# northern territory

C. Moon

NT DRUG TRENDS 2015 Findings from the Illicit Drug Reporting System (IDRS)

Australian Drug Trends Series No. 152

The IDRS Project is supported by funding from the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund

# Northern Territory DRUG TRENDS 2015



# Findings from the Illicit Drug Reporting System (IDRS)

# **Chris Moon**

Alcohol and Other Drugs Services NT Department of Health

Australian Drug Trends Series No. 152

#### ISBN 978-0-7334-3625-3 ©NDARC 2016

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. All other rights are reserved. Requests and enquiries concerning reproduction and rights should be addressed to the information manager, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW 2052, Australia.

**Suggested citation:** Moon, C. (2016). Northern Territory Drug Trends 2015. Findings from the Illicit Drug Reporting System (IDRS). *Australian Drug Trend Series No. 152* Sydney, National Drug and Alcohol Research Centre, UNSW Australia.

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

# **Table of Contents**

List o	f Tables	iii		
List of Figuresv				
Ackno	owledgements	vi		
Abbre	eviations	.vii		
Gloss	sary of Terms	ix		
EXEC	UTIVE SUMMARY	х		
<b>1</b> 1.1	INTRODUCTION	<b>1</b> 1		
<b>2</b> 2.1 2.2 2.3	METHOD. Survey of people who inject drugs (PWID) Survey of key experts (KE) Other indicators	<b>2</b> 3 3		
<b>3</b> 3.1	DEMOGRAPHICS Overview of the participant sample	<b>5</b> 5		
<b>4</b> 4.1 4.2 4.3 4.4 4.5 4.6 4.7	CONSUMPTION PATTERNS Current drug use Heroin Methamphetamine Cocaine Cannabis Other opioids Other drugs	7 .12 .13 .17 .18 .20 .25		
5	DRUG MARKET: PRICE, PURITY, AVAILABILITY AND PURCHASING	30		
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9	Heroin Methamphetamine Cocaine Cannabis Methadone Buprenorphine Suboxone (buprenorphine-naloxone) Morphine Oxycodone	.30 .32 .38 .43 .43 .45 .47 .49 .52		
6 6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9	HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE. Overdose and drug-related fatalities. Drug treatment. Hospital admissions. Injecting risk behaviours . Blood-borne viral infections . Alcohol Use Disorders Identification Test - Consumption Opioid and stimulant dependence. Mental health problems and psychological distress. Driving risk behaviour	.56 .56 .57 .59 .62 .63 .64 .64		

6.10 6.11	Naloxone program and distribution KE comment	.67 .68
7	LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH DRUG USE	.69
7.1	Reports of criminal activity	.69
7.2	Arrests	.70
7.3	Expenditure on illicit drugs	.73
7.4	KE comment	.73
8	SPECIAL TOPICS OF INTEREST	.74
8.1	Hepatitis C Virus testing and perceptions	.74
8.2	Oxycodone use	.77
8.3	Blood donations	.78
Refer	ences	.79

# List of Tables

Table 1: Demographic characteristics of the participant sample, 2010-2015	5
Table 2: Demographic characteristics of the PWID sample, 2015.	6
Table 3: Injection history, drug preferences and polydrug use, 2011-2015	8
Table 4: Polydrug use history of the participant sample, 2015 (2014 in brackets)	. 10
Table 5: Selected trends in participant heroin use, 2008-2014	. 12
Table 6: Forms of heroin used in previous six months by participants, 2010-2015	. 13
Table 7: Selected trends in participants' cocaine use, 2008-2015	. 17
Table 8: Forms of cocaine used previous six months, % participants, 2009-2015	. 17
Table 9: Selected trends in participants' cannabis use, 2007-2015	. 18
Table 10: Forms of cannabis used* previous six months and main form^, 2009-2015	. 19
Table 11: Forms of methadone used previous six months, 2008-2015 (%)	. 20
Table 12: Frequency of illicit methadone use in previous six months, 2006-2015 (%)	. 21
Table 13: Selected trends in participants' morphine use, 2006-2015	. 21
Table 14: Forms and brands of morphine used previous six months, 2009-2015	. 21
Table 15: Frequency of morphine use in previous six months, 2012-2015	. 22
Table 16: Selected trends in participants' recent oxycodone use, 2012-2015 (%)	. 22
Table 17: Forms of oxycodone used previous six months, 2011-2015 (%)	. 22
Table 18: Selected trends in illicit Subutex use, 2007-2015	. 23
Table 19: Frequency of illicit Subutex use in previous six months, 2007-2015 (%)	. 23
Table 20: Forms of Subutex most used in the previous six months, 2007-2015(%)	. 23
Table 21: OTC codeine use characteristics, 2009-2015 (%)	. 24
Table 22: Hallucinogen forms most used. 2009-2015.	. 26
Table 23: Main brands of benzodiazepine most used, 2008-2015 (%)	. 28
Table 24: Alprazolam use, selected characteristics, 2012-2015.	. 28
Table 25: Median price of most recent heroin purchases, 2007-2015. \$ (n)	. 30
Table 26: Reports of heroin price movements, past six months, 2007-2015 (%)	. 30
Table 27: Reports of heroin availability in the past six months, 2008-2015 (%)	. 31
Table 28: Participant reports of heroin purity, past six months, 2007-2014 (%)	. 31
Table 29: Price of most recent methamphetamine purchases. 2014-2015.	. 32
Table 30: Methamphetamine price movements in the last six months, 2015 (%)	. 34
Table 31: Reports of recent methamphetamine availability. 2013-2015 (%)	. 35
Table 32: Recent methamphetamine purchase, source person and venue, 2013 - 2015	. 36
Table 33: Price of most recent cannabis purchases by participants. 2014-2015	. 38
Table 34: Price movements of cannabis in the past six months. 2015 (%)	. 39
Table 35: Reports of recent cannabis availability, 2011-2015 (%)	. 40
Table 36: Recent cannabis purchases, source person and venue, 2011-2015 (%)	. 41
Table 37: Median price (\$) of most recent illicit methadone purchase. 2008-2015	. 43
Table 38: Illicit methadone price movements past six months. 2008-2015 (%)	. 43
Table 39: Recent illicit methadone purchase, source person and venue, 20101-2015	. 44
Table 40: Median price (\$) of illicit Subutex reported by participants. 2009-2015	. 45
Table 41: Recent illicit Subutex purchase, source person and venue, 2011-2015	. 46
Table 42: Recent purchase of Suboxone, source person and venue, 2015	. 48
Table 43: Recent illicit morphine purchase, source person and venue, 2008-2015	.49
Table 44: Illicit morphine price movements, past six months, 2009-2015	. 49
Table 45: Recent purchases of morphine, source person and venue, 2010-2015	. 51
Table 46: Median price (\$) of most recent illicit oxycodone purchase, 2007-2014	. 52
Table 47: Price movements of oxycodone in the past six months. 2008-2014	. 52
Table 48: Participants' reports of oxycodone current availability. 2008-2014	.53
Table 49: Change in oxycodone availability in the past six months. 2008-2014	.53
Table 50: Source and venue of recent oxycodone purchases. 2008-2014	. 54
Table 51: Lifetime and recent reported overdose. 2015 (%)	. 56
Table 52: Ease of access to drug treatment by participants. 2014 - 2015	. 57

Table 53:	Source of needles in last six months, 2009-2015	59
Table 54:	Recent re-use of injecting equipment, 2008-2015	60
Table 55:	Reuse of own needles, 2009-2015 (%)	60
Table 56:	Injection site and needle use characteristics, 2012-2014	60
Table 57:	Last location for injection in the month preceding interview, 2007-2015	61
Table 58:	Injection-related problems within one month of interview, 2007-2015	61
Table 59:	Total notification of HBV, HCV and HIV, 2002-2012	62
Table 60:	HIV and HCV antibody prevalence in NSP survey, 2006-2011	63
Table 61:	AUDIT-C results, 2010-2015	63
Table 62:	Self-reporting recent mental health problems, 2007-2015 (%)	64
Table 63:	Types of medication received for mental health problems, 2013-2015 (%)	65
Table 64:	Reasons why did not attend a health professional, 2014-2015	65
Table 65:	Level of psychological distress, 2010-2015	66
Table 66:	Take-home naloxone program and distribution, 2013-2015	67
Table 67:	Criminal and police activity as reported by participants, 2007-2015	69
Table 68:	Heroin arrest and seizure characteristics, 2005/06-2013/14	70
Table 69:	Cocaine arrest and seizure characteristics, 2005/06-2013/14	72
Table 70:	Cannabis arrest and seizure characteristics, 2005/06-2013/14	72
Table 71:	Cannabis infringement notices, 2005/06-2013/14	72
Table 72:	Steroid arrest and seizure characteristics, 2005/06-2013/14	72
Table 73:	Amount spent on drugs on the day before interview, 2007-2015 (%)	73
Table 74:	Hepatitis C testing among PWID, 2015	74
Table 75:	Hepatitis C testing among PWID, 2015, %	75
Table 76:	Perceptions of HCV, 2015, %	76
Table 77:	Recent use of oxycodone, 2015, % and median days	77
Table 78:	Blood donations, 2015, %	78

# List of Figures

Figure 1: Age distribution of participants in the NT IDRS samples, 2002-2015	6
Figure 2: Drug injected most last month, 2005-2015	9
Figure 3: Frequency of use among those used in the last six months, 2002-2015	12
Figure 4: Recent use of any form of methamphetamine, 2002-2015	14
Figure 5: Methamphetamine use in the past six months among recent users, 2002-2015	14
Figure 6: Methamphetamine form most used in the preceding six months, 2002-2015	15
Figure 7: Methamphetamine use among recent users (any form), 2002-2015	15
Figure 8: Median days cocaine use in the past six months, 2003-2015	17
Figure 9: Median number of days of cannabis use in the past six months, 2002-2015	18
Figure 10: Patterns of cannabis use by recent users, 2002-2015	19
Figure 11: Recent ecstasy use and injection, 2003-2015	25
Figure 12: Recent hallucinogen use and injection, 2003-2015	26
Figure 13: Recent benzodiazepine use and injection, 2003-2015	27
Figure 14: Median days recent use and injection of benzodiazepines, 2003-2015	27
Figure 15: Patterns of recent alcohol use, 2003-2015	29
Figure 16: Participant reports of tobacco use in the last six months, 2003-2015	29
Figure 17: Median prices of speed powder, 2002-2015	33
Figure 18: Median prices of base. 2002-2014	33
Figure 19: Median prices of ice/crystal, 2002-2015	34
Figure 20: Participant perceptions of methamphetamine purity, 2015	37
Figure 21: Participants reporting speed powder and ice/crystal purity as 'high'. 2002-2015	37
Figure 22: Median prices of cannabis. 2003-2015	39
Figure 23: Participant reports of current cannabis availability. 2004-2015	40
Figure 24: Current potency of hydro. % able to comment. 2004-2015	41
Figure 25: Current potency of bush. % commented. 2004-2015	42
Figure 26: Change in potency of hydro and bush cannabis in past six months. 2015	42
Figure 27: Current availability of illicit methadone. % commented. 2003-2015	44
Figure 28: Current availability of illicit Subutex. % commented. 2010-2015	45
Figure 29: Recent change in availability of illicit Subutex/buprenorphine, 2010-2015	46
Figure 30: Current availability of illicit morphine. % commented, 2003-2015	50
Figure 31: Recent change in availability of illicit morphine 2015	50
Figure 32: Proportion of participants reporting recent treatment, 2010-2015	56
Figure 33: Opioid-related hospitals admissions 1993/94-2013/14	57
Figure 34: Amphetamine-related hospitals admissions 1993/94-2013/14	58
Figure 35: Cocaine-related hospitals admissions, 1993/94-2013/14	58
Figure 36: Cannabis-related hospitals admissions, 1993/94-2013/14	59
Figure 37: Main drug causing dirty hit in last month 2003-2015	62
Figure 38: Driving after taking an illicit drug by drug type, 2006-2013, 2015	66
Figure 30: Engagement in criminal activity in prior month 2000-2015	70
Figure 40: Number of ATS seizures in NT $2005/06-2013/14$	71
Figure 41: Number of ATS consumer and provider arrests in the NT 2004/05 2012/14	71
rigure 41. Number of ATS consumer and provider affests in the NT, 2004/05-2013/14	11

## Acknowledgements

The author would like to acknowledge the funding agency for this project: The Australian Government Department of Health; and the co-ordinating agency: The National Drug and Alcohol Research Centre (NDARC), University of New South Wales.

Thank you to the NDARC IDRS team for their support: Chief Investigator, A/Professor Lucinda Burns; Acting Manager of Drug Trends, Dr Courtney Breen; National Coordinators Natasha Sindicich and Jennifer Stafford; and Amanda Roxburgh for her help with access to, and analysis of, indicator data.

Thank you also to:

- Darwin participants and key experts;
- staff and volunteers at the Northern Territory AIDS and Hepatitis Council and the Darwin and Palmerston Needle and Syringe Programs;
- NT agencies and staff who provided indicator data and explanations;
- the IDRS survey interviewers; and
- Tania Davidson and other members of the NT Alcohol and Other Drugs Services team.

# Abbreviations

ABS	Australian Bureau of Statistics
ABCI	Australian Bureau of Criminal Intelligence
ACC	Australian Crime Commission
ACT	Australian Capital Territory
AIDS	Acquired Immune Deficiency Syndrome
AGDH	Australian Government Department of Health
AFP	Australian Federal Police
AOD	Alcohol and Other Drugs
AODTS	Alcohol and Other Drugs Treatment Services
ATS	Amphetamine Type Stimulant
AUDIT-C	Alcohol Use Disorders Identification Test - Consumption
BBVI	Blood-borne viral infections
D&A	Drug and Alcohol
GP	General Practitioner
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIC	Health Insurance Commission
HIV	Human immuno-deficiency virus
IDRS	Illicit Drug Reporting System
K10	Kessler Psychological Distress Scale
KE	Key expert(s)
LSD	Lysergic acid diethylamide
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NGO	Non-government Organisation
NNDSS	National Notifiable Diseases Surveillance System
NOMAD	National Opioid Medications Abuse Deterrence
NSP	Needle and Syringe Program(s)
NT	Northern Territory
NTAHC	Northern Territory AIDS and Hepatitis Council
NTDHCS	NT Department of Health and Community Services

NTPFES	NT Police, Fire and Emergency Services
OPP	Opiate Pharmacotherapy Program
отс	Over-the-counter
PBS	Pharmaceutical Benefit Scheme
PWID	People who inject drugs
SPSS	Statistical Package for the Social Sciences
TBI	Traumatic Brian Injury
TGA	Therapeutic Goods Administration
SDS	Severity of Dependence Scale

# Glossary of Terms

Cap Half-weight	Small amount, typically enough for one injection 0.5 grams
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 IDRS (see Method section for further details)
Key expert(s)	Also referred to as KE; persons participating in the Key Expert Survey component of the IDRS (see Method section for further details)
Licit	Licit refers to pharmaceuticals (e.g. methadone, buprenorphine, morphine, oxycodone, benzodiazepines, antidepressants) 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 and/or swallowing
Participant	In the context of this report, refers to persons who participated in the Injecting Drug User Survey (does not refer to key expert participants unless stated otherwise)
People who inject	Also referred to as PWID In the context of the IDRS this
drugs	refers to persons participating in the Injecting Drug User Survey component of the IDRS (See Method section for further details)
Point	0.1 gram although may also be used as a term referring to an amount for one injection (similar to a 'cap': see above)
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 and/or swallowing
Use	Use via one or more of the following routes of administration – injecting, smoking, snorting 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**

This report presents the 2015 Illicit Drug Reporting System (IDRS) results for the Northern Territory (NT). This is the fourteenth year this study has been conducted in the NT.

In 2015, the Illicit Drug Reporting System Project was supported by funding from the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund. The National Drug and Alcohol Research Centre (NDARC), UNSW Australia, coordinated the IDRS. The IDRS team would like to thank the Australian Government Department of Health for their continued assistance and support throughout the year.

The IDRS analyses data from a survey of people who inject drugs (PWID, referred to in this report as participants or respondents), a survey of key experts (KE) and secondary illicit drug-related indicator data in order to monitor the price, purity and availability of a range of illicit drugs. The IDRS also identifies emerging drug trends through comparison of results obtained in previous years.

### Demographic characteristics of the survey respondents

The demographic profile of the IDRS sample in 2014 was similar to that surveyed in previous years, although with some variation. The sample was predominantly (65%) male with a mean age of 43 years; the proportion aged 35 years and older was stable compared to 2014 but shows a long-term increase. Most (84%) of the respondents were unemployed or on a pension at the time of interview. Eight percent reported full-time employment, a decline on the 14 found in 2014. The percentage of respondents who identified as Aboriginal and/or Torres Strait Islander was higher at 33%. Ninety-one percent reported heterosexual status while 6% identified as bisexual and 2% as gay or lesbian. Year 10 was again the mean for years of education although 48% reported some form of post-secondary education. Reported participation in treatment increased to 23% of the sample from 17% in 2014. Fifty-four percent reported prior prison history, higher than the 44% found in 2014, but comparable to earlier years.

### Patterns of drug use

Morphine was the drug most often injected in the month prior to interview (58%) and the most recent drug injected (60%), followed in each case by methamphetamine at 25% each. Last year (2014) crystal methamphetamine replaced speed powder as the form of methamphetamine injected most often in the last month and the most recent drug injected and this is the case again this year, 18% each, although by a greater margin.

The most commonly used illicit drug over the six months prior to interview in 2015 was non-prescribed morphine, at 69%. This group used morphine on a median of 90 days. At 62%, cannabis was again the next most commonly used illicit drug, slightly lower than the 2013 result (67%).

Recent use and injection of crystal methamphetamine ("ice") increased substantially, from 26% and 25% respectively in 2014 to 60% and 58% this year. This increase is corroborated by all KE, who reported that ice is the drug of most concern. KE, as in

2014, emphasised an increased impact on treatment services and in law enforcement from this drug. Treatment KE raised particular concerns around the increased impacts of crystal methamphetamine use on families.

## Heroin

Recent heroin use and injection (16% each) increased compared to 2014, although this movement is within the variation seen in Heroin use from year to year. KE noted no notable changes in this market.

#### Methamphetamine

In 2015, 67% of survey participants reported use of some form of methamphetamine, on a median of 12 days, a marked increase on the proportion fond in 2014. This is accounted for by a substantial increase in the proportions of the sample reporting recent use and injection of both speed powder and crystal methamphetamine ('ice').

Among this group of recent methamphetamine users, ice has become unambiguously this most common form, while use of speed powder, base and liquid forms has declined to historically low levels. The median point price of speed powder was stable at \$100 as was the point price of ice, at \$150. Speed powder and ice were reported to be readily available.

All KE discussed the methamphetamine market in Darwin, corroborating the findings of the injecting drug user survey. In particular:

- smoking was reported to be the main route of administration among the majority of ice users,
- injecting is less common, but usually typical of those who come to the attention of treatment services and/or law enforcement,
- injecting use was described as typically being an extended 'binge' pattern, that is, that people would use the drug frequently, often injecting more than once a day, for a number of days until it was exhausted;
- as in 2014, some KE reported that they were aware of regular injecting among young, often Indigenous people in Palmerston and outer Darwin who were not accessing services and with whom services found it difficult to engage.

KE agreed that ice was now the most common first amphetamine used among younger, new, users, but that otherwise ice use spanned age groups, genders and occupations.

### Cocaine

Reported recent use of cocaine was reported by only four survey participant, remaining low as in previous years.

### Cannabis

Cannabis was again the second most frequently used illicit drug. Seventy-two percent of participants reported use of cannabis over the preceding six months, on a median of daily, reversing the decline seen over the previous two years.

Both hydroponic and bush cannabis was priced at \$30 a gram, the most common amount purchased, a price that has been stable for a number of years. Both forms were reported as easy or very easy to obtain.

#### Methadone

In 20154, 6% of the sample reported recent use of illicit methadone syrup and 13% recent illicit use of Physeptone tablets. A small number of respondents reported a median price of \$20 for a 10 milligram Physeptone tablet.

#### Morphine

Recent use and injection of morphine both decreased, to 73% and 72% of the sample respectively, while median days of use and injection both remained stable at daily. Illicit morphine continued to be the form most often used over the six months before interview (69%) with recent use of licit morphine relatively stable. MS Contin was again the brand most frequently used (81%) followed by Kapanol (11%). Daily use of illicit morphine in the previous six months decreased to 20% of the sample from 36% in 2014.

MS Contin 100mg and Kapanol 100mg were the forms most frequently purchased by PWID, each with a median price of \$80. Morphine price and availability was reported to have been stable, with most PWID reporting that it was easy (54%) or very easy (31%) to obtain.

As in 2013 and 2014, KE noted that while morphine use patterns have been stable they felt that regular morphine users were consisted to large extent of an aging cohort, while younger injectors were increasingly likely to be using crystal methamphetamine.

### Oxycodone

Twenty-six percent of respondents reported use of some form of oxycodone in the six months preceding the interview, similar to the levels found in previous years. Recent use and injection of illicit oxycodone was relatively stable at 23% and 22% respectively. Median days of use and injection of both licit and illicit forms decreased.

While the level of reported use among the survey sample was stable, a smaller number of respondents reported a recent purchase. Among this group, prices for 20mg and 40mg purchases of reformulated oxycodone were stable, at \$20 and \$30 respectively, while the median price of 80mg purchases of the reformulation, \$30, were substantially lower than the equivalent amount of original formulation purchases found in 2014, \$70.

### Subutex (buprenorphine)

Recent use of illicit Subutex was reported by 10% of the sample, a decline on 2013 and 2014. Eight participants reported purchasing 8mg of Subutex for a median price of \$40

#### Suboxone (buprenorphine naloxone)

Nineteen percent of the PWID sample reported recent use of illicit Suboxone film, compared to 10% recent use of illicit Suboxone tablets. Eight respondents reported a median last purchase price for 8mg Suboxone film of \$25, with reports of Suboxone availability mixed.

## Other drugs

Survey participants reported a range of other drug use, including:

- Eight percent of participants reported recent ecstasy use.
- Hallucinogens were used by 6% of participants in the preceding six months.
- Any form of benzodiazepine (illicit and/or licit) was used by 54% of participants in the preceding six months, the third increase in a row since 2012 and a level similar to that seen prior to 2012.
- Twenty-one percent of participants had recently used illicit Alprazolam, increasing from 12% in 2014.
- Sixty-two percent of participants reported use of alcohol in the preceding six months, and ninety-four percent of respondents reported daily use of tobacco.

## Health

Recent overdose was rare. While most of the sample had overdosed at least once in their lives, most commonly on morphine (87%), methadone (51%) and oxycodone (41%), only one person reported an overdose within 12 months of interview.

Amphetamine-related admissions to NT hospitals have fluctuated over time but generally show an increase since 2009/10. The rate of increase is slower than that seen nationally.

Sharing of injecting equipment rates were lower than those found in 2014, with spoons/mixing containers and tourniquets continuing to be the most commonly shared equipment. Three percent of respondents used a needle after someone else and 24% had reused their own needle at least once. Needles were sourced almost exclusively from a Needle and Syringe Program, 91%, with 7% sourcing from a Chemist.

Twenty-five percent of the sample reported current treatment (17% in 2014) and 27% reported having attended treatment within six months of interview. Sixteen percent of the sample were unable to access immediate services in the previous six months, four out of ten being placed on a waiting list. About half the sample felt that at the time of interview it would difficult or very difficult to access services if needed.

Over half the sample (56%) recorded an AUDIT-C score indicating further assessment was required, 63% of males and 42% of females. Twenty-six percent of the sample recorded a Severity of Dependence Scale (SDS) score indicative of stimulant dependence, two-thirds of this group associating their answers with a methamphetamine. Sixty-seven percent of recent opioid users recorded an SDS score indicative of dependence, mostly (66%) attributable to morphine.

Thirty-seven percent of participants reported having experienced a mental health problem in the previous six months, while forty-nine percent of those who completed Kessler Psychological Distress Scale (K10) recorded high or very high levels of distress.

Key Experts from the treatment sector corroborated the findings above, and identified crystal methamphetamine, "ice", as the most problematic drug of concern currently.

#### Law enforcement and criminal behaviour

Twenty-four percent of the sample had been arrested in the preceding 12 months and thirty-four% percent of the sample reported engaging in some form of criminal activity in the previous month, most commonly dealing. In both substantial increases on the 2014 results.

The number of ATS seizures and the amount seized rose between 2012/13 and 2013/14. The number of seizures has increased steadily since 2010/11 while the weight of seizures has fluctuated. The number of consumer and provider arrests declined, although still higher than the number found in 2010/11 and 2011/12.

Key Experts confirmed that crystal methamphetamine, 'ice', is the most problematic illicit drug that they currently deal with, corroborating the results found in the participant survey and secondary data, showing increases in self-reported property crime and dealing, and the increase in ATS seizures.

#### **Special topics**

Less than half of those who had returned a positive HCV antibody test, 38%, had had this result confirmed via a PCR test. Most of those who had tested positive for either an antibody test or a PCR test had discussed at least some of the implications of this with a health professional and demonstrated a reasonable understanding of the virus and its effects.

Un-prescribed reformulated OxyContin tablets were the most frequently used and injected form of oxycodone.

One-in-five participants had donated blood at least once in their lives and 42% of this group had injected drugs prior to this.

## 1 INTRODUCTION

This report presents the results of the 2015 Illicit Drug Reporting System (IDRS) for the Northern Territory (NT).

The IDRS is coordinated by the National Drug and Alcohol Research Centre (NDARC) which is part of the University of New South Wales. It is funded by the Australian Government Department of Health (AGDH).

The purpose of the IDRS is to provide a standardised, comparable approach to the monitoring of data relating to the use of opiates, cocaine, methamphetamine and cannabis. It is intended to act as a 'strategic early warning system' – identifying emerging drug problems of national and jurisdictional concern.

In the NT, a partial IDRS, not including the participants' survey, was conducted by the then Territory Health Services (now NT Department of Health) in 1999. In 2000 and 2001, the full methodology was conducted through the Northern Territory University (now Charles Darwin University). Since 2002, the full IDRS has been conducted by the NT Department of Health. Reports of these studies are available to download from the NDARC website.

Reports of the IDRS findings for individual states and territories are published by NDARC, and each year NDARC produces and publishes a national report presenting an overall picture which includes comparison of jurisdictions.

## 1.1 Study aims

The specific aims of the NT component of the IDRS are:

- to monitor the price, purity and availability of a range of illicit drug classes in the NT; and
- to identify emerging trends in illicit drug use and the illicit drug market in the NT.

## 2 METHOD

The methodology for the IDRS was trialled during 1996 and 1997, initially in Sydney and then in other states (Hando et al., 1997). The methodology (described in the following section) was partially used in every state and territory in 1999, and since 2000 has been fully applied in each state and territory on an annual basis.

The IDRS uses three types of data, which are described below.

## 2.1 Survey of people who inject drugs (PWID)

Face-to-face structured interviews are conducted in the capital city of each state and territory, ideally with a minimum of 100 people who regularly inject drugs. To participate in the study, people must have injected drugs at least once a month during the past six months, and have lived in the relevant capital city for at least the past 12 months. Regular PWID are selected for their first-hand knowledge and ability to comment on the price, purity, availability and use of illicit drugs in the city in which they live. This group is treated as a sentinel group that is likely to reflect emerging trends. In this report, this group is referred to variously as 'participants' or 'respondents'.

As in previous years, each state and territory used a standardised interview schedule. The schedule closely followed the one used in previous years, requesting information about the interviewee's demographics and drug use, and about the price, purity and availability of the four main categories of drugs under investigation. Questions were also asked about treatment, crime, risk behaviours and health.

Overall ethical approval for the study was granted by the Human Research Ethics Committee of the University of New South Wales, and jurisdictionally for the NT by the Human Research Ethics Committee of the NT Department of Health (DOH) and Menzies School of Health Research.

In the NT, interviews were conducted in Darwin and Palmerston during July 2014 with 93 people meeting the criteria mentioned above. Participants were recruited through fliers posted at the Needle and Syringe Programs (NSP) and through word of mouth. The interviews were conducted by trained interviewers. Interviews were conducted at the Darwin and Palmerston NSP.

The participants who met the inclusion criteria were given an information sheet that described the content of the interview. It was explained that the information they provided was entirely confidential and that they were free to withdraw from the survey without prejudice or to decline to answer any questions they chose.

Interviews generally lasted about 60 minutes and participants were reimbursed \$40 for their time.

Data analysis was conducted using (SPSS) for Windows Version 23.0.

## 2.2 Survey of key experts (KE)

The second component of the IDRS involves semi-structured interviews with key experts (KE), selected because their work brings them into regular contact with illicit drug users. Criteria for inclusion in this part of the study are at least weekly contact with illicit drug users in the past six months or contact with a minimum of 10 illicit drug users during the same period.

Information from KE corroborates data from participants, but also provides a broader context in which to place the participants' data. A standardised interview schedule is used by all states and territories that closely mirrors the participants' questionnaire. Each KE is asked to nominate the main illicit drug used by most of the illicit drug users they work with and information is then gathered about use, availability, price and purity of that drug category. Further questions are asked about health, treatment, crime and police activity.

Interviews were conducted face-to-face or by telephone and took approximately 40 minutes. KE were drawn from the following fields:

- Treatment service workers
- NSP workers
- Police
- Nursing

## 2.3 Other indicators

The third set of information comprises secondary data sources that relate to illicit drug use. Recommended criteria for inclusion in the study are that the data must be available at least annually, include 50 or more cases, be collected in the city or jurisdiction of the study, provide brief details on illicit drug use, and must include details of the four main illicit drugs under investigation (Hando et al., 1997).

Due to the small population of the NT, many of the data sources available to other states and territories report very small numbers regarding the NT and fail to meet the above criteria. Where no other secondary sources are available, some findings from such data sources are noted, but should be interpreted with caution. Data are presented for a time period that overlaps as closely as possible with the period of the IDRS, but where this is not available the most recent data available are included.

Indicator data derived from the following data sources and publications have been included in this report:

- Australian Crime Commission
- The Kirby Institute for infection and immunity in society
- Annual Report of the National Notifiable Diseases Surveillance System
- Australian Needle and Syringe Program Survey National Data Report
- Northern Territory Integrated Justice Information System
- The NT Office of Crime Prevention
- The Australian Crime Commission Illicit Drug Report, various years

- The NT Alcohol and Other Drug Treatment Services Client Database
- The NT DHCS Corporate Information Services
- Alcohol and Drug Information Service annual reports
- Australian Institute of Health and Welfare (AIHW)
- NT Poisons Control

## 3 DEMOGRAPHICS

## 3.1 Overview of the participant sample

#### **Key Points**

- A total of 99 participants were interviewed for the 2014 NT IDRS survey.
- The mean age was 43 years (range 20 to 64 years).
- Sixty-four percent were male.
- The majority was unemployed or on a pension.
- Twenty-three percent were currently in drug treatment.
- Fifty-four percent had a prison history.

As in previous years, the sample was predominantly (64%) male (Table 1). The mean age was 42 years and 84% of the respondents were unemployed or on a pension at the time of interview. Eight percent reported full-time employment, a decrease on the 14% found in 2014. The percentage of respondents who identified as Aboriginal and/or Torres Strait Islander increased to 33%. Ninety-one percent reported heterosexual status while 6% identified as bisexual and 2% as gay or lesbian. Year 10 was again the mean for years of education although 49% reported some form of post-secondary education. Reported participation in treatment increased to 23% of the sample from 17% in 2013 and 54% reported prior prison history.

	2010	2011	2012	2013	2014	2015
	N=99	N=98	N=125	N=91	N=93	N=99
Age – mean years (range)	41 (22-63)	42 (18-63)	42 (23-62)	40 (21-60)	44 (23-63)	43 (20-64)
Sex (% male)	72	70	71	65	71	64
Aboriginal and/or Torres Strait Islander (%)	21	28	28	21	20	33
Heterosexual (%)	91	90	94	87	87	91
Bisexual (%)	4	6	6	10	8	6
Gay or lesbian (%)	3	3	1	1	3	2
Other (%)	2	1	0	2	2	1
School education – mean no. years (range)	10 (4-12)	10 (5-12)	10 (2-12)	10 (0-12)	10 (4-12)	10 (4-12)
Tertiary education (%)						
None	51	54	62	45	52	52
Trade/technical	36	32	30	35	36	32
University/college	13	14	8	18	13	16
Employment (%)						
Not employed/on a pension	78	87	94	79	77	84
Full time	12	8	3	7	14	8
Part time/casual	8	4	3	11	8	7
Other	0	0	0	2	0	0
Prison history (%)	44	44	59	57	44	54
Currently in drug treatment (%)	12	4	10	13	17	23

#### Table 1: Demographic characteristics of the participant sample, 2010-2015

Source: IDRS participant interviews

Participants who identified as Aboriginal or Torres Strait Islander (mean age=40 years) were significantly younger than those who did not (mean age=44 years). Men were significantly more likely than women to have been in prison,  $\chi^2$  (1, N=99) =9.28, p<.05.

Also, participants were mostly single (62%), receiving a pension, allowance or other benefit (81%), and lived in rented accommodation (71%).

	2015 N=99
Main source of income last month (%) Wage or salary Government pension, allowance or benefit Criminal activity Sex work	12 81 5 2
Median weekly income (median, range)	375 (110 – 2,400)
Relationship status (%) Married/defacto/regular partner Single Other	35 62 3
Accommodation type Own house or flat Rented house or flat (inc. public housing) Parent's/family house Boarding house/hostel Shelter/refuge Homeless/no fixed address Other	3 71 6 5 2 12 1

 Table 2: Demographic characteristics of the PWID sample, 2015.

Figure 1 demonstrates that over time the proportion of IDRS participants aged 35 years and older has increased, while, conversely, the proportions aged under 25 and between 25 and 34 years of age have declined.

Figure 1: Age distribution of participants in the NT IDRS samples, 2002-2015



## 4 CONSUMPTION PATTERNS

## 4.1 Current drug use

## **Key Points**

- The mean age of first injection was 22 years, with most participants reporting an amphetamine as the first drug injected.
- Morphine was the main drug of choice, followed by Heroin.
- Morphine was the drug injected most often in the last month, as well as the most recent drug injected.
- The majority of participants injected drugs at least once per day.
- Polydrug use remained common.

The mean age of first injection this year was 22 years (Table 3) approximately the average for the last 5 years. Fifty-three percent of the sample identified amphetamines as the drug first injected, lower than the 67% found in 2013 but similar to previous years. In 2013 the proportion reporting morphine as the first drug injected dropped markedly to 3%, increased 22% in 2014 and then declined again this year to 11%. Morphine (41%) was the most frequently reported drug of choice, followed by heroin (33%). The proportion reporting methamphetamine (15%) as their drug of choice was similar to the proportions found in the previous three years although the popularity of crystal methamphetamine had increased for the third year in a row.

Morphine was again the drug most often injected in the past month (58%) and the most recent drug injected (60%), followed in each case by methamphetamine, 25% each. Last year (2014) crystal methamphetamine replaced speed powder as the form of methamphetamine injected most often in the last month and the most recent drug injected and this is the case again this year, 18% each, although by a greater margin.

The frequency of injecting in the month before interview showed some changes compared to 2014, with '2-3 times per day' (37%) being the most reported category, increasing compared to 2014, as did '>3times a day' (6%).

,	2011	2012	2013	2014	2015
Age first injection mean years (range)	N=90	N=123	10=91	N=93	N=99
Age first injection – mean years (range)	24 (12-34)	24 (10-54)	20 (12-45)	22 (10-45)	22 (0-43)
First drug injected (%)	20	20	25	20	20
Heroin	30	28	25	20	28
Amphetamines	52	50	67	48	53
Cocaine	0	0	0	1	1
	16	18	3	22	11
Drug of choice (%)			10		
Heroin	30	21	43	28	33
Morphine	36	46	26	48	41
Cocaine	0	2	0	4	0
Methamphetamine (any form)	17	22	18	12	15
Speed	15	21	14	8	9
Base	0	1	0	0	0
Crystal methamphetamine	2	0	3	4	6
Benzodiazepines	1	0	0	0	0
Cannabis	7	6	2	1	2
Drug injected most often in last month (%)					
Heroin	4	2	1	1	4
Cocaine	0	0	0	0	1
Methamphetamine (any form)	18	24	19	14	25
Speed	15	23	15	5	7
Base	0	0	0	0	0
Crystal methamphetamine	3	1	3	9	18
Morphine	68	71	73	79	58
Suboxone					8
Oxycodone					1
Most recent drug injected (%)					
Heroin	3	2	0	1	3
Cocaine	0	0	0	0	1
Methamphetamine (any form)	19	23	20	15	25
Speed	17	21	15	5	7
Base	0	0	0	0	0
Crystal methamphetamine	2	2	4	10	18
Morphine	68	66	71	72	60
Suboxone					7
Oxycodone					1
Frequency of injecting in last month (%)					
Not injected in last month	0	3	2	0	1
Weekly or less	20	14	23	17	20
More than weekly, but less than daily	15	15	16	16	14
Once per day	26	40	28	34	21
2-3 times a day	37	29	30	31	37
>3 times a day	2	1	1	1	6

## Table 3: Injection history, drug preferences and polydrug use, 2011-2015

Source: IDRS participant interviews

Note: Percentages within categories may not sum to 100 because of rounding, missing data or exclusion of 'other' responses

Figure 2 shows the proportions of PWID reporting selected drugs as the most often injected in the last month since 2005. All the drug types have fluctuated over time, with heroin being consistently the least reported (average=3%) and morphine the most (average=72%). Methamphetamine use has fluctuated around an average of

approximately 18%, with the form of methamphetamine most used in the last month changing notably over the last three years, from speed powder to crystal.



Figure 2: Drug injected most last month, 2005-2015

Source: IDRS participant interviews

Polydrug use histories and routes of administration are shown in Table 4. The most commonly used illicit drug in 2014 was cannabis, at 72%, a ten percentage-point increase on 2014. This group used cannabis on a median of 180 days, i.e. on a daily basis. Non-prescribed morphine, at 69% on a median of 135 days, was the next most commonly used illicit drug and, also at 69%, the most commonly injected illicit drug.

		Used	• •		Injected			Other recent R	OA
Drug class	Ever <sup>1</sup>	Recent <sup>2</sup>	Days <sup>3</sup>	Ever	Recent	Days	Smoked	Snorted	Swallowed
Heroin	81 (79)	14 (7)	22 (11)	79 (73)	14 (7)	22 (11)	1 (0)	1 (0)	1 (1)
Homebake heroin	30 (20)	2 (0)	4 (0)	29 (17)	2 (0)	4 (0)	0 (0)	0 (0)	1 (0)
Any heroin (inc. homebake)	83 (79)	16 (7)	(11)	81 (73)	16 (7)	15 (11)	1 (0)	1 (0)	2 (1)
Methadone (prescribed)	32 (23)	13 (5)	180 (180)	17 (8)	2 (0)	57 (0)			12 (5)
Methadone (not prescribed)	42 (31)	6 (0)	6 (0)	32 (30)	5 (0)	10 (0)			1 (0)
Physeptone (prescribed)	14 (15)	3 (7)	5 (114)	8 (9)	0 (2)	- (114)			3 (7)
Physeptone (not prescribed)	51 (40)	13 (16)	5 (4)	44 (36)	11 (16)	4 (4)			4 (1)
Any methadone (inc. Physeptone)	70 (65)	29 (24)	20 (13)	57 (47)	15 (17)	4 (5)			18 (10)
Subutex (prescribed)	19 (19)	2 (7)	135 (144)	10 (4)	0 (1)	- (138)			2 (7)
Subutex (not prescribed)	39 (23)	10 (12)	10 (15)	29 (12)	6 (8)	61 (2)			5 (7)
Any form Subutex	47 (33)	12 (17)	23 (36)	34 (13)	6 (9)	61 (6)			8 (12)
Suboxone tablet (prescribed)	15 (18)	0 (4)	0 (42)	4 (1)	0 (0)	- (0)			0 (4)
Suboxone tablet (not prescribed)	24 (14)	10 (7)	5 (15)	15 (7)	6 (3)	18 (1)			5 (3)
Any form Suboxone tablet	35 (27)	10 (9)	5 (24)	17 (7)	6 (3)	18 (1)			5 (5)
Suboxone film (prescribed)	12 (16)	6 (11)	180 (180)	3 (1)	1 (0)	32 (0)			5 (11)
Suboxone film (not prescribed)	31 (26)	19 (15)	10 (5)	21 (9)	13 (5)	90 (7)			7 (12)
Any form Suboxone film	38 (37)	24 (26)	42 (9)	22 (9)	13 (5)	90 (7)			12 (22)
Morphine (prescribed)	49 (48)	24 (30)	180 (180)	44 (42)	22 (29)	180 (180)	0 (0)	0 (0)	7 (13)
Morphine (not prescribed)	89 (87)	69 (80)	90 (135)	88 (85)	69 (79)	90 (143)	1 (0)	1 (0)	4 (10)
Any morphine	93 (96)	73 (85)	180 (180)	91 (93)	72 (84)	178 (180)	1 (0)	1 (0)	9 (17)
Oxycodone (prescribed)	17 (10)	5 (3)	28 (180)	13 (8)	2 (2)	14 (180)			5 (2)
Oxycodone (not prescribed)	56 (38)	23 (22)	3 (11)	53 (38)	22 (22)	4 (10)			3 (4)
Any oxycodone	60 (41)	26 (24)	7 (11)	55 (39)	23 (23)	4 (10)			8 (5)
Fentanyl	37 (24)	13 (7)	3 (3)	33 (16)	12 (4)	3 (3)	0 (0)	0 (0)	0 (0)
OTC codeine	33 (24)	11 (11)	5 (12)	6 (3)	1 (0)	2 (0)			10 (11)
Other opioids (not elsewhere classified)	65 (57)	20 (25)	8 (7)	5 (3)	0 (1)	0 (3)			20 (24)

### Table 4: Polydrug use history of the participant sample, 2015 (2014 in brackets)

1 Includes injection, smoking, snorted, ingested. 2 Within six months of interview. 3 Median days of use in the last six months. Source: IDRS participant interviews

## Table 4 continued: Polydrug use history of the participant sample, 2015 (2014 in brackets)

		Used			Injected		1	Other recent ROA		
Drug class	Ever <sup>1</sup>	Recent <sup>2</sup>	Days <sup>3</sup>	Ever	Recent	Days	Smoked	Snorted	Swallowed	
Speed	78 (70)	25 (16)	4 (6)	76 (67)	25 (15)	4 (7)	1 (3)	3 (0)	2 (2)	
Base/point/wax	19 (16)	4 (4)	6 (4)	19 (16)	4 (3)	6 (5)	0 (1)	0 (0)	0 (0)	
Ice/shabu/crystal	78 (48)	60 (26)	10 (14)	74 (46)	58 (25)	10 (8)	12 (11)	3 (0)	5 (0)	
Amphetamine liquid	22 (10)	3 (2)	24 (4)	21 (10)	2 (2)	16 (4)			0 (1)	
Any form methamphetamine <sup>4</sup>	89 (77)	67 (37)	12 (10)	89 (75)	66 (33)	11 (10)	12 (14)	5 (0)	6 (2)	
Pharmaceutical stimulants (prescribed)	11 (8)	1 (3)	12 (180)	5 (3)	1 (2)	12 (105)	0 (0)	0 (0)	0 (2)	
Pharmaceutical stimulants (not prescribed)	40 (38)	24 (20)	2 (4)	33 (27)	23 (17)	2 (5)	0 (0)	0 (0)	1 (8)	
Any form pharmaceutical stimulants	44 (41)	25 (24)	2 (7)	34 (28)	24 (19)	2 (7)	0 (0)	0 (0)	1 (10)	
Cocaine	50 (38)	4 (2)	17 (3)	39 (24)	4 (2)	13 (3)	1 (0)	2 (0)	1 (0)	
Hallucinogens	62 (46)	6 (3)	2 (1)	18 (4)	0 (3)	0 (-)	0 (1)	1 (1)	6 (1)	
Ecstasy	60 (44)	8 (4)	2 (2)	32 (16)	4 (2)	2 (4)	0 (0)	1 (0)	5 (3)	
Alprazolam (prescribed)	29 (18)	6 (7)	180 (24)	18 (8)	2 (2)	126 (18)	0 (0)	0 (0)	5 (5)	
Alprazolam (not prescribed)	54 (18)	21 (12)	4 (6)	34 (15)	15 (5)	3 (12)	0 (0)	0 (0)	7 (9)	
Other benzodiazepines (prescribed)	54 (39)	25 (22)	48 (72)	10 (4)	0 (2)	0 (3)	0 (0)	0 (0)	25 (22)	
Other benzodiazepines (not prescribed)	49 (28)	25 (14)	5 (40)	11 (4)	4 (0)	7 (0)	0 (0)	0 (0)	22 (14)	
Any form any benzodiazepines	80 (63)	54 (39)	21 (45)	41 (24)	17 (8)	6 (4)	0 (0)	0 (0)	44 (37)	
Seroquel (prescribed)	19 (7)	10 (4)	180 (101)	0 (0)	0 (0)	0 (0)			10 (4)	
Seroquel (not prescribed)	22 (17)	11 (5)	3 (2)	0 (0)	0 (0)	0 (0)			11 (5)	
Any form Seroquel	39 (22)	20 (10)	102 (5)	0 (0)	0 (0)	0 (0)			20 (10)	
Steroids	7 (8)	2 (2)	10 (110)	6 (5)	1 (0)	6 (0)			2 (2)	
Alcohol	87 (84)	63 (52)	48 (48)	4 (1)	1 (0)	0 (0)			61 (52)	
Cannabis	91 (85)	72 (62)	180 (72)				71 (61)		0 (0)	
Inhalants	8 (13)	2 (1)	94 (48)							
Tobacco	97 (95)	94 (93)	180 (180)							
e-cigarette	30	15	4							
NPS	5 (4)	2 (1)	4 (1)	4 (3)	2 (0)	2 (0)	0 (0)	1 (0)	1 (1)	
Synthetic cannabis	24 (18)	12 (1)	1 (1)	0 (0)	1 (0)	1 (0)	11 (1)	0 (0)	0 (0)	

1 Includes injection, smoking, snorted, ingested. 2 Within six months of interview. 3 Median days of use in the last six months 4 Category includes speed, base, ice/crystal and amphetamine liquid. Does not include pharmaceutical stimulants Source: IDRS participant interviews

## 4.2 Heroin

## **Key Points**

- Sixteen percent of participants had used and injected heroin in the preceding six months.
- Heroin powder was the form most used.
- Heroin use continues to remain relatively rare in the NT.

Heroin use and injection increased compared to 2014, from 7% each to 16% (Table 5), similar to the proportion found in 2013. The median days of use and injection increased.

Table 5: Selected	trends in I	participar	nt heroin	use,	2008-201	4

	2008	2009	2010	2011	2012	2013	2014	2015
	N=103	N=99	N=99	N=98	N=124	N=91	N=93	N=99
Used last 6 months (%)	14	13	5	9	11	17	7	16
Injected last 6 months (%)	14	8	5	9	11	17	7	16
Days used last 6 months (median)	27	17	4	21	5	3	11	15
Days injected last 6 months (median)	26	9	4	21	5	3	11	15

Source: IDRS participant interviews

Over time (Figure 3), the pattern of recent heroin use has fluctuated, although a frequency of weekly or less has been consistently the most common. The proportion of recent users with a frequency of more than weekly but less than daily has increased this year.





Source: IDRS participant interviews

Table 6 demonstrates that white powder was the main form of heroin used in the previous six months, as was the case in previous years with the exception of 2013.

······································												
	2010 N=99		2011 N=98		2012 N=124		2013 N=91		2014 N=93		2015 N=99	
	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often
Powder												
white/off-white	0	0	6	6	11	7	5	4	3	3	7	5
brown	1	1	1	0	0	0	4	0	0	0	1	1
other colour	2	0	0	0	0	0	0	1	0	0	0	0
Rock												
white/off white	1	1	0	0	4	4	4	4	1	1	4	4
brown	0	1	2	1	0	0	7	6	2	2	4	4
other colour	1	1	2	2	0	0	0	1	0	0	0	0
Homebake	5	5	2	2	1	1	4	0	0	0	2	0

 Table 6: Forms of heroin used in previous six months by participants, 2010-2015

Source: IDRS participant interviews

## 4.2.1 KE comment

As in previous years, KE consistently stated that they had only encountered heroin use occasionally. They stated that heroin was periodically available in Darwin, usually for short periods only, and was expensive compared to interstate prices. Treatment provider KE could not recall any clients entering treatment for heroin as a principal drug, although most thought that a high proportion of other-opiate users would have some history of heroin use.

## 4.3 Methamphetamine

### Key Points

- More than two thirds of the sample reported using some form of methamphetamine in the preceding six months, on a median of 12 days.
- Injecting remained the main route of administration.
- Recent use of crystal methamphetamine exceeded that of speed powder for the second year in a row, corroborating Key Expert reports that 'ice' is now the most prevalent form in the NT.

In 2014, 67% (Table 4) of participants reported use of some form of methamphetamine, on a median of 12 days, a marked increase on the results found in 2014 (37% and 10 days respectively).

This is accounted for by a substantial increase in the proportions of the sample reporting recent use and injection of both speed powder and crystal methamphetamine ('ice'). Recent use of crystal increased from 26% (Table 4) in 2014 to 60% this year, while recent use of speed powder went from 16% to 25%. Similar increases are seen in recent injection: from 25% in 2014 to 58% in 2015 for crystal, and from 15% to 25% for speed powder.

Injecting continues to be the main route of administration for all forms of methamphetamine. Recent smoking of ice increased to 12% of the sample, compared to 11% in 2014 and 9% in 2013, but is still lower than historical levels (18% in 2011).

Figure 4 shows that over time, recent use of any form of methamphetamine among the IDRS samples decline between 2002 and 2014, increasing this year to levels seen in the mid-2000's.





Among those who had used any form of methamphetamine in the six months prior to interview, speed powder was the most commonly used form used until 2012, since decreasing (Figure 5). The proportion of recent users of methamphetamine using crystal has steadily increased since 2009, passing the level of speed powder use in 2014 and remaining higher this year. Recent use of the base and liquid forms of methamphetamine have declined to low levels.





Source: IDRS participant interviews

Figure 6 shows that among those who recently used methamphetamines (i.e. excluding liquid and pharmaceutical stimulants) crystal methamphetamine as the most used form has increased steadily relative to speed powder use.



Figure 6: Methamphetamine form most used in the preceding six months, 2002-2015

Source: IDRS participant interviews

Daily use (Figure 7) of methamphetamines remains rare among the IDRS sample, with use weekly or less being the most common frequency.



Figure 7: Methamphetamine use among recent users (any form), 2002-2015

Source: IDRS participant interviews

Note: Data prior to 2005 also include prescription stimulants

## 4.3.1 KE comment

All KE discussed the methamphetamine market in Darwin, corroborating the findings of the injecting drug user survey.

In most cases, KE reported that the emerging trends found in previous years had now stabilised, with ice as the main form of methamphetamine available and in use. KE identified the following patterns and characteristics of use:

- smoking was the main route of administration among the majority of ice users,
  - this group was described as using ice as a recreational or occasional drug, among generally younger and employed people;
- injecting is less common, but usually typical of those who come to the attention of treatment services and/or law enforcement,
  - this group was described as using ice in an extended 'binge' pattern, that is, that people would use the drug frequently, often injecting more than once a day, for a number of days until it was exhausted;
- some KE reported that they were aware of regular injecting among young, often Indigenous people in Palmerston and outer Darwin who were not accessing services and with whom services found it difficult to engage.

In contrast to the previous two years, KE were reluctant to identify or nominate particular demographic characteristics for regular ice users. They agreed that ice was now the most common first amphetamine used among younger, new, users, but that otherwise ice use spanned age groups, genders and occupations.

## 4.4 Cocaine

#### **Key Points**

- Reports of recent cocaine use remain low.
- Most KE had not received any reports of cocaine use.

Recent use of cocaine remained low in the IDRS sample (4%, Table 7).

· · · · · ·	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Used last 6 months (%)	3	12	4	1	4	7	2	4
Injected last 6 months (%)	3	8	4	0	2	3	2	4
Days used last 6 months (median)	8	5	6	1	2	7	3	17
Days injected last 6 months (median)	8	4	6	0	2	1	3	13

Source: IDRS participant interviews

Figure 8 shows that cocaine use and injection in Darwin has fluctuated over time.





Source: IDRS participant interviews

Cocaine powder was the form used most often in 2015 (Table 8), similar to the pattern seen in previous years.

<b>TADIE 0. I UTITIS UL CUCATTE USEU DIEVIUUS SIA ITIUTITIS.</b> 70 DALIICIDATIUS. 2003-2013	Table 8:	Forms of	cocaine i	used previous	s six months.	% participants.	2009-2015
--	----------	----------	-----------	---------------	---------------	-----------------	-----------

	20	09	20	10	20	11	20	12	20	13	20	14	2015	
	N=	:99	N=	99	N=	:98	N=^	125	N=	:91	N=	93	N=	:99
	Used	Most												
		often												
Powder	10	5	3	3	1	1	3	2	6	6	2	1	4	3
Rock	4	2	0	1	0	0	0	2	2	1	1	0	1	1
Crack	0	0	1	0	0	0	1	1	1	0	1	1	1	0
-														

Source: IDRS participant interviews

## 4.5 Cannabis

## **Key Points**

- Seventy-two percent of participants had used cannabis in the preceding six months.
- Cannabis was smoked by participants on a median of daily.
- Hydroponically grown cannabis (hydro) continued to be the form most commonly used, followed by bush cannabis.
- KE described the cannabis market, in terms of availability and price, as stable.

Seventy-two percent of participants reported use of cannabis over the preceding six months, on a median of 180 days (i.e. daily, Table 9) reversing a previously declining trend.

Table 9: Selected trends in participants' cannabis use, 2007-2015

	2007 N=106	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Used last 6 months (%)	83	78	78	72	71	71	67	62	72
Days used last 6 months (median)	150	102	90	93	90	90	180	72	180

Source: IDRS participant interviews

Figure 9 illustrates that the median number of days of recent use of cannabis remained stable between 2008 and 2012, but has fluctuated since then.





Source: IDRS participant interviews
Over the period shown in Figure 10, daily use of cannabis was in decline until 2012, showing a fluctuating increase since then.



Figure 10: Patterns of cannabis use by recent users, 2002-2015

Source: IDRS participant interviews

As in previous years, hydroponic cannabis was the form most commonly and most often used (Table 10). Hash and hash oil were used by small proportions of the sample

	2009 2010 N=99 N=99*		2011 N=98		2012 N=125		20 N=	13 91	2014 N=93		2015 N=99			
	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often
Hydro	96	96	69	78	62	88	66	73	63	88	57	89	68	92
Bush	29	5	37	10	21	11	29	10	24	12	30	11	31	9
Hash	3	0	11	0	9	2	3	0	7	0	3	0	9	0
Hash oil	4	0	6	0	5	0	2	0	2	0	1	0	4	0

Table 10: Forms of cannabis used\* previous six months and main form^, 2009-2015

\* % of entire sample

^ % recent use some recent users responded 'don't know'. Source: IDRS participant interviews

## 4.5.1 KE comment

All KE reported that cannabis use is very common in Darwin. Cannabis was rated as very easy to obtain – "freely available" – by all KE, with estimated prices agreeing with the results presented later in this report. Cannabis was reported to be the main illicit drug used by Indigenous people, often in combination with alcohol. KE consistently described the cannabis market and cannabis use patterns as "stable".

# 4.6 Other opioids

#### **Key Points**

- Morphine remained the opioid most frequently used by participants, with 76% having used some form of morphine in the preceding six months, on a median of 180 days.
- MS Contin continued to be the brand most often used.
- Illicitly obtained Physeptone was used by 13% of participants in the preceding six months.
- Illicitly obtained oxycodone was used by 23% of participants in the preceding six months, on a median of 3 days.
- Illicitly obtained Subutex was used by 10% of participants in the preceding six months, on a median of 10 days.
- Over-the-counter (OTC) codeine was used by 11% of participants in the preceding six months.

#### 4.6.1 Methadone

In 2015, six percent reported recent use of illicit methadone liquid in the preceding six months, an increase on 2014 (Table 11). Thirteen percent of the sample reported recent illicit Physeptone use, a decrease compared to 2014 and consistent with a decline seen since 2008.

			· · · · · · · · · · · · · · · · · · ·											
	20	09	20	10	20	11	20	12	20	13	20	14	20	15
	N=	99	N=	:99	N=	98	N='	125	N=9	913	N=	93	N=	99
	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often
Methadone														
Licit	6	3	6	5	3	2	4	2	4	4	5	5	13	13
Illicit	15	10	11	1	11	5	11	11	10	6	0	0	6	3
Physeptone														
Licit	6	4	8	7	5	5	2	1	4	3	7	3	3	1
Illicit	22	9	26	17	27	20	19	14	7	4	16	13	13	12
<b>^</b>														

#### Table 11: Forms of methadone used previous six months, 2008-2015 (%)

For illicit Physeptone tablets, a pattern of weekly or less use was again the most common frequency reported (Table 12).

					JIEVIOU	3 3IN II	ionuis, a	2000-20	13(/0)	
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	N=100	N=106	N=103	N=99	N=99	N=98	N=125	N=91	N=93	N=99
Illicit methadone syrup										
No recent use	84	70	78	86	92	88	90	91	100	94
Weekly or less	13	22	18	11	7	7	9	6	-	6
More than weekly	3	9	3	1	1	2	1	2	-	0
Daily	0	0	1	1	0	0	1	1	-	0
Illicit physeptone										
No recent use	74	76	70	79	75	74	81	94	85	87
Weekly or less	22	23	27	17	18	26	18	6	12	13
More than weekly	3	1	2	2	6	0	1	0	2	0
Daily	1	0	1	1	1	0	1	0	1	0

#### Table 12: Frequency of illicit methadone use in previous six months, 2006-2015 (%)

Source: IDRS participant interviews

#### 4.6.2 Morphine

Recent use and injection of morphine both decreased, to 73% and 72% (Table 13) of the sample respectively, while median days of use and injection both remained stable at daily.

	<b>Table 13: Selected trends</b>	s in participa	ants' morphine	use, 2006-2015
--	----------------------------------	----------------	----------------	----------------

	-	-								
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	N=100	N=106	N=103	N=99	N=99	N=98	N=125	N=91	N=93	N=99
Used last 6 months (%)	81	82	89	70	91	81	77	80	85	73
Injected last 6 months (%)	81	76	87	70	91	78	74	78	84	72
Days used last 6 months (median)	180	180	133	180	180	180	180	105	180	180
Days injected last 6 months (median)	180	180	130	120	155	180	180	120	180	178
Occurrent IDDO a carticia cart interacione										

Source: IDRS participant interviews

Illicit morphine continued to be the form most often used over the six months before interview (69%, Table 14) with recent use of licit morphine relatively stable. MS Contin was again the brand most frequently used (81%) followed by Kapanol (11%).

#### Table 14: Forms and brands of morphine used previous six months, 2009-2015

									•	,				
	20	09	20	10	20	11	20	12	20	13	20	14	20	15
	N=	:99	N=	:99	N=	:98	N='	125	N=	91	N=	93	N=	99
	Used	Most												
		often												
Licit	26	26	24	16	28	18	23	18	21	17	23	18	24	31
Illicit	61	43	89	73	73	60	68	57	74	57	77	60	69	67
Brand*														
MS Contin	52		81		79		75		73		77		81	
Kapanol	13		9		13		16		19		22		11	
Anamorph	3		1		0		0		0		0		0	
Other/generic	1		8		3		1		0		1		1	

Don't know' excluded.

Daily use of illicit morphine in the previous six months decreased to 20% (Table 15) of the sample from 36% in 2014.

	2012		2013				2014		2015			
		N=125			N=91			N=93			N=99	
	Any	Illicit	Licit	Any	Illicit	Licit	Any	Illicit	Licit	Any	Illicit	Licit
No recent use	24	34	78	34	15	80	16	20	70	28	32	76
Weekly or less	8	13	1	19	20	1	14	15	3	18	22	2
More than weekly	21	20	10	23	41	8	18	28	8	15	25	2
Daily	47	32	11	37	24	11	53	36	19	38	20	19

Table 15: Frequency of morphine use in previous six months, 2012-2015

Source: IDRS participant interviews

## 4.6.3 Oxycodone

Twenty-six percent (Table 16) of respondents reported use of some form of oxycodone in the six months preceding the interview, similar to the levels found in previous years. Recent use and injection of illicit oxycodone was relatively stable at 23% and 22% respectively. Median days of use and injection of both licit and illicit forms decreased.

	πι ραι	ucipa	1113 1	CCCIII	LONYO	ouon	c use	, <b>2</b> 014		J ( /0)			
		<b>2012</b> N=125		<b>2013</b> N=91				2014 N=93		2015 N=99			
	Licit	Illicit	Any	Licit	Illicit	Any	Licit	Illicit	Any	Licit	Illicit	Any	
Used last 6 months	7	19	22	9	23	28	3	22	24	5	23	26	
Injected last 6 months	4	18	19	3	23	23	2	22	23	2	22	23	
Days used last 6 months (median)	5	4	4	64	6	7	180	11	11	28	3	7	
Days injected last 6 months (median)	5	3	3	30	6	6	180	10	10	14	4	4	

 Table 16: Selected trends in participants' recent oxycodone use, 2012-2015 (%)

Source: IDRS participant interviews

Illicit oxycodone was the form most used by the sample (23%, Table 17) and OxyContin was again the main brand used (14%), consistent with previous years.

Table 17: Forms of oxycodone used	previous six months, 2011-2	2015 (%)
-----------------------------------	-----------------------------	----------

	2011 N=98		2012 N=125		20 N=	13 91	20 N=	14 93	2015 N=99		
	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	
Licit	8	7	7	6	9	8	3	4	5	5	
Illicit	26	24	19	16	23	19	22	18	23	21	
Main brand used											
Generic			1		1		1		0		
OxyContin	27		12		23		19		14		
Endone	2		2		1		0		5		

### 4.6.4 Subutex

Recent use of illicit Subutex was reported by 10% (Table 18) of the sample, a decline on 2015 and 2013. The proportion of the sample reporting recent injection also declined, although days injected in the last six months increased considerably.

	2007	2008	2009	2010	2011	2012	2013	2014	2015
	N=106	N=103	N=99	N=99	N=98	N=125	N=91	N=93	N=99
Used last 6 months (%)	5	18	5	8	8	12	20	17	10
Injected last 6 months (%)	5	11	3	6	5	7	13	9	6
Days used last 6 months (median)	3	7	2	7	6	2	15	36	10
Days injected last 6 months (median)	3	6	1	7	8	3	0	6	61

## Table 18: Selected trends in illicit Subutex use, 2007-2015

Source: IDRS participant interviews

More than weekly (Table 19) was the most common pattern of use reported among the small number of illicit Subutex users.

#### Table 19: Frequency of illicit Subutex use in previous six months, 2007-2015 (%)

	2007 N=106	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
No recent use	95	83	94	92	90	90	79	89	94
Weekly or less	5	13	4	6	8	10	13	7	2
More than weekly	0	4	0	2	0	0	6	3	3
Daily	0	1	1	0	0	0	2	1	1

Source: IDRS participant interviews

Recent use of illicit Subutex (Table 20) declined slightly although the proportion of respondents who have reported use of illicit Subutex has continued to exceeded those who reported use of licit Subutex since 2008.

#### Table 20: Forms of Subutex most used in the previous six months, 2007-2015(%)

	2007 N=106	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Licit	5	8	3	4	7	4	1	5	2
Illicit	3	16	5	8	6	8	20	11	10

## 4.6.5 Over-the-counter codeine

Eleven percent (Table 21) of the sample reported recent use of over-the-counter (OTC) codeine, the same as in 2014 but considerably lower than the proportions found in previous years.

				( /			
	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Used last six months	35	35	52	19	22	11	11
Median days used last six months	16	14	18	10	71	12	5
Injected drug last six months	2	1	1	1	0	0	1
Median days injected last six months	13	10	72*	24	0	0	2*
Brands							
Mersyndol	1	6	5	2	6	1	0
Nurofen Plus	15	12	16	6	7	0	0
Panadeine	10	9	5	2	3	1	2
Panafen Plus	2	1	6	2	0	0	2
Panamax Co	1	0	1	1	0	0	1
Other	1	5	5	3	6	7	5

Table 21: OTC codeine use characteristics, 2009-2015 (%)

\* One respondent only

Source: IDRS participant interviews

## 4.6.6 KE comment

Morphine was mentioned to some extent by all KE, more prominently by health KE than by law enforcement KE. Generally, the market characteristics of morphine in Darwin, such as price, availability and form, were reported to have been stable over time and consistent with the results of the injecting drug user survey.

Morphine continued to be seen as readily available and that its use continued to be common, although noting that it had to some extent been supplanted by methamphetamine as the drug of most concern to treatment providers. KE reported that a client presenting with a pattern regular morphine use, usually injection, was likely to be older than a typical methamphetamine user and to have a longer history of morphine use. A number of health KE felt that there was a "cohort" of regular morphine users who were aging and that younger illicit drug users were more likely to be involved with methamphetamine. Similarly, law enforcement KE commented that morphine was usually dealt by older, white males.

Health KE reported that while MS Contin continued to be the main type of opioid used, they had noticed an increased use of Suboxone and over-the-counter drugs, Neurophen Plus in particular. Somewhat in contrast to the findings of the injecting drug user survey, health KE reported that Oxycodone use was not very common.

# 4.7 Other drugs

### **Key Points**

- Eight percent of participants reported recent ecstasy use.
- Hallucinogens were used by 6% of participants in the preceding six months.
- Any form of benzodiazepine (illicit and/or licit) was used by 54% of participants in the preceding six months, the third increase in a row since 2012 and a level similar to that seen prior to 2012.
- Twenty-one percent of participants had recently used illicit Alprazolam, increasing from 12% in 2014.
- Sixty-two percent of participants reported use of alcohol in the preceding six months, and ninety-four percent of respondents reported daily use of tobacco.

## 4.7.1 Ecstasy

Recent use and injection of ecstasy show fluctuating declines over the period shown (Figure 11), showing small increases this year.

### Figure 11: Recent ecstasy use and injection, 2003-2015



### 4.7.2 Hallucinogens

Six percent, Figure 12, of respondents reported recent use of hallucinogens, an increase on the 3% fund in 20143. Over time, recent hallucinogen use shows considerable fluctuation.



Figure 12: Recent hallucinogen use and injection, 2003-2015

Source: IDRS participant interviews

LSD was the main form of hallucinogen reported this year, in contrast to 2014, but similar to earlier years (Table 22).

	2009 N=99		2009 2010 2011 N=99 N=99 N=98		11 98	2012 N=125		2013 N=91		2014 N=93		2015		
	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often	Used	Most often
LSD	2	2	4	3	5	5	4	4	14	12	0	0	5	5
Mushrooms	0	0	0	0	2	2	3	1	6	1	1	1	0	0
Other	0	0	0	0	0	0	0	0	2	2	2	2	1	1

Table 22: Hallucinogen forms most used, 2009-2015

### 4.7.3 Benzodiazepines

Over half, 54% (Figure 13) the sample reported recent use of a benzodiazepine, the third increase in a row since 2012 and a level similar to that seen prior to 2012. Recent injection of benzodiazepines shows a similar pattern at a lower level of use.



Figure 13: Recent benzodiazepine use and injection, 2003-2015

IDRS participant interviews

Median days of benzodiazepine use was 21 days (Figure 14) and median injection was at 6 days. Median days for both recent use and injection have fluctuated over time.



Figure 14: Median days recent use and injection of benzodiazepines, 2003-2015

→ Median days used → Median days injected

Source: IDRS participant interviews

Note: Collection of data on the number of days injected commenced in 2003

Of the benzodiazepines listed below (Table 23), diazepam (Valium) was used most often as has been the case in all previous years.

	2008 N=106	2009 N=103	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Xanax / Kalma (alprazolam)	25	7	23	0	0	0	0	23
Valium (diazepam)	18	10	18	25	14	21	19	24
Hypnodorm (flunitrazepam)	2	0	2	1	1	1	1	1
Murelax (oxazepam)	1	0	0	0	0	0	0	0
Serepax (oxazepam)	0	1	2	5	1	2	3	3
Normison (temazepam)	0	2	2	0	2	0	0	0
Rohypnol	0	0	2	0	0	0	0	1
Other	1	2	1	4	1	8	3	2

Table 23: Main brands of benzodiazepine most used, 2008-2015 (%)

Source: IDRS participant interview

\* Alprazolam reported separately below

Recent use of illicit Alprazolam increased from 12% (Table 24) of the sample in 2014 to 21% this year; the proportion reporting recent injection also increased markedly.

### Table 24: Alprazolam use, selected characteristics, 2012-2015.

	2012 N=125		2013 N=91		2014 N=93		2015 N=99	
	Licit	Illicit	Licit	Illicit	Licit	Illicit	Licit	Illicit
% used last six months	7	18	7	18	7	12	6	21
median days used last six months	21	6	10	4	24	6	180	4
% injected drug last six months	2	7	2	2	2	5	2	15
median days injected last six months	5	3	3	16	18	12	126	3

Source: IDRS participant interview

## 4.7.4 Seroquel, steroids and inhalants

Recent use of Seroquel increased to 20% for any form, 10% for prescribed and 11% for not prescribed, on a median of 102 days.

Recent steroids and inhalant use remain low (Table 4). Some health KE reported an increased demand for injecting equipment related to steroid use.

#### 4.7.5 Alcohol and tobacco

Recent use of alcohol increased to 62% (52% in 2014, Table 4). The proportions of respondents reporting daily use increased (Figure 15).



Figure 15: Patterns of recent alcohol use, 2003-2015

Source: IDRS participant interviews

As in past years, recent daily use of tobacco remained high, at 94% (Figure 16).



Figure 16: Participant reports of tobacco use in the last six months, 2003-2015

# 5 DRUG MARKET: PRICE, PURITY, AVAILABILITY AND PURCHASING PATTERNS

## 5.1 Heroin

## **Key Points**

- Consistent with recent years, very few respondents were able to comment upon the price, purity or availability of heroin.
- KE comments confirmed limited heroin availability in the NT.

Four respondents (Table 25) reported a median price of \$80 for a cap of heroin and one respondent paid \$200 for a gram. No respondents were able to report recent prices for caps or grams of heroin in 2014.

#### Table 25: Median price of most recent heroin purchases, 2007-2015, \$ (n)

Amount	2008	2009	2010	2011	2012	2013	2014	2015
Сар	100 (4)	80 (12)	-	80 (2)	110 (2)	100 (1)	-	80 (4)
Gram	400 (1)	300 (10)	100 (1)	550 (2)	150 (5)	275 (4)	-	200 (1)

Source: IDRS participant interviews

Note: median price in dollars (number of purchasers in brackets)

Some respondents were able to comment upon heroin price movements. Of those who did, most considered that the price was stable (71%, Table 26).

#### Table 26: Reports of heroin price movements, past six months, 2007-2015 (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
	N=106	N=103	N=99	N=99	N=98	N=125	N=91	N=93	N=99
Did not respond	92	94	94	97	96	94	94	97	93
Did respond	8	6	6	3	4	6	6	3	7
Of those who responded									
Increasing	29	50	17	100	50	38	20	67	14
Stable	58	50	67	0	-	50	80	0	71
Decreasing	0	0	0	0	25	0	0	0	14
Fluctuating	15	0	17	0	25	13	0	33	0

Heroin was reported to be either easy (38%, Table 27) or very easy (25%) by over half the small number of respondents able to comment. Most (75%) reported that availability had been stable over the previous six months.

	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Did not respond	94	94	97	96	90	92	96	92
Did respond	6	6	3	4	10	8	4	8
Of those who responded:								
Current availability								
Very easy	17	0	0	0	8	0	0	25
Easy	0	67	50	50	33	30	0	38
Difficult	67	33	0	50	25	14	25	25
Very difficult	17	0	50	0	33	57	75	13
Change last six months								
More difficult	0	0	0	0	0	25	25	25
Stable	100	83	100	25	90	75	75	75
Easier	0	17	0	50	10	0	0	0
Fluctuates	0	0	0	25	0	0	0	0

## Table 27: Reports of heroin availability in the past six months, 2008-2015 (%)

Source: IDRS participant interviews

Those able to comment (n=8, Table 28) rated heroin purity as medium and either stable or increasing.

			, <b>P a i i j j</b>	puet en				
	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Did not respond	94	94	97	96	91	94	97	92
Did respond	6	6	3	4	9	6	3	8
Of those who responded:								
Current purity								
High	17	17	50	33	27	20	0	0
Medium	17	50	50	0	55	0	0	75
Low	67	17	0	67	18	80	100	25
Change last six months								
Increasing	0	0	0	0	22	0	0	50
Stable	100	17	0	50	33	33	0	38
Decreasing	0	33	0	0	11	33	100	13
Fluctuating	0	50	0	50	33	33	0	0

## Table 28: Participant reports of heroin purity, past six months, 2007-2014 (%)

Source: IDRS participant interviews

## 5.1.1 KE comment

Key Experts continued to describe heroin availability as periodic and short-term and were not able to comment on heroin prices or purity. In particular, law enforcement KE had not noted any change in this market.

# 5.2 Methamphetamine

## Key Points

- The median price for a point of ice/crystal methamphetamine was stable at \$150.
- The price of crystal methamphetamine was reported to be stable or decreasing by a majority of respondents.
- Crystal methamphetamine was rated as easy or very easy to obtain.
- Key experts corroborated the findings of the participant survey and confirmed that crystal methamphetamine is the main form used and purchased in Darwin.

## 5.2.1 Price

The median price of the most recent purchase for the various forms of methamphetamine is shown in Table 29. The median point price of speed powder was stable at \$100. The median point price of crystal methamphetamine was relatively stable at \$150 while a small number of respondents reported a decrease in the gram price to \$925.

		2014			2015	
Amount	Number of purchasers	Median price \$	Range \$	Number of purchasers	Median price \$	Range \$
Speed						
Point (0.1g)	6	100	80-200	14	100	50-175
Gram	2	420	90-750	1	400	-
Ounce	-	-	-	1	4,000	-
Base						
Point (0.1g)	2	90	80-100	-	-	-
Gram	1	700	-	-	-	-
Ounce	-	-	-	-	-	-
Ice/crystal						
Point (0.1g)	23	150	100-200	43	150	40-200
Gram	4	1050	320-2,000	8	925	250-2,000
Ounce	-	-	-	2	6,150	5,200-7,100

Table 29: Price of most recent methan	phetamine	purchases,	2014-2015.
---------------------------------------	-----------	------------	------------

#### Speed powder

The median prices of points and grams of speed powder have generally increased over time (Figure 17), with a small decline in the reported gram price this year.



Figure 17: Median prices of speed powder, 2002-2015

Source: IDRS participant interviews

#### Base

No respondents reported a price for base purchases this year, while relatively low numbers of participants were able to report base prices previously. Figure 18 shows that the price of the most commonly purchased amount (points) fluctuated around \$100 between 2008 and 2014.





Source: IDRS participant interviews

### Ice/Crystal

The gram price of crystal methamphetamine shows an increase over the period shown in Figure 19, fluctuating around \$1,000 in recent years. The point price has been stable at around \$150 since 2011.



## Figure 19: Median prices of ice/crystal, 2002-2015

Source: IDRS participant interviews

Those able to comment reported that recent methamphetamine prices in 2014 had been stable (31% for powder and 55% for crystal, Table 30) or increasing (50% and 18%).

	Speed	Base	Crystal
Did not respond	84	99	60
Did respond	16	1	40
Of those who responded			
Increasing	50	0	18
Stable	31	100	55
Decreasing	6	0	25
Fluctuating	13	0	3

Table 30: Methamphetamine price movements in the last six months, 2015 (%)

Source: IDRS participant interviews

## 5.2.2 Availability

Seventy-two percent (Table 31) of those able to comment rated speed powder as either 'very easy' (50%) or 'easy' (22%) to obtain, and increase on the 67% found last year. The majority (67%) considered that there had been no changes in availability over the past six months, although 11% reported that powder had become more difficult to obtain.

As in recent years, few participants were able to comment upon availability of base methamphetamine.

Most of those able to respond rated crystal methamphetamine as easy (45%, Table 31) or very easy (49%) to obtain and 76% reported that availability of this form had been stable over the six months before interview. In each case, these results show increases on the previous year.

		Powder			Base		Ì	ce/crysta	I
	2013 N=91	2014 N=93	2015 N=99	2013 N=91	2014 N=93	2015 N=99	2013 N=91	2014 N=93	2015 N=99
Did not respond	76	91	82	98	97	99	87	76	53
Did respond	23	9	18	2	3	1	13	24	47
Of those who responded									
Current availability									
Very easy	48	11	50	50	0	0	42	38	49
Easy	33	56	22	50	67	0	58	42	45
Difficult	14	33	22	0	33	100	0	13	6
Very difficult	5	0	6	0	0	0	0	0	0
Change last six months									
More difficult	16	0	11	0	33	0	0	0	4
Stable	73	78	67	100	67	100	83	75	76
Easier	5	11	17	0	0	0	17	20	18
Fluctuates	5	11	6	0	0	0	0	5	2

Table 31: Reports of recent methamphetamine availability, 2013-2015 (%)

Respondents had obtained speed powder from friends (47%, Table 32) and known dealers (44%) or acquaintances (22%) usually at an agreed public location, a friend's home (24%) or via home delivery (24%). Crystal methamphetamine was last sourced principally from friends (49%, Table 32) at a friend's home (33%) or via home delivery (22%).

	-	Speed			Base			lce	
	2013 N=91	2014 N=93	2015 N=99	2013 N=91	2014 N=93	2015 N=99	2013 N=91	2014 N=93	2015 N=99
Did not respond	76	90	83	96	97	99	87	76	51
Did respond	23	10	17	4	3	1	13	24	49
Of those who responded									
Source person									
Street dealer	41	22	6	0	33	0	25	18	12
Friends	36	44	47	67	0	0	50	45	49
Known dealer	14	11	41	0	67	100	0	23	20
Acquaintances	9	22	6	33	0	0	25	5	6
Unknown dealer	0	0	0	0	0	0	0	5	6
Other	0	0	0	0	0	0	0	5	6
Source venue									
Home delivery	27	11	24	100	33	0	17	36	22
Dealer's home	18	11	18	0	33	100	0	18	16
Friend's home	14	67	24	0	0	0	50	18	33
Acquaintance's house	0	11	0	0	0	0	0	0	2
Street market	23	0	6	0	0	0	8	5	8
Agreed public location	18	0	29	0	33	0	17	23	18
Other	0	0	0	0	0	0	1	0	0

Table 32: Recent methamphetamine purchase, source person and venue, 2013 - 2015

## 5.2.3 Purity

Those able to comment reported similar purity profiles for both speed powder and 'ice': 47% (Figure 20) rated speed powder purity as high and 29% as low, while 43% rated 'ice' purity as high and 23% as low. The purity of 'ice' was more likely to be rated as 'fluctuates' (16%) than was the case for speed powder (6%).



Figure 20: Participant perceptions of methamphetamine purity, 2015

Source: IDRS participant interviews

Figure 21 shows that the proportion of respondents rating speed powder purity as high has been increasing since 2010 while that of crystal has fluctuated. This year, the purity of crystal was rated as high by a smaller proportion of respondents than the powder form, and may be showing a fluctuating decline since 2008.

Figure 21: Participants reporting speed powder and ice/crystal purity as 'high', 2002-2015



Source: IDRS participant interviews Note: Data on all three forms commenced in 2002

# 5.3 Cocaine

One participant reported paying \$50 for 1/8th of a gram of cocaine. KE comments confirm the rare use of this substance in the NT.

## 5.4 Cannabis

#### **Key Points**

- The median price of hydroponically grown cannabis was \$30 per gram, similar to prices fond in previous years, and \$450 per ounce.
- The median price for a gram of bush cannabis was also \$30 per gram.
- The majority of participants able to comment rated cannabis availability as easy or very easy, with hydro more available than bush.

## 5.4.1 Price

The median price of a gram of either hydro or bush cannabis was reported to be \$30 (Table 33). For both varieties the long-term price is stable (Figure 22). The median price of an ounce of hydro was stable at (Table 35), and remains higher than the prices seen before 2008 (Figure 22). The median price of an ounce of bush cannabis declined to \$300, although comparable to prices in recent years.

		2014			2015	
	Number of purchasers	Median price \$	Range \$	Number of purchasers	Median price \$	Range \$
Hydro						
Gram	29	30	-	38	30	20-30
A bag	13	30	-	6	30	-
Quarter ounce	5	150	100-160	6	60	50-100
Half ounce	3	225	150-250	8	237	180-260
Ounce	14	450	220-500	32	450	390-500
Bush						
Gram	7	30	-	11	30	20-30
A bag	1	30	-	1	50	-
Quarter ounce	5	150	100-160	3	75	40-125
Half ounce	3	225	150-250	2	115	80-150
Ounce	9	350	20-400	9	300	150-500
				1		

#### Table 33: Price of most recent cannabis purchases by participants, 2014-2015



#### Figure 22: Median prices of cannabis, 2003-2015

Source: IDRS participant interviews

Large majorities of those able to respond reported that both hydro (82%) and bush cannabis prices (81%) had been stable in the six months before interview (Table 34). One in seven able to comment on hydro prices reported an increase.

	Hydro	Bush
Did not respond	44	79
Did respond	56	21
Of those who responded		
Increasing	14	5
Stable	82	81
Decreasing	0	5
Fluctuating	4	10

 Table 34: Price movements of cannabis in the past six months, 2015 (%)

## 5.4.2 Availability

Hydro was considered easy or very easy to obtain by 93% (Table 36) of those able to respond, a similar portion to those seen in previous years. Hydro availability was considered stable by 86% of respondents. Bush cannabis was rated as easy (48%) or very easy (26%) to obtain and recent availability was rated as stable by 78%. Twenty-two percent of those who commented rated bush cannabis as difficult to obtain and 13% that its availability had become more difficult.

			Hydro					Bush		
	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Did not respond	45	41	53	42	42	86	67	82	81	77
Did respond	55	59	47	58	58	14	23	18	19	23
Of those who responded										
Current availability										
Very easy	44	30	51	32	52	7	35	31	17	26
Easy	51	68	37	61	41	57	48	50	44	48
Difficult	6	3	12	7	7	29	17	19	33	22
Very difficult	0	0	0	0	0	7	0	0	6	4
Availability change										
More difficult	4	5	7	4	7	14	4	13	18	13
Stable	85	81	84	87	86	79	79	75	53	78
Easier	6	10	2	2	7	0	11	13	0	9
Fluctuates	6	3	7	4	0	7	7	0	29	0

Tabla	25.	Donorto	of recent	aannahia	ovoilability	2011 2015	0/ \
Iaple	<b>JJ</b> .	reports.	or recent	Calillavis	availability	2011-2013	/0]

Source: IDRS participant interviews

Figure 23 illustrates that over time hydro cannabis is usually rated as 'very easy' to obtain by a larger proportion of respondents than is the case for bush cannabis.

Figure 23: Participant reports of current cannabis availability, 2004-2015



Source: IDRS participant interviews

Cannabis was purchased mainly from friends (50% for hydro, 52% for bush, Table 36) and known dealers (21% and 22%). For hydro cannabis the main source venue was a friend's (37%) or dealer's home (33%), while for bush cannabis it was home delivery, 35%, and a friend's home, 22%.

			Hydro					Bush	<u> </u>	
	2011 N=98	2012 N=125	2013 N-91	2014 N=93	2015 N=99	2011 N=98	2012 N=125	2013 N-91	2014 N=93	2015 N=99
Did not respond	47	41	52	44	42	88	75	81	81	77
Did respond	53	59	48	56	58	12	25	19	19	23
Of those who responded:										
Source person										
Street dealer	8	14	21	19	14	8	13	18	11	4
Friends	64	45	50	48	50	83	55	65	75	52
Known dealer	21	30	18	25	21	8	16	0	17	22
Acquaintances	8	7	9	4	5	0	10	12	0	13
Unknown dealer	0	3	0	0	7	0	0	0	0	4
Source venue										
Home delivery	11	9	9	6	17	17	7	24	6	35
Dealer's home	21	25	34	33	26	8	7	12	28	17
Friend's home	53	39	27	37	33	67	57	41	57	22
Acquaintance's house	6	4	5	2	3	0	7	0	0	4
Street market	6	7	14	10	16	8	7	12	6	17
Agreed public location	4	15	11	12	5	0	13	12	6	4

## Table 36: Recent cannabis purchases, source person and venue, 2011-2015 (%)

Source: IDRS participant interviews

# 5.4.3 Potency

This year, most respondents rated the current potency of hydro as high (49%, Figure 24)



Figure 24: Current potency of hydro, % able to comment, 2004-2015

The potency of bush cannabis was rated as high (36%, Figure 25) to medium (32%), similar to recent years.



Figure 25: Current potency of bush, % commented, 2004-2015

Source: IDRS participant interviews

Fifty-four percent (Figure 26) of respondents reported stable hydro potency and 50% reported stable bush cannabis potency over the past six months. Participants were more likely to report the potency of bush as increasing (23%) than was the case for hydro (11%).





Source: IDRS participant interviews

# 5.4.4 KE comment

KE estimated cannabis prices to be \$30 a bag, with law enforcement KE estimating \$450 an ounce. All KE agreed that both hydro and bush cannabis are readily available in Darwin, although hydro is more common. KE reported that the price and availability of cannabis had been stable.

## 5.5 Methadone

## **Key Points**

- Very few participants were able to respond to questions regarding illicit methadone.
- The median price of methadone syrup was reported to be \$1 per millilitre.
- The median price of Physeptone tablets was reported to be \$20 per 20 milligram tablet.

## 5.5.1 Price

Three participants purchased illicit methadone syrup recently for a median price of one dollar per millilitre (Table 37). Three participants purchased 5mg Physeptone while 2 participants reported purchasing 10mg Physeptone tablets for a median cost of \$20 in each case.

### Table 37: Median price (\$) of most recent illicit methadone purchase, 2008-2015

	2008	2009	2010	2011	2012	2013	2014	2015
Methadone								
1ml	1 (15)	1 (6)	1 (5)	1 (5)	1 (4)	1 (2)	1 (1)	1 (3)
Physeptone								
5mg	28 (2)	10 (1)	10 (1)	10 (2)	- (0)	20 (1)	- (0)	20 (3)
10mg	15 (16)	20 (7)	20 (15)	20 (11)	20 (13)	20 (2)	20 (4)	20 (2)

Source: IDRS participant interviews Note: Number of purchasers in brackets

Five percent of respondents reported that the recent price of illicit methadone had been stable, Table 38.

							• (///	
	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=	2014 N=93	2015 N=99
Did not respond	86	89	84	94	84	96	99	95
Did respond	14	11	16	6	16	4	1	5
Of those who responded								
Increasing	50	27	36	67	25	25	0	20
Stable	42	73	57	33	55	50	100	80
Decreasing	0	0	0	0	5	0	0	0
Fluctuating	8	0	7	0	15	25	0	0

#### Table 38: Illicit methadone price movements past six months, 2008-2015 (%)

## 5.5.2 Availability

Four respondents reported the current availability of illicit methadone, Figure 27.



Figure 27: Current availability of illicit methadone, % commented, 2003-2015

Source: IDRS participant interviews

A small number of respondents reported usual source person and venue, Table 39.

	methauone	purchase	, source pe	anu v	ciiue, 2010	JI-2013
	2010	2011	2012	2013	2014	2015
	N=99	N=98	N=125	N=91	N=93	N=99
% who did not respond	85	95	85	97	98	96
% who did respond	15	5	15	3	2	4
Of those who responded						
Source person						
Street dealer	0	0	16	0	50	25
Friends	73	100	74	100	50	50
Known dealer	20	0	0	0	0	0
Acquaintances	0	0	11	0	0	25
Unknown dealer	7	0	0	0	0	0
Source venue						
Home delivery	13	20	11	0	0	25
Dealer's home	27	0	5	0	0	0
Friend's home	40	60	63	33	50	0
Acquaintance's house	0	20	5	0	0	25
Street market	0	0	11	33	0	25
Agreed public location	13	0	5	33	0	25
Other	7	0	0	0	50	0

	_			_	
Table 39. Recent illicit methadone	nurchase	SOURCE	nerson a	ind venue	20101-2015
	puronuse,	, 30 ai 00 i			

# 5.6 Buprenorphine

### **Key Points**

• A small number of participants reported that the median price for 8mg buprenorphine was reported to be \$40, and that it was easy to obtain.

## 5.6.1 Price

Eight participants reported purchasing 8mg of Subutex, for a median price of \$40 (Table 40), an increase on the \$30 found in 2014.

$(\psi)$ of molet cubator (control by participanto, 2000 2010
---

	2009	2010	2011	2012	2013	2014	2015		
8mg	\$30 (1)	\$23 (4)	\$23 (2)	\$23 (2)	\$40 (6)	\$30 (4)	\$40 (8)		
Source: IDRS participant interviews									

Note: Number of purchasers in brackets

### 5.6.2 Availability

Four participants commented upon current availability of illicit Subutex, with availability ratings divided (Figure 28).





Illicit Subutex availability was reported as stable, Figure 29.





Source: IDRS participant interviews Note: No data in 2009

Seven participants were able to comment on usual source person and original source of illicit Subutex (Table 41).

Table 41: Recent illicit Subute	c purchase, source	person and venue, 2011-2015
---------------------------------	--------------------	-----------------------------

	2011	2012	2013	2014	2015
	N=98	N=125	N=91	N=93	N=99
% who did not respond	97	98	94	98	93
% who did respond	3	2	6	2	7
Of those who responded					
Source person					
Street dealer (%)	33	50	67	0	0
Friends (%)	33	0	33	100	86
Known dealer (%)	0	50	0	0	14
Acquaintances (%)	33	0	0	0	0
Original source					
Someone else's takeaway dose	0	0	17	67	86
Someone else's daily dose (to be swallowed)	50	50	17	0	14
Didn't buy/don't know	50	50	67	33	0

# 5.7 Suboxone (buprenorphine-naloxone)

## Key Points

- Suboxone tablets and film (8mg) were reported to cost a median of \$25.
- Reports of Suboxone film availability were mixed, with a majority rating it as easy (39%) or very easy (22%) to obtain, while one third (33%) rating it as difficult to obtain.

## 5.7.1 Price

Nine participants reported purchasing illicit 8mg Suboxone tablets for a median of \$25; no participants reported purchasing 2mg Suboxone. Four out of nine participants reported that recent Suboxone tablet prices had been increasing, the same number reported that they had been stable.

Eighteen respondents reported a median last purchase price for 8mg Suboxone film of \$25. Thirteen respondents, 72% of those able to comment, reported that Suboxone film prices had been stable.

## 5.7.2 Availability

Of the nine participants who commented upon Suboxone tablet availability, six (67%) rated availability as difficult and three as either easy or very easy. Participants considered that Suboxone tablets had been stable (50%) or more difficult (40%) to obtain.

Reports of Suboxone film availability were mixed: very easy 22%, easy 39% and difficult 33%. Seventy-one percent of recent purchasers of Suboxone film reported availability as stable.

Most of those able to respond obtained Suboxone tablets (70%, Table 42) and film (44%) from friends at a friend's home.

	N=99		
	Tablet	Film	
% did not respond	90	82	
% did respond	10	18	
Source person last time			
Street dealer		6	
Friends	70	44	
Known dealers	10	17	
Acquaintances		17	
Unknown dealers	20	11	
Other		6	
Source venue last time			
Home (delivered)	10	17	
Dealer's home		6	
Friend's home	40	22	
Acquaintances house		6	
Street market	10	22	
Agreed public location	40	28	

Table 42: Recent purchase of Suboxone, source person and venue, 2015.

# 5.8 Morphine

### Key Points

- Morphine was purchased mainly in the form of 100mg MS Contin tablets at a median price of \$80, identical to the median price reported since 2008.
- The majority of respondents reported that illicit morphine price had been stable.
- Illicit morphine was sourced mainly from a known dealer or friends and was reported to be easy or very easy to obtain.

#### 5.8.1 Price

As in previous years, MS Contin 100mg was the morphine form most frequently purchased by the IDRS sample (Table 43). Sixty-three participants reported purchasing MS Contin 100mg at a median price of \$80, the same median price found since 2008. Kapanol 100mg was again the form next most frequently purchased (45 purchasers) and, as in 2013, the median price was \$80, also stable since 2008.

	2008	2009	2010	2011	2012	2013	2014	2015
MS Contin								
5mg	80 (1)	- (0)	5 (1)	-	80 (5)	-	5 (1)	5 (1)
10mg	10 (1)	15 (1)	10 (1)	-	9 (4)	-	17 (2)	10 (3)
30mg	25 (3)	25 (4)	30 (14)	30 (6)	30 (9)	28 (8)	25 (6)	30 (21)
60mg	40 (32)	50 (13)	50 (33)	50 (40)	50 (24)	50 (18)	48 (18)	50 (36)
100mg	80 (77)	80 (51)	80 (76)	80 (70)	80 (68)	80 (61)	80 (70)	80 (63)
Kapanol								
20mg	20 (2)	-	20 (4)	16 (2)	-	20 (7)	20 (2)	20 (7)
50mg	40 (24)	40 (7)	40 (20)	40 (25)	40 (7)	40 (14)	40 (17)	40 (22)
100mg	80 (61)	80 (37)	80 (59)	80 (46)	80 (41)	80 (44)	80 (55)	80 (45)
Anamorph								
30mg	25 (24)	25 (13)	25 (21)	20 (11)	35 (2)	20 (3)	30 (6)	20 (19)

#### Table 43: Recent illicit morphine purchase, source person and venue, 2008-2015

Source: IDRS participant interviews Note: Number of purchasers in brackets

Eighty percent (Table 44) of those who responded regarded the price of morphine as stable over the preceding six months while 16% considered that price had increased and 5% noted fluctuating price movements.

#### Table 44: Illicit morphine price movements, past six months, 2009-2015

	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99			
Did not respond (%)	20	15	29	30	33	17	38			
Did respond (%)	80	85	71	70	67	83	61			
Of those who responded										
Increasing (%)	38	23	25	24	16	22	16			
Stable (%)	40	55	59	50	73	73	80			
Decreasing (%)	0	1	0	0	2	0	0			
Fluctuating (%)	23	20	16	13	8	5	5			

## 5.8.2 Availability

Over half of those able to comment reported that illicit morphine was either easy (54%, Figure 30) or very easy (31%) to obtain. Thirty-one percent rated it as difficult to obtain.





In 2015, 78% (Figure 31) of respondents considered that illicit morphine availability had remained stable over the preceding six months, while 16% reported that it had become more difficult to obtain.



Figure 31: Recent change in availability of illicit morphine, 2015

Source: IDRS participant interviews

Source: IDRS participant interviews

Forty-four percent (Table 45) of respondents nominated a fiend as their usual source person and 26% a known dealer. A friend's home (26%), and agreed public location (21%) and home delivery (20%) were the most commonly cited source venues.

	<u> </u>		<u> </u>			
	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Did not respond (%)	16	28	34	33	18	35
Did respond (%)	84	72	66	67	82	65
Of those who responded:						
Source person						
Street dealer (%)	12	17	16	43	21	8
Friends (%)	39	50	52	34	32	44
Known dealer (%)	18	18	21	7	38	26
Acquaintances (%)	23	15	6	13	5	5
Unknown dealer (%)	6	0	1	3	1	6
Other (%)	1	0	4	0	3	8
Source venue						
Home delivery (%)	13	7	11	10	9	20
Dealer's home (%)	18	14	20	17	36	15
Friend's home (%)	20	39	39	26	22	26
Acquaintance's house (%)	8	13	4	8	4	3
Street market (%)	10	14	10	21	7	14
Agreed public location (%)	28	14	12	18	21	21
Other (%)	2	0	5	0	0	0

## Table 45: Recent purchases of morphine, source person and venue, 2010-2015

# 5.9 Oxycodone

### **Key Points**

- The median price for 80mg of reformulated oxycodone was found to be \$40, lower than the median of \$70 for the original formulation found in 2014 and reported by a smaller number of people.
- The price of 40mg oxycodone was stable at \$30.
- Oxycodone was more likely to be rated a s easy or very easy to obtain than was the case in 2014.
- Illicit oxycodone was sourced mainly from friends.

## 5.9.1 Price

From 2009 to 2014, a small but growing proportion of the NT IDRS sample reported purchasing illicit oxycodone, with Table 46 showing that the median prices reported for original formulation fluctuated around approximately \$60 for 80mg and \$30 for 40mg. this year, 2015, a smaller number of purchases reported paying a similar median, \$30, for 40mg of the reformulation and a substantially lower median of \$40 for the 80mg.

			Ori	ginal			Reformulation					
	2009	2010	2011	2012	2013	2014	2015					
	N=99	N=99	N=98	N=125	N=91	N=93	N=99					
20mg	20 (2)	20 (4)	20 (4)	-	-	20 (4)	20 (3)					
30mg	-	-	-	-	-	-	20 (3)					
40mg	23 (4)	40 (3)	40 (7)	38 (6)	35 (7)	33 (10)	30 (5)					
80mg	60 (5)	80 (4)	70 (11)	60 (12)	60 (14)	70 (15)	40 (6)					

#### Table 46: Median price (\$) of most recent illicit oxycodone purchase, 2007-2014

Source: IDRS participant interviews Note: Number of purchasers in brackets

Almost three-quarters (71%, Table 47) of those who responded considered price to have remained stable over the preceding six months, while the balance of respondents reported mixed opinions.

### Table 47: Price movements of oxycodone in the past six months, 2008-2014

	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99				
Did not respond (%)	94	86	88	88	80	80	86				
Did respond (%)	6	14	12	12	20	20	14				
Of those who responded											
Increasing (%)	50	20	17	20	11	21	14				
Stable (%)	50	80	75	73	78	53	71				
Decreasing (%)	0	0	0	7	0	16	14				
Fluctuating (%)	0	0	8	0	11	11	0				

## 5.9.2 Availability

Reported availability of oxycodone has fluctuated over the period shown in Table 48, with the proportions rating it as easy (35%) or very easy (30%) to obtain increasing this year.

	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Did not respond (%)	90	86	84	87	78	80	83
Did respond (%)	10	14	16	13	22	20	17
Of those who responded							
Very easy (%)	40	8	13	13	20	26	30
Easy (%)	50	8	38	50	25	11	35
Difficult (%)	10	66	38	38	50	58	30
Very difficult (%)	0	16	13	0	1	5	6

#### Table 48: Participants' reports of oxycodone current availability, 2008-2014

Source: IDRS participant interviews

Most of those able to comment, 78%, considered that oxycodone availability had remained stable over the preceding six months (Table 49) while no one reported it as difficult to obtain.

#### Table 49: Change in oxycodone availability in the past six months, 2008-2014

	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Did not respond (%)	91	86	87	88	80	78	82
Did respond (%)	9	14	13	12	20	22	18
Of those who responded (%)							
More difficult (%)	11	37	23	7	22	30	22
Stable (%)	78	54	69	80	72	40	78
Easier (%)	0	9	0	13	0	15	0
Fluctuates (%)	1	0	8	0	6	15	0

A friend was again nominated as the main source person (68%, Table 50), with home delivery (47%) and friend's home (26%) being the most commonly reported source venue.

	2009	2010	2011	2012	2013	2014	2015
	N=99	N=99	N=98	N=125	N=91	N=93	N=99
Did not respond (%)	90	86	85	86	78	78	81
Did respond (%)	10	14	15	14	22	22	19
Of those who responded							
Source person							
Street dealer (%)	20	7	27	17	40	15	11
Friends (%)	50	50	60	39	45	45	68
Known dealer (%)	20	7	0	17	0	20	0
Acquaintance (%)	10	14	13	17	15	5	2
Unknown dealer (%)	0	14	0	6	0	0	0
Source venue							
Home delivery (%)	0	0	13	12	10	5	47
Dealer's home (%)	30	21	0	18	20	25	5
Friend's home (%)	40	29	47	24	30	45	26
Acquaintance's house (%)	0	7	7	12	10	0	5
Street market (%)	20	0	27	12	20	0	5
Agreed public location (%)	0	36	7	24	10	15	10

 Table 50: Source and venue of recent oxycodone purchases, 2008-2014
# 6 HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE

#### **Key Points**

- Most of the sample had overdosed at least once in their lives, most commonly on morphine (87%), methadone (51%) and oxycodone (41%). Thirty-two percent of the sample had overdosed on heroin at least once in their lives, one person reported a heroin overdose within the past year.
- Amphetamine admissions to NT hospitals show an increase since 2009/10.
- Twenty-five percent of the sample reported current treatment (17% in 2014) and 27% reported having attended treatment within six months of interview. Sixteen percent of the sample were unable to access immediate services in the previous six months, four out of ten being placed on a waiting list. About half the sample felt that at the time of interview it would difficult or very difficult to access services if needed.
- Sharing of injecting equipment rates were lower than those found in 2014, with spoons/mixing containers and tourniquets continuing to be the most commonly shared equipment. Three percent of respondents used a needle after someone else and 24% had reused their own needle at least once. Needles were sourced almost exclusively from a Needle and Syringe Program, 91%, with 7% sourcing from a Chemist.
- A private home was the most likely site for the last injection, as was found in previous years.
- The pattern of injection related problems was similar to previous years, with scaring/bruising and difficulty injecting the most common. The proportion reporting a dirty hit increase to 11%, largely attributed to morphine.
- Over half the sample (56%) recorded an AUDIT-C score indicating further assessment was required, 63% of males and 42% of females.
- Twenty-six percent of the sample recorded an SDS score indicative of stimulant dependence, two-thirds of this group associating their answers with a methamphetamine.
- Sixty-seven percent of recent opioid users recorded an SDS score indicative of dependence, mostly (66%) attributable to morphine.
- Thirty-seven percent of participants reported having experienced a mental health problem in the previous six months.
- Forty-nine percent of those who completed Kessler Psychological Distress Scale (K10) recorded high or very high levels of distress.
- Almost three-quarters of the sample (71%) reported that they would participate in a takehome program if it was available.

## 6.1 Overdose and drug-related fatalities

Thirty-two percent (Table 51) of the 2015 IDRS sample had overdosed on heroin at least once in their lives, one within 12 months of interview. Eighty-eight percent reported having overdosed on morphine at least once in their lives, none within the last 12 months. Fifty-one percent had ever overdosed on methadone and forty-one percent on oxycodone.

	20 N=	2015 N=99						
	Lifetime	Within 12 months						
Heroin	32	1						
Morphine	87	0						
Methadone	51	0						
Oxycodone	41	0						
Other drug	20	1						

## Table 51: Lifetime and recent reported overdose, 2015 (%)

## 6.2 Drug treatment

In 2015, 25% of participants reported current attendance at treatment compared to 17% in 2014. In 2015, current treatment was comprised primarily of methadone/biodone (12%), Subutex (3%) and Suboxone (5%). This group reported a median of 24 months in treatment, ranging from 1 to 120 months. Participants also reported the forms of treatment they had participated in over the six months prior to interview, Figure 32, showing similar patterns.



Figure 32: Proportion of participants reporting recent treatment, 2010-2015

Source: IDRS participant interviews Note: Some participants may be counted twice

Sixteen percent of participants reported that they had tried to access treatment in the six months prior to the survey but were unable to do so. Four percent had tried to access an

alcohol or other drugs worker and 6% 'rehab' or a therapeutic community. Smaller numbers had been unable to access a counsellor, an opiate substitution program or prescribing Doctor or a detoxification service. Forty-four percent of those who tried to access services were put on a waiting list.

Most respondents, 79%, were not waiting for treatment at the time of interview, with 2 people reporting that they had given up seeking treatment. At the time of interview, over half of the sample felt that it would be either difficult (33%, Table 52) or very difficult (20%) to get into drug treatment if they wanted it. Almost half, 46%, of participants reported that the availability of drug treatment had been stable over the previous six months, with 12% reporting that it had become more difficult to get into.

Table 52: Ease of access to	o drug treatment by participa	ants, 2014 - 2015
	2014	2015

	2014	2015
	N=91	N=99
Very difficult	21	20
Difficult	31	33
Easy	21	22
Very easy	3	1
Don't know	24	23

Source: IDRS participant interviews

## 6.3 Hospital admissions

The rate per million persons of opioid-related admissions to NT hospitals in 2013/14 increased compared to the previous year (Figure 33), although it has generally declined from a maximum in 2008/09. The national rate has been stable for a number of years.





Sources: AIHW, NT Health, Roxburgh and Breen (in press) \* rate per million persons

The rate of amphetamine-related admissions to NT hospitals has fluctuated over the period shown in Figure 34, showing no particular trend. In contrast, the national rate showed a decline from 2006/7 to 2009/10 followed since by a sharp increase.





Sources: AIHW, NT Health, Roxburgh and Breen (in press) \* rate per million persons

As has been the case since 1997/98, and in contrast to the national rate, there were no cocaine-related admissions to NT hospitals in 2011/12 (Figure 35).





Sources: AIHW, NT Health, Roxburgh and Breen (in press) \* rate per million persons

The rate of cannabis-related admissions to NT hospitals has fluctuated, showing a decline after 2005/06 followed by an increase into 2010/11 and subsequent decline (Figure 36, rates were not reported in 2011/12 due to small numbers). Again, the fluctuations may be the result of small counts.



Figure 36: Cannabis-related hospitals admissions\*, 1993/94-2013/14

Sources: AIHW, NT Health, Roxburgh and Breen (in press) \* rate per million persons

## 6.4 Injecting risk behaviours

### 6.4.1 Access to needles and syringes

Ninety-one percent of participants sourced needles from an NSP in the six months prior to interview, continuing the trend observed in previous years (Table 53). Small proportions obtained needles from chemists (7%) and friends (4%).

			,			
Needle source	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
NSP (%)	98	95	92	93	97	91
NSP vending machine (%)	0	0	2	0	0	1
Chemist (%)	0	3	1	10	1	7
Partner (%)	0	2	1	1	0	1
Friend (%)	4	4	5	6	0	4
Dealer (%)	0	0	0	1	0	0
Hospital (%)	0	0	0	2	1	1
Outreach/peer worker (%)	0	0	0	0	1	0
Other (%)	0	1	0	0	0	1

 Table 53: Source of needles in last six months, 2009-2015

Source: IDRS participant interviews

#### 6.4.2 Sharing of injecting equipment among participants and related behaviours

Twenty-two percent of participants reported using some type of injecting equipment (other than needles) after someone else, compared to 29% in 2013. Table 54 demonstrates that with the exception of sharing spoons/mixing containers or tourniquets, there was a low rate of using injecting equipment after someone else. Three participants had used a needle after another person and four had used a needle before someone else.

	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99			
Spoons/mixing containers	21	36	13	15	22	16	23	15			
Filters	9	23	1	4	1	3	2	0			
Tourniquets	20	28	6	8	15	11	13	8			
Water	10	22	1	1	1	2	3	1			
Swabs	-	-	-	-	-	-	3	0			
Wheel filter	-	-	-	-	-	-	1	0			
Some one used needle after you	9	3	4	8	3	3	3	4			
You used needle after someone	8	5	3	3	3	2	2	3			

#### Table 54: Recent re-use of injecting equipment, 2008-2015

Source: IDRS participant interviews

Table 55 shows that 24% of participants had reused their own needles at least once, almost the same as the proportion found in 2013. Twelve percent had used a needle twice.

	2009	2010	2011	2012	2013	2014	2015					
	N=99	N=99	N=98	N=125	N=91	N=93	N=99					
No times	63	54	70	73	78	78	76					
Once	12	16	11	13	4	9	2					
Twice	11	14	9	6	3	7	12					
3-5 times	8	12	7	7	8	4	6					
6-10 times	2	2	1	1	3	1	2					
More than 10 times	4	1	0	1	3	1	1					

#### Table 55: Reuse of own needles, 2009-2015 (%)

Source: IDRS participant interviews

Table 56 shows that 6 out of 10 respondents (57%) identified an arm as the last injection site, 10% a leg and 22% a hand. Respondents injected on a median of 30 occasions in past month and obtained a median of 100 needles/syringes on a median of 2 occasions in the past month.

#### Table 56: Injection site and needle use characteristics, 2012-2014

N=125	2013 N=91	2014 N=93	2015 N=99
74	73	71	57
6	14	11	10
14	8	15	22
2	1	1	1
3	1	1	3
0	0	0	4
0	1	1	1
30	30	30	30
2	2	2	2
100	100	100	100
	N=125 74 6 14 2 3 0 0 0 0 0 0 0 0 0 2 100	N=125         N=91           74         73           6         14           14         8           2         1           3         1           0         0           0         1           30         30           2         2           100         100	N=125         N=91         N=93           74         73         71           6         14         11           14         8         15           2         1         1           3         1         1           0         0         0           0         1         1           30         30         30           2         2         2           100         100         100

Source: IDRS participant interviews

## 6.4.3 Location of injections

Consistent with previous years, a large majority (88%) reported a private home as the last location for injecting drugs (Table 57). Four percent had last injected in a car and 3% in a public toilet.

	2007	2008	2009	2010	2011	2012	2013	2014	2015				
	N=106	N=103	N=99	N=99	N=98	N=125	N=91	N=93	N=99				
Private home	96	98	90	92	92	96	84	89	88				
Street/carpark/beach	2	1	2	2	3	1	2	2	2				
Other public area	-	0	3	0	0	0	0	0	0				
Car	0	1	0	2	3	2	1	4	4				
Public toilet	1	0	2	2	1	1	8	1	3				
Other	1	0	0	2	1	1	2	3	1				

#### Table 57: Last location for injection in the month preceding interview, 2007-2015

Source: IDRS participant interviews

#### 6.4.4 Self-reported injection-related health problems

The proportion of the IDRS sample reporting a dirty hit increased to 11% (Table 58), although this is low compared to historical proportions. Scarring/bruising (37%) and difficulty injecting (29%) continued to be prominent injection-related problems reported.

## Table 58: Injection-related problems within one month of interview, 2007-2015

	2007 N=106	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Overdose	1	1	11	5	3	19	3	0	0
Dirty hit	27	18	25	22	12	46	13	5	11
Abscess/infection	11	11	16	11	10	9	4	5	3
Scarring/bruising	49	53	45	30	45	42	32	39	37
Difficulty injecting	45	45	42	27	37	34	25	41	29
Thrombosis	7	11	6	4	7	1	4	4	5

Source: IDRS participant interviews

As in previous years, morphine (73%) was the main drug causing a 'dirty hit' in the month preceding the interview (Figure 37), while the proportion attributing the dirty hit to a methamphetamine declined to 9%.





Source: IDRS participant interviews

## 6.5 Blood-borne viral infections

Notifications of new cases of hepatitis B virus (HBV) and hepatitis C virus (HCV) to the National Notifiable Diseases Surveillance System are shown in Table 59. HIV notifications in 2012 and 2013, as reported by the Kirby Institute, have decreased compared to 2012 and 2013.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
HBV (incident) (n)	11	12	8	4	4	4	5	6	4	3	
HCV (unspecified) (n)	259	225	203	163	169	205	191	256	187	196	
HIV new cases (n)	11	6	11	16	6	9	27	19	11	na	

 Table 59: Total notification of HBV, HCV and HIV, 2002-2012

Source: NNDSS & NCHECR

The 2013 finger-prick survey carried out in Darwin and Alice Springs, auspiced by the National Centre in HIV Epidemiology and Clinical Research (NCHER) found no one with HIV antibodies among those tested (Table 60). HCV antibody prevalence has fluctuated over the period shown.

	2007	2008	2009	2010	2011	2012	2013	2014		
HIV antibody (% (n))	0 (29)	1 (73)	0 (76)	0 (78)	1.5 (68)	2.2 (46)	3 (66)	0 (70)		
HCV antibody (% (n))	18 (29)	38 (72)	29 (75)	47 (78)	52 (61)	35 (46)	51 (65)	38 (69)		

#### Table 60: HIV and HCV antibody prevalence in NSP survey, 2006-2011

Source: NCHECR

#### 6.6 Alcohol Use Disorders Identification Test - Consumption

Since 2010, the IDRS survey questionnaire included the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C), considered to be a valid measure of identifying heavy drinking (Bush et al., 1998). Dawson et al. (2005) reported on the validity of the AUDIT-C, finding that it was a good indicator of alcohol dependence, alcohol use disorder and risky drinking.

Among NT IDRS participants who drank alcohol in the past year, the overall mean score on the AUDIT-C was 5.7 (SD=3.8, range 1-12), slightly lower than the mean score of 6.1 found in 2014. According to Dawson et al. (2005) and Haber et al. (2009), a cut-off score of five or more indicated that further assessment was required. As is evident from Table 61, 63% of males (63% in 2014) and 42% of females (58% in 2013) reported a level of alcohol consumption requiring further assessment. Fifty-six percent of the total sample of males and females obtained a score of 5 or more.

	2010	2011	2012	2013	2014	2015
	(N=71)	(N=75)	(N=74)	(N=62)	(N=51)	N=75
Mean score (SD)*	5.5 (3.5)	5.7 (3.5)	6.3 (3.3)	6.6 (4.0)	6.1 (3.4)	5.7 (3.8)
Score of 5 or more (%)						
All participants (n)	59 (71)	52 (75)	68 (74)	64 (62)	61 (51)	56 (75)
Males (n)	50 (52)	56 (54)	68 (57)	63 (46)	62 (39)	63 (49)
Females (n)	47 (19)	43 (21)	65 (17)	38 (16)	58 (12)	42 (26)

#### Table 61: AUDIT-C results, 2010-2015

Source: IDRS participant interviews

• Standard deviation in brackets. Range is 1-12 in all years.

## 6.7 Opioid and stimulant dependence

Understanding whether participants are dependent is an important predictor of harm, and typically demonstrates stronger relationships than simple frequency of use measures. The participants in the IDRS were asked questions from the Severity of Dependence Scale (SDS) for the use of stimulants and opioids.

The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. The SDS focuses on the psychological aspects of dependence, including impaired control of drug use, and preoccupation with and anxiety about use. Previous research has suggested that a cut-off of 4 is indicative of dependence for methamphetamine users (Topp and Mattick, 1997) and a cut-off value of 3 for cocaine (Kaye and Darke, 2002).

Of those who had recently used a stimulant and commented (n=51), the median score was 2.0 (mean 2.9, range 0-13), with 26% scoring 4 or more. The mean score for women, 3.6 (n=18) was higher than for men 2.6 (n=33), although this difference was not statistically significant. Two-thirds (67%) associated their answers with methamphetamine use, while 28% identified no particular stimulant.

No validated cut-off for opioid dependence exists; however, researchers typically use a cutoff value of 5 for the presence of dependence.

Of those who had recently used an opioid and commented (n=84), the median SDS score was 7.0 (mean 7.0, range 1-15), with 67% scoring 5 or above. Men (66%) were less likely to score 5 or more than women (77%) but this difference was not statistically significant. Of those who scored 5 or above and who were able to comment (n=83), 66% specifically related their responses to morphine, 7% to buprenorphine and 5% to heroin.

## 6.8 Mental health problems and psychological distress

Thirty-seven percent of the IDRS sample reported having experienced a mental health problem in the six months prior to interview. As in previous years, depression was the main mental health problem, followed by anxiety (Table 62). The proportions reporting these conditions both increased.

	I CCCIIL II	ientai n	cann p	ODICITI	3, 2007	-2013 (/	9		
	2007 N=106	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Depression	17	19	17	23	16	15	20	12	25
Manic depression	1	4	3	3	6	5	2	3	6
Anxiety	10	10	10	16	14	10	15	9	15
Panic	4	1	2	2	2	2	1	0	3
Paranoia	2	3	0	2	1	1	0	2	2
Personality disorder	1	0	2	0	0	0	0	0	2
Schizophrenia	3	3	6	4	3	2	7	3	7
Drug-induced psychosis	1	1	0	0	2	1	0	4	1
Post-traumatic stress disorder	-	-	-	-	-	-	-	3	2

#### Table 62: Self-reporting recent mental health problems, 2007-2015 (%)

Source: IDRS participant interviews

Of the group who had experienced a mental health problem, 70% had attended a health professional for the reported problem. Just under three-quarters (69%) of this group

attended a GP, 12% a psychiatrist, 15% a counsellor and 15% a psychologist. Of those who attended a health professional, 64% were prescribed medication: 55% an antidepressant, 33% an antipsychotic and 1% a benzodiazepine. Further details of the types of medication received by his group are shown in Table 63

	2013	2014	2015
Antidepressant	(n=10)	(n=10)	(n=10)
Avanza (mirtazapine)	10	13	-
Cymbalta (duloxetine)	10	0	-
Citalopram (generic)	-	-	20
Deptran (doxepin)	10	0	-
Efexor (venlafaxine)	20	25	20
Mirtazapine (generic)	10	0	-
Sertraline (generic)	10	0	-
Zoloft (sertraline)	20	13	30
Other	10	25	10
Anti-psychotic	(n=4)	(n=5)	(n=6)
Olanzapine (generic)	20.0	50	-
Seroquel (quetiapine)	60.0	0	50
Other	-	50	50
Benzodiazepine	(n=2)	(n=6)	(n=2)
Valium (diazepam)	50.0	50	100
Valpam (diazepam)	16.7	0	-
Xanax (alprazolam)	16.7	17	-
Serepax (oxazepam)	-	17	-
Other	16.7	17	-

Table CO. T	where of me			montal boalth	www.blama	2042 204E	0/1
1 able 63: 1	ypes of me	alcation r	eceived for	mental nealth	proplems	, 2013-2013 (	70)

Source: IDRS participant interviews

Of those who reported a mental health problem and yet did not attend a health professional, 36% (Table 64) reported that they 'Couldn't be bothered'.

#### Table 64: Reasons why did not attend a health professional, 2014-2015

	2014	2015
	N=10	N=11
Self-treated	30	-
Didn't know who to visit	10	9
Too expensive	-	9
Couldn't be bothered	10	36
Bad experience(s) e.g. with mental health services previously	10	-
Other	40	45

The Kessler Psychological Distress Scale (K10) again formed part of the IDRS interview survey. The K10 is a questionnaire designed to measure the level of distress associated with psychological symptoms and is appropriate for use with population surveys (Kessler, 2002). In 2015, 97% of the IDRS sample completed the K10, yielding a mean total score of 21.5 (median=21, SD=9.4, range=35).

K10 scores were categorised using total score ranges consistent with those used by the Australian Bureau of Statistics and are presented in Table 65. Based on these categories, 20% of those who completed the K10 reported experiencing a very high level of distress over the four weeks prior to interview. Thirty-five percent of those who completed the K10 reported low or no distress.

		,				
Level of distress	2010	2011	2012	2013	2014	2015
Low or no distress (10-15)	35	25	26	21	41	35
Moderate distress (16-21)	23	26	17	33	20	16
High distress (22-29)	21	24	16	17	23	29
Very high distress (30-50)	21	24	19	10	16	20

#### Table 65: Level of psychological distress, 2010-2015

Source: IDRS participant interviews

#### 6.9 Driving risk behaviour

Sixty-eight percent of the IDRS sample had driven a car within the six months prior to interview and, of those, 8% reported driving over the legal blood alcohol limit on a median of 90 days.

Sixty-six percent of drivers reported that within the six months prior to interview they had driven under the influence of illicit drugs, on a median of 25 (range to 180) times, within a median of 30 minutes after taking the drugs. Figure 38 illustrates that while morphine (44%) and cannabis (33%) were the drugs most commonly consumed by drivers before driving, the proportion reporting crystal methamphetamine (23%) has increased markedly since 2013.



Figure 38: Driving after taking an illicit drug by drug type, 2006-2013, 2015

Source: IDRS participant interviews

## 6.10 Naloxone program and distribution

Since 2013, participants have been asked questions about naloxone and naloxone takehome programs. Most participants, 82% in 2015 (Table 66), had heard of naloxone, with 52% of this group saying that it 'reverses heroin', 41% that it is used to 're-establish consciousness' and 27% that it 'helps start breathing.

The proportion of respondents that had heard of take-home naloxone programs currently available in some other jurisdictions increased to 28% of the sample this year, while two participants reported that they had been through such a program. Of those who had not been through a program and who responded, 91% said that they would call an ambulance if they witnessed an overdose. Other responses in turning the person on their side (42%) and performing CPR (42%). Forty-four percent stated that they would stay with the person. Of the small number who would not call an ambulance (n=7), four said that would be afraid of police involvement.

Seventy-one percent of the sample said that they would participate in a take-home program if it was available. Large majorities of this group stated that they would: carry naloxone (93%), administer naloxone (100%), want their peers to administer naloxone if they overdosed (97%) and remain with someone after administering the naloxone (100%).

Table 66. Take home haloxone program and distribution, 20			
	2013	2014	2015
% Naloxone description (n)	n=70	n=77	n=81
Reverses heroin	66	74	52
Helps start breathing	14	4	27
Re-establishes consciousness	26	14	41
Other	16	12	31
% Heard of the take-home naloxone program (n)	n=84	n=89	n=99
Yes	18	24	28
No	81	76	72
% Witness overdose (n)	n=84	n=85	n=90
Turn victim on side	23	22	42
Mouth-to-mouth CPR	39	27	42
Call 000	93	95	91
Stay with victim	23	8	44
Other remedies	11	18	17
% If naloxone was available would you: (n)	n=83	n=42	n=70
Carry naloxone if trained	68	91	93
Administer naloxone after overdose	87	100	100
Want peers give you naloxone	80	91	97
Stay after giving naloxone	87	100	100

Table 66: Take-home naloxone program and distribution, 2013-2015

## 6.11 KE comment

Health KE corroborated a number of the findings reported above, namely that:

- overdose is rare in the NT;
- in some cases, space on a withdrawal or treatment program is not available immediately;
- knowledge of safe injecting practices is generally good with low rates of equipment sharing, and that instances of injection related problems appeared to unchanged;
- that alcohol use among regular injector was common.

All KE highlighted the stabilisation of the ice supply and use in the NT, noting that providing services to clients who regularly use ice had become a significant or majority part of their business. In particular, they noted the continuing involvement of family members in the referral of regular ice users for services and the increasing need for provision of information and education to families. KE reported that they would often have clients who had progressed from occasional smoking, among people holding down a job and having a family, into regular injecting, job loss and family disruption or breakdown. At that point they and/or their family would attempt to access the treatment sector. Alternatively, some clients accessed treatment after an Emergency Department presentation due to accidental injury or assault.

Treatment KE felt that the involvement of families and ongoing community education had led to something of a decrease in the "stigma" attached to ice use and an improved understanding that ice use could be managed through appropriate treatment. Also, that the increased demand for treatment had led services to develop their own understanding and knowledge of possible treatment approaches and provide additional support programs. Some KE mentioned the need for a reliable pharmacotherapy and for increased access to suitable assessment services.

Some KE felt that the stabilisation of the ice market had enabled some regular injectors to manage their use better due to greater familiarity with the drug over time, although this view was not supported by all health KE.

All health KE noted that clients who regularly used ice were more likely to be 'in crisis' when presenting than is the case for most other illicit drugs, meaning that they were experiencing issues around anger, depression, anxiety and employment or relationship difficulties.

# 7 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH DRUG USE

#### Key Points

- Twenty-four percent of the sample had been arrested in the preceding 12 months.
- Thirty-four percent of the sample reported engaging in some form of criminal activity in the previous month, most commonly dealing.
- The number of ATS seizures increased for the third year running.
- Spending by participants on illicit drugs the day before interview showed similar a
  pattern to previous years.

## 7.1 Reports of criminal activity

Thirty-four percent of the IDRS sample reported having committed at least one crime in the month prior to interview. Dealing (25%, Table 67) was the most frequently reported crime, followed by property crime (10%). The pattern of types of crimes committed has remained stable over the years, with dealing and property crime most common and low reported rates of fraud and violent crime.

Twenty-four percent (Table 67) of the sample had been arrested within 12 months of the interview. Of those, 44% had been arrested for property crime, and 9% each for a violent crime or a driving offence.

	2007 N=106	2008 N=103	2009 N=99	2010 N=99	2011 N=98	2012 N=125	2013 N=91	2014 N=93	2015 N=99
Criminal activity in last month (%)	11-100	11-100	11-00	11-00	11-00		11-01	11-00	11-00
Dealing	22	19	14	18	20	11	10	13	25
Property crime	11	16	16	16	14	5	2	10	10
Fraud	3	5	3	2	2	1	3	0	2
Violent crime	2	4	3	2	3	1	0	1	3
Any crime	29	35	26	32	31	16	14	19	34
Arrested in last 12 months	27	25	20	24	25	17	14	14	24

#### Table 67: Criminal and police activity as reported by participants, 2007-2015

Source: IDRS participant interviews

Participant reports of criminal activity have fluctuated but generally declined since 2000 (Figure 39), with the exception of property crime, which shows no clear long-term trend. Dealing shows a marked upward movement over 2014 and 2015.



Figure 39: Engagement in criminal activity in prior month, 2000-2015

Source: IDRS participant interviews

Fifty-four percent of the sample reported having been imprisoned at some time.

## 7.2 Arrests

Table 68 shows that there were three heroin consumer arrests in 2012/13, involving one seizure of approximately 6 kilograms.

	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Consumer arrests	0	1	1	0	1	2	0	3	0
Provider arrests	0	0	0	0	0	0	1	0	2
Total arrests*	0	1	1	0	1	2	1	3	2
Seizure number	1	2	1	2	3	1	3	8	3
Seizure weight (g)	2	1	2	641	2	126	8	6,148	5

Table	68: Heroin	arrest and	seizure	characteristics,	2005/06-2013/14

Source: Australian Crime Commission (ACC)

\* Includes arrests where consumer/provider status is not provided and so may be greater than the sum of the rows above

The number of ATS seizures and the amount seized rose between 2012/13 and 2013/14. The number of seizures has increased steadily since 2010/11 (Figure 40) while the weight of seizures has fluctuated.



Figure 40: Number of ATS seizures in NT, 2005/06-2013/14

Source: Australian Bureau of Criminal Intelligence (ABCI) and ACC Note: Excludes the over 25 litres of liquid amphetamines seized in two clandestine laboratories by NT Police in 2003/04

Figure 41 demonstrates that the combined number of arrests for ATS consumers and providers increased substantially since 2011/12 but is comparable to earlier years.



Figure 41: Number of ATS consumer and provider arrests in the NT, 2004/05-2013/14

Source: ACC

Both the number of arrests and the amount seized were notably higher ion 2013/14 compared to 2012/13 (Table 69).

	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Consumer arrests	1	1	0	1	0	0	3	0	1
Provider arrests	1	0	0	0	1	0	0	0	3
Total arrests*	1	1	0	4	1	0	3	0	4
Seizure number	3	3	0	6	1	0	4	1	8
Seizure weight (g)	5	26	0	235	13	0	2	0	180

Table 69: Cocaine arrest and seizure characteristics, 2005/06-2013/14

Source: ACC

\* Includes arrests where consumer/provider status is not provided and so may be greater than the sum of the rows above

The number of cannabis consumer and provider arrests declined into 2013/14 as did the weight of seizures (Table 70).

#### Table 70: Cannabis arrest and seizure characteristics, 2005/06-2013/14

	,,,											
	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14			
Consumer arrests	368	409	386	422	393	318	355	299	286			
Provider arrests	113	137	91	102	111	70	282	229	198			
Total arrests*	526	588	552	597	597	460	617	528	464			
Seizure number	1,144	986	1,077	1,087	764	1,010	2,185	1,685	1,755			
Seizure weight (g)	55,662	55,202	83,179	131,179	740,957	27,243	238,224	178,520	161,084			
0 100												

Source: ACC

Includes arrests where consumer/provider status is not provided and so may be greater than the sum of the rows above

The number of cannabis infringement notices issued in the NT increased (Table 71) compared to the previous year.

#### Table 71: Cannabis infringement notices, 2005/06-2013/14

	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Consumer	481	399	378	456	466	442	703	521	563

Source: ACC

\* Includes arrests where consumer/provider status is not provided and so may be greater than the sum of the rows above

The number of steroid-related arrests declined (Table 72) in 2013/14, as did the amount of steroids seized.

#### Table 72: Steroid arrest and seizure characteristics, 2005/06-2013/14

	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Consumer arrests	2	9	5	6	5	3	6	9	4
Provider arrests	2	0	0	0	1	0	5	5	3
Total arrests*	5	13	7	6	10	3	11	14	7
Seizure number	7	10	11	9	15	9	12	13	6
Seizure weight (g)	2,596	286	296	296	147	146	315	812	84

Source: ACC

Includes arrests where consumer/provider status is not provided and so may be greater than the sum of the rows above

## 7.3 Expenditure on illicit drugs

Sixty percent of the IDRS sample reported some expenditure on drugs on the day prior to interview (Table 73). Thirty-two percent of the sample reported spending \$100 or more on drugs.

Table 70: Allount Spell on drugs on the day before interview, 2007 2010 (76)									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
	N=106	N=103	N=99	N=99	N=98	N=125	N=91	N=93	N=99
\$0	30	42	63	33	39	43	42	40	40
Less than \$20	4	1	2	2	1	0	2	1	3
\$20-\$49	22	11	8	6	12	7	14	17	8
\$50-\$99	19	21	10	23	17	20	16	15	16
\$100-\$199	15	15	10	21	16	17	13	14	18
\$200 or more	11	8	6	14	14	14	14	13	14

#### Table 73: Amount spent on drugs on the day before interview, 2007-2015 (%)

Source: IDRS participant interviews

## 7.4 KE comment

Key Experts confirmed that crystal methamphetamine, 'ice', is the most problematic illicit drug that they currently deal with. It is associated with a range of crimes, particularly: dealing, theft and burglary, and more likely to be associated with violent crime than other illicits. In large part these crimes are a consequence of the financial costs of maintaining regular use of ice, which can amount to up to \$2,000 per day. Police noted that regular users can accrue significant debt and that crimes committed around the collection of this debt can often involve violence.

Police also noted that with the stabilisation of the availability and price of ice in Darwin:

- ice enters Darwin primarily in small to medium sized quantities, less than 1kg, via road and air from Interstate points of origin, but that the number of larger amounts being brought into the NT has also increased;
- that the number of suppliers, small and large scale, has grown, with 'gaps' in the supply chain quickly filled;
- as a consequence, ice related arrests and seizures have increased.

Police have responded to the increase in, particularly, ice-related property crime with increased resources, including a dedicated Strike Force and increased intelligence sharing with other agencies. They commented that they encounter regular ice users across all typical demographic categories, noting that smoking is more common than injecting and that ice use may be more common among younger age groups.

KE comment corroborates the results reported above showing increases in self-reported property crime and dealing, and the increase in ATS seizures.

## 8 SPECIAL TOPICS OF INTEREST

#### Key points

- Less than half of those who had returned a positive HCV antibody test, 38%, had had this result confirmed via a PCR test.
- Most of those who had tested positive for either an antibody test or a PCR test had discussed at least some of the implications of this with a health professional and demonstrated a reasonable understanding of the virus and its effects
- Un-prescribed reformulated OxyContin tablets were the most frequently used and injected form of oxycodone.
- One-in-five participants had donated blood at least once in their lives and 42% of this group had injected drugs prior to this.

## 8.1 Hepatitis C Virus testing and perceptions

Participants were asked a series of questions to determine the proportions who had tested positive for the HCV virus and who had had this result conformed through PCR (polymerase chain reaction) test.

Ninety-three percent (Table 74) of 2015 participants had been tested on a median of 3 times for the HCV antibody, with 55% of this group returning a positive result. Less than half of this group, 38%, had had this result confirmed via a PCR test, with a further 18% being unsure.

	NT N=98
% Ever tested for HCV	93
% Antibody positive result	(n=91)
Yes	55
No	43
Unsure	2
Median number of times tested for antibodies ever (range) <sup>#</sup>	3 (1-100)
% Screened or tested for RNA (PCR test)	(n=50)
Yes	38
No	44
Unsure	18
Median number of times tested for RNA ever (range)*	1 (1-28)

## Table 74: Hepatitis C testing among PWID, 2015

Source: IDRS participant interviews

# Among those who were ever HCV tested and commented

\* Among those who were ever PCR tested and commented

Participants most often identified their regular GP as the health professional who ordered both the antibody test (40%, Table 74)) and the PCR test (42%), with liver specialist being the next most frequent response, 10% and 21% respectively. Substantial proportions were unsure or did not identify who had ordered either test.

Thirty percent (Table 75) of those who returned a positive result for either test were advised about the long-term effects of HCV, 17% about dietary choices and 13% about alcohol intake. A further 9% discussed available treatments.

NIT

	N=98
Ordered the anti-body test	(n=50)
Regular GP	40
OST clinic	2
OST doctor	4
Liver specialist	10
Other	42
Unsure	2
Ordered the PCR test	(n=19)
Regular GP	42
OST clinic	0
OST doctor	0
Liver specialist	21
Other	21
Unsure	16
Discussed by a health professional when told HCV antibody or RNA positive	(n=47)
Long term effects of HCV	30
Genotypes	2
Different tests	11
Available treatments	9
Alcohol intake	13
Dietary choices	17
Other	0
Don't know/ can't remember	15

#### Table 75: Hepatitis C testing among PWID, 2015, %

Participants were also presented with a series of statements related to their perceptions around HCV. Most respondents (Table 75) identified the statements as false, suggesting a reasonable understanding of the virus and its effects. Respondents were most pessimistic about whether HVC treatments work for most people.

## Table 76: Perceptions of HCV, 2015, %

	True	False	Unsure
Don't feel sick I must have cleared HCV (n=99)	9	91	0
Don't have symptoms I can't pass on HCV (n=98)	7	91	2
Treatment for HCV works only for a few people (n=96)	44	50	6
I have HCV so I can't get it again (n=97)	19	77	4
If I wait, HCV will clear up on its own (n=97)	21	75	4
I can wait until I feel real sick before seeking treatment (n=98)	9	91	0
I can't get HCV treatment if still injecting drugs (n=99)	18	74	8

Source: IDRS participant interviews

## 8.2 Oxycodone use

Forty percent (n=39, Table 77) of respondents reported that they had used some form of oxycodone in their lives. This group were asked what forms of oxycodone they had used in the six months prior to interview.

The most commonly report recent use was for illicit reformulated (tamper resistant) OxyContin tablets, 33%, on a median of 4 days, with injection being the exclusive mode of administration. Fifteen percent had recently used and injected the non-tamper resistant original formulation of OxyContin on a median of 5 days. Prescribed Endone (10%) and Targin (8%) were the next most commonly reported. When asked how easy it was to inject the reformulated OxyContin tablets, those who had recently injected this form gave it a mean rating of 6 on a scale of 0 to 10, where 0 is impossible and 10 is extremely easy to inject.

	NT N=39				
	U	se	Injection		
	Use <sup>1</sup>	Days <sup>2</sup>	Use	Days	
Original OxyContin ("OC")	15	5	15	5	
Endone 5mg tablets, prescribed	10	9	3	1	
Endone 5mg tablets, not prescribed	0	0	0	0	
Generic controlled release oxycodone, prescribed	0	0	0	0	
Generic controlled release oxycodone, not prescribed	5	5	5	5	
Reformulated OxyContin tablets ("OP"), prescribed	8	16	8	10	
Reformulated OxyContin tablets ("OP"), not prescribed	33	4	33	4	
OxyNorm tablets, prescribed	3	180	3	180	
OxyNorm tablets, not prescribed	8	3	8	3	
OxyNorm liquid 5mg/5ml, prescribed	3	2	3	2	
OxyNorm liquid 5mg/5ml, not prescribed	0	0	0	0	
OxyNorm solution 5mg/5ml, prescribed	0	0	0	0	
OxyNorm solution 5mg/5ml, not prescribed	0	0	0	0	
Targin tablets, prescribed	8	180	0	0	
Targin tablets, not prescribed	0	0	0	0	
Prolodone, prescribed	0	0	0	0	
Prolodone, not prescribed	0	0	0	0	
Other, prescribed	0	0	0	0	
Other, not prescribed	3	1	0	0	

#### Table 77: Recent use of oxycodone, 2015, % and median days

Source: IDRS participant interviews

1 Includes any mode of administration within six months of interview. 2 Median days of use in the last six months.

## 8.3 Blood donations

Nineteen percent (Table 78) of participants reported that they had ever donated blood. Of this group, 42% (n=8) also reported that before donating they had injected drugs. Three of this smaller group reported that they were regular injectors at the time of their donation, while the remainder had injected within one month of donating.

### Table 78: Blood donations, 2015, %

	NT n=98
Ever donated blood	19
Injected before blood donation*	42

Source: IDRS participant interviews \* Among those who had ever donated blood

## References

Andrews, G. & Slade, T. (2001). Interpreting scores on the Kessler Psychological Distress Scale (K10). *Australian and New Zealand Journal of Public Health*, 25, 494-497.

Australian Bureau of Criminal Intelligence. (2001). *Australian Illicit Drug Report 1999-2000*. Canberra: ABCI.

Australian Bureau of Criminal Intelligence. (2002). *Australian Illicit Drug Report 2000-2001*. Canberra: ABCI.

Australian Bureau of Statistics. (1995). *National Health Survey SF-36 Population Norms Australia.* Canberra, Australian Bureau of Statistics.

Australian Bureau of Statistics. (2009). *National Health Survey: Summary of Results 2007-2008.* Canberra, Australian Bureau of Statistics.

Australian Crime Commission. (2015). *Illicit Drug Data Report 2013-14*. Canberra: Commonwealth of Australia.

Australian Institute of Health and Welfare. (2008). 2007 National Drug Strategy Household Survey: Detailed Findings. Drug Statistics Series no. 22. Canberra: AIHW.

Australian Institute of Health and Welfare. (2008). 2007 National Drug Strategy Household Survey: First results. Drug Statistics Series no. 20. Canberra: AIHW.

Belenko, S., Dugosh, K., Lynch, K., Mericle, A. & Forman, R. (2009). Online illegal drug use information: an exploratory analysis of drug-related website viewing by adolescents. *Journal of Health Communication*, 14, 612-630.

Bush, K., Kivlahan, D. R., McDonell, M. S., Fihn, S. D. and Bradley, K. A. (1998) The AUDIT Alcohol Consumption Questions (AUDIT-C): an effective brief screening test for problem drinking. Archives of Internal Medicine 158, 1789–1795.

Darke, S., Ross, J. & Hall, W. (1996). Overdose among heroin users in Sydney, Australia: Prevalence and correlates of non-fatal overdose. *Addiction*, 91 (3), 405-411.

Darke S., Duflou, J. & Kaye, S. (2007). Comparative toxicology of fatal heroin overdose cases and morphine positive homicide victims. *Addiction*, 102, 1793-1797.

Dawson, D.A., Grant, B.F., Stinson, F.S. & Zhou, Y. (2005). Effectiveness of the Derived Alcohol Use Disorders Identification Test (AUDIT-C) in screening for alcohol use disorders and risk drinking in the US general population. *Alcoholism: Clinical and Experimental Research*, 29, 844-854.

Duquemin, A. & Gray, B. (2003). *Northern Territory Drug Trends 2002. Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 151. Sydney: NDARC.

English, D.R., Holman, C.D.J., Milne, E., Winter, M.G., Hulse, G.K., Codde, J.P., Bower, C.I., Corti, B., DeKlerk, N. & Knuiman, M.W. (1995). *The quantification of drug caused morbidity and mortality in Australia.* Canberra. Commonwealth Department of Human Services and Health.

Haber, P., Lintzeris, N., Proude, E., & Lopatko, O. (2009). *Guidelines for the Treatment of Alcohol Problems.* Canberra, Australian Government, Department of Health and Ageing.

Hando, J., O'Brien, S., Darke, S., Maher, L., & Hall, W. (1997). *The Illicit Drug Reporting System (IDRS) Trial: Final Report*. NDARC Monograph No. 31. Sydney: NDARC.

Heatherton, T., Kozlowski, L., Frecher, R., Rickert, W. & Robinson, J. (1989). Measuring the heaviness of smoking: using self-reported time to the first cigarette of the day and number of cigarettes smoked per day. *British Journal of Addiction*, 84, 791-799.

Hulse, G., English, D., Milne, E. & Holman, C. (1999). The quantification of mortality resulting from the regular use of opiates. *Addiction*, 94 (2), 221-230.

Kaye, S. and Darke, S. (2002), Determining a diagnostic cut-off on the Severity of Dependence Scale (SDS) for cocaine dependence. Addiction, 97: 727–731

Kessler, R. C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, S.L.T., Walters, E.E. & Zaslavsky, A.M. (2002) Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959-976.

Larance, B., Sims, L., White, N., Lintzeris, N., Jenkinson, R., Dietze, P., Ali, R., Mattick, R. & Degenhardt, L. (in preparation) Post-marketing surveillance of the diversion and injection of buprenorphine-naloxone sublingual film in Australia. *NDARC Technical Report.* Sydney, National Drug and Alcohol Research Centre, University of New South Wales.

Merrill, J.O. & Rhodes, L.A. (2002). Mutual distrust in the medical care of drug users: the keys to the 'nark' cabinet. Journal of General Intern Medicine, 17, 327-333.

Moon, C. (2014). Northern Territory Drug Trends 2013. Findings from the Illicit Drug Reporting System (IDRS). Australian Drug Trend Series No. 116. Sydney, National Drug and Alcohol Research Centre, UNSW Australia.

National Centre in HIV Epidemiology and Clinical Research. (2005). Australian NSP Survey National Data Report 2000-2004. Sydney: National Centre in HIV Epidemiology and Clinical Research.

National Centre in HIV Epidemiology and Clinical Research. (2007). *Australian NSP Survey National Data Report 2002-2006*. Sydney: National Centre in HIV Epidemiology and Clinical Research.

National Centre in HIV Epidemiology and Clinical Research. (2007). *HIV/AIDS, Viral Hepatitis and Sexually Transmissible Infections in Australia Annual Surveillance Report 2007.* Sydney: National Centre in HIV Epidemiology and Clinical Research.

National Centre in HIV Epidemiology and Clinical Research (2007). *Australian NSP Survey National Data Report 2001-2006.* Sydney: National Centre in HIV Epidemiology and Clinical Research.

National Centre in HIV Epidemiology and Clinical Research (2009). *Australian NSP Survey National Data Report 2004-2008*. Sydney: National Centre in HIV Epidemiology and Clinical Research.

National Prescribing Service. (2009). Quality use of over-the-counter codeine: position statement. Sydney: National Prescribing Service Inc.

Newman, J. & Moon, C. (2006). Northern Territory Drug Trends 2005. Findings from the Illicit Drug Reporting System (IDRS). NDARC Technical Report No. 26. Sydney: NDARC.

Northern Territory Department of Justice (2011). NT Quarterly Crime & Justice Statistics, July, Issue 35: March Quarter 2011.

O'Reilly, B. & Rysavy, P. (2001). Northern Territory Drug Trends 2000. Findings from the Illicit Drug Reporting System (IDRS). NDARC Technical Report No. 104. Sydney: NDARC.

O'Reilly, B. (2002). Northern Territory Drug Trends 2001. Findings from the Illicit Drug Reporting System (IDRS). NDARC Technical Report No. 137. Sydney: NDARC.

Roxburgh, A., and Breen, C. (2016). *Drug-related hospital stays in Australia, 1993-2014.* Sydney: National Drug and Alcohol Research Centre, University of New South Wales

Rysavy, P. & Moon, C. (2011). Northern Territory Drug Trends 2010. Findings from the Illicit Drug Reporting System (IDRS). NDARC Technical Report No. 62. Sydney: NDARC.

Sproule, B.A., Busto, U.E., Somer, G., Romach, M. & Keller, S.D. (1999). Characteristics of dependent and non-dependent regular users of codeine. *Journal of Clinical Psychopharmacology*, 19, 367-372.

IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Co

The Kirby Institute (2015). *Australian NSP Survey National Data Report 1995-2014.* Sydney: The Kirby Institute.

The Kirby Institute. (2015) *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2015.* Sydney: The Kirby Institute

Topp, L. and Mattick, R. P. (1997), Choosing a cut-off on the Severity of Dependence Scale (SDS) for amphetamine users. Addiction, 92: 839–845

Vlahov, D., Wang, C., Galai, N., Bareta, J., Mehta, S.H., Strathdee, S.A., & Nelson, K.E. (2004). Mortality risk among new onset injection drug users. *Addiction*, 99, 946-954.

Ware, J.E.J., Kosinski, M. & Keller, S.D. (1995). SF-12: How to score the SF-12 Physical and Mental Health Summary Scales. Boston, Massachusetts: The Health Institute, New England Medical Centre.

Ware, J.E.J., Kosinski, M. & Keller, S.D. (1996). A 12-item short form health survey: construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34, 220-233.