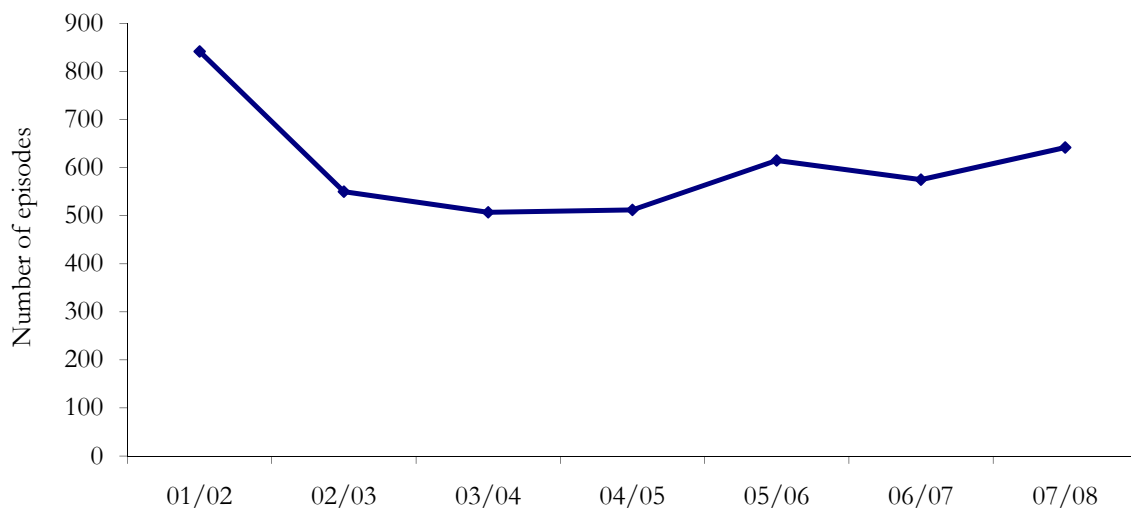


Source: Northern Territory ADIS

Note: More than one drug may be recorded per call and all drugs involved are not always recorded

The number of episodes commenced in NT AODTS where cannabis was the principal or other drug of concern has been increasing since 2003/04 (507) to reach 642 in 2007/08 (Figure 26).

**Figure 26: Number of closed treatment episodes in NT AODTS with cannabis as the principal or other drug of concern, 2001/02-2007/08**



Source: NT AODTS client database

Note: 2008/09 data was unavailable at the time of print

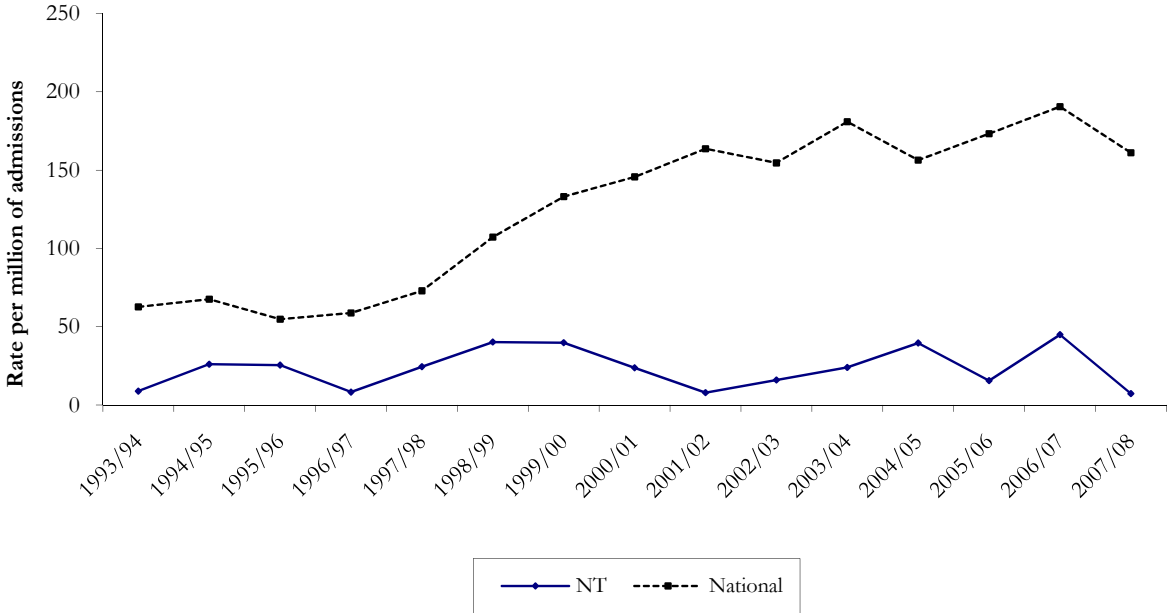
## 15.4 Hospital admissions

### 15.4.1 Methamphetamines

Figure 27 shows the rate per million of inpatient hospital admissions where methamphetamines were involved in the primary diagnosis for people aged 15-54 years. The rate of methamphetamine-related hospital admissions in the NT is relatively small and fluctuating compared to the national rate. The NT rate appears to have decreased slightly from a high of 45

per million in 2006/07 to a low of seven per million in 2007/08. Data for 2008/09 was unavailable at the time of print.

**Figure 27: Rate (per million) of inpatient hospital admissions where methamphetamines were the primary diagnosis for people aged 15-54 years, NT and nationally, 1993/94-2007/08**

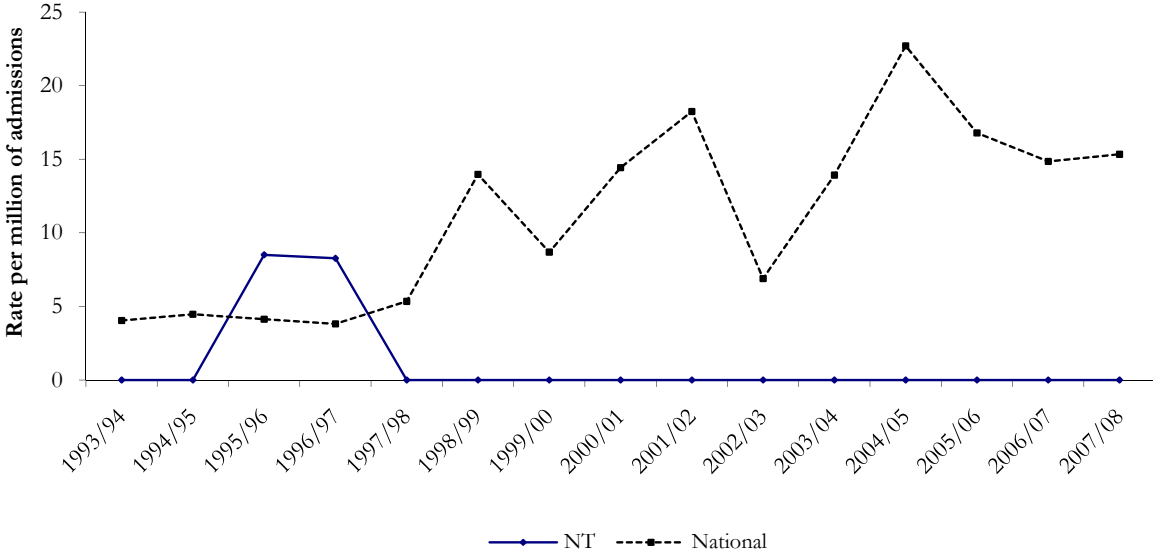


Source: (Roxburgh and Burns in press)

**15.4.2 Cocaine**

The rate (per million) of inpatient hospital admissions where cocaine was the primary diagnosis for people aged 15-54 years is shown in Figure 28. The NT has had no cocaine-related admissions since 1996/97 whereas the national rate since 1998/99 shows a fluctuating increase.

**Figure 8: Rate (per million) of inpatient hospital admissions where cocaine was the primary diagnosis for people aged 15-54 years, NT and nationally, 1993/94-2007/08**



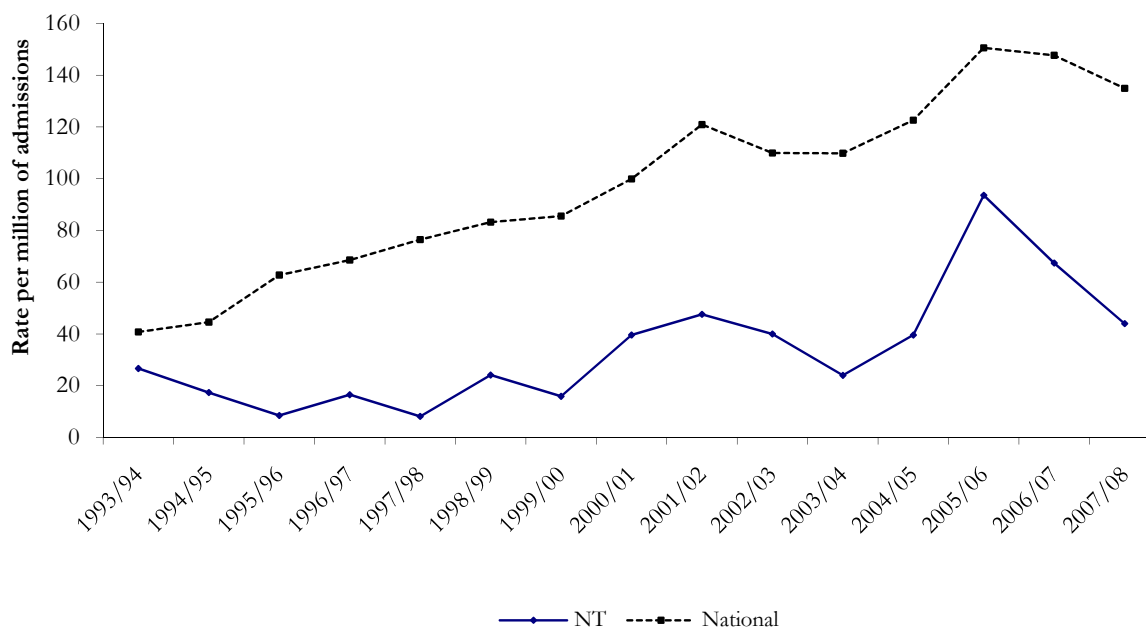
Source: (Roxburgh and Burns in press)



### 15.4.3 Cannabis

The rate of inpatient hospital admissions where cannabis was involved in the primary diagnosis has been generally increasing across time nationally and in the NT until 2005/06 (Figure 29). While both graphs appear to have spiked in 2001/02, and then again in 2005/06, there was a noted a decrease in cannabis admissions during 2006/07 and again in 2007/08 to 44 admissions per million. Data for 2008/09 was unavailable at the time of print.

**Figure 29: Rate (per million) of inpatient hospital admissions where cannabis was the primary diagnosis for people aged 15-54 years, NT and nationally, 1993/94-2007/08**



Source: (Roxburgh and Burns in press)

## 15.5 Mental and physical health problems and psychological distress

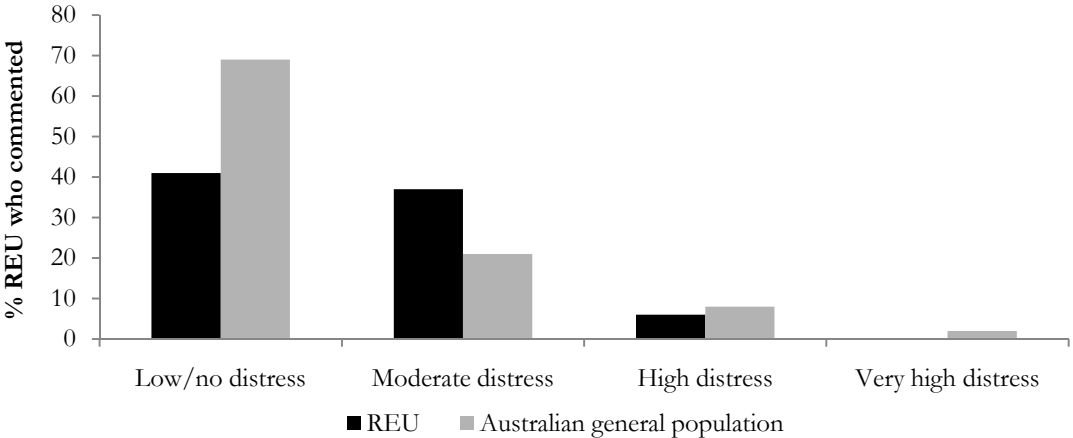
### 15.5.1 Kessler Psychological Distress Scale (K10)

From 2006, the EDRS included the 10-item Kessler Psychological Distress Scale (K10) (Kessler, Andrews et al. 2002) which is a questionnaire designed to measure the level of distress and severity associated with psychological symptoms in population surveys. The minimum score is 10 and the maximum is 50. Scores ranging from 10-15 are classified as low/no distress, 16-21 is moderate distress, 21-29 signifies high distress, and 30-50 indicates very high distress (Australian Institute of Health and Welfare 2008a).

In 2010, all 27 participants participated in the K10 survey with a median score of 17 (range=10-28). Forty-one percent fell into the low/no distress category, 37% fell into the moderate distress one, 22% fell into the high distress category, and no participants fell into very high distress category.

Figure 30 compares the spread of REU scores across these four categories with those of the general Australian population (Australian Institute of Health and Welfare 2008a).

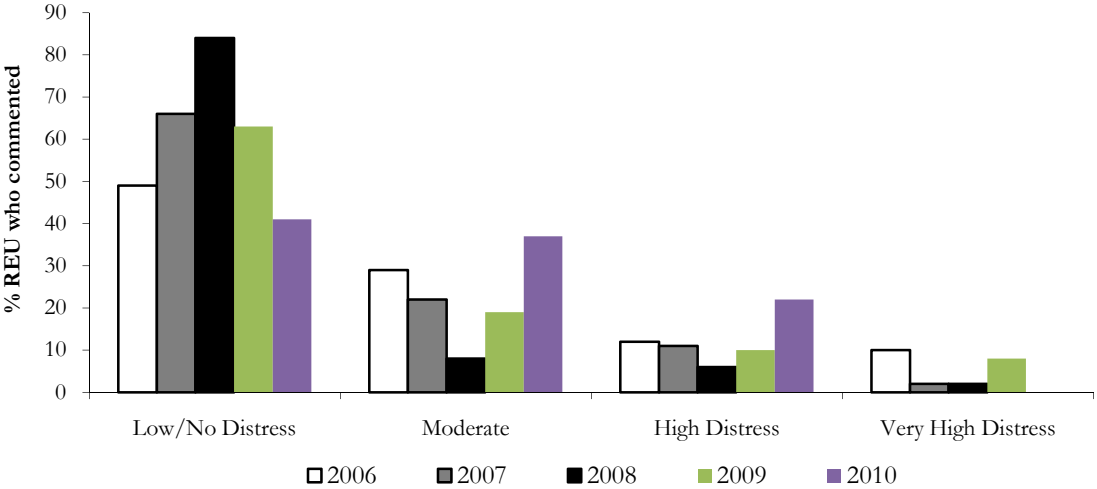
**Figure 30: K10 scores for REU compared with the general Australian population, NT, 2010**



Source: EDRS REU interviews, 2010; AIHW, 2008

Figure 31 presents data across time on the proportions of each sample from 2006 to 2009 that fell into each distress category.

**Figure 31: K10 scores across time for REU in the EDRS 2006-2010**



Source: EDRS REU interviews, 2010

**15.5.2 Self-reported mental health**

Participants were also asked whether they had experienced any mental health problems over the previous six months. Only four participants (15% of entire sample) reported having recently experienced a mental health problem in 2010. Depression was the most commonly issue reported by all (100%) of those experiencing a recent mental health issue and three participants reported suffering from anxiety. Three participants (75% of those who had experienced a mental health problem) sought the help of a health professional, none of whom reported being prescribed either antidepressants or benzodiazepines.

## **16 RISK BEHAVIOURS**

### **16.1 Injecting risk behaviour**

#### **16.1.1 Lifetime injectors**

In 2010, less than one-fifth of participants (19%, n=5) reported having ever injected a drug and of these only two participants reported having injected in the last six months. The mean age at which participants reported first having injected a drug was 23 years (range 22-23).

#### **16.1.2 Recent injectors**

The two REU (7% of the entire sample) who had recently injected had done so on a median of 51 occasions (range=12-90) over the six months prior to interview (Table 30). Those REU who indicated that they had injected drugs at some point during their lifetime were asked to nominate the last drug they had injected. One participant reported speed as the drug last injected while the other reported steroids.

#### **16.1.3 Injecting risk behaviours**

In the 2010 EDRS, no participants reported that they had used a needle after someone else or used injecting equipment (spoons/mixing containers, filters, tourniquets, water) after someone else in the six months preceding interview.

#### **16.1.4 Context of injecting**

Both recent injectors (n=2) reported that they were at home when they last injected. The two REU who had recently injected drugs primarily did so in the company of close friends or a regular sex partner (Table 30).

#### **16.1.5 Obtaining needles**

Two REU who reported having injected in the past six months were asked to indicate where they had sourced their needles. All (100%; n=2) reporting accessing an NSP and one participant also reported having obtained needles from a chemist.

**Table 30: Context of recent injection among recent injectors, REU, NT, 2004-2010**

	Of recent injectors						2010 (n=2)
	2004 (n=17)	2005 (n=24)	2006 (n=14)	2007 (n=10)	2008 (n=4)	2009 (n=17)	
<b>Locales injected* (%)</b>							
Own home	82	70	86	90	100	59	<b>100</b>
Friend's home	47	57	36	30	50	12	-
Dealer's home	29	26	14	20	-	-	-
Street	12	17	7	-	-	-	-
Venue or public toilet	18	9	-	10	-	-	-
Car	18	35	14	50	-	18	-
Sex venue	6	-	-	-	-	-	-
<b>People usually injected with* (%)</b>							
No one	12	4	36	40	25	38	-
Regular sex partner	35	30	-	30	-	19	<b>50</b>
Casual sex partner	-	9	7	10	-	-	-
Close friends	77	65	57	50	75	44	<b>50</b>
Acquaintances	29	13	7	-	-	-	-
<b>Inject (%)</b>							
Under the influence	35	9	21	40	<b>25</b>	24	-
While coming down	24	4	7	-	<b>25</b>	12	-
Both	24	52	36	30	-	48	-
<b>Shared injecting equipment (%)</b>							
Spoons	29	22	21	20	-	-	-
Filter	6	17	-	-	-	-	-
Filter	24	30	21	20	-	6	-
Tourniquets	12	26	-	-	-	6	-
Water							
<b>Lent needles last 6 months (%)</b>							
No. of times	100	78	100	100	100	100	<b>100</b>
<b>Borrowed needles last 6 months (%)</b>							
No. of times	100	100	100	100	100	<b>100</b>	<b>100</b>

Source: EDRS REU interviews, 2004-2010

\* Could nominate more than one response 2004-2008. From 2009 only one response was allowed

## 16.2 Sexual risk behaviour

The majority (60%) of the sample reported having had penetrative sex with a casual partner (i.e. someone who was not a regular partner) in the six months preceding interview. Penetrative sex was defined as ‘penetration by penis or fist 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.

### 16.2.1 Recent sexual activity

Half (54%) of those who had recently had penetrative sex with a casual partner had done so with either one or two partners, 23% had done so with three to five partners and 15% had penetrative sex with six or more partners over the preceding six months. Only one participant reported having penetrative sex with more than ten casual partners in the prior six months (Table 31).

Fifteen percent of those who had recently had penetrative sex with a casual partner reported using a protective barrier every time, one-fifth (20%) reported doing so often, and the majority (60%) reported never using a protective barrier with a casual partner.

**Table 31: Prevalence of sexual activity and number of sexual partners in the preceding six months, REU, NT, 2008-2010**

Variable	2008 N=55	2009 N=67	2010 N=27
<b>Casual penetrative sex (%)</b>	62	60	<b>60</b>
<b>No. of sexual partners (%):*</b>			
One person	21	28	<b>23</b>
Two people	32	22	<b>31</b>
3-5 people	32	22	<b>23</b>
6-10 people	12	15	<b>15</b>
10+ people	6	11	<b>8</b>
<b>With a casual partner not under the influence of drugs (%):*</b>			
Use a protective barrier every time	65	51	<b>15</b>
Use a protective barrier often	12	13	<b>20</b>
Use a protective barrier sometimes	15	13	<b>5</b>
Never use a protective barrier	9	15	<b>60</b>

Source: EDRS REU interviews, 2008-2010

\* Of those who had casual, penetrative sex in the last six months

### 16.2.2 Drug use during sex

Of those who had recently had sex with a casual partner, the majority (83%) had done so while under the influence of drugs. Respondents were asked how many times they had had casual sex while under the influence of drugs over the preceding six months. One-half (50%) reported having done so three to five times and one fifth (20% each) equally reported either six to ten times or greater than 10 times (Table 32).

Among those who had recently had sex while under the influence of drugs, ecstasy was most commonly reported (90%), followed closely by alcohol (80%).

Only 11% reporting using a protective barrier every time while under the influence of drugs (Table 32). While under the influence of drugs, one-third of those recently reporting sex with a casual partner reported never using protection, 11% rarely and 44% sometimes (Table 32).

**Table 32: Drug use during sex in the preceding six months, REU, NT, 2009-2010**

	2009 (N=67)	2010 (N=27)
<b>Penetrative sex while on drugs* (%)</b>	72	83
<b>Of those who had penetrative sex under the influence of drugs</b>	34	10
<b>Number of times (%)</b>		
Once	47	10
Twice	6	-
3-5 times	18	50
6-10 times	12	20
Ten+	18	20
<b>Drugs used time (%)</b>		
Alcohol	56	80
Ecstasy	88	90
Cannabis	18	30
Speed	21	-
Base	6	-
Ice/crystal	6	10
<b>Sex with a casual partner using drugs (%):</b>		
Use a protective barrier every time	56	11
Use a protective barrier often	9	-
Use a protective barrier sometimes	9	44
Use a protective barrier rarely	18	11
Never use a protective barrier	9	33

Source: EDRS REU interviews, 2010

\* Of those who had casual, penetrative sex in the last six months

### 16.3 Blood-borne viral infections (BBVI) and sexually transmitted infections (STI)

Forty-three percent of participants reported that they have never been vaccinated for hepatitis B virus (HBV), 52% reported that they had completed the vaccination schedule and 5% did not finish the vaccination schedule.

Participants were asked if they have been tested for hepatitis C virus (HCV). One-quarter (28%) reported that they had been tested for HCV in the past year; however, half (52%) had never been tested. None of those tested reported positive diagnoses of HCV.

Participants were asked if they had been tested for human immunodeficiency virus (HIV). Half (48%) had never been tested for HIV, one-third (33%) had been tested in the past year and one-fifth (19%) had been tested more than one year ago. None reported that they were HIV positive.

Fifty-nine percent of the sample reported having a sexual health check-up (such as a swab, urine, or other blood test) in the past year, while 22% reported having had their last sexual health check-up more than one year ago. Nineteen percent had never had a sexual health check-up.

The majority (81%) reported that they had never been diagnosed with a sexually transmitted infection (STI); however, one-fifth (19%) had been diagnosed with chlamydia.

**Table 33: Blood-borne virus vaccination and testing among REU in the NT, 2010**

	2010 n=27
<b>Vaccinated for hepatitis B (%)</b>	n=21
No	43
Yes, didn't complete	5
Yes, completed	52
<b>Main reason for hepatitis B vaccination (%)*</b>	0
At risk (IDU)	0
At risk (sexual)	8
Going overseas	42
Vaccinated as a child	8
Work	0
Don't know/can't remember	42
Other	
<b>Tested for hepatitis C (%)</b>	n=25
No	52
Yes, in last year	28
Yes, > year ago	20
<b>Hepatitis C positive (%)**</b>	0
<b>Tested for HIV (%)</b>	n=27
No	48
Yes, in last year	33
Yes, > year ago	19
<b>HIV positive (%)#</b>	0
<b>Other sexual health checkups (%)</b>	n=27
No	19
Yes, in last year	59
Yes, > year ago	22
<b>Sexually transmitted infection (STI) positive (%)</b>	n=27
	19
<b>STI diagnosis (%)###</b>	
Gonorrhoea	0
Chlamydia	100
Syphilis	0
HPV (genital warts)	0
Other	0

**Source: EDRS Regular ecstasy user interviews**

^caution small numbers n<10

\* among those who had been vaccinated for hepatitis B

\*\* among those tested for hepatitis C

# among those tested for HIV

### among those who tested positive for STI in the last year

## 16.4 Driving risk behaviour

All but one participant (96%) reported having driven a car over the six months prior to interview (Table 33). Of those who had driven a car, the majority (81%) reported having driven under the influence of alcohol and the vast majority (91%) of these people reported having driven over the legal blood alcohol limit, on a median of four occasions (range=1-24). Of those who had driven recently, half (50%) had recently been roadside breath tested; two participants reported having tested over the legal blood alcohol limit.

Over three-quarters (77%) of those who had driven reported having done so after consuming illicit drugs (a comparable proportion with those who reported having driven under the influence of alcohol). One half (50%) reported having done this under five or less times over the preceding six months; however, one-half (50%) reported having done this six times or more during this time. Among those who had driven after taking illicit drugs, the majority (80%) reported having driven after using ecstasy. Other drugs reported included cannabis and speed (both 45%) and ice/crystal (10%) (Table 33).

**Table 33: Drug driving in the last six months among REU, 2009-2010**

Variable	2009 N=67	2010 (N=27)
Driven a car in the past six months (%)	73	96
Driven under the influence of alcohol* (%)	53	81
Driven over the limit of alcohol* (%)	88	91
Driven after taking an illicit drug* (%)	55	77
<b><i>Of those who had driven after taking a drug:</i></b>		
<b>Drug (%)</b>		
Ecstasy	85	80
Cannabis	41	45
Ice/crystal	11	10
Speed	26	45
Base	7	5
LSD	4	-

Source: EDRS REU interviews, 2010

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

Participants were asked a series of questions focusing on the last occasion in which they drove after taking an illicit drug. The drug most commonly reported as having been taken on the last occasion was ecstasy (60%). Cannabis (30%) was the second most frequently reported drug followed by speed (20%) and ice/crystal (10%).

Participants had driven a median of one hour (range=1-360 minutes) after taking the drug/s. Just under one-half (45%) reported that there was no impact on their driving, one-fifth (20%) reported their driving was slightly impaired, 10% reported that their driving had slightly improved and equal amounts (10%) reported being quite impaired. Three participants had ever been roadside drug tested.



### 16.5 The Alcohol Quantity Frequency and Variability Assessment (AQFV)

In 2009, a new measure of alcohol consumption was included in the EDRS as a way of more accurately measuring the quantity and frequency of alcohol use while taking into account variability of this over the course of the past year. The Alcohol Quantity Frequency and Variability Assessment<sup>13</sup> (AQFV) is a self-report measure which examines alcohol use over the preceding six months. It has three categories: (a) typical drinking; (b) regular changes, e.g. weekends; and (c) occasional changes, e.g. festivals, parties. Respondents are able to indicate a range for the number of drinks they consume for each section and then indicate on how many days per week, month or year they drink this amount. For example, a participant may report for the ‘typical drinking’ section that they consume two to three standard drinks, three days per week or five to six standard drinks, two days per month etc.

Using the information gleaned from the AQFV assessment, the number of days that each participant consumed alcohol over the course of a year and the amount of alcohol consumed on each drinking day was computed. Each drinking day was then defined as either (a) low risk (up to six drinks for males or four for females); (b) risky (from seven to 10 drinks for males or five to six for females); or (c) high risk (11 drinks and above for males or seven and above for females) (National Health and Medical Research Council 2001).

Table 34 presents the frequency and quantity of alcohol consumption for REU in the NT in 2010. Participants drank an average of 10 standard drinks per session and half (49%) of the median number of drinking days per year were done at high-risk.

**Table 34: Frequency and quantity of alcohol consumption among REU, NT 2010**

	2010 (N=27)
<b>Median number of drinking days/year (range):</b>	
Low Risk	52
Risky	6
High Risk	49
<b>Average no. drinks per session</b>	10

Source: EDRS interviews 2010

#### 16.5.1. Key expert comments

Almost all KE agreed that DUI was a major and ongoing issue in Darwin.

<sup>13</sup> Many thanks to Dr James Lemon, previously of NDARC, for his kind permission to use the AQFV assessment in the EDRS.

## 16.6 The Alcohol Use Disorders Identification Test (AUDIT)

The AUDIT (Saunders, Aasland et al. 1993) was completed by REU participants in the EDRS for the third year running. The AUDIT was designed by the WHO as a brief screening scale to identify individuals with alcohol problems, including those in early stages. It is a 10-item scale, designed to assess three conceptual domains: alcohol intake, dependence, and adverse consequences (Reinert and Allen 2002). Total scores of eight or more are recommended as indicators of hazardous and harmful alcohol use and may also indicate alcohol dependence (Babor, de la Fuente et al. 1992). Higher scores indicate greater likelihood of hazardous and harmful drinking; such scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor and Higgins-Biddle 2000).

The overall sample mean score on the AUDIT was 16.0 (median=14, range=5-29). Ninety-two percent of the sample scored eight or more; these are levels at which alcohol intake may be considered hazardous. Table 35 presents an overview of AUDIT scores.

The total AUDIT score places respondents into one of four 'zones' or risk levels. Eight percent in 2010 (50% in 2008) scored in Zone 1 (low-risk drinking or abstinence), 39% (36% in 2008) of the sample scored in Zone 2 (alcohol use in excess of low-risk guidelines), 31% (8% in 2008) scored in Zone 3 (harmful or hazardous drinking) and 23% (compared with 6% in 2008) scored in Zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence).

**Table 35: AUDIT total scores and proportion of REU scoring above recommended levels indicative of hazardous alcohol intake, NT, 2010**

	NT	
	2008	2010
<b>Mean AUDIT total score, SD (range)</b>	8.6 6.4 (0-27)	<b>16.0</b> <b>6.2</b> <b>(5-29)</b>
<b>Score 8 or above (%)</b>	50	<b>92</b>
Zone 1	50	<b>8</b>
Zone 2	36	<b>39</b>
Zone 3	8	<b>31</b>
Zone 4	6	<b>23</b>

**Source: EDRS REU interviews**

Note: Zone 1 refers to low risk drinking or abstinence; Zone 2 consists of alcohol use in excess of low-risk guidelines; Zone 3 may refer to harmful or hazardous drinking; and Zone 4 may be indicative of those warranting evaluation or treatment for alcohol dependence.

## 17 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUGS

### 17.1 Reports of criminal activity among REU

One-quarter (26%) of REU in 2010 reported having committed any crime in the month prior to interview. Among those that did, the type of crime committed most frequently was drug dealing (five participants) followed by violent crime (four participants) and property crime (three participants). There were no reports of fraud (Table 35). Five participants reported having been arrested over the preceding 12 months, three participants for drunk and disorderly and two for driving over the legal limit for alcohol.

**Table 35: Criminal activity reported by REU, NT, 2004-2010**

Criminal activity in the last month	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
<b>Any crime (%)</b>	35	15	16	18	18	33	<b>26</b>
<b>Drug dealing (%)</b>	28	11	12	10	18	31	<b>19</b>
Once a week or more	17	7	0	6	7	-	<b>7</b>
<b>Property crime (%)</b>	4	2	6	5	-	3	<b>11</b>
Once a week or more	0	1	4	0	-	2	-
<b>Fraud (%)</b>	0	5	2	0	2	-	-
Once a week or more	-	1	0	-	2	-	-
<b>Violent crime (%)</b>	6	4	2	1	-	5	<b>15</b>
Once a week or more	0	0	2	0	-	-	-
<b>Arrested last 12 months (%)</b>	15	17	14	5	2	9	<b>19</b>

Source: EDRS REU interviews, 2004-2010

In general, KE did not associate ecstasy use or users with crime.

### 17.2 Perceptions of police activity towards REU

All (100%) of REU in 2010 were able to comment on changes in police activity towards ecstasy users over the preceding six months. Responses were mixed. Thirty-seven percent believed it had increased, one-third (33%) reported that it had remained stable and 30% didn't know. Just over half (56%) of REU reported that police activity had not made it difficult for them (personally) to score, while 44% reported that it had (Table 36).

**Table 36: Perceptions of police activity by REU, 2004-2010**

Perception	2004 (N=71)	2005 (N=82)	2006 (N=51)	2007 (N=66)	2008 (N=55)	2009 (N=67)	2010 (N=27)
<b>Recent police activity (%)</b>							
Decreased	3	4	4	2	-	-	-
Stable	23	15	28	34	6	15	<b>33</b>
Increased	48	44	20	17	7	9	<b>37</b>
Don't know	27	38	49	48	87	76	<b>30</b>
<b>Did not make scoring more difficult</b>	73	83	77	79	92	92	<b>56</b>

Source: EDRS REU interviews, 2004-2010

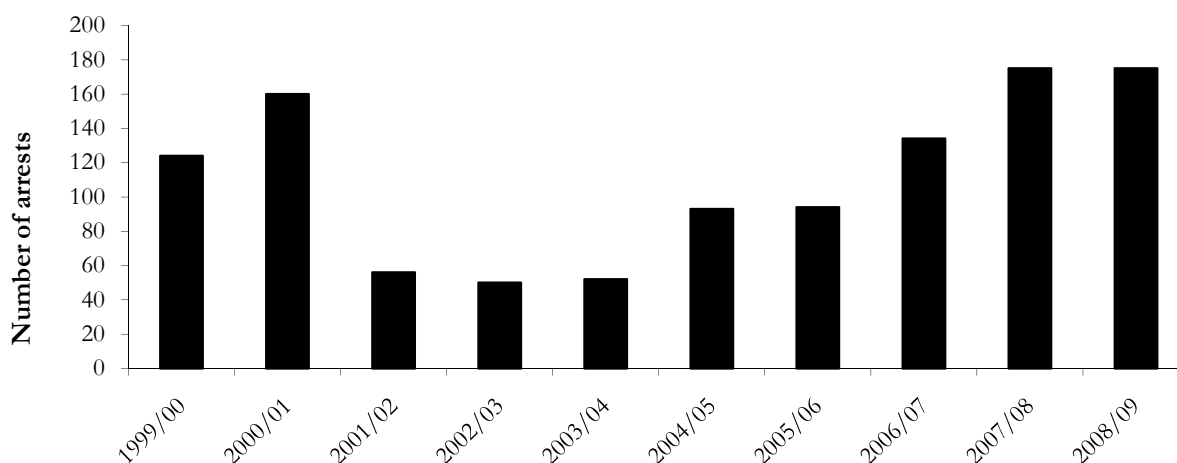
KE comments on police activity focused on alcohol-related violence and DUI. The majority believed police operations had increased in key entertainment areas due to an increase in media attention on the issues.

### 17.3 Arrests

#### 17.3.1 Amphetamine-type stimulant arrests

Figure 32 shows the total number of amphetamine-type stimulant consumer and provider arrests in the NT since 1999/00 including AFP data. After remaining stable at approximately 50 arrests from 2001/02 to 2003/04, there has been an increasing trend in the number of amphetamine-type stimulant arrests made in the NT to a total of 175 in 2008/09 (Australian Crime Commission 2010).

**Figure 32: Number of amphetamine-type stimulants total consumer and provider arrests in the NT, 1999/00-2008/09**



Source: (Australian Crime Commission 2010)

### **17.3.2 Cocaine**

In 2008/09, there were four arrests for cocaine-related offences (consumer or provider)<sup>14</sup> in the NT. This figure remains stable (Australian Crime Commission 2010).

### **17.3.3 Hallucinogens**

In 2008/09, there were seven arrests made related to hallucinogens. This figure remains stable (Australian Crime Commission 2010).

### **17.3.4 Cannabis**

In 2008/09, there were 597 cannabis-related consumer and/or provider arrests made and 456 cannabis-related drug infringement notices (DINs) were issued. The total number of cannabis-related arrests is comparable with 2007/08 (552). The number of DINs, however, increased again in 2008/09 from 379 (Australian Crime Commission 2010)

## **17.4 Perceptions of changes in ERD markets**

Participants were asked what proportion of their friends and acquaintances had used ecstasy over the preceding six months. Of the seven participants that were able to comment, five reported that about half of them to most of them did.

Only participant reported that there were new trends occurring among their friends regarding drug use. It was noted that mephedrone had become available in the NT recently.

## **18 Special topics of interest**

### **18.1 Body Mass Index**

Eating disorders and drug use disorders are significant public health problems. However, epidemiological research examining their associations yields ambiguous results. Evidence on a relationship between obesity and alcohol use is found in some studies (Wannamethee, Shaper et al. 2005). As to the relationships between overweight/obesity and nicotine dependence, some studies have found overweight and obese men, but not women, were more likely to be former daily smokers than non-smokers (John et al, 2006; Zimlichman, Kochba et al. 2005). In a nationally representative sample, overweight, obesity and extreme obesity were associated with lower risk for past-year nicotine dependence in men but not in women (Pickering, Grant et al. 2007).

Relationship between Body Mass Index (BMI) and illicit drug use disorders is also unclear. For instance, cannabis can stimulate appetite whereas cocaine is a stimulant and appetite suppressant, but one study found similar prevalence of overweight in individuals with illicit drug use disorders as that found in the general population (Rajs, Petersson et al. 2004) and another study found both positive and negative associations of BMI with various substance use disorders, and significant gender differences in those relationships (Barry and Petry 2009). Finally, BMI and drug use are both associated with mental health problems (Kemp, Gao et al. 2009).

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<sup>14</sup> Consumers refer to persons charged with user-type offences (e.g. possessing or administering drugs for own personal use); and providers-persons charged with supply-type offences (e.g. importation, trafficking, selling, cultivation and manufacture): Australian Crime Commission (2009). Australian Illicit Drug Data Report 2007-08. Canberra, Australian Crime Commission.

For the first time in 2010 participants were asked their height and weight. With this information BMI was calculated among the sample to determine the relationship between BMI, drug use and the risk of disease. BMI is calculated from height and weight information, using the formula weight (kg) divided by the square of height (m). BMI is divided into 4 groups (1) 'underweight'--less than 18.5, (2) 'normal weight'--18.5 to less than 25.0, (3) 'overweight'--25.0 to less than 30.0 or (4) 'obesity'--30.0 and greater, in adults to measure prevalence. BMI values are grouped according to the groups reported by the World Health Organization (WHO, [http://apps.who.int/bmi/index.jsp?introPage=intro\\_3.html](http://apps.who.int/bmi/index.jsp?introPage=intro_3.html)).

Among the NT sample the mean height was 1.74 metres and weight 72 kilograms. The mean BMI of participants was 23.5. Of those who commented none had a BMI which was considered 'underweight' (BMI <18.5); this compares to 2.6% of the general population aged 18-64 years (Australian Bureau of Statistics 2009). Male participants were more likely to be 'overweight' compared to females (60.0% versus 18.8%) (Table 37).

**Table 37: Self-reported height, weight and Body Mass Index in the NT, 2010**

	National Health Survey 2007-2008	NT
<b>Mean Height (metres)</b>	-	n=26 1.74
<b>Mean Weight (Kilograms)</b>	-	n=27 72.0
<b>Mean Body Mass Index (BMI)</b>	-	n=26 23.5
<b>BMI - Males (%)</b>		n=10
Underweight	1.4	0
Normal range	35.8	30.0
Overweight	40.2	60.0
Obese	22.6	10.0
<b>BMI - Females (%)</b>		n=16
Underweight	3.7	0
Normal range	49.1	81.3
Overweight	27.2	18.8
Obese	20.0	0
<b>BMI - All (%)</b>		n=26
Underweight	2.6	0
Normal range	42.2	61.5
Overweight	33.9	34.6
Obese	21.3	3.8

Source: EDRS participant interviews, (Australian Bureau of Statistics 2009)

## 18.2 Ecstasy dependence

In 2010, participants were asked questions regarding dependence on ecstasy. For further information, please contact: Dr Raimondo Bruno ([raimondo.bruno@utas.edu.au](mailto:raimondo.bruno@utas.edu.au)).

## 18.3 Sexual Health

Population studies have shown that younger age groups had engaged in sexual relationships with more partners in their lifetime than older age groups (Johnson, Mercer et al. 2001). Amongst the regular ecstasy user sample participants of a younger age have been found to be more likely to engage in risky behaviours (Cogger and Kinner 2008). Furthermore, studies have shown that younger individuals who frequent nightclubs are likely to report multiple sexual partners and incidence of STIs (Wells, Kelly et al. 2010).

In Australia, approximately ten percent of young women and three percent of young men (aged under 30 years) report having been tested for chlamydia (Kong, Hocking et al. in press). The issues surrounding sexual health prompted questions to be developed for the EDRS survey to investigate reasons why or why not participants choose to have STI screening. The responses to these questions were formulated by considering results of previous research (Dixon-Woods, Stokes et al. 2001; Tilson, Sanchez et al. 2004; Balfe and Brugha 2009).

In 2010, REU participants were asked if they had been tested for a sexually transmitted infection (STI) in the last two years. Among the participants who commented, three-quarters (78%) reported that they had been tested in the last two years for a STI by means of a blood test, urine sample or swab; only 11% reported that they had not considered taking a sexual health test (Table 38).

Among those who were tested, the main reasons given for testing were: due to unprotected sex to be clear of an infection after a relationship had ended; to be clear of an infection before a new relationship began; and access to clinic was easy. Half of participants (52%) were tested at a sexual health clinic and 43% by a general practitioner (GP) (Table 38).

**Table 38: Sexual health testing among REU, 2010**

	NT n=27
<b>Tested for a sexually transmitted infection (STI) last two years?</b>	n=27
No, don't think about it	11
No, I didn't want to be tested	7
No, another reason	4
Yes, I was tested by means of a blood test, urine sample or swab	78
<b>Reason for test*</b>	n=21
Clear of infection after relationship	19
Clear of infection before new relationship	19
Unprotected sex	54
Symptoms of infection	5
Health provider suggested	5
Friend suggested	5
Partner suggested	5
Partner had symptoms	5
Ex-partner told me to get tested	0
Access to clinic was easy	19
Routine/general check up	5
Other <sup>†</sup>	10
<b>Place last tested for STI*</b>	
GP	43
Sexual Health Clinic	52
Hospital	5
Other	0

**Source:** EDRS interviews

\* among those who were tested for a sexually transmitted infections in the last 2 years

†Other includes: peace of mind, immigration, occupational or prison requirement

The majority (80%) of the female sample reported a pap smear test in the last two years. The main reasons given for not having a pap smear test were 'didn't think of it' or 'don't like them'. The main reason for having a pap smear test was 'due for a test'. The majority of participants (83%) were tested by a GP (Table 42).



**Table 39: Pap smear testing among REU, 2010**

	NT n=15
<b>Had a pap smear test last two years**</b>	80
<b>Reasons for no pap smear test last two years#</b>	
Wasn't sexually active	0
No symptoms	0
Don't like them	33
Didn't think of it	67
Embarrassed/uncomfortable	0
Financial cost	0
Other	0
<b>Reasons for having a pap smear test##</b>	
Symptoms	0
Reminder letters	8
Health provider suggested	0
Friend suggested	8
Partner suggested	0
Due for a test	75
Family history of cervical cancer	8
Other	0
<b>Place last tested for pap smear###</b>	
Sexual Health Clinic	17
GP	83
Hospital	0
Other	0

**Source:** EDRS interviews

\*\* among females only

# among those who had not had a pap smear test in the last 2 years

## among those who had a pap smear test in the last 2 years

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