

NDARC Technical Report No. 137



Northern Territory Drug Trends 2001

Findings of the Illicit Drug Reporting System (IDRS)

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ISBN 1 877027 14 6

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TABLE OF CONTENTS

TABLE OF CONTENTS	I
LIST OF TABLES	III
LIST OF FIGURES	V
ACKNOWLEDGEMENTS	VI
LIST OF ABBREVIATIONS	VII
EXECUTIVE SUMMARY	VIII
1.0 INTRODUCTION	1
1.1 Study Aim.....	1
1.2 Terminology.....	1
2.0 METHODS	2
2.1 Survey of People Who Inject Drugs (PWID)	2
2.2 Key Informant Interviews (KIS)	2
2.3 Drug-related Harm Indicators	3
3.0 CURRENT DRUG SCENE AND RECENT TRENDS	4
3.1 Overview of the Sample of People Who Inject Drugs (n = 135)	4
3.2 Drug Use History of the PWID Sample	5
3.3 Amphetamine/methamphetamine	13
3.4 Opiates (heroin, morphine, methadone and other opiates)	17
3.5 Cocaine	23
3.6 Cannabis	24
3.7 Other Drugs.....	26
3.8 Drug-Related Issues	28
3.8.1 PWID Survey.....	28
3.8.2 Key Informant Interviews.....	31
Amphetamine/methamphetamine: Law enforcement and health findings	31
Opiates: Law enforcement and health findings	32
Cannabis: Law enforcement and health findings	32
3.9 Other Indicators	33
Overdose deaths.....	33
Needle/syringe data	34
Last drug injected	34
Drug treatment services	36
Law enforcement data.....	36
4.0 SUMMARY AND DISCUSSION	41
4.1 Summary of Main Findings and Comparison of Trends by Source	41
4.1.1 Amphetamine/methamphetamine.....	43

4.1.2 Opiates.....	43
4.1.3 Cocaine.....	44
4.1.4 Cannabis	44
4.1.5 Other Drugs and Drug-Related Issues	44
4.2 Methodological Considerations.....	45
4.3 Policy and Research Implications	45
5.0 REFERENCES	47
6.0 APPENDIX	49

LIST OF TABLES

Table 1:	Demographic characteristics of the PWID sample, 2000 and 2001.....	4
Table 2:	Demographic characteristics and drug use history by gender and age.....	6
Table 3:	Injecting initiation, drug use history and preferred drug , 2000 and 2001	7
Table 4:	PWID recent drug use in 2000 (n=100) and 2001 (n=135).....	8
Table 5:	PWID recent drug use by age and gender (%)......	9
Table 6:	Location of last injection, 2000 and 2001 (%)......	10
Table 7:	Drug use history of PWID sample in 2001 (n=135)	12
Table 8:	Forms of amphetamine used previous 6 months and most often used (%)......	13
Table 9:	PWID estimates of amphetamine powder price, purity and availability, 2000 and 2001.....	14
Table 10:	PWID estimates of crystal methamphetamine price, purity and availability	15
Table 11:	Key informant estimates of amphetamine price, purity and availability.....	17
Table 12:	Forms of opiates used previous 6 months and most often used (%)......	18
Table 13:	PWID estimates of opiate price, purity and availability, 2000 and 2001	19
Table 14:	Key informant estimates of morphine price and availability.....	23
Table 15:	PWID estimates of cocaine price, purity and availability, 2000 and 2001.....	24
Table 16:	Forms of cannabis used previous 6 months and most often used (%)......	24
Table 17:	PWID estimates of cannabis price, purity and availability	25
Table 18:	Benzodiazepines and anit-depressants used in previous 6 months (%).....	26
Table 19:	PWID injection-related health problems in the previous month, 2000 and 2001...	28
Table 20:	Drug overdose history of PWID (n=134)	28
Table 21:	PWID injecting equipment sharing in the previous month, 2000 and 2001.....	30
Table 22:	PWID criminal activity in the previous month, 2000 and 2001 (%).....	31
Table 23:	Number of opiate overdose deaths amongst those aged 15-44 years by jurisdiction, 1988-2000.....	33
Table 24:	Rates per million population aged 15-44 years of opioid overdose deaths by jurisdiction, 1988-2000.....	33
Table 25:	Prevalence of last drug injected by jurisdiction, 2000	34

Table 26:	Prevalence of last drug injected, 1995 to 2000	35
Table 27:	Clients of alcohol and drug treatment services by jurisdiction, 1995 and 2001	36
Table 28a	Methamphetamine seizures and purity levels in the NT, 1998/99 to 2000/2001....	37
Table 28b	Amphetamine seizures and purity levels in the NT, 1998/99 to 2000/2001.....	37
Table 28c:	Heroin seizures and purity levels in the NT, 1998/9 to 2000/2001	37
Table 29:	Drug seizures by jurisdiction, 2000/2001	38
Table 30:	Price of various forms and weights of cannabis, heroin, amphetamine, LSD and ecstasy MDMA, 1999 and 2000.....	38
Table 31:	Drug use and related issues: Summary of major findings from the people who inject drugs survey (PWID), key informant interviews (KIS) and other indicator data (Other)	41
Table A1:	Drug use history of PWID sample in 2000 (n=100)	49

LIST OF FIGURES

Figure 1:	Treatment type of PWID in treatment in previous 6 months (n=48).....	5
Figure 2:	Frequency of injecting in the month before the survey, 2000 and 2001	10
Figure 3:	PWID expenditure on illicit drugs the day before the interview, 2000 and 2001	10
Figure 4:	Polydrug use on the day before the PWID survey, 2000 and 2001.....	29
Figure 5:	Number of needles and syringes distributed, 1994/95 to 2000/2001	34
Figure 6:	Prevalence of morphine and heroin injection in the NT and nationally, 2000	35
Figure 7:	Prevalence of last drug injected among PWID in the NT, 1997 to 2000	35
Figure 8:	Average purity level of amphetamine seizures by jurisdiction, 1999/00 and 2000/01	37

ACKNOWLEDGEMENTS

Stuart Templeton deserves a special mention for once again providing invaluable research assistance in conducting the survey of people who inject drugs and in the collation and entry of the drug data. The contribution made by Lorraine Murphy and Helen Vandenberg in accessing and surveying people who inject drugs is also acknowledged and appreciated.

As in 2000, this research would not have ran so smoothly without the assistance of the NT AIDS Council. Firstly, I would like to thank the manager, Chris Day, for the organization's overall support for the research and permission to use the premises to conduct the survey of people who inject drugs. The staff of the Needle/Syringe Program (notably Kitty Gee and Petra Jackson) played a crucial role in advertising the research and recruiting participants. Other drug agencies in Darwin also assisted in recruitment of participants. Last, but not least, the author thanks all the people who injected drugs for their participation in this study and for initiating the "word of mouth" system that works so rapidly and successfully in Darwin.

Thanks are also extended to the organizations that provided the secondary indicator data to complement the survey.

The Northern Territory did not receive funding to conduct Northern Territory Drug Trends 2001 and the National Drug and Alcohol Research Centre requires special mention for the support provided during the year. In particular, I would like to thank Dr Libby Topp, National IDRS Coordinator, for all her encouragement, support and humour throughout the year.

LIST OF ABBREVIATIONS

ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ANSP	Australian Needle Syringe Program
AUS	Australia
CDHAC	Commonwealth Department of Health and Aged Care
DHCS	Department of Health and Community Services (previously Territory Health Services)
GP	General medical practitioner
IDRS	Illicit Drug Reporting System
PWID	People who inject drugs
KIS	Key Informant Survey
MDMA	3,4-methylenedioxymethamphetamine (known as ecstasy)
NESB	Non- English Speaking Background
NDARC	National Drug and Alcohol Research Centre
NGO	Non Government Organization
NSP	Needle Syringe Program (NT AIDS Council)
NSW	New South Wales
NT	Northern Territory
NTAC	Northern Territory AIDS Council Incorporated
OTHER	refers to other (secondary) indicator data
OWMP	Opiate Withdrawal Management Program
QLD	Queensland
SA	South Australia
TAS	Tasmania
VIC	Victoria
WA	Western Australia

EXECUTIVE SUMMARY

In 1996, the Commonwealth Department of Health and Aged Care commissioned the National Drug and Alcohol Research Centre (NDARC) to trial the Illicit Drug Reporting System (IDRS) and in 2000, the full IDRS was conducted nationally for the first time, with all jurisdictions following standard procedure manuals. In 2001, the Northern Territory (NT) did not receive funding to participate in the national IDRS and the current NT Drug Trends was conducted to provide similar data for the NT. The purpose of NT Drug Trends is to detect trends and indicate what may require more in-depth research and contribute to other policy decisions. It acts as an early warning system and detects significant changes or emerging trends in drug use patterns through:

- ◆ A quantitative survey of people who inject drugs (PWID) recruited throughout greater Darwin. Inclusion criteria were injecting at least monthly for the past six months and Darwin as the principal place of residence in the preceding 12 months.
- ◆ Qualitative interviews with key informants recruited from professional settings. Inclusion criteria were at least weekly contact with illicit drug users in the previous six months or contact with at least ten illicit drug users in the previous six months.
- ◆ Analysis of secondary indicator data on illicit drug use or associated harm

This report examines illicit drug use patterns and trends through the analysis of data collected by these three methods.

Survey of Injecting Drug Users (PWID)

The 135 PWID were surveyed in June 2001 and the sample was predominantly male, of Caucasian origin, mean age of 34.3 years, unemployed and not currently in drug treatment. Ten percent of the sample identified as Indigenous and this proportion is similar to that reported in 2000. Half of the sample had a prison history and one in three had been arrested in the previous year. The mean age of first injection was 20 years and amphetamine was most likely to be the first drug injected. Heroin was the preferred drug of most PWID, but morphine was the drug most likely to be last injected. Polydrug use was prevalent, with nine drugs being the median number ever used. The median number of drugs used in the six months before the survey was six and three on the day before the survey. Most PWID injected daily.

Key Informant Interviews

The 11 key informants were employed in alcohol and drug treatment agencies (Government and non-Government), other health services, the Needle and Syringe Program, the ambulance service or in private practice. Four key informants identified amphetamine as the main illicit drug used, five nominated morphine and two selected cannabis. None identified heroin or cocaine.

Other Indicators

Information from a range of secondary data sources complemented and validated the injecting drug user survey and key informant interviews. These sources included population surveys, needle and syringe program data, opiate-related overdose data, health and law enforcement data and treatment agency client information.

Amphetamine/methamphetamine trends

- ◆ Most likely to be first drug injected, particularly by youth;
- ◆ Youth more likely to last inject amphetamine;
- ◆ A diverse population of users and use patterns, with many recreational users;
- ◆ Intravenous use was the most common means of administration;
- ◆ Increasing numbers of youth and Indigenous users;
- ◆ Polydrug use was common and increasing;
- ◆ Most users were not in any form of treatment;
- ◆ Powder was the main form of amphetamine available, but purer forms such as crystal methamphetamine (Ice) were more available;
- ◆ Four-fold increase from 2000 to 2001 (6% : 24%) in the proportion of PWID using crystal methamphetamine (Ice) in the last 6 months;
- ◆ Average purity had increased from 5% in 2000 to 11% in 2001;
- ◆ Cost per gram averaged \$80 and stable, points of crystal methamphetamine sold for an average of \$50;
- ◆ Easy to obtain and availability was stable;
- ◆ An increase in suppliers and local manufactures;
- ◆ Reports of increased benzodiazepine use; and
- ◆ Cannabis use was common, often on a daily basis, and alcohol was consumed regularly.

Cannabis trends

- ◆ Most users were not in any form of treatment;
- ◆ Polydrug use was common;
- ◆ The prices were usually \$25 for 1 gram and \$300 per ounce and stable;
- ◆ Hydroponic cannabis was most commonly used;
- ◆ Potency was high and stable;
- ◆ Cannabis was very easy to obtain and stable;
- ◆ Amphetamine was also used; and
- ◆ Most PWID used cannabis often on a daily basis.

Morphine and heroin trends

- ◆ Heroin was the preferred opiate;
- ◆ Morphine was most commonly used opiate and the drug most often last injected by PWID;
- ◆ Indigenous users were seen as an emerging group;
- ◆ More people were using, especially young people, and using more of the drug;
- ◆ Most users did not access treatment;
- ◆ Polydrug use was prevalent and increasing;
- ◆ Intravenous use was the most common route of administration;
- ◆ Heroin sold for an average price of \$550 per gram and the price had dropped from \$600 in 2000, but the price of a cap of heroin had increased from \$50 in 2000 to \$100 in 2001;
- ◆ Heroin purity was low and availability fluctuated;
- ◆ MS Contin® 100mg tablets were most common form of morphine, but other forms were becoming more available;
- ◆ A 100mg MS Contin® tablet usually cost \$50 and the price was stable; MS Contin® 60 mg sold for \$30 while the 30 mg form sold for \$15;
- ◆ Diversion of legal morphine prescriptions was common and the black market was busier and more aggressive, especially when morphine was difficult to obtain;
- ◆ Morphine was easy to obtain;
- ◆ Benzodiazepine use, particularly temazepam (Normison®), had increased and the proportion injecting it had also increased;
- ◆ More morphine users also using amphetamine; and
- ◆ Cannabis and alcohol was also commonly used.

Cocaine trends

- ◆ Cocaine use uncommon in Darwin;
- ◆ Snorting was the most common route of administration, followed by injection;
- ◆ Powder was the most common form available;
- ◆ Purity was medium to high;
- ◆ Cocaine sold for an average of \$300 per gram and \$100 per cap, purity was medium but fluctuated; and
- ◆ Cocaine remained difficult to obtain and availability fluctuated.

Other drugs

- ◆ Polydrug use was prevalent and increasing;
- ◆ Alcohol and cannabis use were high;
- ◆ Benzodiazepine use increasing, from both licit and illicit sources, particularly temazepam;
- ◆ Increase in the injection of non-injectable drugs, particularly benzodiazepines and methadone;
- ◆ Ecstasy use common and availability had increased;
- ◆ Injection was the main route of administration of ecstasy among the PWID;
- ◆ Anti-depressant use common;
- ◆ A decrease in the use of hallucinogens;
- ◆ Other designer drug use was uncommon; and
- ◆ The majority of illicit drug users smoked tobacco on a daily basis.

Drug-related issues

- ◆ Criminal activity prevalent, particularly dealing and property crime;
- ◆ Increased property crime, particularly among youth;
- ◆ Increase in violent crimes, especially assaults and robberies;
- ◆ Reported increase in police presence but no increase in drug seizures;
- ◆ More suppliers, user-dealers and trading goods for drugs;
- ◆ Awareness of safe injecting, but still sharing injecting equipment;
- ◆ Injecting-related health problems were common, particularly bruising, scarring, infections, difficulty injecting and Hepatitis C;
- ◆ Fewer drug clients at treatment agencies;
- ◆ An increase in users with mental health and behavioural issues;
- ◆ Non-fatal drug overdoses common among injecting drug users; and
- ◆ Fatal opiate overdoses were rare.

Policy/Research Implications

The findings from this study suggest the following key areas for further investigation:

1. Monitoring of Schedule 8 narcotics (morphine) and Schedule 4 benzodiazepine consumption rates, in-depth analysis of supply pathways, demand characteristics and health impacts.
2. Development of appropriate and credible harm reduction strategies for non-injectable drugs, particularly benzodiazepines.
3. Research into the psychological impact of methamphetamine, cannabis and polydrug and the development of mental health and behavioural disorders.
4. Development of appropriate and credible harm minimisation information for polydrug users.
5. Development of relevant and culturally appropriate harm minimization resources to overcome literacy and cultural barriers.

1.0 INTRODUCTION

The National Drug and Alcohol Research Centre (NDARC) coordinates the Illicit Drug Reporting System (IDRS), first piloted in Sydney in 1995-96 (Hando, O'Brien, Darke, Maher & Hall, 1997; O'Brien, Darke & Hando, 1996) and then trialed in 1997 by three states: New South Wales, Victoria and South Australia. The pilot and trials recommended three methods: interviews with people who inject drugs, structured interviews with key informants working in the drug field or in contact with people who inject drugs and an examination of secondary drug indicator data. These methods allow a combination of qualitative and quantitative approaches from a range of perspectives. The use of multiple methods to measure drug trends is preferable, allowing a more complete assessment of the situation (Hartnoll, Lewis, David & Mitcheson, 1985; National Institute on Drug Abuse, 1995). In 1998, the Commonwealth Department of Health and Aged Care commissioned NDARC to trial the IDRS nationally. In 1999 the full IDRS was repeated in New South Wales, Victoria and South Australia and the remaining jurisdictions were conducted a trial consisting of key informant interviews and examination of existing drug indicators (McKetin, Darke, Humeniuk, Dwyer, Bruno, Fleming, Kinner, Hargraves & Rysavy, 2000). In 2000, the full IDRS was conducted nationally for the first time, with all jurisdictions following standard procedure manuals (Hando et al, 1997) to provide the first systematic collection of such data across all jurisdictions (Topp, Darke, Bruno, Fry, Hargreaves, Humenick, McAlister, O'Reilly & Williams, 2001). The 2001 IDRS, through comparison to the 2000 baseline data, will allow for both national and jurisdictional detection of changes or emerging trends.

1.1 Study Aim

The IDRS acts as a strategic early warning system designed to detect significant or emerging trends in drug use patterns within jurisdictions and nationally. It does not examine such phenomenon in depth, rather it facilitates priority setting for such research and contributes to policy decisions within a harm reduction framework. A variety of stakeholders, from those participating to professionals and federal, state and territory bodies, are assisted in identifying and prioritising research needs of local and national significance and in developing and informing policy.

The Northern Territory (NT) participation in the 2000 IDRS enabled the first systematic collection of such data in the NT (O'Reilly & Rysavy, 2001) and 2001 Northern Territory Drug trends provides the second set of standardized and comparable data to enable the detection of significant changes in drug use patterns and emerging trends in the one-year period. It will also ensure that the NT will be considered for inclusion in any potential ongoing national monitoring system.

1.2 Terminology

Throughout this report the term 'people who inject drugs' (PWID) will be used rather than injecting drug users (IDU). The reasons for this are two-fold. Firstly, IDU can also mean injecting drug use. Secondly, the term "drug user" in some way conveys drug use as the primary focus of these people. The term 'people who inject drugs' reminds us "drug users" are people and one of the many things they do is use drugs, not necessarily on a daily basis. PWID are a very diverse group with very diverse patterns of use.

2.0 METHODS

This study employed three methods:

- ◆ A quantitative survey of people who inject drugs (PWID) utilizing face-to-face interviews;
- ◆ A qualitative study of key informants (KIS) working in the alcohol and drug field (such as, counsellors, outreach workers, health professionals and researchers); and
- ◆ An examination of drug-related harm indicators (for example, health, client and criminal justice data).

The three study components utilized the procedures developed by Hando et al (1997). Ethical approval for this study was obtained from the Northern Territory University Human Ethics Committee.

2.1 Survey of People Who Inject Drugs (PWID)

The survey involved quantitative face-to-face interviews with people who inject drugs (PWID) recruited from Darwin, Palmerston and the surrounding rural area (greater Darwin) in June 2001. Multiple methods were employed to recruit the PWID, including advertisements at alcohol and drug services and the Needle Syringe Program (NSP), active recruitment by NSP staff and word of mouth. Potential interviewees were informed of set times that interviewers would be at the NSP, located at the NT AIDS Council, or at an agreed location in Palmerston. Those wanting to participate were provided with a study information sheet and consent form. They were screened against the entry criteria: injecting at least monthly in the preceding six months and residing in Greater Darwin for the past year.

The standardised structured interview was based on previous IDRS research (McKetin et al, 2000; Topp et al, 2001) and included sections on demographics, drug use, price, purity and availability of drugs, crime, risk-taking behaviour, health and general drug trends. Each interview took approximately 30 minutes to complete and the participants were reimbursed \$15 for out-of-pocket expenses and time. The interview data were analysed using SPSS for Windows Version 10.

2.2 Key Informant Interviews (KIS)

The standard procedures manual identified 30-40 key informants per site as sufficient to monitor drug patterns and identify some robust trends. Although phone interviews are very effective as a rapid data collection tool among key informants (Hando et al., 1997; O'Reilly, Rysavy & Moon, 1999; O'Reilly & Rysavy, 2001), lack of funding prevented the use of this method. The format of the interview instrument was modified and mailed to key informants for self-completion. The content paralleled the structure of the PWID survey (McKetin et al, 2000; Topp et al., 2001) and included questions on drug use patterns, availability, purity, forms of administration, criminal behaviour and health issues. The instrument took between 30 to 45 minutes to complete.

The informants were sent the instrument in July and asked to return it immediately. Criteria for inclusion were:

- A minimum of weekly contact with people who use illicit drugs in the preceding six months; or
- Contact with at least 10 people who use illicit drugs in the previous six months.

All the informants were employed in alcohol and drug treatment agencies (Government and non-Government), other health services, non-Government organizations (NGOs), the NSP or in private practice. Key informants were selected from previous participants, known professionals and NGO workers and through peer referral. Potential informants received study information sheets and consent forms and those interested in participating provided the researcher with a completed consent form. Eleven key informants (8 females and 3 males) returned completed instruments. The sample was composed of:

- General practitioner (n=2)
- Alcohol and drug services personnel (n=2)
- Detoxification workers (n=2)
- Youth worker (n=1)
- Needle/syringe program worker (n=1)
- Health professional (n=1)
- Researcher (n=1)
- Paramedic with the ambulance service (n=1)

The informants were asked to identify the main illicit drug used by the people with whom they had the most contact in the six months preceding the study (the first half of 2001). Four key informants identified amphetamine as the main illicit drug used, two nominated cannabis and five selected morphine. None identified heroin or cocaine. The majority of informants stated their work brought them into contact with people who used drugs and the remainder indicated they had contact through both their work and social/personal life.

All data were tabulated and content analysis was conducted with a word processor.

2.3 Drug-Related Harm Indicators

To complement and validate the PWID and limited key informant data a range of secondary data sources were accessed. The pilot study for the IDRS (Hando et al, 1997) recommended that databases accessed for secondary indicator data should meet at least four of the following criteria:

- ◆ Include 50 or more cases
- ◆ Available at least annually
- ◆ Provide brief details of illicit drug use
- ◆ Collected in the main study site (Darwin or the NT for the current study)
- ◆ Include details on the four main illicit drugs under investigation

The following databases meet at least four of these criteria and were accessed::

- ◆ Clients of Treatment Services Agencies Census
- ◆ Needle Syringe Program distribution figures (collected by NT AIDS Council)
- ◆ Australian Bureau of Statistics opioid deaths
- ◆ Australian Needle and Syringe Program
- ◆ Australian Bureau of Criminal Intelligence illicit drug prices
- ◆ Federal and Northern Territory Police illicit drug seizures

3.0 CURRENT DRUG SCENE AND RECENT TRENDS

Current illicit drug use patterns and related issues are discussed from the perspectives of the 135 people who inject drugs and results are summarised according to the major illicit drug groups. Where possible, comparisons are made with the 2000 NT IDRS study (O'Reilly & Rysavy, 2001) to indicate trends during the year between the two data collections.

3.1 Overview of the Sample of Injecting Drug Users (n = 135)

The demographics of the sample of people who inject drugs (PWID) are summarised in Table 1.

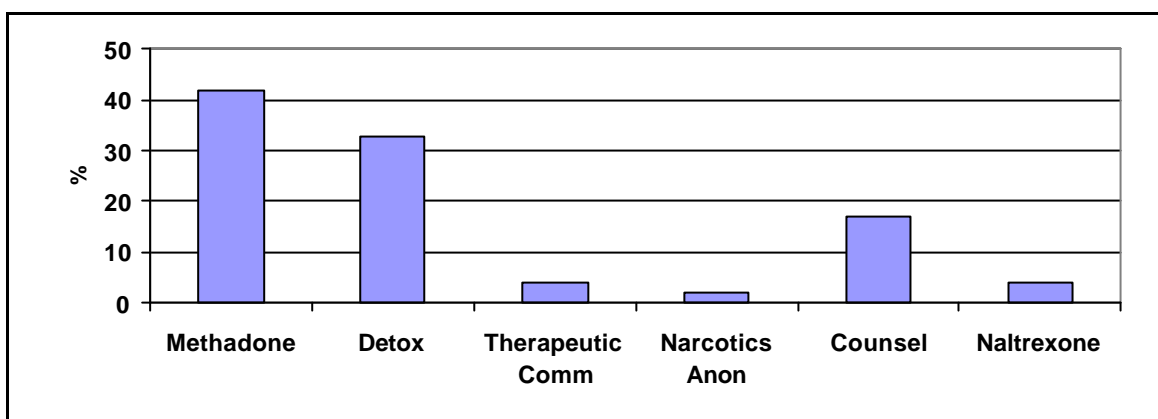
Table 1: Demographic characteristics of the PWID sample

Sample Characteristics	2001 (n=135)	2000 (n=100)
Mean Age (years)	34.3 (range 16-53)	31.5 (range 16-64)
Age Ranges (%)		
20 years or less	9	9
21-30	27	45
31-40	38	30
41-50	23	13
51 or older	3	3
Sex (% male)	77	78
Ethnicity (%)		
English speaking background	99	99
Indigenous	10	11
Place of Residence (%)*		
Darwin inner	46	65
Northern suburbs	19	10
Palmerston/rural	35	10
No Fixed Address	12	15
Employment (%)		
Not employed	71	81
Full time	10	6
Part time/casual	13	8
School education (mean years)	10	10
Tertiary Education (%)		
None	45	63
Trade/technical	40	25
University/college	15	12
Prison history (%)	51	46
Treatment history (%)		
Currently in treatment	24	34
Length of time in treatment (%)		
1 - 2 months	22	52
3 - 4 months	34	11
5-6 months	6	22
More than 6 months	38	15

* Separate data collected in 2001 on place of residence and type of residency

The majority of the PWID sample was male (77%) and the mean age was 34 years (range 16-53). One in ten identified as Indigenous and the vast majority had English as the main language. Almost half of the PWID lived in inner Darwin, two in ten in the northern suburbs and another one in three in Palmerston (Darwin's satellite city) and the surrounding rural area. Of all PWID, 12% had no fixed address. The majority were unemployed, the average level of education was year 10 of secondary school and most had not attended any post-secondary courses. Three quarters of the sample were not participating in any drug treatment and of the 35% who had sought treatment in the previous six months, the majority (42%) were on the methadone withdrawal program (Figure 1). Half of the PWID had a prison history and 32% had been arrested in the previous 12 months.

Figure 1: Treatment type of PWID in treatment in previous 6 months (n=48)



Some gender differences were evident (Table 2), with twice as many males reporting they had a prison history (58% : 29%). A greater proportion of males were unemployed (73.1% : 61.3%) but, if employed, more were likely to be employed full-time (12.6% : 0%). Females were more likely than males to be engaged in home duties (22.6% : 0%). Comparison of the demographics of younger and older users (Table 2) indicates older users were less likely to be unemployed (69% : 79%), but more likely to have a prison history (52% : 46%). More younger users were employed full time (13% : 9%), while more older users had casual or part time employment (16% : 0%). In terms of those currently in treatment, older users tended to be on methadone (16% : 4%) while younger users were more likely to be accessing counselling (13% : 1%).

3.2 Drug Use History of the PWID Sample

The mean age of the first injection was 20 years (median 18), ranging from 11 to 46 years (Table 3). Table 2 indicates the mean age of 20.9 years for females (range 12-33, median 21) was slightly higher than that of 19.9 for males (range 11-46, median 17). The mean age of first injection was lower among PWID who were aged less than 25 years (14.6 : 21.3).

Amphetamine was the first drug injected by 50% of the PWID, followed by heroin (36%). This was the case for both the younger and older age groups (79% : 44%), but fewer of those aged less than 25 years had first injected heroin (13% : 42%). Males

Table 2: Demographic characteristics and drug use history by gender and age

Sample Characteristics	Male n=104	Female n=31	Under 25 n=24	25 or more n=110
Mean Age (years)	34	33	na	na
Employment (%)				
Not employed	73	61	79	69
Full time	13	0	13	9
Part time/casual	12	13	0	16
Student	1	3	4	1
Home duties	0	23	4	5
School education (mean year)	10	10	9.5	10
Prison history (%)	58	29	46	52
Treatment history (%)				
Currently in treatment	24	26	25	25
Treatment type (%)				
Methadone	15	10	4	16
Counselling	3	3	13	1
Detoxification	1	0	4	0
Other	5	13	4	7
Mean age of first injection	19.9	20.9	14.6	21.3
First drug injected				
Heroin	33	48	13	42
Amphetamine	54	35	79	44
Morphine	10	13	8	11
Cocaine	1	0	0	1
Hallucinogens	1	0	0	1
Other opiates	1	0	0	1
Preferred drug				
Heroin	37	45	25	43
Amphetamine	28	19	29	25
Morphine	21	26	38	19
Methadone	1	0	0	1
Alcohol	4	0	0	3
Cannabis	3	10	0	5
Cocaine	3	0	4	2
Ecstasy	1	0	4	0
Last drug injected				
Heroin	9	0	0	8
Amphetamine	34	23	46	28
Morphine	51	77	50	58
Methadone	4	0	0	4
Other	2	0	4	2
Injected most last month				
Heroin	6	0	0	6
Amphetamine	28	23	44	24
Morphine	61	77	56	66
Methadone	3	0	0	3

Other	2	0	0	9
Mean expenditure yesterday	\$78.03	\$158.39	\$96.53	\$97.09

Table 3: Injecting initiation, drug use history and preferred drug, 2000 and 2001

Drug Use History	2001 (n=135)	2000 (n=100)
Mean age first injection (years)	20	19
Drug first injected (%)		
Amphetamine	50	59
Heroin	36	33
Morphine	11	0
Methadone	0	1
Other opiates	1	6
Benzodiazepines	0	1
Number of drugs ever used (%)		
1	0	2
2	0	3
3 –5	10	21
6-8	30	28
9-11	36	34
12-15	24	12
Median	9	8
Mode	10	11
Number drugs used previous 6 months (%)		
1	0	3
2	2	9
3-5	37	38
6-8	50	29
9-11	11	18
12-15	1	3
Median	6	5.5
Mode	6	4
Preferred Drug (%)		
Amphetamine	26	21
Heroin	39	44
Morphine	22	18
Methadone	1	1
Other opiates	0	1
Cocaine	2	2
Ecstasy	1	4
LSD	0	3
Cannabis	4	6

were more likely than females to first inject amphetamine (54% : 35%), but the reverse was true for heroin, with females more likely to first inject this substance (45% : 33%).

A third of the PWID sample had used from nine to eleven drugs (of a total of 15) in their lifetime, one in three had used between six and eight drugs and one in ten had used three to five drugs (Table 4). The most notable gender difference (Table 5) was the higher proportion of females who had used nine or more drugs in their lifetime (74% : 56%). There was no

marked age differences (Table 5). The median number of drugs ever used was nine, compared to eight in 2000. There were some notable changes from 2000 to 2001, with a reduction in the proportion who had ever used 3-5 drugs (21% : 10%) and a doubling in the proportion who had used 12-15 drugs (12% : 24%). In 2000 a small proportion (5%) of the sample had ever used only one or two drugs, but in 2001 no PWID reporting using either only one or two drugs in their lifetime. Polydrug use was prevalent in the six months before the survey, with over a third of PWID using 3-5 drugs and half using 6-8 drugs. There were no marked age or gender differences. From 2000 to 2001 the proportion of PWID using only one or two drugs in the previous six months dropped from 12% to 2%, while the number using 6-8 drugs increased from 29% to 50%. The median number of drugs used in the previous six months was 6, but one in every ten PWID (12%) had used nine or more drugs.

Heroin was mentioned most often as the preferred drug, followed by amphetamine and morphine. In contrast, morphine was most likely to be the last drug injected (Table 5). The other drug frequently last injected was amphetamine. Users under 25 years of age were more likely to prefer morphine (38% : 19%) and to have last injected amphetamines (46% : 28%). Those aged over 25 or more years were more likely to have last injected morphine (58% : 50%) or heroin (8% : 0%). Most males and females last injected morphine (51% : 77%), but males were more likely to have last injected heroin (9% : 0%) or methadone (4% : 0%). Morphine and amphetamine were the drugs most often injected in the month before the survey and there were no apparent age or gender differences. From 2000 to 2001 there was an increase in the proportion of PWID most often injecting morphine (53% : 65%) and a concomitant decrease in those most often injecting heroin (14% : 5%).

On the day before the survey, 94% of the PWID sample had used drugs and the most frequently used were morphine (62%), cannabis (45%), amphetamine (25%) and alcohol (23%). The figures are similar to those reported in 2000.

Table 4: PWID recent drug use in 2000 (n=100) and 2001 (n=135)

	2001	2000
Last drug injected (%)		
Amphetamine	31	30
Heroin	7	9
Morphine	57	56
Methadone	3	4
Used drugs yesterday (%)	94	94
Amphetamine	25	22
Heroin	6	11
Morphine	62	62
Methadone	13	9
Cocaine	1	1
Benzodiazepines	13	5
Cannabis	45	50
Alcohol	23	22
Other drugs (Ecstasy, LSD, opium etc)	6	1
Mean number used	2.9	1.9
Median number used	3	2
Drug injected most often previous month (%)		
Amphetamine	27	28
Heroin	5	14
Morphine	65	53

Methadone	2	3
Cocaine	1	1
Other	1	1

There were increases in the proportions of PWID using benzodiazepines (5% : 13%), methadone (9% : 13%) and other drugs (1% : 6%) on the day before the survey. Polydrug use was evident and had increased from a median of two drugs used on the previous day in 2000 to three drugs in 2002.

Table 5 indicates PWID aged less than 25 years were more likely to have used amphetamine (50% : 20%) and cannabis (63% : 42%) on the previous day, while those aged 25 or more years were more likely to have used methadone (16% ; 0%) or other drugs (7% : 0%). There were no age differences in the median number of drugs used on the day before the survey. More females than males used amphetamine (35% : 22%), morphine (77% : 57%), methadone (16% : 11%) and benzodiazepines (23% : 11%). Males were more likely to have used heroin (7% : 3%) and cannabis (47% : 39%) on the previous day (Table 5).

Table 5: PWID recent drug use by age group and gender (%)

	Gender		Age group	
	Male	Female	Less 25	25 or >
Number of drugs ever used (%)				
1	0	0	0	0
2	0	0	0	0
3-5	11	10	8	11
6-8	33	16	34	29
9-11	39	29	31	36
12-15	17	45	25	24
Median	9	10	9	9
Mode	10	13	7	9
Number drugs used last 6 months (%)				
1	0	0	0	0
2	2	0	0	2
3-5	37	32	38	36
6-8	50	52	45	51
9-11	10	16	17	10
12-15	1	0	0	1
Median	6	6	6	6
Mode	5	6	5	6
Used drugs yesterday (%)	93	97	96	94
Amphetamine	22	35	50	20
Heroin	7	3	4	6
Morphine	57	77	58	62
Methadone	11	16	0	16
Cocaine	0	3	0	1
Benzodiazepines	11	23	13	14
Cannabis	47	39	63	42
Alcohol	24	19	17	24
Other drugs (Ecstasy, LSD, opium etc)	6	6	0	7
Mean number used	2.8	3.2	3.0	2.9
Median number used	3	3	3	3

Figure 2 indicates a decrease in 2001 in the number of PWID injecting at least once a day (68% : 59%). Among the daily injectors, there was a drop in those injecting once a day (23% : 12%) or more than 3 times a day (14% : 7%) and a rise in those injecting 2-3 times a day (31% : 41%) Of those aged under 25 years, 8% injected weekly or less compared to 17% of the older group. Similar numbers of younger and older users injected at least daily (58% : 60%). In 2000, just over half of the younger group (53%) injected once a day or more, in contrast to 74% of older PWID. There was a higher proportion of younger users injecting at 2-3 times per day (46% : 40%), but fewer injecting once a day (8% : 13%) or more than 3 times a day (4% : 7.3%) . Most PWID (44%) did not spend any money on illicit drugs on the day before the survey (Figure 3). One in ten spent between \$20 and \$50, another 15% of PWID spent \$50 to \$99, 11% spent between \$100-\$199 and 17% spent \$200 or more. The mean amount spent on illicit drugs the previous day was \$96.48 (median \$25). The mean amount spent on illicit drugs the previous day was much higher for females than males (\$158.39 : \$78.03), but there were no age differences in the mean amounts (Tables 2 and 3). Table 6 indicates that most PWID last injected at a private home (84%) and in 2001 there was a drop in the proportion injecting in cars (8% : 4%) or in streets/park/beaches (15% : 8%).

Figure 2: Frequency of injecting in the month before the survey, 2000 and 2001 (%)

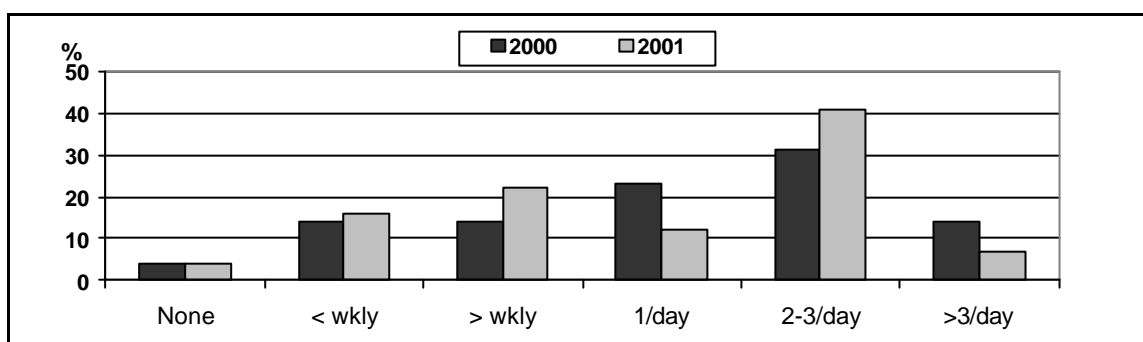


Figure 3: PWID expenditure on illicit drugs on day before interview, 2000 and 2001 (%)

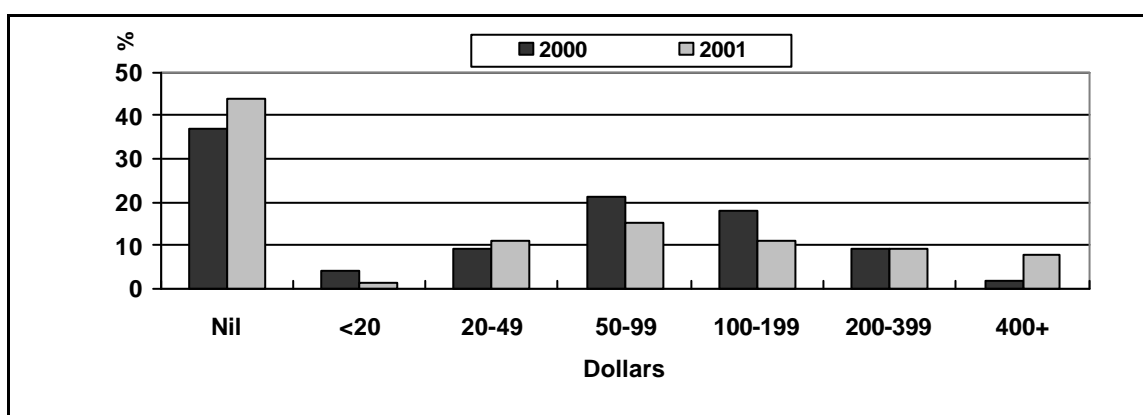


Table 6: Location of last injection, 2000 and 2001 (%)

Location	2001 (n=133)	2000 (n=100)
	Last	Last
Private home	84	72
Public toilet	2	1

Street/park or beach	8	15
Car	4	8
Other (eg car park)	2	4

A wide variety of illicit and licit drugs was used in 2001 (Table 7). The majority of the PWID had used heroin (80%), morphine (90%), amphetamine (86%), hallucinogens (66%), benzodiazepines (62%), alcohol (96%), cannabis (92%) and tobacco (92%) at some time in their lives. Almost half had used methadone, cocaine, ecstasy and anti-depressants. PWID had used an array of drugs in the previous six months and the majority had used morphine (84%), amphetamine (70%), benzodiazepines (53%), alcohol (77%), cannabis (81%) and tobacco (91%). The majority had injected morphine (84%) and/or amphetamine (70%). Morphine, cannabis and tobacco were the drugs most likely to be used on a daily or almost daily basis. Heroin, methadone, other opiates, amphetamine, benzodiazepines, anti-depressants and alcohol were drugs that tended to be used on a weekly basis. The variety of methods employed to ingest drugs, some unusual, is also noteworthy.

Comparison with the 2000 NT IDRS data (Appendix A, Table A1) indicates a drop in the proportion that had used heroin (50% : 36%), cocaine (18% : 13%) or hallucinogens (33% : 18%) in the previous six months. However, there were marked rises in 2001 in the proportion of PWID that had used benzodiazepines (29% : 53%), ecstasy (21% : 31%), morphine (74% : 83%), methadone (23% : 36%), amphetamine (63% : 70%) and alcohol (52% : 77%) in the previous six months.

The NT does not have a methadone maintenance program but, in February 2000, Territory Health Services (now the Department of Health and Community Services) introduced a 3-month methadone withdrawal program (Opiate Withdrawal and Management Program, OWMP). The rise in 2001 in the proportion of PWID using methadone in the previous six months (23% : 36%), may be partially due to potentially more PWID accessing this treatment in the NT during the survey period.

Table 7: Drug use history of PWID sample in 2001 (n=135)

Drug Class	Ever Used	Ever Injected	Injected last 6 months	Ever smoked	Smoked last 6 months	Ever snorted	Snorted last 6 months	Ever swallow	Swallow last 6 months	Used last 6 months	Days used last 6 months*	
	%	%	%	%	%	%	%	%	%	%	Mean	Median
1. Heroin	80	79	36	34	9	22	7	20	7	36	32	6
2. Methadone	57	36	22					47	30	36	62	27
3. Morphine	90	87	84	4	2	2	2	50	36	84	120	172
4. Other opiates	34	18	6	10	2	5	2	22	5	7	26	7
5. Amphetamine	86	84	70	19	8	52	18	44	17	70	45	26
6. Cocaine	44	33	7	12	4	25	8	7	2	13	14	2
7. Hallucinogens	66	27	5	4	2	3	2	62	17	18	12	5
8. Ecstasy	49	30	22	2	2	6	4	41	25	31	10	3
9. Benzodiazepines	62	34	27	4	4	2	1	56	47	53	57	26
10. Alcohol	96	7	2					92	74	77	53	25
11. Cannabis	92									81	100	90
12. Anti-depressants	48									27	55	24
13. Inhalants	21									5	19	7
14. Tobacco	92									91	177	180

*Among those who had used in the last 6 months

3.3 Amphetamine/methamphetamine

3.3.1 PWID Survey

Seven in ten of the PWID used amphetamine in the six months before the survey (Table 7) and 26% stated it was their preferred drug (Table 3). Table 8 indicates powder was the form of amphetamine most often used by PWID (51.1%), but a variety of other forms were also used. The most common were crystal methamphetamine (Ice/Shabu) (23.7%) and base/wax/pure methamphetamine (17.8%). The proportion of PWID reporting use of Ice/Shabu in the previous 6 months increased four-fold from 2000 to 2001 (6% : 23.7%). The 2000 survey did not collect information on specific forms of methamphetamine (wax/base/pure). Overall, 16.3% of PWID surveyed in 2001 reported most often using purer forms of methamphetamine (crystal/base/pure). In 2000, 10% of PWID reported use of prescription amphetamine but no distinction was made between licit and illicit acquisition of prescription drugs. The 2001 survey indicates illicit prescription amphetamine was used by 14.8% of PWID, but only 3% used this form most often in the previous six months.

Table 8: Forms of amphetamine used previous 6 months and most often used (%)

Form	Used	Most often used
Powder	63.0	51.1
Liquid	13.3	0.7
Crystal methamphetamine (Ice)	23.7	8.9
Base/wax/pure/point	17.8	7.4
Licit Prescription	8.1	2.2
Illicit prescription	14.8	3.0

Half of the PWID sample (50%) had first injected amphetamine, one in three (31%) had last injected amphetamine and 25% had used it the previous day. Of those who had used amphetamine in the previous six months, all had injected it and sizeable proportions had also snorted (26%) or swallowed it (24%). In the previous six months, amphetamine was used for an average of 45 days (median 26 days). These figures are very similar to those obtained in 2000 (see Appendix A, Table A1).

Price, purity and availability of amphetamine powder

Two thirds (n=89) of the PWID sample was able to provide information on the price, purity and availability of amphetamine powder in Darwin (Table 9).

In 2001 the median price for a gram of amphetamine powder was reported to be \$80 (mean price \$76) and an ounce was \$1400 (mean \$1419). PWID stated that an “eight ball” (an eighth of an ounce) held a median price of \$250 (mean \$242). These figures were similar to those obtained in 2000 indicating some stability over time. The majority of PWID who commented on price stability indicated it had been stable for the past six months. In 2001 a higher proportion of PWID considered purity to be low (60% : 45%). Only a small proportion stated purity was high (14%). Twice as many PWID reported stable levels of purity in 2001 when compared to 2000 (44% : 20%) and fewer PWID thought purity levels had declined in the previous six months (23% : 39%). Most PWID (88%) stated amphetamine powder was easy or very easy to obtain and almost three quarters (73%) thought availability remained stable in the previous six months.

Table 9: PWID estimates of amphetamine powder price, purity and availability, 2000 and 2001

	2000 (n=63)	2001 (n=89)
Median price		
Gram	\$80	\$80
Ounce	\$1400	\$1400
1/8 oz (8-ball)	\$250	\$250
1/8 gram	na	\$65
1/2 gram	na	\$50
Change in price		
Increased	21%	11%
Stable	65%	65%
Fluctuates	13%	8%
Purity		
Low	45%	60%
Medium	44%	26%
Changes in purity		
Stable	20%	44%
Decreased	39%	23%
Fluctuates	27%	21%
Availability		
Very easy	42%	44%
Easy	42%	46%
Difficult	13%	9%
Availability change		
Stable	55%	73%
Easier	23%	8%
Fluctuates	23%	7%

Note: Only larger proportions recorded

Friends were the main source of amphetamine in the previous six months for a third of the PWID, while a quarter obtained it from a dealer's home. Other sources were street dealers (19%) and mobile dealers (12%).

Price, purity and availability of crystal methamphetamine (Ice/Shabu)

In response to a reported trend of increased use of crystal methamphetamine among PWID in Australia (Topp et al, 2001) additional questions were asked about price, purity and availability of Ice/Shabu and one quarter (n=32) of PWID provided information.

Table 10 indicates the median price for a gram of crystal methamphetamine was \$200 (mean price \$213.75) and a point \$50 (mean \$64.38). The prices paid for the most recent purchase of these amounts were similar and PWID provided additional information on two other purchase quantities: an eighth of a gram at a median cost of \$265 (mean price \$265) and one eighth of an ounce for \$200 (mean price \$264). Most PWID considered the price to be stable in the previous six months, and purity to be high and stable. The large majority (60%) considered crystal methamphetamine to be easy or very easy to obtain and stable. The main sources of crystal methamphetamine were a dealer's home (31%), a friend (28%) and street dealers (16%).

Table 10: PWID estimates of crystal methamphetamine price, purity and availability

Median price	
Gram	\$200
Point	\$50
Price paid last purchase	
Gram	\$250
Point	\$50
1/8 gram	\$265
1/8 oz	\$220
Change in price	
Increased	19%
Stable	62%
Fluctuates	12%
Purity	
High	67%
Medium	18%
Changes in purity	
Stable	58%
Increasing	15%
Fluctuates	19%
Availability	
Very easy	20%
Easy	40%
Difficult	33%
Availability change	
Stable	48%
More difficult	28%
Fluctuates	14%

Note: Only larger proportions recorded

Amphetamine/methamphetamine trends

The PWID sample was provided the opportunity to comment on any drug trends in the Darwin region. One in four PWID (43%) indicated there had been changes in the type and number of users, with increasing numbers of people, particularly youth (40%), using amphetamine. Other common themes were increasing use of amphetamine when morphine was harder to obtain, more professionals and people not traditionally associated with the drug scene injecting amphetamine and morphine, and more mood changes and paranoia. Young people were also reported to be commencing earlier and some users stated 14 and 15 years olds were extremely rare 10 to 15 years ago. Two PWID indicated more local people were trying to make crystal methamphetamine.

3.3.2 Key Informant Interviews (n = 4)

Current amphetamine/methamphetamine use patterns

All four informants stated amphetamine users resided in all suburbs of Darwin, but many resided in the northern suburbs and the rural area surrounding Darwin.

The age range of amphetamine users was 15 to 50 years, with most informants placing the average age in the 20's. Some informants (n=3) stated there were more males than females and the remaining key informant reported equal numbers of males and females.

All informants believed users were primarily Caucasian. Estimates of the proportion of Indigenous users were generally low, at less than 5% of the amphetamine user population, but one informant stated 15% were Indigenous. Three informants stated education levels were generally late secondary school, but the young age of many users meant some were still studying. One informant reported the educational levels varied from secondary through to postdoctoral. Most informants believed amphetamine users were employed, with one noting recreational users were likely to be employed but dependent users were more likely to be unemployed. Only one informant stated most users were unemployed. All informants agreed that the vast majority of users were not in treatment and that between 5-10% may access treatment services. One informant indicated only 5% or less of the Darwin Detoxification Unit admissions were amphetamine-related.

There was less agreement in relation to previous criminal history and numbers currently incarcerated. Estimates of the number of users with a criminal history ranged from 5% to 50%, with three informants indicating the proportion with a previous history would be low. Only one informant commented on the proportion of users currently incarcerated, estimating the figure to be 5%.

Informants agreed that amphetamine in powder form was the type most commonly available, but all noted the use of purer forms (Ice, paste or base). Intravenous use was the most popular means of administration, followed by snorting or swallowing. Estimates of frequency of use varied, from yearly to daily. Recreational users tended to use weekly or monthly but dependent users were more likely to inject on a daily basis, usually injecting twice per day. Three informants indicated about a gram of powder or a point of pure amphetamine was used per day.

Most informants stated cannabis was also commonly used by amphetamine users and use was high, often daily. Alcohol use was also common, although not as regular as cannabis, and its use tended to be social or recreational. One informant added many amphetamine users drank alcohol to help them sleep. All informants mentioned the use of licit and illicit benzodiazepines, with estimates of the proportion of amphetamine users ranging from 5% to 25% for both sources of benzodiazepines. Two informants noted benzodiazepines were used when amphetamine was difficult to obtain or when users were "coming off" amphetamine. Occasional use of ecstasy was also mentioned (n=4), as was some morphine (n=2) and anti-depressant use (n=3). Three informants reported polydrug use to be prevalent and increasing among amphetamine users, with more using cannabis, alcohol and benzodiazepines. One informant noted that polydrug use was not seen as a problem and the remaining informant stated most people used a variety of drugs in a variety of ways. Two informants indicated many more morphine users now used amphetamine, but only some amphetamine users (drug of first choice) used opiates.

Amphetamine/methamphetamine use trends

Amphetamine users represented a diverse population, including a large number of recreational users. Two informants identified an increase in the use of amphetamine, and both reported an increase in availability of Ice. An additional four morphine informants reported an increase in the availability of methamphetamine, particularly purer forms such as Ice. One stated that it was now easy to obtain. Three informants noted there was locally produced amphetamine was

available and there were more sources of supply, particularly for pure methamphetamine. Two informants commented upon a growing number of younger users and another reported older people using amphetamine for work purposes. One of these informants also reported an increase in the proportion of Indigenous people using amphetamine.

Two informants commented upon changes in treatment agency presentations. One stated there were more social problems and amphetamine users were more chaotic than they had been in the past, presenting with more severe problems. The other informant reported a similar situation but added there were more verbal comments relating to self-harm and suicide ideation had increased amongst admissions.

Cost, purity and availability of amphetamine

Estimates of the cost of a street gram of powder varied from \$50 to \$100 (Table 11). The price for a point (1/10 gram) of pure amphetamine ranged from \$50 to \$80. Two informants thought the price had remained stable over the past six months, one stated the price fluctuated and the remaining informant believed the price had increased. Purity was generally rated as low to medium for powder and high for base or pure. Purity levels of powder were considered stable in the previous six months, and all informants noted an increase in purity of other forms available. All informants rated availability as easy or very easy. Two informants considered availability to be stable over the previous six months, another thought amphetamine had become easier to obtain and the fourth informant indicated powder was easier to obtain but the availability of base fluctuated.

Table 11: Key informant estimates of amphetamine price, purity and availability

	1999	2000	2001
Price			
Range street gram	\$50 to \$100 gram	\$50 to \$80 (street)	\$50-100
Average street gram	\$70 per gram	\$70 per gram	na
Point	na	na	\$50-80
Change in price	Stable	Stable	Stable
Purity	Low to medium Estimate 5% - 20%	Low	Powder – low Base/pure - high
Change in purity	Increased 33% Stable 67%	Stable 75% Fluctuating 25%	Stable (powder) Increase (base/pure)
Availability	Very easy 33% Easy 67%	Very easy 75% Easy 25%	Very easy (n=2) Easy (n=2)
Change in availability	na	Stable 88% Easier 12%	Stable (n=2) Easier (n=2)

Note: Only larger proportions recorded

3.4 Opiates (heroin, morphine, methadone and other opiates)

3.4.1 PWID survey

In the preceding six months 84% of the PWID sample had used morphine, 36% had used heroin, 36% methadone and 7% other opiates (Table 7). Morphine was the preferred drug of 22% of PWID, compared to the 39% indicating heroin (Table 3). Methadone and other opiates were rarely reported as preferred drugs. Heroin powder was the common form used in the previous six months (Table 12). PWID used morphine both licitly and illicitly, but a

higher proportion most often used morphine obtained illicitly (54% : 30%). Methadone was more often accessed through licit avenues but some methadone syrup appeared to be diverted, with 7% of PWID stating illicit methadone syrup was the form most often used in the previous six months. Physeptone® tablets from illicit sources were more likely to be used than from licit sources. Few PWID used other opiates obtained from either licit or illicit sources.

Table 12: Forms of opiates used previous 6 months and most often used (%)

Form	Used	Most often used
Heroin powder	34.8	28.1
Heroin rock	23.0	10.4
Licit morphine prescription	41.5	30.4
Illicit morphine prescription	72.6	54.1
Licit methadone syrup	14.8	13.3
Illicit methadone syrup	10.4	7.4
Licit physeptone tablets	8.1	5.9
Illicit physeptone tablets	17.0	10.4
Licit other opiates	5.2	3.0
Illicit other opiates	3.0	2.2

None of the PWID sample injected morphine as the first drug in 2001, but this figure had risen to 11% in 2001. Heroin had been the first drug injected by 36% in 2001 and this proportion is only slightly higher than that reported in 2000 (33%). Morphine was the last drug injected by 57% of the PWID sample, compared to only 7% last injecting heroin. On the day before the interview, 62% of the sample had used morphine, 6% used heroin and 13% methadone. Of those who had used morphine in the previous six months, the average number of days used was 120 (median 172 days), indicating it tended to be used on a daily basis (Table 7). The average was 32 days (median 6 days) for those who had used heroin. Injection was the standard route of administration for those who had used morphine in the previous six months (100%), although a proportion of PWID had also swallowed it (43%). For those who had used heroin in the preceding six months, 100% had injected it and 24% smoked it. Among those using methadone in the previous six months, 61% had injected it and 82% had swallowed it.

Price, purity and availability of heroin and morphine

In all, 98 PWID could comment on the price, purity and availability of morphine and 51 on heroin (Table 13).

PWID provided prices for a variety of prescription morphine. Morphine sulphate (MS Contin®) averaged \$58.31 for a 100mg tablet (median \$50, range \$30-\$100), \$35.52 for 60mg (median \$30, range \$20-\$30) and \$15 for 30mg (median \$15, range \$10-\$20). Kapanol® was also available for purchase and 100mg held a mean price of \$38.33 (median \$40, range \$25-\$40) while the 50mg tablet sold for \$23.33 (median \$25, range \$20-\$25). Half (49%) of the PWID reporting on morphine indicated the price had risen in the previous six months, and this proportion is similar to that in 2000. This is despite the median reported price for Ms Contin 100mg remaining stable over the 12-month period. One in four PWID indicated the price had been stable. Just over half (54%) of the PWID indicated morphine

was easy or very easy to obtain and, although the figure was the same in 2000, there has been a reversal in the two categories.

Table 13: PWID estimates of opiate price, purity and availability, 2000 and 2001

	Morphine		Heroin	
	2000	2001	2000	2001
Median price	<i>MS Contin</i> ® \$50 100mg	<i>MS Contin</i> ® \$50 100mg \$30 60mg \$15 30mg <i>Kapanol</i> ® \$40 100mg \$25 50 mg	\$600 gm \$50 a rock	\$550 gm \$100 cap
Median price last purchase	Not applicable	Not applicable	Not Available	
Gram				\$600
Cap				-
Rock				\$75
1/8 gram				\$80
¼ gram				\$150
½ weight				\$230
Change in price				
Increasing	50%	49%	30%	22%
Stable	35%	39%	37%	66%
Decreasing	10%	1%	3%	-
Fluctuates	5%	8%	30%	12%
Purity	Not applicable	Not applicable		
High			13%	15%
Medium			39%	18%
Low			48%	67%
Change in purity	Not applicable	Not applicable		
Increasing			20%	16%
Stable			16%	45%
Decreasing			24%	29%
Fluctuates			40%	10%
Availability				
Very easy	37%	15%	15%	9%
Easy	17%	39%	30%	21%
Difficult	29%	44%	27.5%	37%
Very difficult	17%	3%	27.5%	35%
Change availability				
More difficult	37%	53%	32%	6%
Stable	47%	39%	44%	72%
Easier	5%	2%	12%	11%
Fluctuates	11%	6%	12%	11%

Note: only larger proportions recorded

In 2000, 37% reported morphine was very easy to obtain and 17% easy, but in 2001 only 15% stated morphine was very easy to obtain. However, from 2000 to 2001 there was a drop in the proportion stating morphine was very difficult to obtain (17% : 3%), and this accounts for the higher numbers in 2001 stating morphine was difficult to obtain (29% : 44%). There was also an increase over the 12-month period in the proportion stating it had become more difficult to obtain morphine in the previous six months (37% : 53%). The main sources of morphine in the previous month were street dealers (30%), friends (29%) and other sources (22%). Of the latter, 73% stated general practitioner/s, 18% indicated all sources and the remaining PWID stated morphine was obtained from “rich old people.”

Heroin was reported to sell for an average of \$493 per gram (median \$550) while caps cost an average price of \$77.2 (median \$100). Various quantities were last purchased by PWID and a rock cost an average of \$93.75 (median \$75), ¼ gram was \$217.14 (median \$150), a ½ weight was \$202.50 (median \$230) and an eighth of a gram sold for \$86 on average (median \$80). Two thirds of the PWID reporting on heroin in 2001 indicated the price had been stable over the past 6 months. This contrasts with only one third indicating it was stable in 2000 and another third indicating it had increased.

From 2000 to 2001 there was a marked increase in the proportion of PWID reporting the purity of heroin as low (48% : 67%) despite more reporting purity as stable in 2001 (16% : 45%). The majority of those commenting on heroin availability indicated it was difficult or very difficult to obtain (72%) and this was higher than the proportion in 2000 (55%). In 2000, 45% reported it was easy or very easy to obtain heroin in the previous six months, but only 30% reported this was the case in 2001. Many more PWID considered availability to be stable in 2001 than in 2000 (72% : 44%) and most (88%) commented that the heroin drought reported in southern Australian markets had not affected the supply of heroin in Darwin. Heroin availability depended very much on the users contacts and networks. The main sources of heroin in the previous six months were street dealers (34%), a dealer’s home (20%), friends (20%), and mobile dealers (14%).

Morphine and heroin trends

Most PWID commenting on trends reported more people using morphine, particularly young people, Indigenous people and professionals, and people were using it more often. Three PWID stated young users were shifting from amphetamine to morphine because of the generally poor quality of the amphetamine powder in Darwin. Five PWID made specific reference to professionals and ‘straight’ people using morphine and that there were more everyday working people using morphine and amphetamine. Many made comment on the reduced availability of morphine prescriptions from general practitioners and the associated problems this caused. Some described the situation as desperate at times, with dependent users becoming ‘sick’, ‘hanging out’ and resorting to ‘whatever they can get’ in order to deal with the lack of morphine. Six PWID stated there was more violence, aggression and crime since the reduction in prescribing of morphine. Users often resorted to amphetamine and Schedule 4 drugs, particularly temazepam (Normison®) as it was cheaper (\$5-10) and more readily available. However, the increased use of benzodiazepines was accompanied by serious health risks.

Dealers and users were greedier on the streets as it became more difficult to obtain prescription morphine and the price was rising as it became less available. Those purchasing

morphine on the black market stated it was becoming busier and more aggressive, and typical comments are listed below:

- *people are getting lower morals...more rip-offs trying to get other peoples stuff. It's more violent.*
- *everything seems more desperate, more rip-offs and lower morals, more threats and more violence.*
- *they don't care how they get it, who is hurt. People are held up knifepoint to steal scripts.*
- *the price has gone up and people who are selling are getting more selfish.*
- *there is less Schedule 8 available. People panic and get into Normison® as a substitute...more thieving and shoplifting when people get cut off from the GP.*
- *there's more dealing of scripts and more old people selling. Old people are getting robbed for scripts.*

Only five PWID commented on heroin trends and all thought heroin was becoming more abundant as morphine became more difficult to obtain. Two of these PWID mentioned buprenorphine, one stating it could be bought on the streets for \$100 and the other suggesting general practitioners would use PWID as 'guinea pigs.'

3.4.2 Key Informant Interviews (n = 5)

Current opiate use patterns

This section focuses primarily on morphine use as all informants reported that morphine is the opiate most often used in Darwin.

Most informants agreed that morphine users resided in all suburbs of Darwin, Palmerston and the surrounding rural area. The age range of users was large, from 15 years to 60 years with the average age placed in the thirties. One informant suggested the average age of males users was 30 years, while females were generally in their 20s.

Informants reported most morphine users were male with the proportion ranging from 60% to 80%. Caucasians were the primary user group and estimates of Indigenous proportions were usually 10% or less. Estimates of the Non-English Speaking Background (NESB) population were 5% or less of the user population. Education levels of users varied widely and most users had some secondary education. All informants stated most users were unemployed and estimates ranged from 70% to 90%. Three informants provided information on the proportions in work. One stated 20% of males and 12% of females were employed in some capacity (full or part time employment), another indicated less than 10% were in full time employment, 10% worked part time and 5% engaged in sex work. The third informant reported 2% in full time employment, 2% were part time, 5% students and 1% sex workers.

The vast majority of users were not in treatment, with informant estimations ranging from 70% to 100%. Two informants commented that 30% to 50% of morphine users accessed general practitioners and another two indicated that few sought other treatments such as detoxification (1%-5%) or the therapeutic community (5%). Key informants estimated 10% to 50% of morphine users had some prison history and only one informant was able to comment on the numbers currently incarcerated, stating the proportion would be about 1%.

MS Contin® in 100mg tablets was the most common form of morphine available and currently used, although one informant reported users also obtained MS Contin® 60mg tablets and Kapanol®. Users were reported to inject daily, at least 100mg but as high as 800mg per day. Most informants stated some morphine users also used heroin (5-10%) and amphetamine

(20% to 60%). Amphetamine was used at least weekly and three informants stated it was usually powder but crystal, pure and base were also mentioned. All informants reported on benzodiazepine use, particularly temazepam (Normison®), and intravenous use was common. Between 40% and 80% of morphine users also used benzodiazepines, obtained from both licit and illicit sources. Four informants indicated some used benzodiazepines daily (2-10mg per day or more) while others used less frequently (more than weekly but not daily). Two informants noted benzodiazepine use increased when morphine was difficult to obtain. Most informants identified daily cannabis use as common among morphine users (70% to 90% of users). Antidepressant use was also common, with the estimated proportion of users ranging from 20% to 90%. Four informants reported on alcohol use, with one stating 90% used alcohol on a daily basis, and the remaining three informants estimating between 30% to 70% using alcohol regularly (weekly but not daily). Ecstasy and LSD use was occasional but more common among younger users. Four informants reported a proportion of opiate users (3-10%) also accessed illicit methadone (syrup and physeptone tablets). One informant stated the reduction in Rhoypnol availability had resulted in an increase in the use of alprazolam (Xanax®), particularly since it was easy to feign an anxiety disorder.

Morphine use trends

Three informants commented upon the reduction in MS Contin® 100mg availability due to regulatory control such as contracts with general practitioners and the reluctance of some general practitioners to prescribe it. Two informants stated this has resulted in other forms of morphine being prescribed (MS Contin® 60mg and 30mg, Anamorph® and Kapanol®). One informant noted there were increased health risks because of the difficulties associated with injecting Kapanol®. Another informant commented that continued regulatory control would also lead to an increase in street drugs and the intravenous use of such drugs.

Three informants commented on an increase in the use of amphetamines, particularly intravenous use of methamphetamine. Four informants made comment on polydrug use among morphine users, particularly the increased use of benzodiazepines. One noted this was common, with benzodiazepines, amphetamine, alcohol and cannabis also regularly used, sometimes on the same day. Another informant indicated overdose from polydrug use was becoming more common and this informant had resuscitated irregular users who had taken a number of drugs (morphine, amphetamine, ecstasy and alcohol). This informant also noted that none of these people re-attended for counselling. Another indicated more people were collapsing in the surgery because of severe and unsafe polydrug use.

All informants reported on the increase in benzodiazepine use, particularly temazepam (the preferred form was mainly Normison® 20mg) and one informant stated at least 30% to 40% of opiate users were regularly injecting this drug. Two informants discussed the injecting-related problems associated with benzodiazepines, noting there had been more users and hospital admission of users with abscesses, infections, collapsed veins, amputations and cellulitis. Unsafe injecting practices were also mentioned by two informants and another indicated users were often unaware of the risks associated with intravenous use of benzodiazepines. One informant stated that although temazepam was the preferred benzodiazepine of opiate users, diazepam was becoming more common and problematic as it was prescribed for opiate withdrawal.

Only one informant commented upon age, stating there were more young people and they were commencing at an earlier age.

Morphine cost and availability

Three informants thought the cost of morphine had increased in the last six months, while another considered it to be stable (Table 14). Estimates of the cost of a MS Contin® 100mg tablet varied from \$25 to \$100, but the majority of informants put the average cost at \$50. Price varied according to familiarity with contacts and the \$100 price was likely to be paid when a buyer did not know anyone. One informant stated MS Contin® 60mg tablets sold for \$30. Money did not always change hands as sex, transport and other drugs were traded for morphine. All informants rated availability as easy. Two informants indicated availability fluctuated while another two thought it had become more difficult to obtain morphine in the previous six months. One qualified this statement, adding that it had only become more difficult to access MS Contin® 100mg but other forms had become more available.

Table 14: Key informant estimates of morphine price and availability

	1999	2000	2001
Price 100mg MS Contin® 60mg MS Contin®	\$30-80, average \$40	\$50 to \$60 \$20 to \$40	\$25-100, average \$50 \$30
Change in price	Uncertain	Increased 75% Stable 25%	Increased n=3 Stable n=1
Availability	Very easy 57% Easy 43%	Very easy 66% Easy 33%	- Easy n=5
Change in availability	Uncertain	More difficult 58% Stable 33% Fluctuating 8%	More difficult n=2 - Fluctuating n=5

Note: Only larger proportions recorded

3.5 Cocaine

3.5.1 PWID Survey

Cocaine use was not as common as that of amphetamine and opiates, with 13% of the PWID having used cocaine in the previous six months (Table 7). Only 1% of the sample had used cocaine most often in the previous month and the same proportion had used it the day before the interview. Use appeared to be intermittent with an average of 14 days (median 2 days) for the previous six months. Only 3% indicated cocaine was their preferred drug. Among those who had used cocaine, snorting was the most common route of administration (44%) in the preceding six months, followed by injecting (39%). Powder was the most common form of cocaine used and only a small proportion of the PWID sample had used crack cocaine (4%). These findings are very similar to those obtained in 2000.

Price, purity and availability of cocaine

A small number of PWID (n=9, 7%) were able to provide information on the price, purity and availability of cocaine (Table 15).

The average price for a gram of cocaine was \$300 (median \$300) while that for a cap was \$97.50 (median \$110, range \$50-\$120). The average prices were higher in 2001 than in 2000. The majority (60%) reporting on the price of cocaine indicated it had been fluctuating in the previous six months. All PWID reporting on cocaine purity stated it was medium, but the majority (66%) stated it fluctuated in the previous six months. The majority of respondents

(66%) thought cocaine was difficult or very difficult to obtain and that the difficulty in obtaining cocaine had not altered in the last six months. The main source of cocaine in the previous six months had been street dealers (33%), a dealer's home (17%) and mobile dealers (17%). The remaining 33% obtained cocaine from other sources. When asked to specify these sources one stated 'bosses' and the other said it was 'private.'

Table 15: PWID estimates of cocaine price, purity and availability, 2000 and 2001

	2000 (n=23)	2001 (n=9)
Median price	\$250 gram, \$75 a cap	\$300 gram, \$110 cap \$460 ¼ gram
Change in price		
Increasing	20%	20%
Stable	60%	20%
Decreasing	-	-
Fluctuates	20%	60%
Purity		
High	27%	-
Medium	64%	100%
Low	9%	-
Change in purity		
Stable	33.3%	17%
Decreased	33.3%	17%
Fluctuated	33.3%	66%
Availability		
Very easy	8%	17%
Easy	25%	17%
Difficult	25%	33%
Very difficult	42%	33%
Change in availability		
More difficult	18%	-
Stable	36%	60%
Fluctuates	36%	40%

Note: Only larger proportions recorded

3.5.2 Key Informant Interviews (n=0)

As in 2000, no informants nominated cocaine as the main illicit drug used by users with whom they had the most contact in the preceding six months (the first half of 2001).

3.6 Cannabis

3.6.1 PWID Survey

In the six months before the survey, 81% of PWID had used cannabis (Table 7) on a daily or almost daily basis (mean 100 days, median 90 days). Cannabis was the preferred drug for 4% of the PWID sample (Table 3) and 45% used it on the day before the survey. Table 16 indicates that although a number of forms of cannabis were used in the previous six months, the one used most often was hydroponic cannabis (71.9%).

Table 16: Forms of cannabis used previous 6 months and most often used (%)

Form	Used	Most often used
Hydroponic	78.5	71.9
Outdoor	60.0	8.1
Hash	29.6	1.5
Hash oil	20.7	0.7

Price, potency and availability of cannabis

Two thirds (79%) of the PWID sample were able to provide information on the price, potency and availability of cannabis (Table 17).

Table 17: PWID estimates of cannabis price, potency and availability

	2000	2001
Median usual price		
Gram	\$25	\$25
Ounce	\$300	\$300
Median price last purchase	\$25	\$25
Cannabis gram	-	\$25
‘bag’	\$100	\$95
¼ oz	\$175	\$177
½ oz	\$300	\$300
Ounce	-	\$50
Hash gram	-	\$50
cap oil		
Change in price		
Increased	22%	12%
Stable	67%	83%
Potency		
High	69%	51%
Medium	24%	46%
Change in potency		
Increased	16%	14%
Stable	68%	70%
Fluctuates	10%	11%
Availability		
Very easy	68%	72%
Easy	25%	26%
Change in availability		
Stable	57%	86%
Easier	12%	4%

Note: Only larger proportions recorded

The average price of a gram of cannabis was \$25.50 (median \$25) and the range was \$15 to \$50. The price range for an ounce was \$100 to \$500, with an average price of \$289 (median \$300). Last purchase prices for grams and ounces were similar to the usual price. Information from PWID commenting on the price of the most recent purchase of ¼ and ½ ounces indicated the respective averages were \$110 (median \$95) and \$186 (median \$177.50). The large majority (83%) stated prices were stable and this proportion was markedly higher than in 2000 (67%). Only 12% thought prices had increased in the previous six months. Half of the

PWID thought cannabis potency was high and the majority (70%) stated potency had remained stable over the last six months. Nearly all PWID (98%) stated cannabis was very easy or easy to obtain and availability had not altered in the last six months. The main sources of cannabis in the previous six months were dealers' homes (39%), friends (23%) and street dealers (21%). Only 2% reported growing their own cannabis.

3.6.2 Key Informant Interviews (n=2)

Cannabis users lived in all suburban areas of Darwin, Palmerston and the rural area. Ages ranged from 14 to 50 years, most were Caucasian, held some secondary education, were unemployed and did not access treatment services. One informant said there were equal numbers of males and females, while the other indicated 80% were male. One informant thought less than 10% had a prison history and neither informant could comment on the number currently incarcerated.

Head was the most common form of cannabis used and one informant indicated frequency was more than weekly but not daily. The other could not comment on frequency. Cannabis was smoked with a variety of implements, the most common being bong, bucket bong, pipes and joints. Both informants reported the large majority (80% and 90%) used alcohol, one indicating weekly consumption and the other stating it was daily. Anti-depressants were thought to be commonly used, one informant estimating 10-15% of cannabis users took them daily. One informant reported irregular amphetamine use and estimated less than 5% used heroin, ecstasy or hallucinogens.

Only one informant provided information on the price of cannabis, stating it was \$30 a gram, \$25 per bag and \$25-30 for a stick. These prices had not changed in the previous six months. This informant thought cannabis was easy to obtain and availability had not changed over the last six months. One informant did not report any changes in cannabis use trends, but the other suggested there was a high suicide ideation among young users (those aged under 25 years).

3.7 Other Drugs

3.7.1 PWID Survey

The PWID sample had used a number of prescription drugs in the six months before the survey. One third of the sample had used methadone in the previous six months, the mean number of days used was 32 and 22% had injected it. Physeptone® tablets, obtained from illicit sources, were used by 17% of the PWID (Table 12). Benzodiazepine use was widespread in the preceding six months, with the proportion using them doubling from 2000 to 2001 (29% : 53%). The mean number of days used was 57, indicating they tended to be used more than weekly but not daily. This was higher than the mean in 2000 (45 days). Over one quarter (27%) of PWID had injected benzodiazepines in the preceding six months. Of those who had used benzodiazepines,

Table 18: Benzodiazepines and anti-depressants used in the previous 6 months (%)

Form	Used	Most often used
Licit benzodiazepine	39.3	32.6
Illicit benzodiazepine	29.6	20.7
Licit anti-depressants	23.0	22.2
Illicit anti-depressants	3.7	2.2

50% had injected them and 87% had swallowed them. More than a third of the PWID had used licit benzodiazepines (Table 18), while one in three had accessed them illicitly. One in five had most often used benzodiazepines from illicit sources in the past six months. The most common forms used were temazepam (Normison®), diazepam (Valium®) and oxazepam (Serapax®), with temazepam being the most frequently used benzodiazepine.

The use of anti-depressants was also high, with 48% having ever used them and 27% using them in the previous six months. The mean number of days used was 55. Licit anti-depressants were more likely to be used and used most often in the previous six months (Table 18). Many different brands were used and whether the use of anti-depressants constituted abuse or not is unclear.

The use of ecstasy was prevalent among the PWID, with almost a third (31%) of the sample using it in the previous six months. Of those who had used ecstasy, 52% had injected it and 59% had swallowed it. One in five PWID had used hallucinogens and LSD was the form most commonly used. Only 5% of the PWID had used inhalants in the previous six months and aerosols were the main form used. Over three quarters (77%) of the PWID sample consumed alcohol in the six months prior to the survey and it was generally used more than weekly but not daily (mean 53 days). The vast majority of the PWID (91%) smoked tobacco on a daily basis.

When PWID were asked if there had been any changes in the types of drugs being used in the last six months, 40% indicated there had been noticeable changes. The two drugs mentioned most often were ecstasy (18%) and benzodiazepines (40%). Comments regarding ecstasy consistently indicated an increase in availability. The increase in the availability and use of Schedule 4 prescription drugs, notably benzodiazepines, when morphine was difficult to obtain was a common thread. However, some PWID stated it was not just a matter of morphine becoming more difficult to obtain at times:

If other drugs around then will use them as well...more people are shifting to benzo combos (morphine and benzodiazepines).

It's the slums for price and quality. People are whacking up prescription tablets that drug users consider to be gutter tablets.

Normison, the footballs, are being used by lots of people. They sell for \$5-10 a tablet so they're cheap. People are injecting them but they don't know how to do it. There are big vein problems, fingers falling off, big infections. They should clear that stuff off the streets. Young people are shifting from morphine to footballs.

People are using benzos more and injecting them. There are lots of problems like amputations, your brain turns to slush and memory loss. They're not using them just because morphine is hard to get. People are using morphine less and using drugs like temazepam more.

PWID also mentioned the problems associated with the increased use of benzodiazepines, especially those related to injecting temazepam:

There's lots of temazepam and lots of injecting problems, parts of fingers and hands have been amputated. People get blocked veins, big infections and abscesses

People are losing limbs because of Normison...It's bad shit for injecting, people get blocked veins, big damage. People have got no choice. GPs take the morph away. They should leave the morph alone so people don't have to resort to this shit. Its bad.

3.7.2 Key Informant Interviews

Benzodiazepine was the drug mentioned by most key informants and its use was generally associated with opiate users (see section 3.4.2). One informant noted benzodiazepines were becoming cheaper and temazepam sold for \$5-10 for a 20mg tablet. The price could be as high as \$50 if a user was desperate. Two informants also reported more use of benzodiazepines among speed users and young people were selling these drugs.

3.8 Drug-Related Issues

3.8.1 PWID Survey

Injection-related Health Problems

Table 19 indicates the types of injection-related health problems PWID experienced in the month before the 2000 and 2001 surveys. The proportion of PWID who had experienced bruising or prominent scarring or had difficulty injecting decreased over the 12-month period (57% : 40% and 49% : 41% respectively). Dirty hits (injections that make the person feel sick afterwards) remained common (38% : 40%). Slightly fewer reported experiencing injecting-related abscesses or infections in the previous month (16% : 13%). Dirty hits and infections at the site of the injection may be related to adulterants in the mixture injected.

Table 19: PWID injection-related health problems in the previous month, 2000 and 2001

Type of problem	2000	2001
Prominent scarring and/or bruising	57	40
Difficulty injecting	49	41
Dirty hit (made feel sick)	38	40
Abscesses/infections from injecting	16	13
Thrombosis	10	9
Overdose	18	10

Drug overdose

Non-fatal drug overdoses in the previous month were less prevalent in 2001 than 2000 (18% : 10%). The overdose histories of PWID indicate one third had overdosed on heroin and the average number of heroin overdoses was three (Table 20). The average

Table 20: Drug overdose history of PWID (n=134)

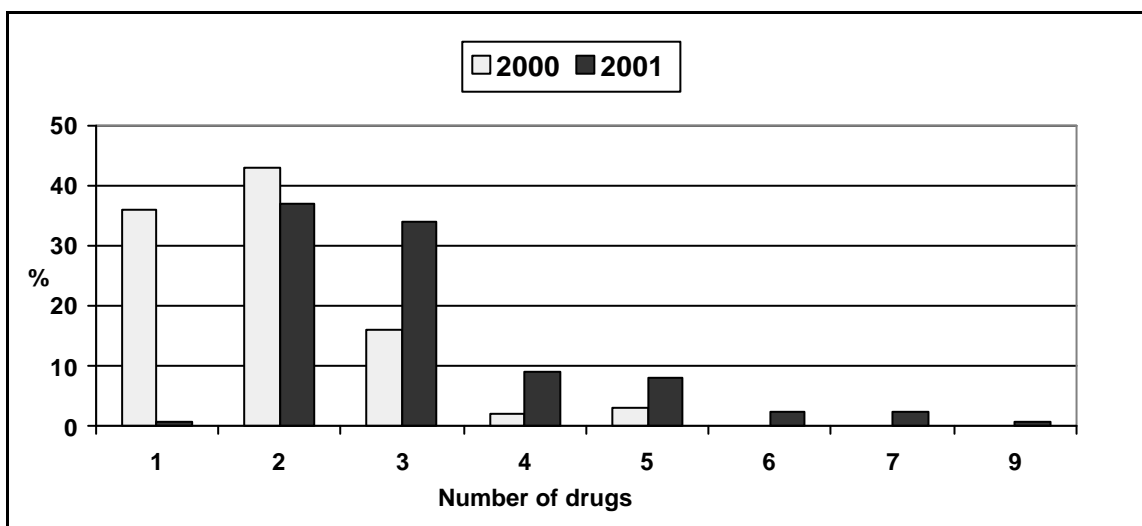
Overdose history	2001 Statistic
Heroin overdose	
Ever	32%
Mean number times	2.9 (range 1-15)
Mean time since last overdose (months)	27.5 (range 1-276)
Mean time since Narcan[®] administered (months)	69.4 (range 2-276)
Morphine overdose	
Ever	10.0%
Mean number times	1.07 (range 1-2)
Mean time since last overdose (months)	13.3 (range 1-72)
Witnessed overdose	
Ever	64%
Mean number times	7.1 (range 1-100)
Mean time since last witnessed (months)	47.8 (range 1-240)

Note: Calculation of means based on those who had 'ever' experienced overdose or witnessed overdose

length of time since the last heroin overdose was 27 months, but 17% had overdosed in the previous year. Narcan®, a fast-acting opioid antagonist (naloxone), had been administered to 16% of the PWID and the mean length of time since the last administration was 69 months. Non-fatal morphine overdose was less prevalent than heroin overdose (10% : 32%) and, of those who had overdosed, it had usually occurred only once (93%). The mean length of time since the last morphine overdose was 13 months and 42% with a morphine overdose history had done so in previous 12 months. Two thirds of PWID had witnessed at least one overdose and the average number of times they had been present when someone else overdosed was seven.

Polydrug use is a major risk factor in drug overdose and polydrug use was common among the PWID sample (Tables 3 and 5). The median number of drugs used in the last six months was 6 (mean 6) and on the day before the survey, PWID had used, on average, three drugs (Figure 4). There were some notable changes in polydrug use from 2000 to 2001, with a large reduction in the proportion of PWID using only one drug on the day before the survey (36% : 1%) and double the proportion using three or more drugs (21% : 56%). At least two thirds of the PWID sample had used opiates on the previous day, and everyone who had used heroin used benzodiazepines. Of those who had used morphine, 19% had also used benzodiazepines and 18% of those who took methadone used benzodiazepines. This is of concern given the risk of overdose is exacerbated when opiates are used in conjunction with drugs that depress the central nervous system, such as benzodiazepines and alcohol. The proportion of PWID exposing themselves to this risk more than doubled from 2000 to 2001. In 2000, only 7% of PWID used both opiates and benzodiazepines on the day before the survey.

Figure 4: Polydrug use on the day before the PWID survey, 2000 and 2001



Injection equipment sharing

Sharing of injecting equipment (such as spoons, filters, water and tourniquets) increases the risk of exposure to blood borne viruses such as HIV, Hepatitis B and C. Eleven percent of the PWID had used a needle/syringe after someone else in the month preceding the survey (Table 21) and in most cases only one person had used the needle/syringe beforehand. Those using the needle/syringe before were usually regular sex partners (54%), however 46% had used the needle/syringe of an acquaintance. Three percent of the PWID reported six or more

people had used the needle/syringe before them. There was a higher incidence of sharing other injecting equipment and the portion had risen from 2000 to 2001 (28% : 37%). This raises concerns regarding the transmission of Hepatitis C, which can be contracted through the sharing of equipment associated with injecting. Spoons or mixing containers were most often cited (80%), followed by tourniquets (46%) and these figures are similar to those reported in 2000.

Table 21: PWID injecting equipment sharing in the previous month, 2000 and 2001

Type of injecting equipment	2000 (n=100)	2001 (n=135)
Used needle/syringe after another		
Once	3	5
Twice	5	1
3-5 times	2	2
6 or more times	-	4
Number people used needle/syringe before you		
One	9	8
Two	-	1
3-5	-	1
6-10	1	1
11 or more	1	2
Frequency others used needle/syringe after you		
One	5	3
Twice	4	4
3-5 times	1	-
6-10 times	2	2
Used other equipment after other/s	28	37
Type of equipment		
Spoons or mixing containers	78	80
Filters	33	32
Tourniquets	44	46
Water	26	20
Barrel	7	6

Crime

Over half of the PWID sample (58%) had been in prison at some stage and this was higher than the proportion in 2000 (46%). One in three had been arrested in the previous 12 months and a third of these arrests were for property crime, 5% for dealing/trafficking, 7% for use/possession and 39% for other offences, principally drink driving. Users aged under 25 years were more likely to have been arrested in the previous 12 months (46% : 28%), mostly for property and other crimes. When asked what crimes had been committed in the previous month, 24% had been dealing drugs and 12% had engaged in property crime (Table 22). From 2000 to 2001 the proportion of PWID dealing drugs in the previous month had decreased, but the proportion committing property crime had increased. Among those who reporting engaging in property crime last month, 31% stated they committed such crimes once a week and another 31% indicated they committed property crime more often than once a week. When those who had engaged in drug dealing in the previous month were asked how often they had committed this crime, one in three said on a weekly basis and a further 23%

dealt drugs on a daily basis. Very few PWID reported committing violent crime in the previous month.

Table 22: PWID criminal activity in the previous month, 2000 and 2001 (%)

Type of crime	2000 (n=96)	2001 (n=135)
Property crime	8	12
Dealing	30	24
Fraud	12	5
Violent crime	2	3

Comparison of criminal activity of younger and older users (under 25 years and 25 years or more) indicates some noteworthy differences. Only 7% of the older group indicated they had engaged in property crime in the past month, compared to 23% of the younger group. A much higher proportion of younger users who had engaged property crime did so more than once a week (50% : 12%). Young people were also more likely to deal drugs in the previous month (37% : 22%), but slightly more older users dealt drugs more often than once a week (54% 50%). These comparisons are based on a small number of younger users (n=24) and may point to some potential differences. Further research is required to verify these apparent differences.

Police activity

When asked about any changes in police activity in the last 6 months, one quarter of the PWID stated they did not know if there were any changes. Two in five (42%) indicated that there had been more police activity and 32% thought activity had remained stable. When asked what changes had occurred in police activity, 40% stated the police were ‘around more’ and generally had more presence. A quarter (25%) reported police harassment of users had increased in the previous six months and this harassment included intimidation and threats. Another 11% stated there had been more raids but these had resulted in few ‘busts’ and the police were targeting the wrong people (that is, users rather than dealers). The majority of PWID (70%) stated police activity had not made it harder for them to score drugs. Only 21% said it had become more difficult because of police activity. Two thirds of the sample (63%) did not think there was any change in the number of friends arrested on drug charges, while a 29% stated that the police had ‘busted’ more of their friends recently.

3.8.2 Key Informant Interviews

Amphetamine: Law enforcement and health findings

Crime and police activity

Four informants commented on criminal activity by amphetamine users and two thought there was an increase in property crime among these users. Three stated there was more dealing occurring, particularly by young people and more user-dealers. Fraud and violent crime were reported to be unchanged, with one informant noting amphetamine users were less involved in crime and few had criminal histories.

Only two informants thought there had been an increase in police activity in the previous six months. One stated this was associated with targeting suppliers and manufacturers, particularly organized motor cycle gangs. The other informant reported the increase in activity was mainly harassment of known users. One informant thought there had been a decrease in activity, with less undercover operations.

Health

Key informants made few comments in relation to the health of amphetamine users, with one informant noting these users were more health aware than morphine users and another stating overdose was not an issue for this group of users. Most comments related to Hepatitis C and needle sharing. One informant believed 95% of users were Hepatitis C positive and two informants stated needle/syringe sharing was uncommon among this group. Another informant reported more referrals to psychiatric services, particularly clients with amphetamine and cannabis induced psychosis. The number of referrals was higher than in the previous year and was probably due to the increased availability in methamphetamine (Ice). This informant believed the use of Ice resulted in people 'losing the plot.'

Opiates: Law enforcement and health findings

Crime and police activity

Four informants stated property crime had increased and one informant stated more young users were engaging in this crime. Two informants noted an increase in shoplifting and one stated these goods could be traded for drugs. The other informant commented that despite mandatory sentencing at the time, property crime had increased. Three informants commented on drug dealing, one stating dealing on the streets was obvious in Palmerston for the first time and another reporting more young people were dealing benzodiazepines. The third informant believed the restricted access to the pain clinic had resulted in more people accessing dealers for morphine. A change in violent crime was noted by four informants. One stated there was more family violence and another indicated more robberies were taking place. An increase in assaults and aggravated assaults was reported by one informant, including assaults on clients.

Two informants identified no change in police activity in the previous twelve months (one commenting there was a notable absence of activity), while another two were not aware of any changes in police activity. One informant stated there was an increased presence in the CBD to move users out and generally more harassment of users.

Health

Comments on health issues were quite diverse. One informant reported a drug-related decline in the health of some users, mainly younger users who had been using for a number of years. Another informant commented there had been few fatal overdoses in the past 12 months. The Opiate Withdrawal Management Program was mentioned by two informants, with one noting there was less interest in this program, possibly because of the sporadic availability of the program. The novelty may also have worn off. The other informant reported clients of this program were experiencing significant problems with methadone reduction and moving off the program. One informant commented clients were more chaotic in general and more aggressive. Two informants commented on services for drug users. One reported there was a lack of resources for users and that users were aware of the lack of support. The other informant thought users were probably disenchanted with the available avenues of help.

Cannabis: Law enforcement and health findings

Crime, police activity and health

One informant had no knowledge of criminal or police activity. The other informant believed there was marked increase in property crime and that police targeted suppliers and manufacturers more. The informant also noted a decrease in undercover work by police. Only one informant commented on health issues among cannabis users, stating there had been more enquiries at the Darwin Detoxification Unit regarding cannabis detoxification.

3.9 Other Indicators

Overdose deaths

The Australian Bureau of Statistics (ABS) maintains a database on the number of deaths in which opioids are coded as the underlying cause of death. These data are presented for each jurisdiction for the period 1988 to 2000 in Table 23 (Degenhardt, 2001). Table 24 indicates the population rates for each jurisdiction. The NT has relatively low numbers of opioid overdoses each year, especially when compared to Victoria and New South Wales. In 2000 the rate per million was lower than that in all other jurisdictions and nationally.

Table 23: Number of opioid overdose deaths among those aged 15-44 years by jurisdiction, 1988-2000

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
1988	201	99	15	12	18	0	0	2	347
1989	154	98	19	8	18	1	2	2	302
1990	193	78	8	18	14	5	0	0	316
1991	142	63	9	12	12	3	0	2	243
1992	178	77	18	28	21	0	1	4	327
1993	177	84	22	40	23	4	2	5	357
1994	201	91	34	32	38	4	5	1	406
1995	251	136	42	34	68	6	0	13	550
1996	244	142	27	30	61	5	2	15	526
1997	292	168	26	36	70	1	1	6	600
1998	358	210	38	45	59	7	10	10	737
1999	401	347	70	52	73	3	4	8	960
2000	249	263	113	40	43	5	2	10	725

In 1999 coded according to the International Classification of Disease, 10th Revision (ICD-10) classification system
1988-1998 coded by the ICD-9 system

Table 24: Rates per million population aged 15-44 years of opioid overdose deaths by jurisdiction, 1988-2000

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
1988	75.1	48.5	11.4	18.1	23.8	-	-	13.7	45.3
1989	56.6	47.2	14.0	12.0	23.2	4.7	22.2	13.5	38.3
1990	70.4	37.1	5.8	26.8	17.7	23.4	-	-	39.9
1991	51.5	29.8	6.4	17.8	15.1	14.0	-	13.0	30.1
1992	64.3	36.5	12.6	41.6	26.3	-	10.9	25.7	40.6
1993	64.2	40.1	15.1	59.9	28.8	18.8	21.9	31.9	43.6
1994	72.8	43.8	22.8	48.2	47.3	19.0	55.2	6.4	49.6
1995	90.5	65.7	27.7	51.6	83.7	28.7	-	82.8	67.0
1996	87.3	68.4	17.5	45.8	74.2	24.1	21.9	95.3	62.9
1997	103.8	80.3	16.7	55.6	83.6	4.9	10.0	38.7	71.5
1998	126.4	99.6	24.2	69.7	69.4	34.6	99.8	65.8	87.1
1999	141.6	163.4	44.2	80.9	85.0	15.1	39.6	52.9	112.8
2000	87.1	122.9	70.8	62.6	49.8	25.4	19.7	66.5	84.8

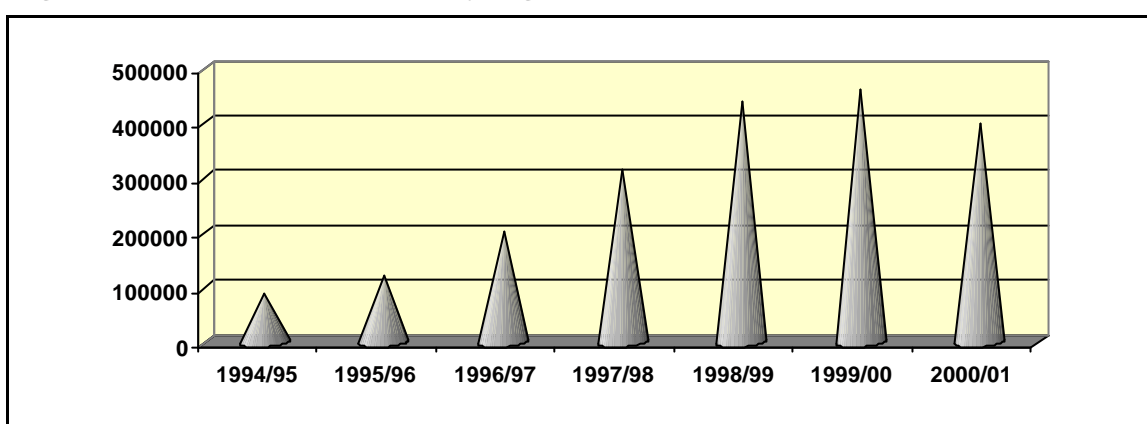
Needle/Syringe data

Needle/Syringe Program figures

The NT AIDS Council (NTAC) collects data on the number of needles and syringes distributed and these are presented in Figure 5. There was a steady rise in the distribution figures, from 89,475 in 1994/95 to 459,619 in 1999/00, but distribution dropped to 397,286 in 2000/2001.

Darwin has 10 pharmacies selling FITKITS that are purchased from either NTAC or commercial suppliers. It is not possible to estimate the number of FITKITS distributed by pharmacies as the only data collected is the number purchased from NTAC. The number supplied by NTAC to pharmacies in the NT has decreased since the 1997/98 financial year, from 57,500 to 10,175 but this is mainly due to an increasing number of FITKITS being purchased from commercial sources (Roberts & Grant, 2001).

Figure 5: Number of needles and syringes distributed, 1994/95 to 2000/2001



Source: Needle/Syringe Program figures (Northern Territory AIDS Council)

Last drug injected

The Australian Needle and Syringe Program (ANSP) collates survey information on the prevalence of the last drug injected and this is contained in Table 25.

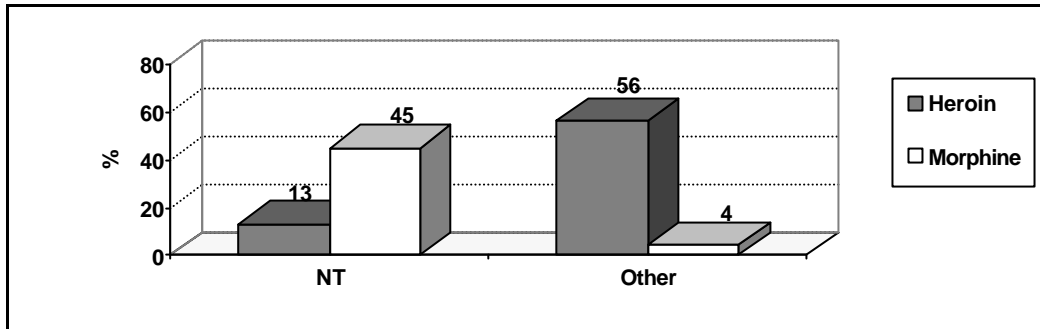
Table 25: Prevalence of last drug injected by jurisdiction, 2000

DRUG	ACT	NSW	VIC	QLD	SA	TAS	WA	NT
Cocaine	0 0%	45 5%	0 0%	3 <1%	3 1%	0 0%	1 1%	1 0%
Heroin	130 80%	533 59%	254 87%	366 45%	175 56%	3 11%	71 50%	12 13%
Methadone	3 2%	65 7%	0 0%	11 1%	7 2%	4 15%	3 2%	0 0%
Morphine	3 2%	5 1%	5 2%	18 2%	10 3%	6 22%	7 5%	43 45%
Other	0 0%	8 1%	0 0%	6 1%	1 <1%	0 0%	1 1%	0 0%
Amphetamine	10 6%	91 10%	19 6%	283 38%	93 30%	6 22%	33 23%	26 27%
> One drug	14 8%	141 15%	12 4%	62 8%	18 6%	7 26%	16 11%	9 10%
Not reported	1 1%	11 1%	2 1%	10 1%	3 1%	0 0%	10 7%	3 3%

Cite : National Centre in HIV Epidemiology and Clinical Research for the Collaboration of Australian Needle and Syringe Programs. In some years, the sample size is too small to make meaningful comparisons.

The NT had the third highest rate of amphetamine injection (27%), South Australia was second at 30% and Queensland reported the highest rate (38%). Nationally, the prevalence of amphetamine injection decreased from 1999 to 2000 (MacDonald, Robotin & Topp, 2001) but in the NT the rate continued to increase (Table 26, Figure 7). The ANSP survey data highlights a unique pattern of opiate injection in the NT, where morphine was the most frequently injected drug among the PWID. In 2000, 45% of PWID in the NT last injected morphine, in contrast to a low 4% in other jurisdictions (range 2% to 5%). Only 13% of PWID in the NT reported injecting heroin, compared to 56% in the rest of Australia (Figure 6).

Figure 6: Prevalence of morphine and heroin injection in the NT and nationally, 2000 (%)

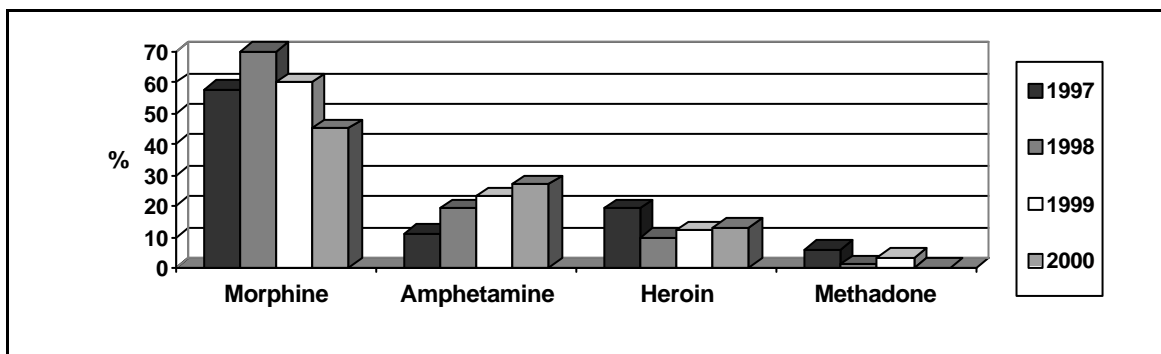


The NT rates of last injection for each drug from 1995 to 2000 (Table 26) indicate the proportion of PWID who had last injected morphine increased markedly from 1995 to 1998 (33% to 70%), but dropped to 45% in 2000. This has been accompanied by a steady increase in the proportion of PWID last injecting amphetamine and, in 2000, 27% last injected it (Figure 7). At the same time, the proportion that last injected heroin decreased from 20% in 1995 to 13% in 2000. The proportion in the NT reporting they had last injected more than one drug rose to 10% in 2000.

Table 26: Prevalence of last drug injected, 1995 to 2000

DRUG	1995		1996		1997		1998		1999		2000	
	No	%	No	%	No	%	No	%	No	%	No	%
Cocaine	0	0	0	0	0	0	0	0	1	1	1	0
Heroin	6	20	7	37	19	19	10	10	11	12	12	13
Methadone	4	13	3	16	6	6	1	1	3	3	0	0
Morphine	10	33	3	16	59	58	71	70	56	60	43	45
Other	1	3	2	11	4	4	1	1	1	2	0	0
Amphetamine	6	20	4	21	11	11	19	19	21	23	26	27
> One drug	3	10	0	0	3	3	0	0	0	0	9	10
Not reported	0	0	0	0	0	0	0	0	0	0	3	3
Total	30		19		102		102		93		95	

Figure 7: Prevalence of last drug injected among PWID in the NT, 1997 to 2000.



Drug treatment services

The results of the Clients of Treatment Services Agencies Census in 1995 and 2001 (Table 27) indicate a rise in alcohol clients across all jurisdictions, and in 2001 the NT had the highest proportion of alcohol clients (80.1%). This was much higher than the national figure of 49.3%. In 2001, the proportion of polydrug clients (both including and excluding opiates) declined to zero in the NT despite the national figures indicating a stable number of clients for polydrug including opiates (7.1% : 7.4%) and a small drop in polydrug excluding opiates (39.1% : 33.6%). Decreases were evident in all other types of clients in the NT from 1995 to 2001.

Table 27: Clients of alcohol and drug treatment services by jurisdiction, 1995 and 2001

	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	Nat
Alcohol 1995	38.6	30.9	33.2	36.1	38.2	43.9	35.1	65.5	35.1
2001	55.7	42.9	45.4	54.6	55.6	56.1	63.3	80.1	49.3
Opiates ^a 1995	39.4	45.8	43.4	34.3	37.5	21.4	29.9	12.6	39.1
2001	30.2	40.4	36.3	31.8	21.1	23.4	10.1	3.6	33.6
Cannabis 1995	7.1	9.3	12.3	7.2	4.6	8.3	15.7	9.2	9.3
2001	10.1	6.4	7.1	6.0	8.0	5.1	13.9	6.1	6.7
Amphet ^b 1995	8.6	6.6	3.8	10.0	10.0	19.4	9.0	4.2	8.3
2001	12.1	4.9	9.8	6.4	3.8	10.1	3.8	2.0	6.5
Polydrug 1995 inc opiates	4.7	7.2	7.8	9.8	6.2	3.5	2.2	6.7	7.1
2001	2.0	8.3	10.1	6.5	8.0	3.7	2.5	0	7.4
Polydrug 1995 ex opiates	4.7	4.7	3.4	9.4	6.6	4.8	11.2	6.7	5.1
2001	0	4.1	3.4	1.8	12.6	1.1	0	0	3.5

Clients of Treatment Service Agencies (COTSA)

a. includes polydrug including opiates

b. does not include amphetamine-related substances (eg Ecstasy). In 2001 nationally this adds to 0.5%. No figures for 1995

Law enforcement data

Illicit drug seizures

Tables 28a, b and c depict the number and purity of seizures of methamphetamine, amphetamine and heroin by NT Police and the Australian Federal Police in 1998/99 to 2000/2001. No cocaine or ecstasy seizures were reported. The purity levels of amphetamine seizures in 1998/99 were consistent with informant reports of purity ranging from 5% to 20%, generally about 5%. In 2000, many PWID and key informants reported that amphetamine purity was low. No seizures were recorded for 1999/2000 or 2000/2001 and, therefore, it is not possible to examine any changes the purity of amphetamine seizures. The lack of seizures may be due to a shift in use of methamphetamine rather than amphetamine. In 1999/2000 the purity levels of methamphetamine seizures ranged from 0.2% to 11% (average purity 5%) but in 2000/2001 the average purity had increased to 11% (range 0.9-95%). The PWID survey indicated more crystal methamphetamine was more available and more PWID had used Ice in the previous six months. Most PWID stated purity was high. Some key informants indicated there were purer forms of methamphetamine available than in the past. The PWID reported that heroin purity was medium to low. The average purity levels of police seizures for each jurisdiction in 1999/2000 and 2000/2001 indicate the NT no longer has the lowest average purity level (Figure 8).

Table 28a: Methamphetamine seizures and purity levels in the NT, 1998/99 to 2000/2001

	1998/99				1999/2000				2000/2001			
	No Cases	Mean	Median	Purity Range	No Cases	Mean	Median	Purity Range	No Cases	Mean	Median	Purity Range
<=2gm	10	6	<1	34	4	5.5	5.0	3.0-9	5	14.6	6	1.5-32.5
>2gm	21	15	<1	98	34	4.6	4.0	0.2-11	27	10.6	5.5	0.9-95.0
Total	31	12	<1	98	38	4.7	4.0	0.2-11	32	11.2	6	0.9-95.0
(AFP)												
<=2gm	ns				ns				ns.			
>2gm	ns				ns				ns.			
Total	ns				ns				ns.			

Table 28b: Amphetamine seizures and purity levels in the NT, 1998/99 to 2000/2001

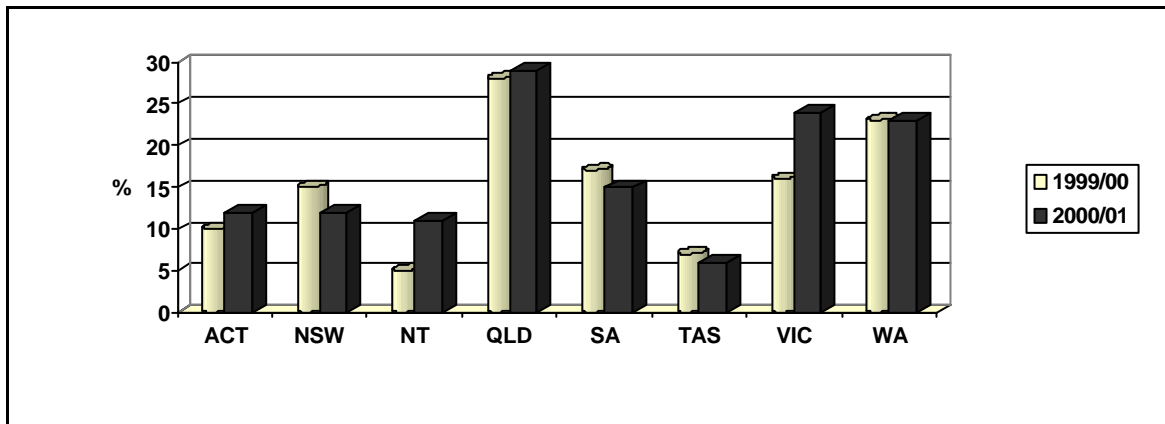
	1998/99				1999/2000				2000/2001			
	No Cases	Mean	Median	Purity Range	No Cases	Mean	Median	Purity Range	No Cases	Mean	Median	Purity Range
<=2gm	2	2		1-4	ns				Ns			
>2gm	2	29		2-56	ns				Ns			
Total	4	16		1-56	ns				Ns			
(AFP)												
<=2gm	ns				ns				Ns			
>2gm	ns				ns				Ns			
Total	ns				ns				Ns			

Table 28c: Heroin seizures and purity levels in the NT, 1998/99 to 2000/2001

	1998/99				1999/2000				2000/2001			
	No Cases	Mean	Median	Purity Range	No Cases	Mean	Median	Purity Range	No Cases	Mean	Median	Purity Range
<=2	ns				ns				2	31	31	22-40
>2	ns				ns				1	31	31	31
Total	ns				ns				3	31	31	22-40
(AFP)												
<=2gm	ns				ns				1	75.3	75.3	75.3
>2gm	1	56	1	56	ns				ns			
Total	1	56	1	56	ns				1	75.3	75.3	75.3

Figures are the purity levels received at the laboratory within the relevant quarter. The time between date of seizure by police and date of receipt at the laboratory could vary from a few days to several months.
 ns = no seizures recorded

Figure 8: Average purity level of amphetamine seizures, 1999/00 and 2000/01



Source: Darke, S., Kaye, S. & Topp, L. 2000

Drug Seizures by jurisdiction

Table 29 depicts the number of seizures for a number of drugs in each jurisdiction in 2000/2001. The NT had few seizures and they were mainly for cannabis and drugs other than cocaine, heroin and MDMA. Additional DRUGLAN data on amphetamine and methamphetamine (Ice) seizures indicate no seizures for these drugs in the last financial year. This suggests the 'other' seizures were for stimulants such as hallucinogens, psychotropics (not MDMA), steroids, depressants and sedatives.

Table 29: Drug seizures by jurisdiction, 2000/2001

Jurisdiction	Cannabis	Cocaine	MDMA	Heroin	Other*	Total
Number seizures						
NSW	385	30	65	15	1675	2170
VIC	191	10	41	6	1022	1270
QLD	195	9	15	3	348	570
SA	33	3	12	2	212	262
WA	85	8	12	1	241	347
TAS	1	0	0	0	1	2
NT	33	0	2	1	41	77
ACT	2	0	0	0	5	7
Total	925	60	147	28	3545	4705
Weight (kg)						
NSW	6.12	15.67	285.36	212.26		
VIC	11.79	0.53	24.47	1.48		
QLD	1.96	93.70	11.12	0.04		
SA	0.54	317.01	1.55	0.48		
WA	49.87	0.53	15.92	0.99		
TAS	0.11	0	0	0		
NT	0.41	0	0	0.34		
ACT	0.01	0	0	0		
Total	70.80	427.44	338.42	215.60		

*Other' is stimulants other than cocaine, narcotics/analgesics other than heroin, psychotropics/hallucinogenics other than MDMA (ecstasy) or cannabis products, steroids and all depressants and sedatives. No weight estimates as no consistent unit of weight.

Source: DRUGLAN, Australian Customs Service

Australian Bureau of Criminal Intelligence

The cost of various forms and quantities of cannabis, heroin, amphetamine, LSD and ecstasy (Table 30) indicate the NT prices for all drugs are similar to those reported by PWIDs and in 2000 and 2001.

Table 30: Price of various forms and quantities of cannabis, heroin, amphetamine, LSD and ecstasy MDMA, 1999*

DRUG	Jan-Mar 99	Apr- Jun99	Jul-Sep 00	Oct-Dec 00
------	------------	------------	------------	------------

Amphetamines				
1 street deal	80-100	80-100	50-80	50-80
Quarter weight	-	-	-	-
1 weight (gm)	100	100	300	300
Eightball (1/8 ounce)	-	-	-	-
1 ounce	1000	1000	-	-
1 lb	-	-	-	-
1 kg	-	-	-	-
1 vial (ie 1ml ox blood)	-	-	-	-
Methamphetamine pills	-	-	-	-

DRUG	Jan-Mar 99	Apr-Jun 99	Jul-Sep 00	Oct-Dec 00
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Cannabis					
Leaf	a deal (1gm approx)	25	25	-	-
Head	a deal (1gm approx)	30	30	-	-
Hydro	a deal (1gm approx)	30	30	-	-
Skunk	a deal (1gm approx)	60-100	60-100	-	-
Hash/resin	a deal (1gm apx)	60-100	60-100	-	-
Oil	a deal (1gm approx)	-	-	-	-
Leaf	¼ bag (7gms)	-	-	-	-
Head	¼ bag (7gms)	-	-	-	-
Hydro	¼ bag (7gms)	-	-	-	-
Skunk	¼ bag (7gms)	-	-	-	-
Leaf	½ bag (14gms)	300	300	-	-
Head	½ bag (14gms)	300	300	-	-
Hydo	½ bag (14gms)	-	-	-	-
Skunk	½ bag (14gms)	3500	3500	-	-
Leaf	Ounce bag (28gms)	3500	3500	-	-
Head	Ounce bag (28gms)	-	-	-	-
Hydro	Ounce bag (28gms)	1000	1000	-	-
Skunk	Ounce bag (28gms)	-	-	-	-
Hash/resin	1 Ounce				
Oil	1 Ounce				
Leaf	1 lb				
Head	1 lb				
Hydro	1 lb				
Skunk	1 lb				
Hash/resin	1 kg				
Oil	1 kg				
Plant*	1 mature plant				
value	* potential				

Heroin				
1 taste/cap (0.1 – 0.3gm)	100	100	-	-
Quarter weight	-	-	-	-
½ weight (0.4 – 0.6gm)	350-400	350-400	-	-
Full gram	600-800	600	-	-
½ ounce	-	-	-	-
1 ounce	12-14000	12-14000	-	-
1 pound	-	-	-	-
1 kg	-	-	-	-
½ Asian unit (350gm)	-	-	-	-
Asian unit (Catti) (700gm)	-	-	-	-
DRUG	Jan-Mar 99	Apr-Jun 99	Jul-Sep 00	Oct-Dec 00
Ecstasy MDMA				
1 tablet/capsule	50-100	50-100	60-80	-
25-100	-	-	-	-
100-1000	-	-	-	-
1000+	-	-	-	-
LSD				
1 tab	25-50	25-50	-	-
25-100	-	-	-	-
100-1000	-	-	-	-
1000+	-	-	-	-
A microdot	-	-	-	-

* No NT prices were recorded for heroin, LSD or cannabis during the period July 1999 to December 2000., or for any drug from January to June 2001.

4.0 SUMMARY AND DISCUSSION

4.1 Summary of Main Findings and Comparison of Trends by Source

Table 31 summarises the key findings and data congruence from the three sources.

Table 31: Summary of major findings from the survey of people who inject drugs (PWID), key informant interviews (KIS) and other indicator data (Other)

<i>Drug</i>	<i>Summary of Major Findings</i>	<i>PWID</i>	<i>KIS</i>	<i>Other</i>
Amphetam	➤ Most likely to be first drug injected	X	X	
	➤ Younger users more likely to last inject this drug	X		
	➤ A diverse population of users and use patterns	X	X	X
	➤ Intravenous use common	X	X	X
	➤ Increasing number of users	X	X	X
	➤ More youth, Indigenous people and morphine users	X	X	
	➤ Polydrug use common and increasing	X	X	X
	➤ Most users not accessing treatment	X	X	X
	➤ More people supplying	X	X	
	➤ Purity low but increasing	X	X	X
	➤ Increased availability purer methamphetamine	X	X	
	➤ \$80 per gram powder, \$50 point Ice and stable	X	X	X
	➤ Easy to very easy to obtain and availability stable	X	X	
➤ Increase in local manufacture	X	X		
Opiates	➤ Heroin the preferred opiate	X	X	
	➤ Morphine most commonly used opiate	X	X	X
	➤ More people using, especially youth and Indigenous	X	X	
	➤ Most users not accessing treatment	X	X	X
	➤ Polydrug use common and increasing	X	X	X
	➤ More morphine users also using amphetamine	X	X	
	➤ Intravenous administration most common	X	X	X
	➤ MS Contin® 100mg tablets most common form of morphine, other forms more available	X	X	
	➤ Diversion of legal prescriptions common, black market busier and more aggressive	X	X	
	➤ \$ 50 for 100mg MS Contin® and stable	X	X	
	➤ Prescription of morphine becoming more difficult	X	X	
	➤ Heroin usually \$550 a gram and \$100 a cap	X	X	X
➤ Heroin purity low and stable	X	X		
Cocaine	➤ Cocaine difficult to obtain	X	X	X
	➤ Snorting the main route of administration	X		
	➤ Powder the usual form of cocaine, purity medium	X		
	➤ Average price per gram \$300 and fluctuates	X		

<i>Drug</i>	<i>Summary of Major Findings</i>	<i>PWID</i>	<i>KIS</i>	<i>Other</i>
Cannabis	➤ Number of cannabis users increasing	X		
	➤ Most users not in any form of treatment	X	X	X
	➤ Polydrug use common and increasing	X	X	
	➤ More young users selling cannabis	X	X	
	➤ Price usually \$25 for 1 gram and stable	X	X	X
	➤ Hydroponic cannabis most common form used	X	X	
	➤ Potency high and stable	X	X	X
	➤ Cannabis very easy to obtain and stable	X	X	
Other drugs	➤ Polydrug use prevalent and increasing	X	X	X
	➤ Alcohol, cannabis and tobacco use high	X	X	X
	➤ Benzodiazepine use increasing, both licit and illicit sources, particularly temazepam	X	X	
	➤ Increase injection of benzodiazepines	X	X	
	➤ Ecstasy use common and availability increasing	X	X	
	➤ Anti-depressant use common	X	X	
Drug-related issues	➤ Criminal activity prevalent, particularly dealing and property crime	X	X	
	➤ Increased property crime, particularly among youth	X	X	
	➤ Increase in violent crimes, especially assaults and robberies	X	X	
	➤ Reported increase in police presence but no increase in drug seizures	X	X	X
	➤ More suppliers, user-dealers and trading goods for drugs	X	X	
	➤ Awareness of safe injecting, but still sharing injecting equipment	X	X	
	➤ Fewer drug clients at treatment agencies			X
	➤ More users presenting with mental health and behavioural issues		X	

Comparison of the KIS (1999 to 2001) and the PWID (2000-2001) components indicates continuing trends toward an increasing number of users, particularly youth and Indigenous people, and prevalent polydrug use. The 2001 study points to the emerging trends of greater polydrug use, increased availability and use of crystal methamphetamine, benzodiazepines and ecstasy and greater criminal activity. Morphine and amphetamine continue to dominate the drug scene and the use of cocaine is low among the drug using population. Cannabis continues to be the most widely used drug in the NT, excluding tobacco and alcohol.

4.1.1 Amphetamine

Amphetamine use was prevalent among PWID, with the majority having used this drug in the six months before the survey. It was the preferred drug of a quarter of PWID and the first drug injected by people who inject drugs. It was the last drug injected by almost a third of the PWID and a quarter of the PWID had used it the day before the survey. Young PWID were more likely to last inject amphetamine. NSP information also indicates there has also been a steady rise from 1997 to 2000 in the proportion of users who had used amphetamine the last time they injected.

Amphetamine was easy to obtain and availability was stable. Both the PWID and KIS reported an increase in local manufacture of amphetamine and more people involved in supplying the drug. Purer forms of methamphetamine were more available and there had been more than a four-fold increase in the proportion of PWID who had used crystal methamphetamine (Ice/Shabu) in the previous six months (27% : 6%). The increased availability and use of this drug needs to be closely monitored given the public health concerns surrounding Ice/Shabu. KIS indicated there had been a increase in the number of chaotic users and those with amphetamine induced psychosis. This was partly attributed to the increased use of purer forms of methamphetamine. Both the PWID and KIS reported increasing numbers of young people and Indigenous people using amphetamine and intravenous use of the drug was common. Polydrug use was common and this is a major public health concern, particularly given most users do not access treatment services.

4.1.2 Opiates

Although heroin was the preferred drug of PWID, its poor quality and fluctuating availability has resulted in morphine (particularly MS Contin 100mg) continuing to be the opiate most often used in the NT. Morphine was the last drug injected by over half of the PWID and two thirds used it on the day before the survey. Morphine tended to be used on a daily basis. There were trends toward more people using morphine, particularly youth and professional people, and using it more often. With a reduction in prescribing of Ms Contin® 100mg other forms of prescription morphine have become more readily available, particularly MS Contin® 60mg and 30mg and Kapanol®. Thus, morphine was still readily available, and morphine obtained from illicit sources was the form most often used. The average price was unchanged but the range of prices had increased. Morphine was sometimes more difficult to obtain and the black market was reported to be more aggressive than in the past. This was attributed to government attempts to regulate the dispensing of prescriptions and diversion to the black market. When morphine is difficult to acquire opiate users become desperate and there were increasing reports of morphine users now also using speed. In general, users reported a general trend toward greater use of Schedule 4 drugs and benzodiazepines were most often mentioned, particularly temazepam (Normison®).

There is some concern that continued efforts to curb the supply of Schedule 8 opiates, without a concomitant reduction in demand, is increasing the cost of drug-related harm to the NT community. Both PWID and KIS reported increases in property crime. Some PWID attributed this to a reduction in prescribing of morphine and the increased costs associated with purchasing morphine on the black market. In 2000, the PWID reported an increase in drug-related armed robbery and violent crime and, in 2001, KIS also believed this to be the case. Opiate users resort to a number of other substances if morphine is difficult to obtain, or financially unobtainable, and desperate polydrug use is a serious public health risk. If morphine becomes increasingly difficult to obtain it was suggested that the current supplies of

heroin may expand and a viable heroin trade would bring with it a variety of health and social costs.

4.1.3 Cocaine

Cocaine was not as common as opiates and amphetamine, with only 13% of the PWID reporting use in the previous six months. This was lower than the 18% reported in 2000. Snorting was the most common route of administration. Cocaine was difficult to obtain and this availability had not changed in the past six months. Only a small proportion of the PWID had used crack cocaine and very low prevalence suggests this may not present a serious public health concern.

4.1.4 Cannabis

This remained the most prevalent drug, with 81% of the PWID using it, often on a daily or almost daily basis. On the day before the survey almost half of all PWID had used cannabis, and more younger people were likely to have used it on the previous day. It was very easy to obtain, and both availability and price remained stable. Despite the prevalence of cannabis, and reports of high potency, there is little or no empirical evidence on the characteristics and THC levels of the various forms grown and used (for example, hydroponically forms and bushweed). Given its widespread use by a diverse group of people in the NT, it is important to expand knowledge on the characteristics of the various forms of the drug.

4.1.5 Other Drugs and Drug-Related Issues

Hallucinogens and ecstasy use were common among the PWID, with one in five using hallucinogens in the preceding six months. Ecstasy had increased in availability and this was reflected in the greater proportion of PWID in 2001 using this drug in the previous 6 months (21% : 31%). A greater proportion had also injected this drug (43% : 52%), indicating a trend toward an increasing injecting rate. The high rate of prescription drug use continued, notably morphine, methadone, anti-depressants and benzodiazepines, and there were substantial increases in the proportion of PWID who had used benzodiazepines in 2001 (29% : 53%). The mean number of days benzodiazepines were used was 57, suggesting use was more than weekly but not daily, and this mean was higher than that in 2000 (46 days). Benzodiazepines from both licit and illicit sources were used, with licit benzodiazepines most commonly used. From 2000 to 2001 twice as many PWID had injected benzodiazepines (27% : 12%) and both the PWID and KIS reported an increase in serious injection-related health problems. Temazepam (Normison®) was the most popular form and it contains a gel-like substance that does not dissolve in water or blood and intravenous use is associated with vascular damage and blood clots (Darke, Ross & Hall, 1995) and in extreme cases amputation of fingers and limbs as a result of venous thrombosis and ischaemia (Eddy & Westcott, 2000). PWID stressed there had been an increase in the previous 12 months in these types of vascular damage, even the severe forms associated with amputation. A number of key informants corroborated these reports.

Polydrug use was prevalent and increasing, with the average number of drugs used in the previous six months increasing from 4 drugs (median 5.5) in 2000 to 6 drugs (median 6) in 2001. While an average of two drugs had been used on the day before the survey in 2000, this had risen to three drugs in 2001. Polydrug use is a major risk factor in overdose. Fatal opiate overdoses were rare in the NT, but in the previous 12 months 17% of PWID had experienced a non-fatal heroin overdose and 10% a morphine overdose. Additionally, one in ten PWID had a nonfatal overdose in the previous month. This is a serious issue given the increased risk of overdose when opiates are used in conjunction with drugs that depress the

central nervous system. Everyone who had used heroin the previous day, 19% of those who had used morphine and 18% of those using methadone had also taken benzodiazepines. In 2000, only 7% of opiate users had also used benzodiazepines on the previous day. It is also worth noting that many PWID consumed alcohol on a regular basis and 23% had drunk it the day before the survey.

Injection of drugs still posed a variety of health risks to many PWID, despite reports of limited needle/syringe sharing. In the previous month, two in every five PWID had prominent scarring or bruising from injecting, had become sick from ‘dirty hits’ and experienced problems injecting. Needle and syringe sharing was not common, but in the month before the survey one in every ten PWID had used a needle or syringe after someone else. From 2000 to 2001 there was a nine percent increase in the proportion of PWID that had used other injecting equipment (such as spoons, mixing containers and tourniquets) after others. Sharing of injecting equipment increases the risk of exposure to blood borne viruses such as HIV, Hepatitis B and C. The high incidence of sharing other injecting equipment raises concerns regarding the transmission of Hepatitis C, which can be contracted through this type of sharing. KIS estimated the majority of PWID were infected with Hepatitis C and continued sharing of equipment would further inflate prevalence rates of this virus.

4.2 Methodological Considerations

The IDRS acts as an early warning system and aims to detect significant changes or emerging trends in drug use patterns both within jurisdictions and nationally. The key informant method employed by the IDRS relies on the perception of individuals who have contact with people who use illicit drugs or who are in contact with the drug scene. Key informants are generally from the health, service or law sectors and may not necessarily have contact with users who are representative of all people who use illicit drugs (given the hidden nature of drug use). However, the PWID and other indicator data are more objective and used to substantiate key informant reports. The PWID component is the most important as it provides accurate data on prices, availability and patterns of use and it is not possible to collect this information in any other manner. The IDRS use of multiple methods to measure drug trends appears to provide an efficient and complementary means of monitoring trends over time. It must be remembered that the purpose of the IDRS is not to explore and verify trends, but to detect them and indicate what may require more in-depth research and contribute to other policy decisions. The IDRS could be enhanced by the development of further other indicator data within jurisdictions and nationally and through specialist research into illicit drug use and drug users.

4.3 Policy and Research Implications

The findings from this study suggest the development and implementation of a number of initiatives in key areas:

- 1. Monitoring of Schedule 8 opiates and Schedule 4 benzodiazepine consumption rates, in-depth analysis of supply pathways and demand characteristics and health impacts.** The increase in the availability and use of Schedule 4 prescription drugs, notably benzodiazepines, needs to be monitored carefully and the relationship to the availability of Schedule 8 opiates examined. There is a need for careful exploration of both the supply of and demand for such drugs and further research into the nature of benzodiazepine use amongst people who use drugs in the NT. The broader ramifications of regulating and restricting supply of certain drugs, without addressing issues of demand, must also be explored. This would also entail monitoring of changes in the cost, use of and availability of morphine, heroin and

Schedule 4 drugs in the NT, identifying market factors and quantification of the health and social costs associated with adoption of particular licit and illicit drug strategies.

2. **Development of appropriate and credible harm reduction strategies for non-injectable drugs, particularly benzodiazepines.** The widespread and increasing use of prescription drugs, particularly non-injectable forms such as benzodiazepines, clearly points to a number of public health issues requiring immediate attention. Benzodiazepines are associated with reduced health and social functioning, greater risk of overdose, particularly when used with opiates, and injection of these drugs is associated with vascular damage, blood clots and in extreme cases amputation of fingers and limbs.
3. **Research into the psychological impact of methamphetamine, cannabis and polydrug and the development of mental health and behavioural disorders.** Both methamphetamine and cannabis were reported to be associated with mental health and behavioural disorders. The easy access to both drugs, the increasing availability of crystal methamphetamine, widespread use and increasing polydrug use suggest the immediate need to develop early intervention strategies to reduce the risks associated with drug use. There is also a distinct service gap for dual diagnosis people, who have unique treatment and health issues.
4. **Development of appropriate and credible harm minimisation information for polydrug users.** Polydrug use was prevalent and increasing among all people who used drugs. It is imperative that these people are informed of strategies to reduce the harm associated with such drug use. Strategies need to be implemented to ensure that this information is credible and accessible to a diverse range of people who use drugs.
5. **Development of relevant and culturally appropriate harm minimization resources to overcome literacy and cultural barriers.** Resources need to be flexible and versatile so that they could be used in a range of settings (urban and remote) and with a variety of groups, particularly in light of increasing Indigenous use of a variety of illicit drugs.

5.0 REFERENCES

- Darke, S., Kaye, S. & Topp, L. (2000) *Drug Trends Bulletin*. December 2000. Sydney: National Drug and Alcohol Research Centre.
- Darke, S., Ross, J. & Hall, W. (1995) Benzodiazepine use among injecting heroin users. Medical Journal of Australia, 162, 645-647.
- Degenhardt, L. (2001) *Opioid overdose deaths in Australia*. Sydney: National Drug and Alcohol Research Centre.
- Eddey, D.P. & Westcott, M.J. (2000) 'The needle and the damage done': Inter-arterial temazepam. Emergency Medicine, 12, 248-252.
- Hando, J. and Flaherty, B. (1993) *Procedure manual for the key informant study*. World Health Organization Initiative on Cocaine. Geneva: World Health Organization Programme on Substance use.
- Hando, J. & Darke, S. (1998) *NSW Drug Trends 1997: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No 56. Sydney: University of NSW.
- Hando, J., O'Brien, S., Darke, S., Maher, L. and Hall, W. (1997) *The Illicit Drug Reporting System (IDRS) Trial: Final Report*. NDARC Monograph No. 31. Sydney: University of NSW.
- Hartnoll, R., Lewis, R., David, E. & Mitcheson, M. (1985) *Drug problems: Assessing local needs. A practical manual for assessing the nature and extent of problematic drug use in the community*. London Drug Indicators Project.
- MacDonald, M., Robotin, M. & Topp, L. (2001) *Drug Use Trends Among Injecting Drug Users (PWID): Findings from the Australian Needle and Syringe Program (NSP) Survey, 1995-2000*. IDRS Drug Trends Bulletin October 2001. Sydney: National Drug and Alcohol Research Centre.
- McKetin, R., Darke, S., Hayes, A. & Rumbold, G. (1999) *Drug Trends 1998: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Monograph No. 41. Sydney: University of NSW.
- McKetin, R., Darke, S., Humeniuk, R., Dwyer, R., Bruno, R., Fleming, G., Kinner, S., Hargraves, K. & Rysavy, P. (2000) *Australian Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. NDRAC Monograph No. 43. Sydney: University of NSW.
- National Institute on Drug Abuse (1995) *Epidemiological Trends in Drug Abuse. Volume 1: Highlights and Executive Summary*. Rockville, MD: Community Epidemiology Work Group, National Institute on Drug Abuse.

- O'Brien, S., Darke, S. & Hando, J. (1996) *Drug Trends: Findings from the Illicit Drug Reporting System*. NDARC Technical Report No. 38. Sydney: University of NSW.
- O'Reilly, B., Rysavy, P. & Moon, C. (1999) The Illicit Drug Reporting System (IDRS) 1999: Northern Territory Drug Patterns and Trends. South Pacific Journal of Psychology. Special Issue: Community Development in Northern Australia, 11(2), 48-61.
- O'Reilly, B.M. & Rysavy, P. (2001) *Northern Territory Drug Trends 2000: Findings of the Illicit Drug Reporting System*. NDARC Technical Report No 104. Sydney: University of NSW.
- Roberts, C. & Grant, S. (2001). *Northern Territory Hepatitis C, Injecting Drug Use and Needle and Syringe Program Needs Assessment*. Darwin: Department of Health and Community Services.
- Rysavy, P., O'Reilly, B. & Moon, C. (2000) *Northern Territory Drug Trends 1999: Findings of the Illicit Drug Reporting System*. NDARC Technical Report No 81. Sydney: University of NSW.
- Topp, L, Darke, S., Bruno, R., Fry, C., Hargreaves, K., McAllister, R., O'Reilly, B. & Williams, P. (2001) *Australian Drug Trends 2000: Findings of the Illicit Drug Reporting System (IDRS)*. NDARC Monograph No 47. Sydney: University of NSW.

APPENDIX A: Table A1: Drug use history of PWID sample in 2000 (n=100)

Drug Class	Ever Used %	Ever Injected %	Injected last 6 months %	Ever smoked %	Smoked last 6 months %	Ever snorted %	Snorted last 6 months %	Ever swallow %	Swallow last 6 months %	Used last 6 months %	Days used last 6 months*	
											Mean	Median
1. Heroin	78	74	50	36	14	18	3	9	4	50	76	30
2a Methadone ^a	48	35	19					29	11	23	45	26
2b Methadone ^b	46	33	15					26	7	16	33	8
3. Morphine	76	73	73	12	8	5	2	26	17	74	129	180
4. Other opiates	18	8	0	7	1	2	1	7	1	2	1	1
5 Amphetamine	82	79	62	16	5	38	15	33	16	63	45	20
6. Cocaine	41	28	8	7	2	23	12	3	1	18	9	3
7. Hallucinogens	58	23	5	4	0	2	1	43	32	33	4	4
8. Ecstasy	44	22	9	3	1	8	5	32	17	21	6	5
9. Benzodiazepines	37	19	12	1	0	1	0	26	19	29	46	12
10. Steroids	7	3	2					3	2	3	1	1
11. Alcohol	78	8	2					78	51	52	52	23
12. Cannabis	87									82	114	104
13. Anti-depressants	35									24	101	100
14. Inhalants	17									5	5	3
15. Tobacco	89									89	180	180

*Among those who had used in the last 6 months

a Entire sample

b Those not on the on methadone withdrawal program (n=88)