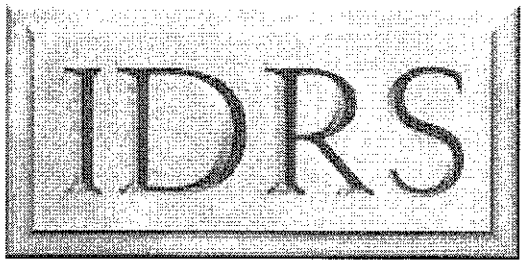
AUSTRALIAN DRUG TRENDS 1999



FINDINGS FROM THE ILLICIT DRUG REPORTING SYSTEM (IDRS)

NDARC MONOGRAPH NO. 43

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National Drug and Alcohol Research Centre

ISBN 0 7334 0706 4

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ACKNOWLEDGEMENTS

This project was funded by the Commonwealth Department of Health and Aged Care (CDHAC). A special thanks to Mal Wares and Roger Hughes (CDHAC) for their assistance with this project, plus contributors from each state and territory in Australia. Researchers and research centres that contributed to the information presented in *Australian Drug Trends 1999* follow:

- Dr Shane Darke, Dr Rebecca McKetin and Sharlene Kaye, National Drug and Alcohol Research Centre
- Dr Rachel Humeniuk and Dr Robert Ali, Drug and Alcohol Services Council
- Robyn Dwyer and Dr Greg Rumbold, Turning Point Alcohol and Drug Centre Inc.
- Paul Rysavy, Dr Bridie O'Reilly, and Chris Moon, Territory Health Services and the Northern Territory Government Living with Alcohol Program
- Kim Hargreaves and Simon Lenton, National Drug Research Institute
- Stuart Kinner and Assoc. Prof. Ann Roche, Queensland Alcohol and Drug Research and Education Centre
- Raimondo Bruno and Assoc. Prof. Stuart McLean, University of Tasmania
- Dr Jillian Fleming, National Centre for Epidemiology and Population Health, Australian National University
- Bree Cook and Paul Williams, Australian Institute of Criminology

The national steering committee of the IDRS also contributed to the planning and organisation of the national IDRS:

Prof. Wayne Hall (Chief Investigator) NDARC;
Sandra Bilson, National Crime Authority;
Jan Copeland, NDARC;
Trevor Howe, Australian Customs Service
Michael Lynskey, NDARC;
Margaret MacDonald, National Centre in HIV Epidemiology and Clinical Research;
Paddy Mahony and Sandra Hoffchildt, Australian Bureau of Criminal Intelligence;
Paul Mesaglio and Struan Kerr, Australian Federal Police;
Toni Makkai, Australian Institute of Criminology;
Stephan Vaughan, Commonwealth Department of Health and Aged Care; and
Grant Wardlaw, Office of Strategic Crime Assessment.

The following organisations contributed national indicator data to the national IDRS:

Australian Bureau of Criminal Intelligence;
Alcohol and Drug Information Service;
Australian Bureau of Statistics;
Australian Customs Service;
National Centre in HIV Epidemiology and Clinical Research; and the
Australian Institute of Health and Welfare.

The IDRS would also like to thank Louisa Degenhardt (NDARC) for providing data analyses on the 1997 National Survey of Mental Health and Well Being, and Sharlene Kaye (NDARC) for proof-reading this report.

ABBREVIATIONS

ACT	Australian Capital Territory
ABCI	Australian Bureau of Criminal Intelligence
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AIHW	Australian Institute of Health and Welfare
ATSI	Aboriginal and Torres Strait Islander
CDHAC	Commonwealth Department of Health and Aged Care
CNS	Central nervous system
GHB	Gamma-hydroxybutyrate (also called GBH)
IDRS	Illicit Drug Reporting System
IDU	Injecting drug users
MDMA	Methylene-dioxy-methamphetamine (ecstasy)
NDARC	National Drug and Alcohol Research Centre
NDS	National Drug Strategy
NESB	Non-English Speaking Background
NSP	Needle and Syringe Program
NSW	New South Wales
NT	Northern Territory
PMA	Paramethoxyamphetamine
QLD	Queensland
SA	South Australia
SSRI	Selective serotonin re-uptake inhibitor
TAS	Tasmania
VIC	Victoria
WA	Western Australia

EXECUTIVE SUMMARY

The *Australian Drug Trends 1999* report presents a summary of the findings of the first national trial of the Illicit Drug Reporting System (IDRS). The IDRS has previously been conducted only in NSW, VIC and SA, and was extended to all jurisdictions in 1999. Reports on drug trends in each jurisdiction can be obtained from the National Drug and Alcohol Research Centre.

The IDRS monitors the price, purity, availability and use of the four main illicit drug types (heroin, amphetamine, cocaine and cannabis). Drug trends in this publication are cited by state, although primarily represent trends in the capital city of each state. Information on drug trends in NSW, SA and VIC was obtained through three methods: (1.) a survey of injecting drug users (IDU), (2.) a survey of key informants who were professionals in the field of illicit drugs, and (3.) analysis of existing indicator data on drug-related issues. The remaining jurisdictions used an abbreviated form of the methodology that consisted of a key informant survey and analysis of existing indicator data on drug-related issues.

Below is a summary of the main findings for the price, purity, availability and use of the four main illicit drugs monitored by the IDRS, namely heroin, amphetamine cocaine and cannabis.

KEY FINDINGS FROM THE 1999 IDRS

1. Evidence from the IDRS suggests that heroin use has continued to increase in most Australian states, as have opioid-related overdoses. The purity of heroin was around 60-70%, and cost $20 to $50 a cap with the price continuing to decrease in NSW and VIC.

2. Cocaine use was uncommon in all jurisdictions except for NSW, where cocaine use increased from 1997 to 1998, peaked in late 1998, and has since become integrated into the pattern of polydrug use among heroin users.

3. Amphetamine use had increased in several jurisdictions (QLD, SA, WA, NT, ACT and TAS), and there were reports of more pure forms of amphetamine becoming available in QLD, SA, TAS, and NSW. These trends were most notable in QLD. On the whole, the average purity of amphetamine was still very low (16%).

4. Cannabis is by far the most commonly used illicit substance in Australia. It was easy to obtain in all jurisdictions, and the potency was rated as high.

HEROIN

Price: Heroin was cheapest in NSW where the median price of one gram of heroin was $240, closely followed by VIC ($300) (Table 1). There was a continuing drop in the price of heroin in NSW and VIC from 1998 to 1999 (NSW $280 vs. $240; VIC $400 vs. $300). Heroin "caps" were also cheapest in NSW and VIC ($20-30), being up to $50 in other jurisdictions. There was a notable trend toward deals of one-quarter grams in NSW ($70) and the ACT ($120); the most common purchase unit in these jurisdictions.

Purity: The purity of heroin had increased in most jurisdictions over the last few years, and has now stabilised at the high purity levels previously found only in NSW. The average purity of heroin seizures in Australia in 1998/99 was around 60-70%.

Availability: Heroin was very easy to obtain in most jurisdictions. The only exceptions were NT and TAS where heroin was more difficult to obtain than commonly used prescription opiates such as MS Contin.

Use: Heroin use was reported to have increased in most jurisdictions, with the most noted trend being an increase in young users. The extent of the increase in heroin use could not be quantified. Heroin use was substantially lower in NT and TAS, where usage depended on the availability of heroin. Preliminary overdose data from NSW and VIC suggests that the number of opioid-related overdose deaths has continued to increase.

Table 1. Estimated use, availability, price and purity[1] of heroin by jurisdiction

		Use	Availability	Price ($)		Purity (%)
				Gram	Cap	
HEROIN	NSW	Increased	Very easy	240	30	67
	SA	Stable to increasing	Easy to very easy	400	50	61
	VIC	Increased	Very easy	300	20-25	69
	ACT	Increased	Very easy	450-500	50	71
	WA	Increased	Very easy	450-600	50	59
	QLD	Increased	Very easy	300-600	40	59
	TAS	Variable	Variable	600	25-50	-
	NT	Variable	Variable	-	-	56

[1] **Note.** Purity figures represent the average purity of police seizures for the 1998/99 financial year. NSW purity figures represent Australian Federal Police seizures only. Figures for the potency of cannabis represent ratings made by key informants and/or users. Amphetamine purity figures represent the purity of amphetamine and methamphetamine seizures.

AMPHETAMINE

Price: The price of amphetamine ranged from $50 to $300 a gram, and was $50-100 a gram in most jurisdictions (Table 2). The price of amphetamine was reasonably stable in all jurisdictions.

Purity: The average purity of amphetamine was very low (16%), but was considerably higher in Queensland (23%) than other states (8-14%), possibly due to the availability of more pure forms of methamphetamine in QLD.

Availability: Amphetamine was easy to obtain in all jurisdictions except for VIC. Availability of amphetamine was considered to have increased in QLD, and to some extent in TAS, but had remained stable in other jurisdictions. Most of the illicit amphetamine available was powder methamphetamine. There were reports of more pure forms of methamphetamine in several jurisdictions (QLD, SA, TAS, and NSW) that could be purchased in smaller quantities, such as "points" (approximately 0.1 gram).

Use: There were reports of increasing amphetamine use in most jurisdictions (QLD, SA, WA, NT, ACT and TAS). In contrast, NSW and VIC showed low and stable levels of amphetamine use. One emerging trend was the use of more pure forms of methamphetamine, called "base", "crystal meth" or "ice", in several jurisdictions (QLD, TAS, SA, NSW). Based on the survey of injecting drug users in SA, use of ice did not appear to be widespread, with only 6 of 100 IDU having used this form in the last six months. Nevertheless, it is important to monitor the use of these forms of methamphetamine because of their adverse health-effects.

Table 2. Estimated use, availability, price and purity[1] of amphetamine by jurisdiction

		Use	Availability	Price ($) per Gram	Purity (%)
AMPHETAMINE	NSW	Low and stable	Easy	80	14
	SA	Stable to increasing	Easy	50	7
	VIC	Stable to decreasing	Difficult	50	11
	ACT	-	-	300	12
	WA	Stable or increasing	Very easy	200-250	12
	QLD	Increased	Very easy	50-120	23
	TAS	Increased	Very easy	80	8
	NT	Increased	Easy	70	12

COCAINE

Price: The price of cocaine was around $200-250 per gram in most jurisdictions and was considered stable (Table 3). In NSW cocaine was more commonly sold in caps for $50. In 1998 there was a decrease in the price of cocaine in NSW from $80 to $50 per cap. The price of a cocaine cap in NSW has stabilised at $50 in 1999.

Purity: The average purity of cocaine in Australia was 50%, and there were no significant regional differences in purity. The average purity of cocaine seized in Australia has increased slightly since 1998, a trend most conspicuous in WA, SA and QLD.

Availability: Cocaine was considered easy to obtain in NSW, and difficult to obtain in most other jurisdictions. There was limited evidence of increased cocaine availability in QLD.

Use: Cocaine use was rare in all jurisdictions except for NSW, where cocaine use in Sydney increased in 1998, peaked in late 1998, and has since become a common pattern of polydrug use among heroin users. There was evidence of increased cocaine use in QLD, and anecdotal evidence of an increase in cocaine use among non-injecting drug users in NSW.

Table 3. Estimated use, availability, price and purity[1] of cocaine by jurisdiction

		Use	Availability	Price ($) per Gram	Purity %
COCAINE	NSW	High but stable	Easy	200	50
	SA	Low	Easy to difficult	250	53
	VIC	Low	Difficult	250	49
	ACT	Low	-	200	-
	WA	Low	Increasing	180	58
	QLD	Low but increasing	Increasing	220	42
	TAS	Low	Very difficult	-	-
	NT	Low	Very difficult	-	-

CANNABIS

Price: Cannabis was sold in deals of approximately one-gram for around $20-25, while the cost of an ounce of cannabis varied between $200 and $500 (Table 4). As in 1998, cannabis was cheapest in SA where the median price of an ounce was $220. The price of cannabis was stable or decreasing in all jurisdictions.

Potency: Potency of cannabis was considered either high or medium to high in all jurisdictions, with the potency thought to be either stable or increasing.

Availability: Cannabis use was considered easy to very easy to obtain in all jurisdictions. Estimates of availability suggested cannabis was the most readily obtained illicit drug in most jurisdictions.

Use: Increased cannabis use was noted in all jurisdictions, and was characterised mostly by an increase in young users. Several jurisdictions noted health problems, particularly mental health problems, among cannabis users.

Table 4. Estimated use, availability, price and potency[1] of cannabis by jurisdiction

		Use	Availability	Price ($)		Potency
				Gram	Ounce	
CANNABIS	NSW	Stable/ younger	Easy to very easy	20	350	high
	SA	Stable	Very easy	25*	220	high
	VIC	Stable to Increased	Easy to very easy	20	300	high
	ACT	Increased/ younger	Very easy	25	200-450	high
	WA	Stable/ younger	Very easy	20-50	200-500	medium - high
	QLD	Increased/ younger	Easy to very easy	20-25	300-400	high
	TAS	Stable	Very easy	25	250-450	medium - high
	NT	Increase/ younger	Very easy	25	250-300	high

* approximately two grams

Implications for further research

Several major trends emerged from the 1999 IDRS. These were: 1. cannabis use was prevalent and widespread throughout Australia; 2. cocaine use in Sydney has stabilised and there is no substantial cocaine use in other jurisdictions; 3. there were new forms of more pure methamphetamine emerging in several jurisdictions; and 4. there was a continuing trend toward more heroin use and younger heroin users, particularly in NSW and VIC.

One purpose of the IDRS is to identify areas that require more in-depth investigation. Following are two such issues:

1. The finding that new forms of methamphetamine have emerged on the Australian drug market deserves further investigation. The exact form and purity of these new types of methamphetamine needs to be established, as does the extent of their use.

2. Continuing reports regarding the increasing potency of cannabis need to be validated using quantitative measures. There is no current routine testing of the THC content of cannabis in Australia. If THC testing of cannabis was undertaken it would be possible to monitor the potency of cannabis and any associated health effects.

1 INTRODUCTION

The Illicit Drug Reporting System (IDRS) provides a coordinated approach to the monitoring of drug trend data on the main illicit drug types (i.e., opiates, amphetamine, cocaine and cannabis). It is also intended that information from the IDRS should act as a strategic early warning system for emerging drug trends.

In 1998, the National Drug and Alcohol Research Centre was commissioned by the Commonwealth Department of Health and Aged Care to conduct a national trial of the IDRS, following a successful pilot study of the methods in Sydney in 1996 (Hando et al., 1997a) and a multi-state trial of the IDRS in 1997 (Hando et al., 1998).

This report documents the findings from the first year of a national IDRS, which was conducted in 1999. The national IDRS involved a continuation of the existing methodology in NSW, SA and VIC (IDU survey, key informant survey, collection of secondary indicator data), and the addition of a "core" IDRS in the remaining jurisdictions. This core IDRS consisted of the key informant survey and collection of secondary indicator data only. Information from these sources complement and supplement each other in establishing drug trends.

This report presents an overview of the national findings only. Detailed information on drug trends in each jurisdiction can be found elsewhere (TAS: Bruno and McLean, 2000; VIC: Dwyer and Rumbold, 2000; ACT: Fleming, Cook and Williams, 2000; WA: Hargreaves and Lenton, 2000; SA: Humeniuk, 2000; QLD: Kinner and Roche, 2000; NSW: McKetin et al., 2000; NT: Rysavy et al., 1999).

1.1 STUDY AIMS

The main aims of the 1999 national IDRS were:

1. to trial the national IDRS methodology; and
2. detect emerging drug problems of national significance that require further investigation.

2 METHOD

The 1999 IDRS methodology differed from previous years in that drug trends were monitored in every Australian state and territory. As in previous years, the IDRS in NSW, VIC and SA involved three components:

1. a survey of IDU;
2. a survey of key informants; and
3. analyses of existing drug-related indicator data.

The remaining states and territories (QLD, NT, TAS, WA, and ACT) used an abbreviated form of the above methodology, which consisted of:

1. a survey of key informants; and
2. analyses of existing drug-related indicator data.

Data from these sources were used to obtain an indication of emergent trends in drug use and drug markets. Convergence of data sources was used to determine convergent validity of drug trends. Data sources were also used in a supplementary fashion, with key informant reports providing contextual information on drug use patterns found by the IDU survey and/or detected by indicator data.

Each site received the IDRS procedure manual (Hando and Darke, 1998) prior to the study, and participated in a training workshop. Comparable methods were followed in each site for individual components. Any differences in methods have been highlighted. Further information can be found in the 1999 state drug trend reports, available from the National Drug and Alcohol Research Centre. Given the national focus of the current report, drug trends from each jurisdiction were supplemented with national indicator data and data from the combined IDRS IDU surveys.

2.1 SURVEY OF INJECTING DRUG USERS

Injecting drug users (IDU) were used as a sentinel group for detecting illicit drug trends. Research continues to show the polydrug using nature of IDUs (e.g., McKetin et al., 1999). As such, they provide an excellent window into drug use patterns and trends.

IDU were interviewed between June and October, 1999. The sample sizes were 100 in Adelaide, 156 in Sydney and 154 in Melbourne. Entry criteria for the IDU study were having injected at least monthly during the previous six months, and residence in the particular study state during the past six months. Subjects were recruited using multiple methods which included advertisements in rock magazines, newspapers, needle exchanges and peer referral. They were interviewed in places convenient to them, such as coffee shops and hotels. Interviews took approximately 30 to 45 minutes to complete. The interview schedule was administered by research assistants (NSW) or trained peer interviewers (SA and VIC). Subjects were reimbursed up to $20 for out-of-pocket expenses and time. Subjects were assured of the confidentiality of their responses and their anonymity in the study.

The structured interview schedule that was administered to participants was based on previous NDARC research (Darke et al., 1992, 1994). The structured interview schedule included both open and closed-ended questions and consisted of seven main sections: demographics; drug use patterns; price, purity and availability of drugs; criminal activity; risk-taking behaviour; general health status; and general trends. Data analyses were conducted using SPSS (SPSS Inc., 1999).

2.2 KEY INFORMANT STUDY

Key informants were interviewed mostly by telephone between June and October 1999. The criteria for entry were at least weekly contact with illicit drug users in the past six months or contact with 10 or more illicit drug users in the last 6 months. Participants were generally referred by colleagues or supervisors, or by former key informants. Potential participants were screened for inclusion prior to the interview. In addition, three law enforcement personnel were interviewed who did not have regular contact with illicit drug users but did have first hand knowledge of drug importation and dealing. They were informed about the nature of the study and ethical requirements.

The number of key informants recruited in each jurisdiction were: Melbourne 27, Adelaide 30, Sydney 50, Brisbane 45, Canberra 28, Perth 30, Hobart 33, and Darwin 28. Key informants included paid or volunteer workers in drug treatment agencies, health services, community services, law enforcement, drug user groups, needle and syringe programs, research organisations, counseling services and ambulance officers.

All key informants were asked to nominate the main drug used by the drug users with whom they had most contact. Heroin was the most commonly cited drug in most cities, being particularly common in Sydney (70% of key informants), Melbourne (63%), and Canberra (79%). The exceptions to heroin being the most commonly cited drug were Brisbane, where more key informants reported on amphetamine (44%); Hobart and Darwin, where a larger proportion of key informants could comment on use of morphine or other synthetic opioids. Few, if any, key informants nominated cocaine as the main drug used by the drug users with which they had contact.

Key informant interviews took between 20 and 60 minutes to administer. The schedule was an instrument based on previous research conducted at NDARC for the World Health Organization (Hando and Flaherty, 1993; Hando et al., 1997b). It included sections on drug use patterns, drug availability, criminal behaviour and health issues. The interviewer took notes during the interview, which were later transcribed as fully as possible. Open-ended questions were analysed using a word processor by grouping responses to each question and examining the responses for themes. Closed-ended questions were analysed using SPSS (SPSS Inc., 1999).

2.3 OTHER INDICATORS

A range of secondary data sources were examined to complement and validate data collected from IDU and key informant surveys. These included data from survey, health,

research and law enforcement sources. The pilot study for the IDRS (Hando et al., 1997a) recommended that such data should:

- be available at least annually;
- include 50 or more cases;
- provide brief details of illicit drug use;
- be collected in the main study site (i.e. in the city or state of the study); and
- include details on the four main illicit drugs under investigation.

Data sources which fulfilled at least four of these criteria and were available for most states, or all of Australia, included:

- telephone advisory data from the Alcohol and Drug Information Service (NSW, SA, TAS, WA), or equivalent telephone advisory services (ACT, VIC);
- the price of covert drug purchases provided by the Australian Bureau of Criminal Intelligence;
- drug purity data and police arrest data, provided by the Australian Bureau of Criminal Intelligence (NSW drug purity data represents AFP seizures only as NSW police seizures were not analysed on a regular basis);
- data from the 1997 National Survey of Mental Health and Well Being (Hall et al. 1998);
- data from the 1998 National Drug Strategy Household Survey unit record file and AIHW (1999);
- drug use prevalence data and HIV/HCV seroprevalence data, from the 1998 Australian NSP Survey;
- census data provided by the Pharmaceutical Services Branch, NSW Health;
- data on drug treatment episodes and clients from the Victorian Department of Human Services, Drug Treatment Services;
- data from the Australian Institute of Health and Welfare's National Hospital Morbidity Database and National Mortality Database);
- treatment admission data from the National Minimum Data Set – Project for Alcohol and Other Drug Treatment Services; and
- opioid-related overdose fatalities from the Australian Bureau of Statistics.

Some additional indicators were unavailable at the time of writing this report, or did not meet the above criteria. These included ambulance and emergency room data and urinalysis data from arrestees. It should also be noted that purity data was not comparable for all states, with NSW purity figures being based on only AFP seizures. Attempts are currently being made by some states to set up systematic collection of these indicators and improve comparability of existing indicators.

The IDRS methodology, particularly IDU and key informant surveys, focussed on the capital cities in each jurisdiction as sentinel sites from which new drug trends would emerge. Some indicator data did cover the entire jurisdiction, and in most of these cases was consistent with trends detected in the capital cities.

2.4 DATA ANALYSIS

A selection of the key indicators which represent the "best" indicators of trends in illicit drug use have been included in the present report. IDU surveys provided the best information on drug price, availability and use patterns in NSW, SA and VIC, but unfortunately were not conducted in other jurisdictions (QLD, WA, TAS, NT, ACT). In these remaining jurisdictions estimates of drug price were based on ABCI covert police seizure estimates, whereas availability and drug use patterns were based on key informant estimates. For this reason, price, availability and use estimates were not entirely comparable between jurisdictions.

To improve comparability of findings between jurisdictions, this report relies heavily on national indicator data, such as national surveys and national databases. Surveys of drug use among the general population and among IDU have been used to estimate drug use patterns, while data bases on drug-related harms (e.g., AIHW National Mortality Database) have been used to estimate trends in problems associated with drug use. Indicator data from individual jurisdictions is used to exemplify trends where nationally comparable data was not available. IDU surveys, conducted in NSW, SA and VIC, were used to supplement information on drug use trends, demographics of IDU, and problems associated with drug use, while key informant reports from all jurisdictions were used to provide contextual information about drug use trends and harms. It should be noted that while key informant and IDU reports focus on trends found in the capital city of each state, most of the indicator data (e.g., drug purity) are reported by state.

3 CURRENT DRUG USE PATTERNS AND RECENT TRENDS

3.1 SUMMARY OF DRUG USE PATTERNS

Cannabis is by far the most prevalent drug used among the Australian general population (AIHW, 1999), and high levels of cannabis use are common to all Australian jurisdictions. One in five Australians had used cannabis recently, with use being highest among young people (14 to 29 year olds), over one-third of whom had used it recently. Use of other illicit drugs was considerably less common (0-10%), but stimulant and hallucinogen use was more prevalent than heroin use (3-10% vs. 2% for lifetime use) (Figure 1).

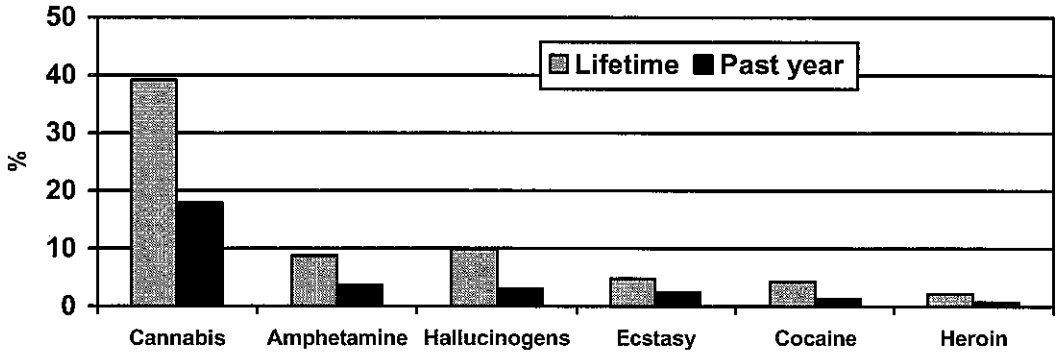

Figure 1. Prevalence of illicit drug use in Australia, 1998 National Drug Strategy Household Survey

The low prevalence of illicit drug use among the general population makes it difficult to monitor illicit drug trends through household surveys. For this reason it is advantageous to focus specifically on illicit drug users to perceive trends in illicit drug use. One such sentinel group of illicit drug users are IDU. Focusing on drug use among IDU showed that heroin was the most commonly injected drug, with half of the IDU injecting it on their last occasion of drug use (Figure 2). Heroin use dominated the south-east corner of Australia (NSW, ACT, and VIC), while amphetamine was more dominant in jurisdictions where heroin use was relatively low. Amphetamine was the most commonly injected drug in QLD, were nearly half of IDU (46%) had injected it as their last drug. NT and TAS had relatively low levels of heroin injection, but high levels of prescription opiate injection. Further details can be found in individual drug sections (Sections 3.2-3.5).

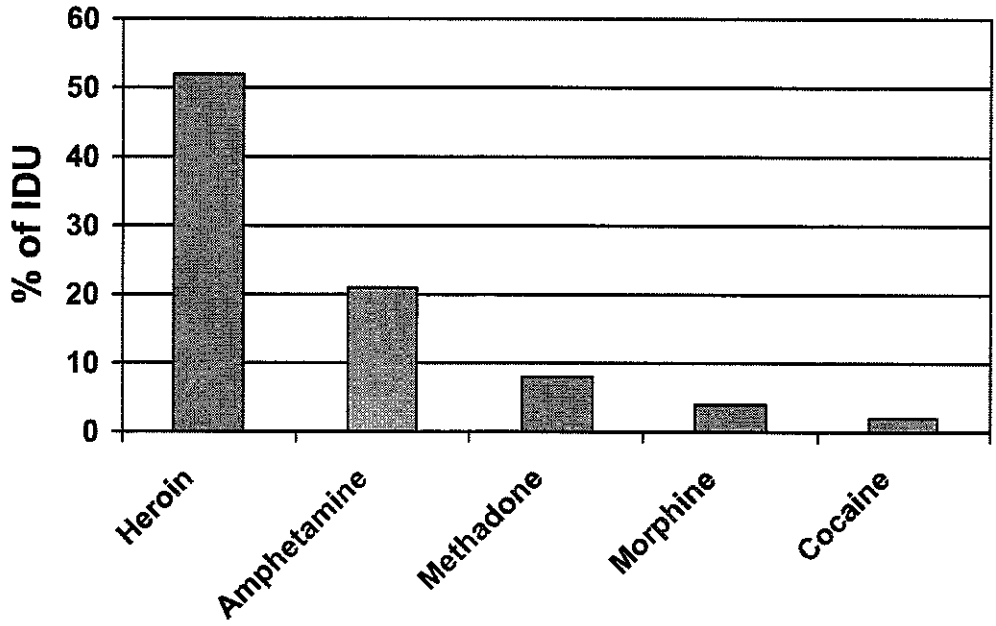

Figure 2. Prevalence of last drug injected among IDU in Australia (1998 Australian NSP Survey)

3.2 AN OVERVIEW OF THE IDU SURVEY

3.2.1 Demographic characteristics of the IDU

The mean age of the combined IDU sample (N=410) was 29.1 years (SD 7.9), and 61% of the sample were male. The age distribution of IDU was positively skewed, with most IDU in their twenties (Figure 3). The gender breakdown varied with age, with a greater proportion of the older IDU being male (69% of those >35 years, compared with 58% of other IDU).

A substantial proportion of IDU were unemployed (69%), with many having a previous prison history (43%). As in previous years, IDU from Adelaide were better educated, less likely to be unemployed, less likely to have a prison history and more likely to be in treatment, than IDU in the other cities. Conversely, the Sydney IDU sample had the lowest average level of education, were the most likely to have a prison history and be unemployed, and least likely to be in treatment (Table 5).

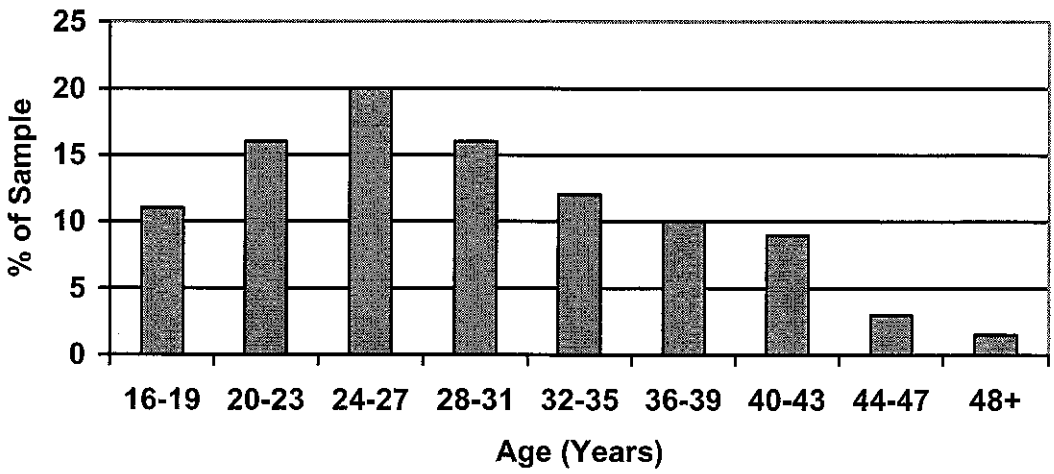

Figure 3. Age distribution of IDU surveyed by the 1999 IDRS (N=410)

Table 5. Demographic characteristics of IDU by city

	Sydney n = 156	Melbourne n = 154	Adelaide n = 100	Total sample N = 410
Age (mean years)	29.1	28.3	30.4	29.1
Male %	67	62	51	69
Unemployed %	86	70	42	69
School education (mean years)	9.4	10.7	10.9	10.2
Tertiary education %	29	43	63	43
Prison history %	56	40	27	43
Currently in treatment %	26	36	47	35

3.2.2 Drug use history of the IDU

Frequency of injection among IDU was substantially higher in Sydney and Melbourne where at least two in every three IDU injected daily. The frequency of injection had increased substantially in Sydney since 1997, when only 44% of IDU injected daily. In 1999 the majority of IDU in Sydney (79%) injected daily, with 70% having injected drugs two or more times per day. Younger IDU (<=25 years) were more likely to inject frequently, with 61% injecting more than once a day compared with 41% of older IDU ($\chi^2 = 16.6$, df = 5, $p < .01$). The high frequency of injection among IDU has major health

implications for transmission of blood borne viruses, heroin overdose, vascular health, and also suggests severe drug dependence among many young IDU.

The mean age of first injection among IDU was 18.7 years (SD 5.1), and was significantly lower among IDU who were aged 25 years or younger (16.9 vs. 19.9 years. $t = -6.0$, $p < .0001$). The first drug injected by IDU was usually heroin (47%) or amphetamine (48%), although the first drug injected depended on the city in which IDU resided (Table 6). IDU in Sydney were most likely to initiate injection with heroin, whereas amphetamine was the most common first drug injected in Adelaide. Younger (<=25 years) users were also more likely to initiate injecting with heroin (56% vs. 42%, $\chi^2 = 8.4$, $df = 1$, $p < .01$). There was an overall trend toward younger initiation into injection, using heroin on the first injection, and more frequent injection, which occurred mainly in Sydney, followed by Melbourne and then Adelaide.

Table 6. Characteristics of injecting drug use among IDU by city

	Mean age of 1st injection (Years)	Amphetamine 1st drug injected %	Heroin 1st drug injected %	Inject daily %
Sydney	18.2	37	59	79
Melbourne	18.7	49	46	67
Adelaide	19.5	57	30	26

The majority of IDU from all three cities cited heroin as their drug of choice (Sydney 78%, Melbourne 80%, Adelaide 66%). Substantially more IDU from Adelaide reported that amphetamine was their drug of choice (22%) than did IDU in either Sydney (3%) or Melbourne (6%). Cocaine was only popular in Sydney, were 12% of IDU reported it was their drug of choice, and a further 2% preferred a cocktail of cocaine and heroin.

3.3 HEROIN

This section contains a summary of trends in the price, purity, availability and use of heroin. More comprehensive information from the IDU surveys, and drug purity figures, can be found in the Appendix. Information on heroin price, purity, availability and use by jurisdiction can be found in the executive summary.

3.3.1 Price

Heroin was cheapest in NSW ($240 gram), followed by VIC ($300 gram). The price of heroin had fallen about $150 per gram in these states over the last two years, to nearly half its previous price. The price of heroin in other jurisdictions appeared to be higher and more stable. For example, heroin has cost $400 a gram in SA since 1997 (Figure 4). Heroin was still often purchased in "caps" in many jurisdictions, which were also cheaper in NSW and VIC ($20-30), being up to $50 in other jurisdictions ($25-50).

Another trend apparent in the 1999 IDRS was the variation in the size of heroin purchases available in the NSW and the ACT. Quarter-grams were the most common purchase unit in both jurisdictions, costing $70 in NSW and $120 in the ACT. Half-grams were also available in both jurisdictions, being a common purchase unit in NSW. The similar marketing of heroin in the ACT to NSW is presumably due to the proximity of the regions.

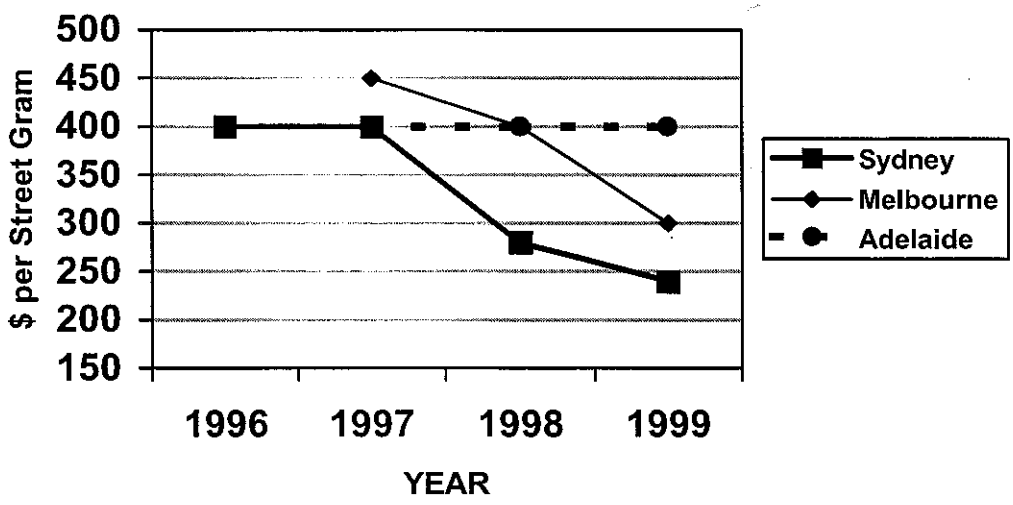

Figure 4. IDU estimates of heroin price by city, 1996-99

3.3.2 Purity

The average purity of heroin seizures made in Australia over the 1998/99 financial year was 65%, and has increased over the last few years (1996/96 44%, 1997/98 58%). In 1996/97 average purity levels of over 50% were only found in NSW and the ACT. Figure 5 shows how the purity of heroin in other jurisdictions has converged with that of NSW over the last two to three years. Note that NSW purity figures were based on AFP seizures only.

The average purity of heroin seizures remained highest in NSW, ACT and VIC, where the average purity was around 60-70%. Heroin purity at importation is typically greater than 80%, although key informant reports suggest recent heroin seizures made at import had lower purity levels (63 - 73%). The lack of discrepancy between the purity of street level seizures and import seizures suggests that minimal cutting of heroin has occurred prior to street level distribution. In support of this view, Swift et al. (1999) analysed local street seizures in Sydney and found that 85% of samples had purity levels above 50%, and a substantial proportion (27%) had purity levels over 80% suggesting little cutting had occurred (Figure 6). Caffeine, paracetamol and sugars were the common adulterants/dilutants found in the heroin samples. Caffeine was thought to increase the volatility of heroin salt, therefore improving its bioavailability when smoked. According to key informant reports heroin entering Australia is often already cut with caffeine (approx. 10-25%).

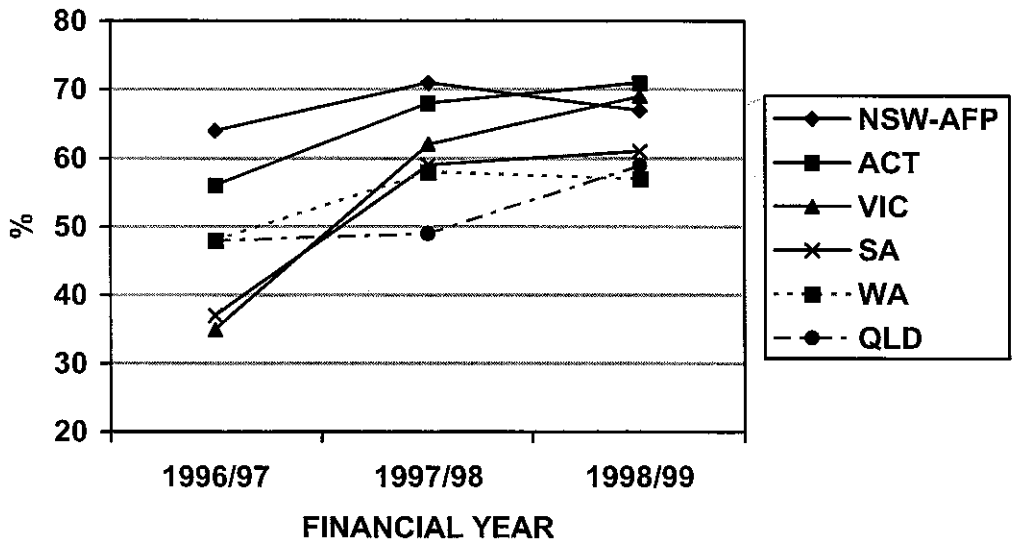

Figure 5. Mean purity of heroin seizures analysed in Australia by jurisdiction, 1996/97-1998/99

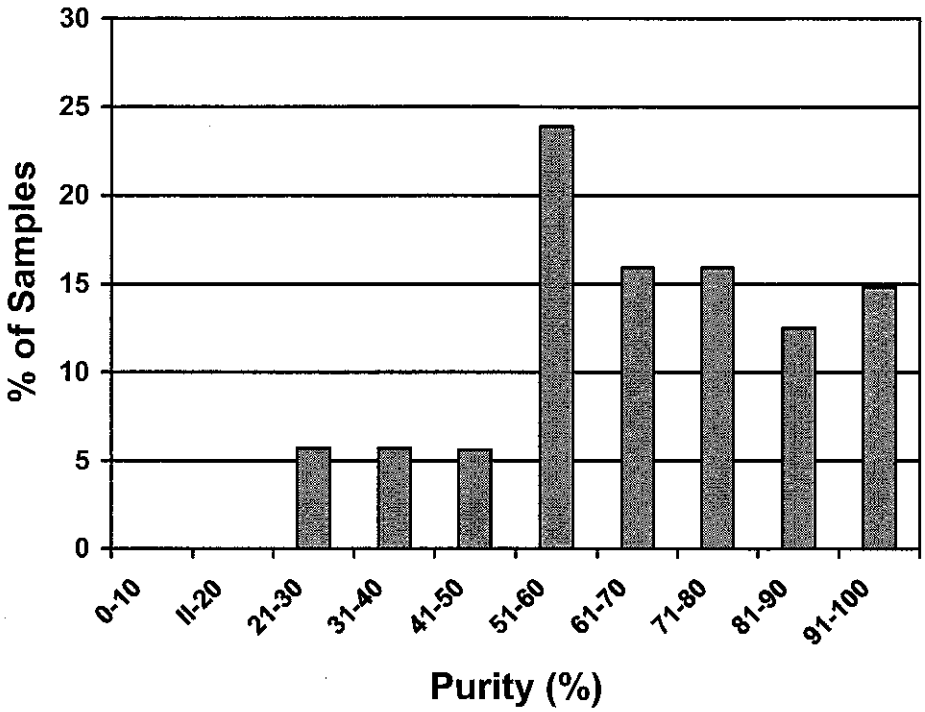

Figure 6. Purity distribution of street level heroin samples from South West Sydney, 1996/97 (Swift et al., 1999)

3.3.3 Availability

Heroin was easy to obtain, and availability was stable, in all jurisdictions except for TAS and NT. In both TAS and NT heroin was more difficult to obtain and availability was variable. Heroin available on the street in Sydney, Melbourne and Adelaide consisted of rock or powder heroin. Heroin was mostly purchased on the street by IDU in Sydney and Melbourne, whereas mobile phone dealing arrangements were the common means of heroin distribution in Adelaide (Figure 7).

Key informant reports indicated that the heroin available in Australia was soluble white powder originating mainly from South-East Asia. Heroin was imported mainly from the golden triangle (south-east Asia); some from the golden crescent (middle east), and a little from Columbia. Most heroin was imported as compressed powder, and entered Australia through Sydney, and to a lesser extent through Melbourne (ABCI, 1999).

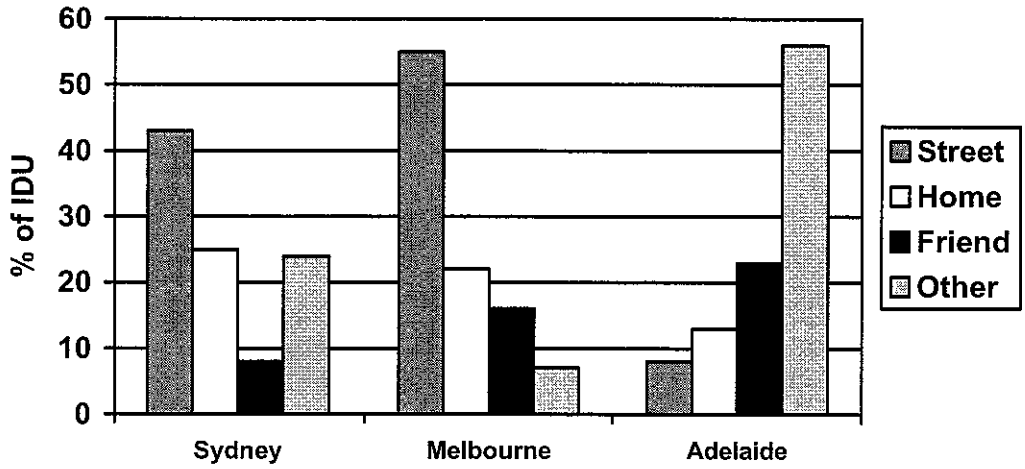

Figure 7. Place of heroin purchase reported by IDU in each city

3.3.4 Use

Although the prevalence of heroin use among the general population is very low (2.2% lifetime use, AIHW, 1999), its use among IDU appears to have increased over the last four to five years. According to the Australian NSP Survey, heroin is the most popular injected drug in Australia, and the prevalence of heroin injection (as last drug injected) has increased from 44% in 1995 to 52% in 1998. Findings from both the NSP survey and the IDRS IDU surveys suggest that the prevalence of heroin injection is much higher in the south-east corner of Australia (NSW, ACT and VIC) (Figure 8). Nearly all IDU surveyed by the IDRS in NSW (99%) and VIC (96%) had injected heroin in the last six months. The higher prevalence of heroin use in the south-east of Australia (NSW, ACT and VIC) is consistent with the ready availability, high purity and lower price of heroin in the same region.

The prevalence of heroin injection was atypically low in TAS and NT, where prescription opiates, particularly prescription morphine tablets (e.g., MS Contin, Kapanol) were more commonly used (see Figure 9).

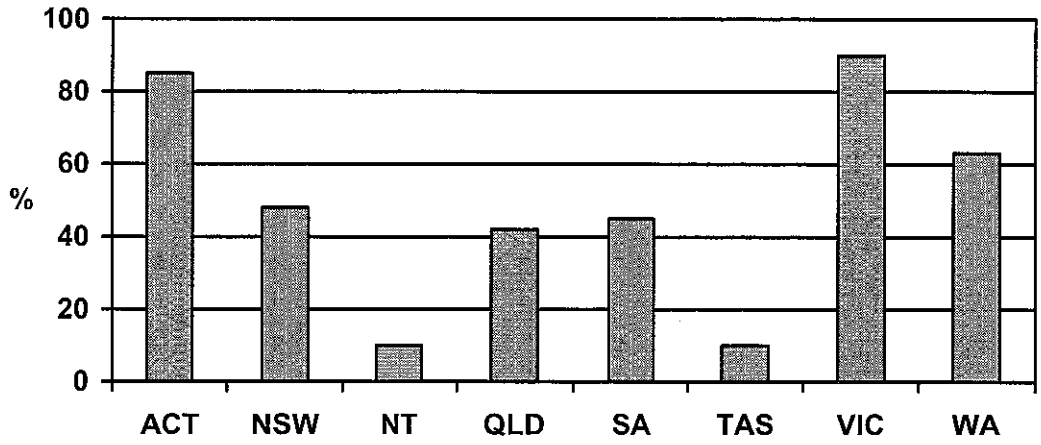

Figure 8. Prevalence of heroin injection, as last drug injected, by jurisdiction (1998 Australian NSP Survey).

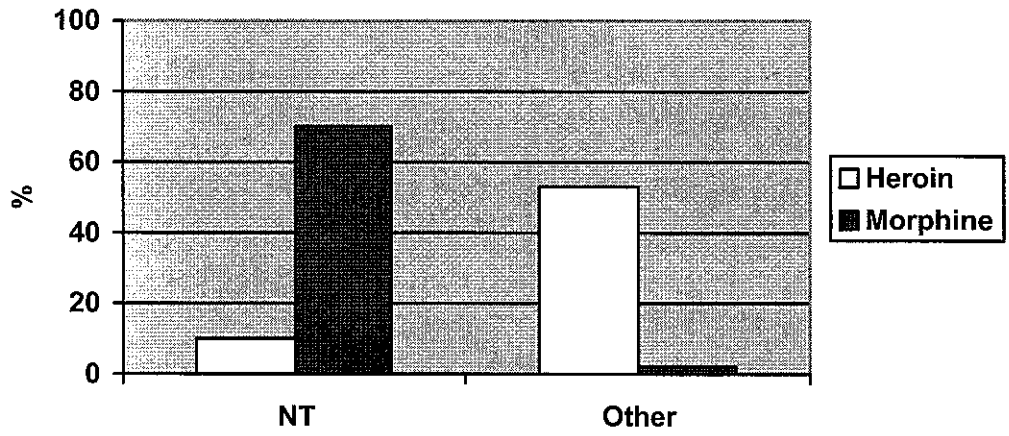

Figure 9. Prevalence of morphine and heroin injection in the NT and other jurisdictions (1998 Australian NSP Survey)

Most indicators suggested heroin use had increased in Australia over the last decade, particularly the last four to five years. Heroin use among IDU in NSW and VIC has continued to increase (Table 7) while many key informants and IDU in these states reported more heroin users. A notable trend reported in NSW was that there were more young heroin users and more "mainstream" people using heroin. Although the prevalence of heroin use was somewhat lower in other jurisdictions, most showed evidence of increased heroin use (QLD, SA, WA, and ACT). Similar to NSW, the increase in heroin use in these jurisdictions was characterised by more young heroin users. Heroin use in NT and TAS tended to fluctuate with heroin availability, although there were also indications of increased heroin use in TAS.

Table 7. Proportion of IDU sample who had used heroin daily by city, 1997-99

	% Daily heroin users		
	1997	1998	1999
Sydney	26	56	58
Melbourne	29	31	43
Adelaide	16	19	14

Consistent with IDRS IDU survey findings and key informant reports, arrest data also show a clear increase in arrests for narcotic use and/or possession over the last four to five years (Figure 10). The number of arrests was far greater in NSW and VIC, where the most of the increase in arrests had occurred (Figure 11).

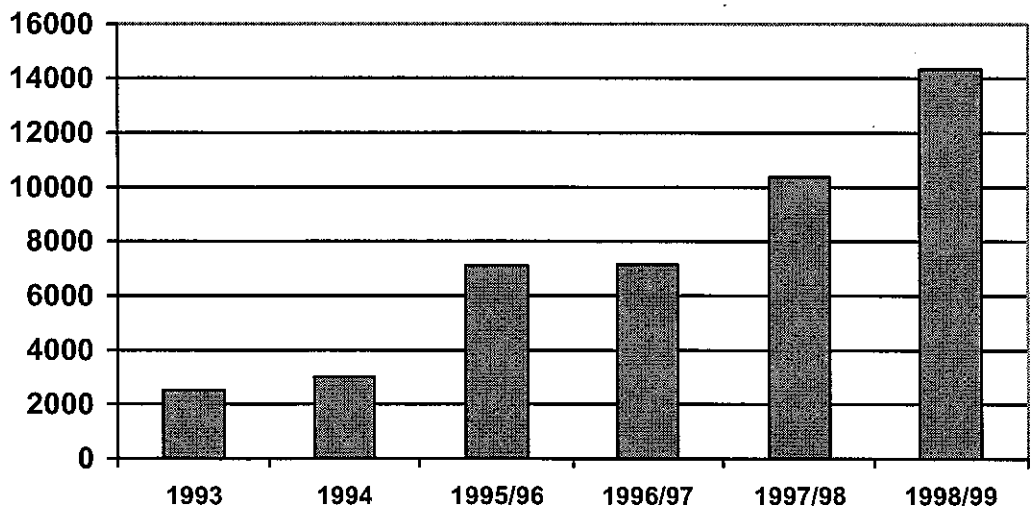

Figure 10. Number of arrests for narcotic use and/or possession in Australia, 1993 to 1998/99

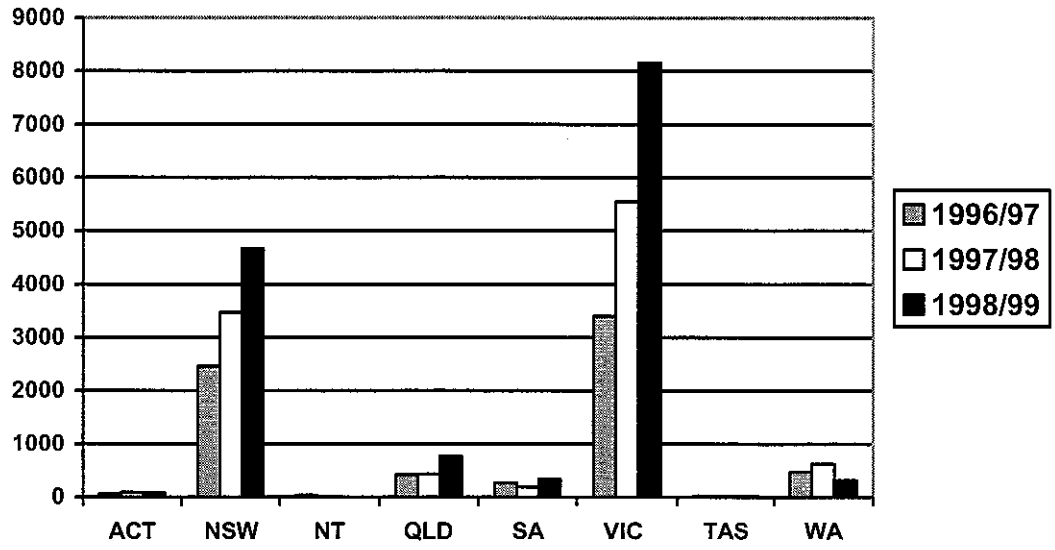

Figure 11. Number of arrests for narcotic use and/or possession by jurisdiction for 1996/97 - 1998/99

3.3.5 Other trends

The harms associated with heroin use are more responsible for its salience than the prevalence of its use. Heroin adversely affects public health and order out of all proportion to the number of people who use the drug. The number of clients seeking treatment for opioids is similar to that for alcohol, based on a census of 1318 clients from Australia treatment agencies (Conroy and Copeland, 1998). This is a large over-representation of opioid users considering the relative prevalence of recent alcohol use (81%) and heroin use (0.7%) among the general population (AIHW, 1999). There has also been a steady increase in the number of clients enrolled in methadone maintenance treatment (Pharmaceutical Services Branch, NSW Health), the most common pharmacotherapy for opiate dependence, over the last decade. By way of example, there has been nearly a four-fold increase in the number of people in NSW receiving methadone maintenance therapy since 1988 (Figure 12). Similar increases have been observed in Victoria (Dwyer and Rumbold, 2000). Opiate users are also over represented among hospital admissions, with opiates accounting for about four times the number of admissions presenting for all other illicit drug categories combined (see section 3.7.1, Figure 31).

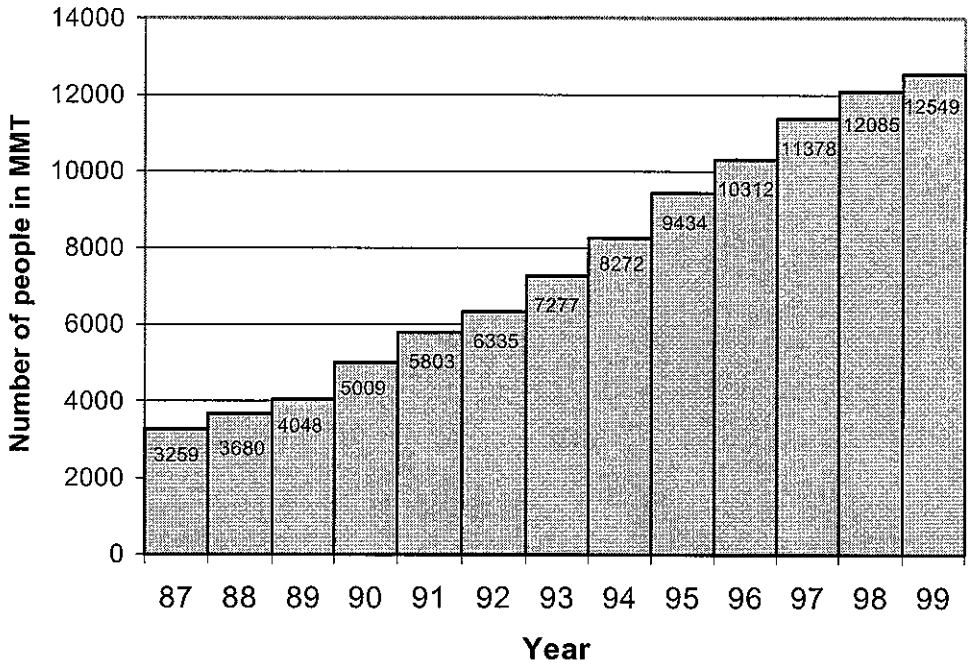

Figure 12. Number of methadone clients in NSW on census day (30 June) by year

The most prominent harm associated with heroin use is death from overdose. While other illicit drugs account for a small number of deaths each year (see Section 3.7.2, Figure 33), opioid-related overdose was responsible for 737 deaths in Australia during 1998. The number of opioid deaths has increased 23% since 1997 and has more than doubled since 1990. Population adjusted figures show a similar increase, from 40 overdose deaths per million population in 1990 to 87 deaths per million population in 1998 (Figure 13). The number of opioid overdose deaths is much higher in NSW and VIC than other jurisdictions, with NSW accounting for about half of the overdose deaths in Australia (Figure 14).

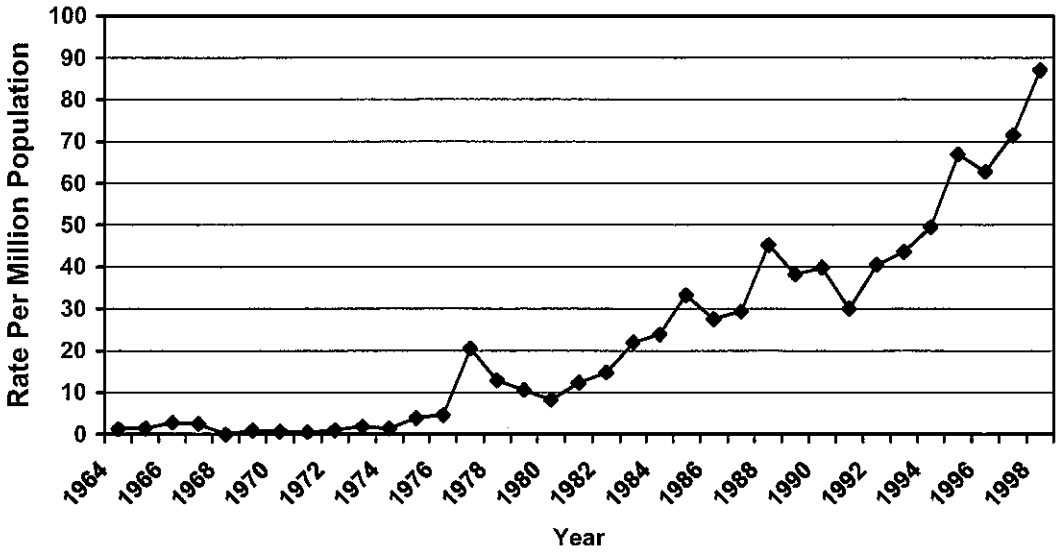

Figure 13. Rate per million population of opioid overdose deaths among those aged 15-44 years, 1964-1998

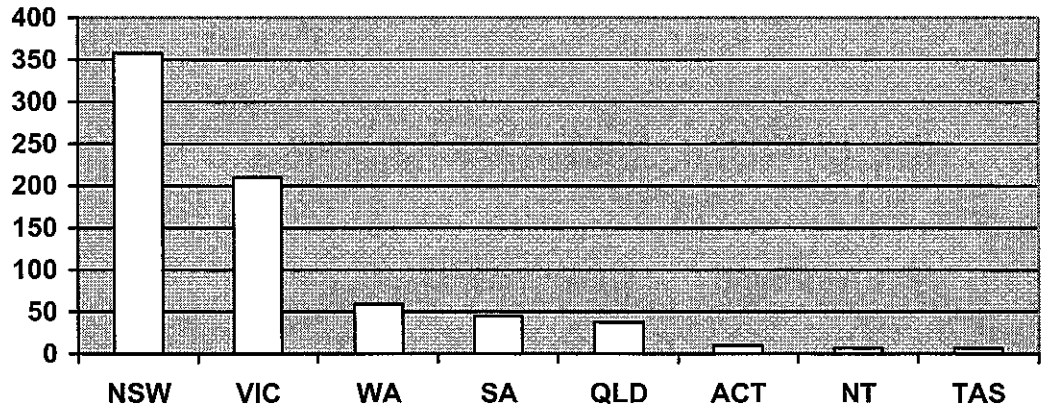

Figure 14. Number of opioid overdose deaths in 1998 by jurisdiction (Australian Bureau of Statistics)

3.3.6 Summary

- Use of heroin was highest in NSW and VIC
- Reports of increased use in all jurisdictions except NT
- Heroin was easy to obtain except in TAS and NT
- The price of heroin continued to decrease in NSW and VIC
- High average purity (60-70%)
- High morbidity and mortality associated with heroin use
- Increase in treatment admissions
- Increase in opioid-related overdose fatalities

3.4 AMPHETAMINE

This section contains a summary of trends in the price, purity, availability and use of amphetamine. More comprehensive information from the IDU surveys, and drug purity figures, can be found in the Appendix. Information on amphetamine price, purity, availability and use by jurisdiction can be found in the executive summary.

3.4.1 Price

The price of amphetamine was stable in all jurisdictions, and around $50-100 per gram in most jurisdictions (range $50-300 gram). Amphetamine was cheapest in SA and QLD ($50 per gram), and most expensive in WA ($200-250) and the ACT ($300). Points (approximately 0.1 gm) of more pure methamphetamine called "base" (QLD) or "crystal meth" (SA, TAS, NSW) were similar in price to one gram of powder amphetamine, costing $50-60 in SA and QLD, $50-80 in TAS, and $100 in NSW. Points were perceived to be equivalent in strength to one gram of amphetamine, which explains their equivalence in price.

IDU estimates of amphetamine price in NSW, SA and VIC showed that amphetamine cost $50 in SA and VIC, and $80 in NSW. The median price of amphetamine had decreased slightly in NSW from $100 in 1998, and there were also more reports of "half-

3.4.2 Purity

The average purity of amphetamine/methamphetamine seizures was very low (16%), being considerably higher in QLD (23%) than other jurisdictions (7-14%) (Figure 15). Nearly all seizures (89%) were methamphetamine, which were more pure than amphetamine seizures (17% vs. 7%) (Table 8). The average purity of methamphetamine had also increased from 11% in 1997/98 to 17% in 1998/99.

Table 8. Proportion and purity of amphetamine and methamphetamine seizures analysed in Australia, 1997/98 – 1998/99

	1997/98	1998/99
Purity of seizures (%)		
Amphetamine	7	7
Methamphetamine	11	17
Seizures analysed (%)		
Amphetamine	17	11
Methamphetamine	83	89

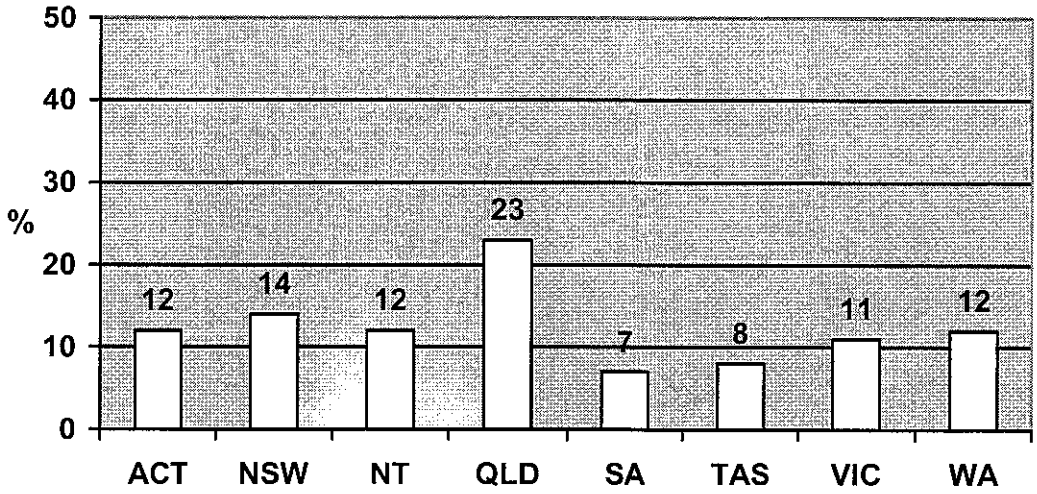

Figure 15. Purity of amphetamine/methamphetamine seizures analysed in 1998/99 by jurisdiction

3.4.3 Availability

Amphetamine was easy to obtain in all jurisdictions except for VIC, where it was considered difficult to obtain. Availability was stable in most jurisdictions, with the exception of QLD where availability had increased.

The main form of amphetamine available in Australia was powder methamphetamine (ABCI, 1999). Nearly all IDU who had used amphetamine in the last 6 months reported use of powder amphetamine (93-100%). Very few IDU consumed prescription amphetamine, liquid amphetamine (ox-blood) or smokable amphetamine (ice), suggesting their availability was low (see Appendix - Table A17). The IDU surveys showed that, unlike heroin, amphetamine was usually purchased through a friend or home dealer (Figure 16).

The most notable trend with regard to amphetamine availability was an increase in amphetamine availability in QLD, where the main form of the drug used was very pure methamphetamine called "base". Base amphetamine was described as "oily" or "moist". This oily appearance suggested that the methamphetamine crystals contained some unconverted base methamphetamine, the precursor from which methamphetamine salt crystals are derived. Some reports also suggested that the base amphetamine was brownish in colour, implicating iodine in its production. It is unclear whether any of the so-called base methamphetamine was actually pure base methamphetamine oil. Injection was the most common route of administering the base methamphetamine, with the wetness of the substance making smoking or snorting difficult.

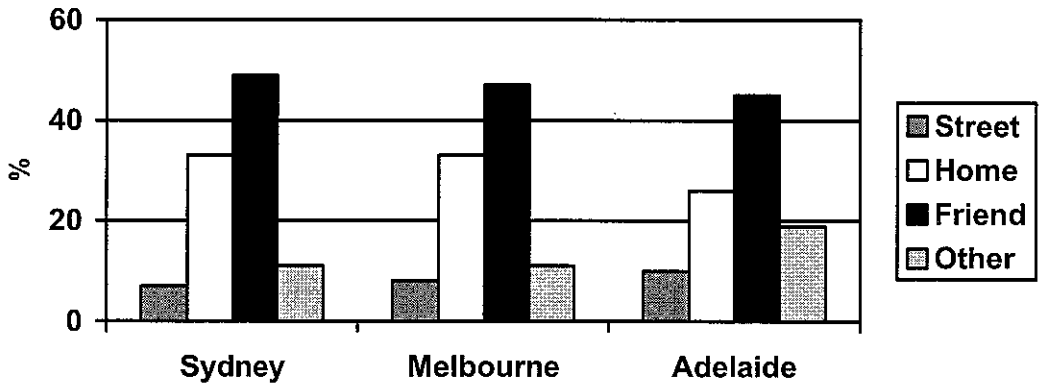

Figure 16. Place of amphetamine purchase reported by IDU in each city

The availability of more pure forms of amphetamine was also reported in several other states (TAS, SA, and NSW) where it was called "crystal meth". It was not clear whether the crystal methamphetamine available in NSW, TAS and SA was the same form of methamphetamine as that available in QLD. The similarity in marketing of the drug and perceived high purity across jurisdictions suggested it was the same form of the drug. IDU surveys in NSW and SA suggested the use of "crystal meth" in these regions was not widespread (see Appendix – Table A17). Use of base methamphetamine in QLD appeared common, although the extent of use could not be quantified.

3.4.4 Use

Amphetamine use among the general population was high relative to other illicit powder drugs, with 8.8% having ever used the drug, and 3.7% having used it in the last six months. Amphetamine injection appeared highest in QLD. The Australian NSP Survey found that nearly half of IDU surveyed in QLD (46%) nominated amphetamine as their last drug injected. SA also had relatively high levels of amphetamine injection (38%), followed by TAS (33%). In contrast, states with high levels of heroin use had very low levels of amphetamine injection (VIC 5%, ACT 6% and NSW 7%) (Figure 17). The findings from the Australian NSP Survey are consistent with other IDRS findings, that QLD, SA and TAS had high levels of amphetamine use and that NSW and VIC had very low and stable levels of amphetamine use.

Several jursidictions noted an increase in amphetamine use, with only VIC and NSW reporting low and stable to decreasing levels of use. In QLD the prevalence of amphetamine injection had increased over the last four years, from 37% in 1995 to 46% in 1998. Key informants in QLD also reported an increase in amphetamine injection,

mainly base methamphetamine. In SA there was a continuing trend toward more frequent amphetamine use among IDU (Figure 18). The proportion of amphetamine using IDU, however, had remained stable since 1998 according to both IDRS IDU surveys (Appendix – Tables A13-15) and the Australian NSP survey (38% vs. 44%). Key informants from several other jurisdictions also commented on increased amphetamine use (TAS, WA, NT).

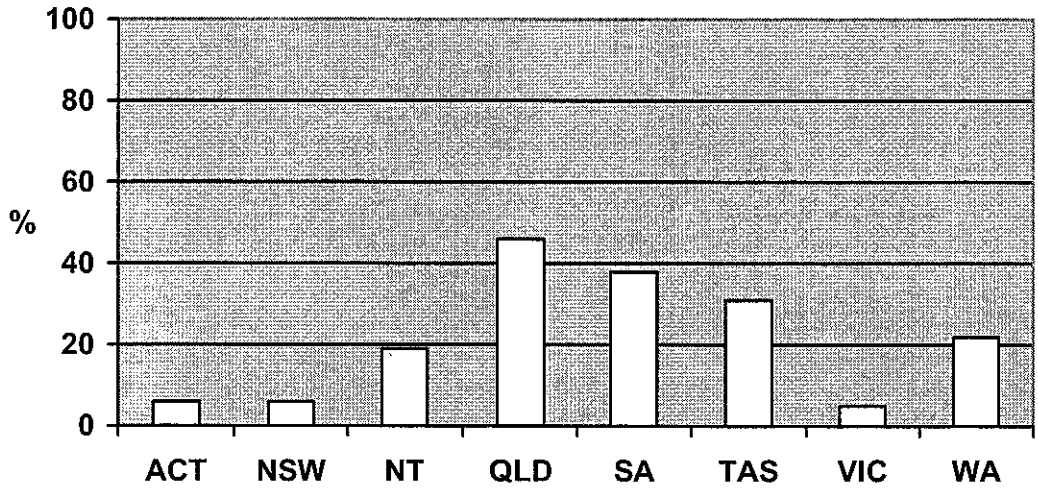

Figure 17. Prevalence of amphetamine injection, as last drug injected, among IDU, by jurisdiction (1998 Australian NSP Survey)

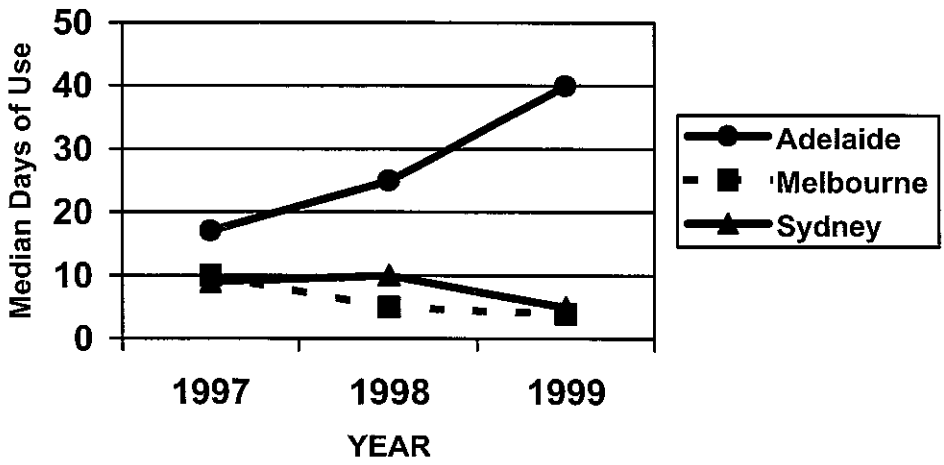

Figure 18. Median days of amphetamine use in the last six months by city, 1997-99

3.4.5 Other trends

The main problems associated with amphetamine use were amphetamine psychosis and other mental health concerns. These problems were noted in several jurisdictions (NSW, WA, NT, VIC, and QLD), while increases in mental problems among amphetamine users were noted in WA, TAS, and QLD.

3.4.6 Summary

- The prevalence of amphetamine use among IDU followed an inverse pattern to heroin use, being highest in SA and QLD, and lowest in NSW, ACT and VIC.
- Amphetamine use increased in most jurisdictions (QLD, SA, TAS, WA, NT), most notably QLD.
- One gram of powder amphetamine costs between $50 and $100 in most jurisdictions, being cheapest in SA and QLD ($50-60) and considerably more expensive in NSW ($100), WA ($200-250), and the ACT ($300).
- The average purity of illicit amphetamine was low (16%), but considerably higher in QLD (23%) than other states (7-14%).
- Amphetamine was easy to obtain, except in VIC where it was difficult to obtain.
- The predominant form of amphetamine was still powder methamphetamine, although there were reports of very pure methamphetamine, called "base" or "crystal meth", in several jurisdictions (QLD, SA, TAS, NSW):

→ More pure methamphetamine was called "base" in QLD and "crystal meth" in SA, TAS, and NSW.

→ 1 "point" of pure methamphetamine base or crystal meth was equivalent to one gram of powder methamphetamine.

→ One point of base or crystal meth cost $50-60 in QLD, SA, and TAS.

3.5 COCAINE

This section contains a summary of trends in the price, purity, availability and use of cocaine. More comprehensive information from the IDU surveys, and drug purity figures, can be found in the Appendix. Information on cocaine price, purity, availability and use by jurisdiction can be found in the executive summary.

3.5.1 Price

Cocaine price had remained stable since 1998, and cost between $180 and $250 a gram. Cocaine was cheapest in WA, NSW, and the ACT ($180-200). There was a continuing trend for the purchase of cocaine "caps" in NSW ($50) (Table 9), which were the most common purchase units. Caps of cocaine were not available in other jurisdictions.

Table 9. IDU estimates of cocaine price by city

	1997	1998	1999
Sydney			
Grams	200	200	200
Caps	80	50	50
Adelaide	250	250	250
Melbourne	300	200	250

3.5.2 Purity

The purity of cocaine seizures in Australia was 50% and there were no meaningful differences in cocaine purity between jurisdictions (Figure 19). The average purity had increased over the last three years from 37% in 1996/97 to 50% in 1998/99 (Figure 20). One exception to this increase was NSW, where cocaine purity in NSW (AFP seizures) had decreased slightly from 64% in 1997/98 to 50% in 1998/99, a finding supported by IDU perceptions that the purity of cocaine was stable to decreasing.

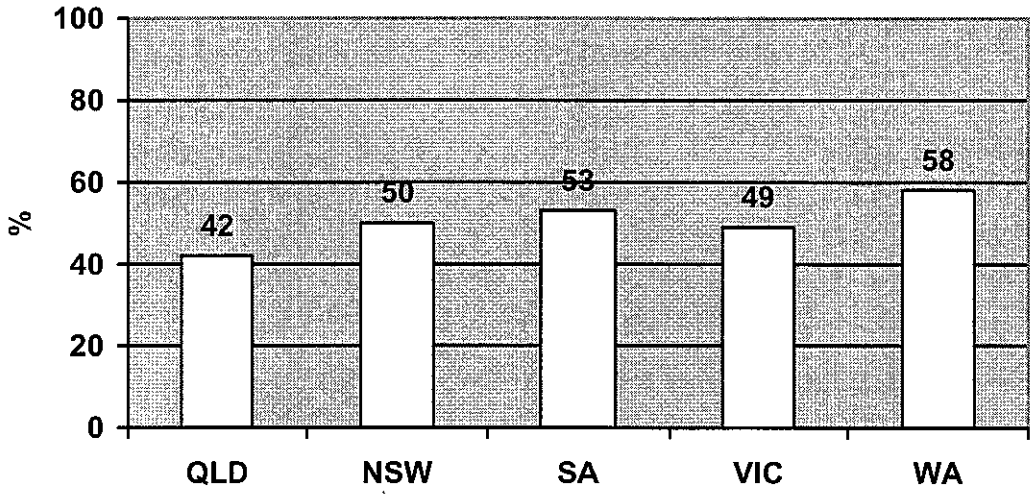

Figure 19. Purity of cocaine seizures analysed in 1998/99 by jurisdiction

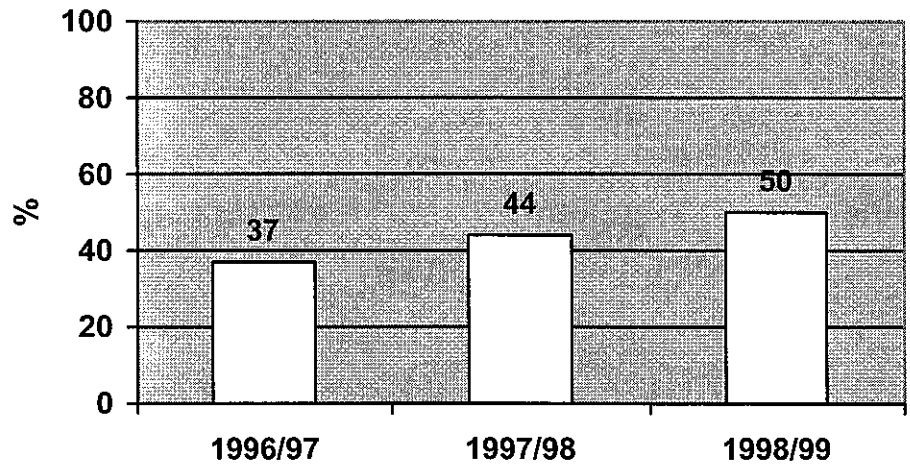

Figure 20. Purity of cocaine seizures analysed in Australia, 1996/97 - 1998/99

3.5.3 Availability

Cocaine was difficult to obtain in all jurisdictions except for NSW, where it was considered easy to obtain. Availability of cocaine was generally stable, with a possible increase in cocaine availability in QLD. The cocaine available in Australia consisted primarily of powder cocaine, with rare reports of cocaine smoking or crack cocaine use among IDU (see Appendix – Table A18).

In Sydney, where cocaine was easy to obtain, the main source of cocaine for IDU (n=87) was street dealers (Figure 21). Too few IDU had purchased cocaine in Adelaide (n=6) and Melbourne (n=3) to determine the main place of purchase. The number of IDU who had purchased cocaine in each state emphasises the relative ease with which cocaine can be obtained in Sydney.

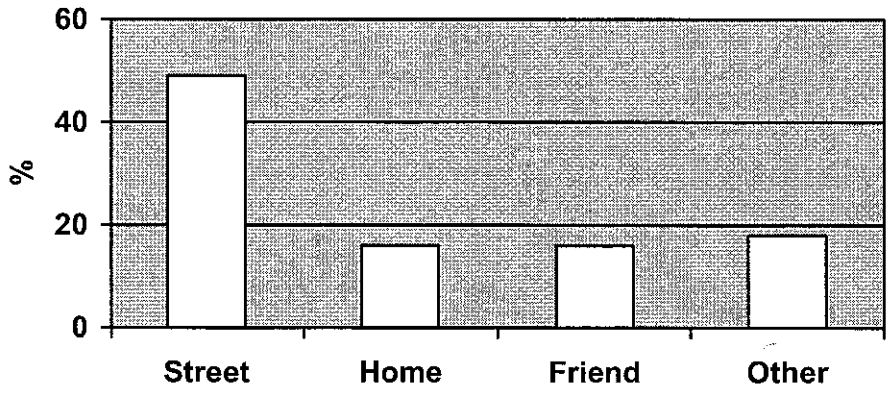

Figure 21. Place of cocaine purchase by IDU in Sydney

3.5.4 Use

Cocaine use among the general population was very low, with the prevalence of lifetime use being 4.3% and recent use 1.4%. Cocaine was the second least common drug after heroin.

Use of cocaine was typically low in most jurisdictions, except for NSW. In NSW recent exposure to cocaine among IDU was very high (67%), and the increase in cocaine use seen from 1997 to 1998 had stabilised (Table 10). Evidence for higher use of cocaine in NSW could also be seen from the Australian NSP Survey (Figure 22), which showed a much higher proportion of IDU in NSW injecting cocaine together with the increase in cocaine injection in NSW between 1997 and 1998. Arrests for cocaine use and/or

possession had also increased over the last few years (Figure 23) and occurred mainly in NSW (Figure 24).

There was no substantial evidence of the cocaine use in Sydney having spread to other jurisdictions, except for QLD. In QLD, there were key informant reports of increased in cocaine use, but the extent and nature of the cocaine use were not clear (Kinner and Roche, 2000).

Table 10. Cocaine use among IDU surveyed in Sydney, 1996-99

Year	Proportion used	Daily use*
1996	41	2
1997	34	2
1998	59	17
1999	67	14

*Among those who had used in the last 6 months

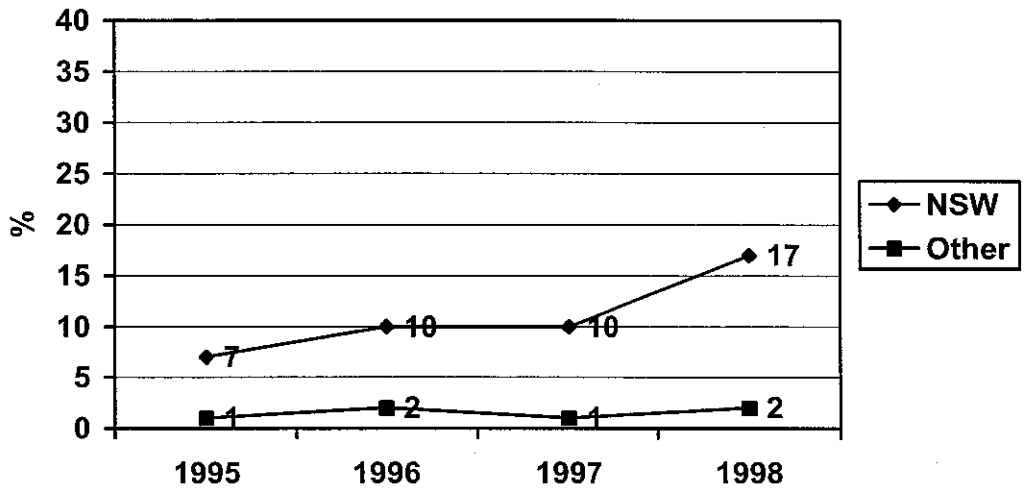

Figure 22. Prevalence of cocaine injection, as last drug injected, in NSW, 1995-98 (Australian NSP Survey)

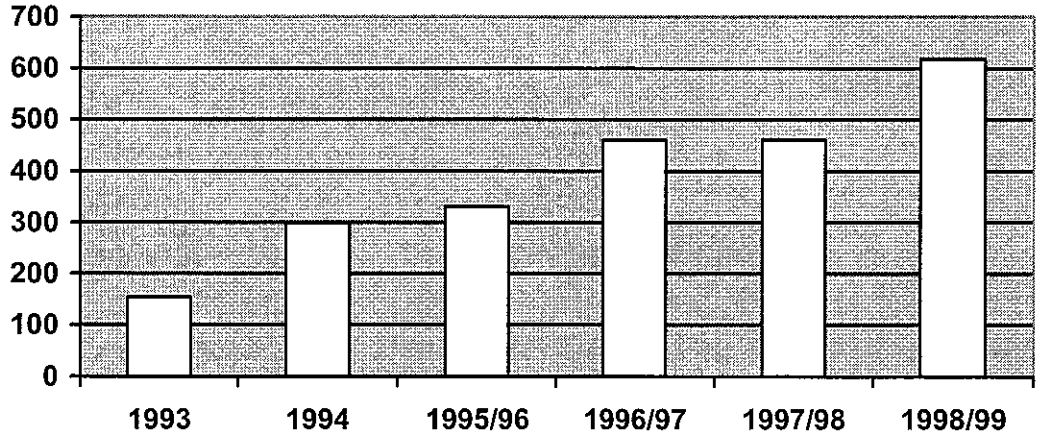

Figure 23. Number of arrests for use and/or possession of cocaine in Australia, 1993 - 1998/99

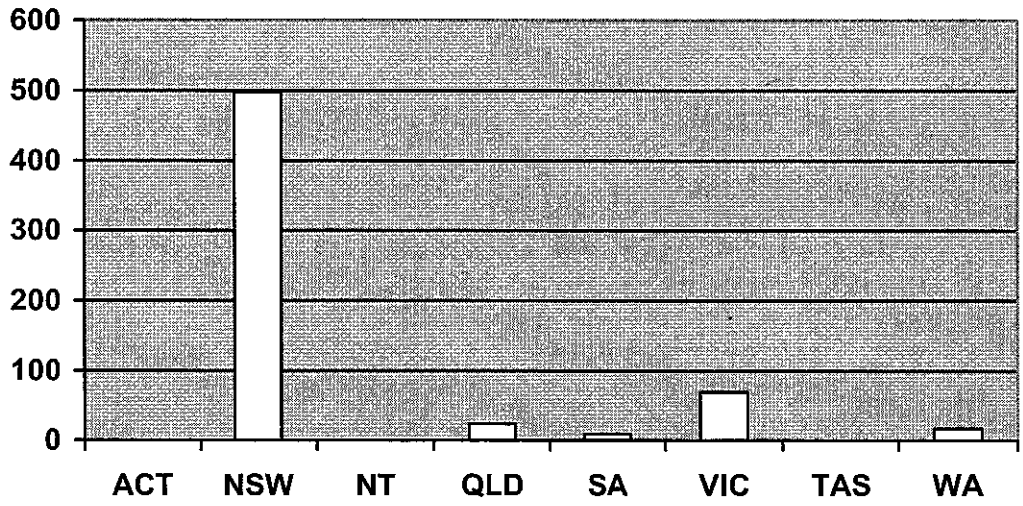

Figure 24. Number of arrests for cocaine use and/or possession in 1998/99 by jurisdiction

3.5.5 Other trends

Harms associated with cocaine injection remained common in NSW, and included difficulty injecting and increased criminal involvement. Cocaine using IDU also injected more often, increasing risk of blood-borne disease transmission and other injection-related problems. Heroin use was more frequent among cocaine injectors, although it was not clear whether more frequent heroin use was a consequence of cocaine use or an antecedent. In general, cocaine using IDU were less educated, more likely to be unemployed, have a prison history, or be ATSI or NESB (McKetin and Darke, 1999).

3.5.6 Summary

- Cocaine costs approximately $200 a gram in Australia, and $50 a cap in NSW.
- Cocaine is less available than other illicit drugs, being difficult to obtain in most jurisdictions except for NSW where it was considered easy to obtain.
- Cocaine in Australia was approximately 50% pure with no difference in purity between jurisdictions.
- Substantial levels of cocaine use were restricted to Sydney, where use among IDU was common but stable.
- There was some evidence of an increase in cocaine use and availability in QLD.
- Cocaine use was associated with more frequent injection, more frequent heroin use, difficulty injecting and higher levels of crime.
- The potential of cocaine use to spread to non-IDU requires further attention.

3.6 CANNABIS

This section contains a summary of trends in the price, potency, availability and use of cannabis. More comprehensive information from the IDU surveys can be found in the Appendix. Information on cannabis price, potency, availability and use by jurisdiction can be found in the executive summary.

3.6.1 Price

The price of cannabis ranged from $200 to $450 an ounce, and $20-25 per gram. Cannabis was cheapest in SA, where the median price per ounce was $220. IDU price estimates show a small but steady decline in the price of cannabis over the last three years in NSW, SA and VIC (Figure 25). In other jurisdictions the price of cannabis was perceived as stable (NT, TAS, QLD, ACT, WA).

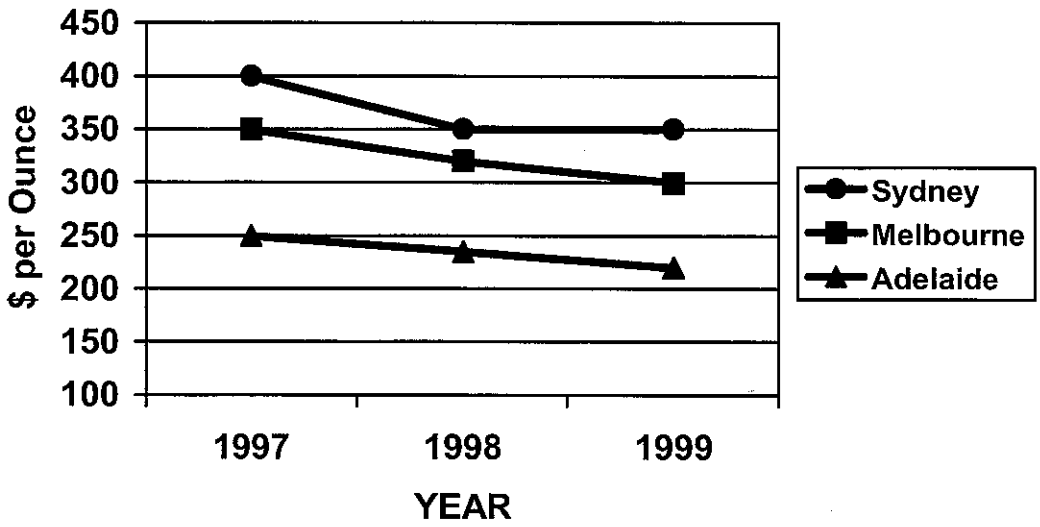

Figure 25. IDU estimates of cannabis price by city, 1997-99

3.6.2 Potency

Potency of cannabis was rated as high in nearly all jurisdictions (VIC, SA, NSW ACT, and QLD) and medium to high in WA and TAS. The mean potency estimates for NSW, SA and VIC (Figure 26) indicated that potency was perceived to be very high in all three states, but was highest in SA.

Potency was perceived to be either stable to increasing in nearly all jurisdictions (VIC, SA, QLD, WA, TAS). The majority of IDU in SA and VIC thought that potency of cannabis was stable (57-58%), but a significant proportion thought it had increased (23-24%). IDU estimates of cannabis potency in NSW indicated that potency was stable (86%).

Reports of hydroponic cannabis having higher THC content have continued, despite lack of evidence to support an average increase in the THC content of cannabis consumed in Australia. The THC content of Australian cannabis has not been systematically tested, thus it is not possible to confirm whether the THC content has changed in recent years. Hall and Swift (1999) argue that the perception of increased cannabis potency is more likely to be due to changes in patterns of cannabis use. Specifically, there has been an increase in the use of the more potent cannabis heads in preference to cannabis leaf. Also there has been a trend toward earlier initiation into cannabis use, which is associated with higher levels of cannabis use and cannabis-related problems. Finally, there has been an increase in the use of "bongs", which are believed to be a more efficient way of ingesting the drug.

3.6.3 Availability

Cannabis was very easy to obtain throughout Australia. IDU estimates of availability in NSW, VIC and SA indicate very easy access to the drug, and slightly higher availability in SA than NSW or VIC (Figure 26). Availability was considered stable in most jurisdictions (NSW, ACT, VIC, TAS, NT, and WA), with increased availability evident in SA and QLD.

Most cannabis available in Australia was "head" with some "leaf" also being available but not in demand. Nearly all cannabis using IDU reported smoking cannabis head recently (97-99%), whereas only 33-55% reported smoking leaf recently (see Appendix – Table A19). Hash and hash oil were not common, although there had been an increase in the availability of these in SA over the last few years. Cannabis was usually purchased through a friend or home dealer, although a significant proportion (32%) of IDU in NSW purchased their cannabis from a street dealer (Figure 27).

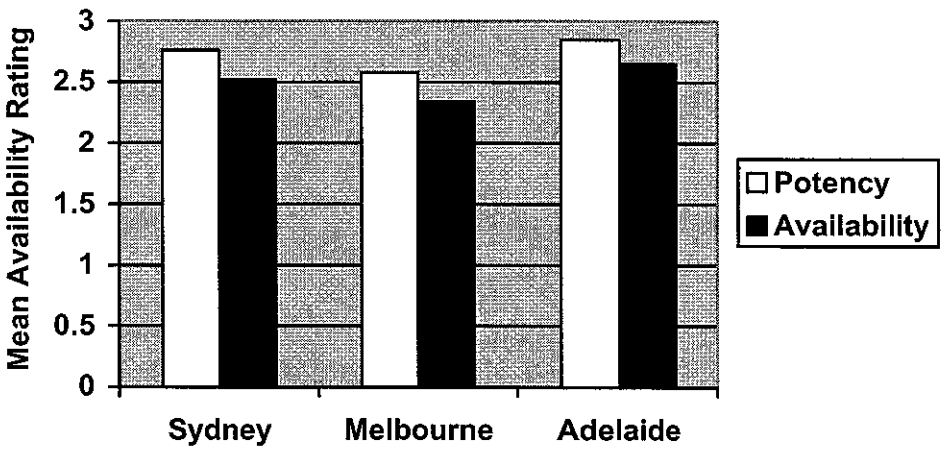

Figure 26. Mean IDU ratings (0-3) for cannabis potency and availability by city (higher ratings correspond to higher availability or higher potency)

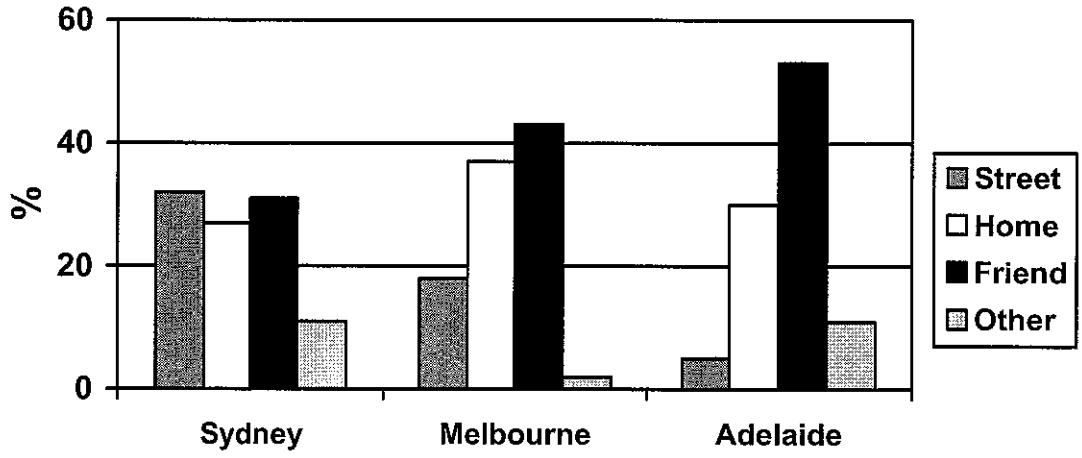

Figure 27. Place of cannabis purchase by IDU in each city

3.6.4 Use

Cannabis use among the general population was very high, with over one-third (39.1%) reporting lifetime use and nearly one in five (17.9%) using in the last year (1998 NDS Household Survey). Cannabis was by far the most common drug used in every jurisdiction (15.8 - 36.5% recent use) and prevalence of use did not differ greatly between jurisdictions, with the exception of NT where it was most prevalent (36.5% recent use). Cannabis use was highest among young people (14 to 29 year olds), over one-third of whom had used the drug recently (Figure 28).

The 1998 NDS Household Survey also found elevated levels of cannabis use relative to 1995 (Figure 29). This finding was consistent with other IDRS data suggesting increased use in most jurisdictions (NT, QLD, ACT, and VIC), and/or more young cannabis users (NSW, VIC, ACT, WA, QLD, and NT).

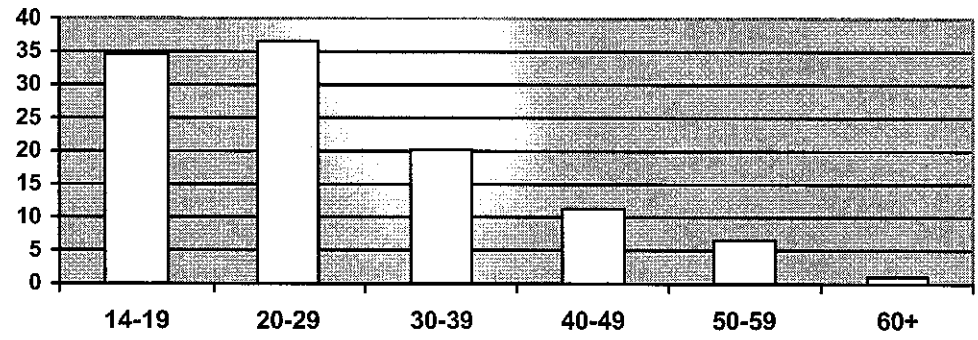

Figure 28. Prevalence of recent cannabis use in 1998 by age group (AIHW, 1999)

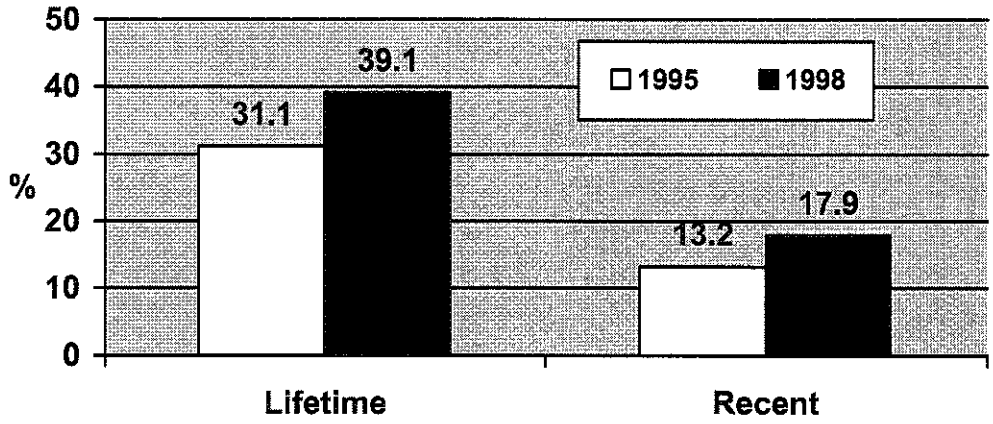

Figure 29. Prevalence of lifetime and recent cannabis use in Australia, 1995 and 1998 (AIHW, 1999)

3.6.5 Other trends

Harms associated with cannabis are not as serious or common as those associated with other illicit drugs such as heroin. However, harms associated with cannabis have greater public health implications due to the high prevalence of its use. According to the 1997 Survey of Mental Health and Well-Being, more people in Australia were dependent on cannabis, or engaged in harmful use of cannabis, than for any other illicit drug. Approximately one in five cannabis users (23%) had a cannabis use disorder. Taken together with the high prevalence of cannabis use among young people, these statistics indicate a high risk of cannabis use disorders among Australian youth. Harms commonly associated with heavy use of cannabis are respiratory problems and mental health problems (Hall et al., 1994; Hall, 1998). Consistent with this evidence, key informants in several jurisdictions (TAS, NT, NSW, WA, and VIC) noted mental health problems, including psychosis, among cannabis users.

Mental health problems associated with cannabis use have received much recent attention. Evidence suggests a role for cannabis use in the precipitation and exacerbation of psychotic illnesses (Hall, 1998). Also, there is high comorbidity between cannabis use disorders and affective and anxiety disorders (1997 National Survey of Mental Health and Well Being). Thus, it is important to consider treatment of cannabis use disorders among psychiatric populations.

3.6.6 Summary

- Cannabis was the most prevalent illicit drug used in Australia
- High levels of use occurred throughout Australia
- There was a high prevalence of cannabis dependence in Australia; higher than for any other illicit drug
- There has been an increase in cannabis use, particularly an increase in young users
- Cannabis use is associated with both physical and mental health concerns
- Recent evidence suggests a role for cannabis use in the precipitation and exacerbation of psychotic illnesses

3.7 OTHER DRUGS

3.7.1 Ecstasy

Prevalence of ecstasy use among the general population was 4.7% for lifetime use and 2.4% for recent use (AIHW, 1999). These figures are higher than the 1995 National Household Survey, which found 2.4% lifetime use and 0.9% recent use.

Use of ecstasy was mostly confined to recreational use of the drug, being infrequent and used in conjunction with social events. As in previous years, ecstasy tablets were taken orally, with a very low prevalence of injecting. The 1999 Australian NSP Survey found that less than 1% of IDU reported injection of ecstasy.

Key informants from Sydney and Adelaide reported that the use of ecstasy and other designer drugs (e.g., GHB, PMA, ketamine) had increased. Key informants from Sydney reported serious acute adverse side-effects associated with use of designer drugs, including respiratory arrest and loss of bodily coordination.

Ecstasy tablets cost between $20 and $100 per tablet, and were substantially cheaper if bought in bulk. Price estimates, based on ABCI estimates and key informant reports, can be found in Table 11.

Table 11. Price estimates for a single tablet of ecstasy in 1998-99, by jurisdiction

	NSW	VIC	SA	QLD	WA	ACT	NT	TAS
Price ($)	40	40-60	40-60	35-50	50-70	17-50	50-100	15-60

The average purity of ecstasy seizures in Australia was 34% (range 1-85%) in 1998/99, similar to previous years: 1997/98 (31%), 1996/97 (32%). There were no meaningful differences between the purity of ecstasy seizures in each jurisdiction. The ecstasy seizures analysed included many related chemicals, such as MDEA, MDA, MBDB, BDMPEA, MDE and PMA. There was also recent evidence that some tablets sold as ecstasy contained methamphetamine.

3.7.2 Methadone

The 1998 National Drug Strategy National Household Survey found that only 0.5% of the general population had ever used methadone outside of methadone maintenance treatment and only 0.8% had used it in the last year (1998 Australian NSP Survey).

One of the main concerns regarding methadone use is its diversion from treatment and injection of the drug. Methadone injection was far more prevalent in NSW than other jurisdictions, with nearly one in five IDU (18%) reporting methadone as their last drug injected. The 1998 Australian NSP Survey also found a high prevalence of methadone injection among IDU in TAS; however, this figure was based on a sample of only 51

IDU and local data suggest less than 10% of IDU report methadone as the drug they most often inject. The prevalence of methadone injection was very low in other jurisdictions (0-3%).

The prevalence of methadone injection in NSW had decreased steadily over the last four years (Figure 30). Restriction on the distribution of methadone injecting equipment through NSPs in NSW also appeared to have had an impact on methadone injection, with fewer methadone injectors presenting to NSPs (McKetin et al., 2000). The NSW IDU survey also found a small reduction in the proportion of methadone using IDU who had recently injected the drug relative to 1998 (41% vs. 54%).

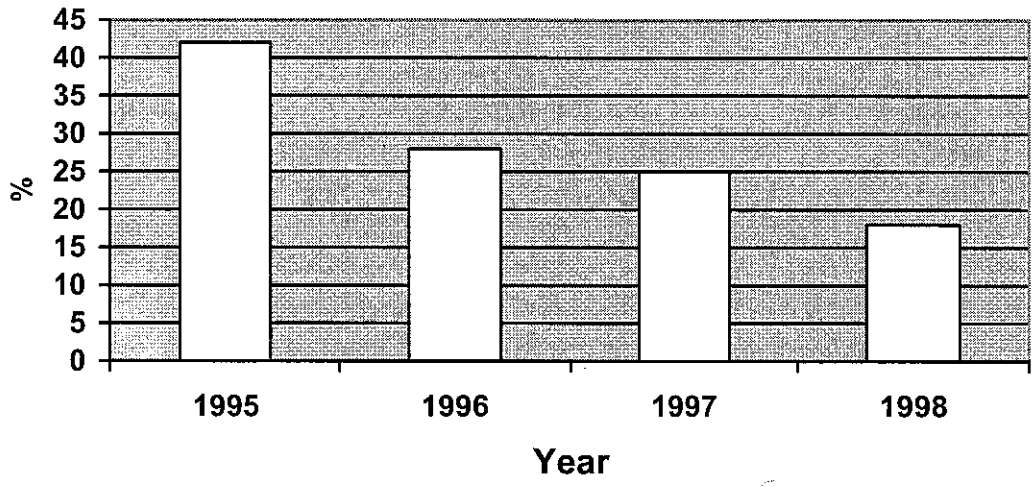

Figure 30. Prevalence of methadone injection, as the last drug injected, in NSW, 1995-1998 (1998 Australian NSP Survey)

3.7.3 Other opiates

Injection of prescription opiates was most common in NT where 70% reported morphine as their last drug injected. TAS also showed high levels of morphine injection, with one in five reporting it as their last drug injected (1998 Australian NSP Survey). Prescription morphine was the opiate of choice among IDU in TAS and NT, with most IDU injecting MS Contin or Kapanol tablets.

About one in ten Australians (11.5%) report lifetime use of analgesic substances for non-medical purposes, and about one in twenty have done so in the last year (5.2%). Use of these substances among IDU was much higher, with the IDRS IDU surveys (NSW, SA and VIC) showing approximately one-third (32%) had used other opiates in the last six months.

3.7.4 Benzodiazepines

Benzodiazepine use remained a prevalent form of polydrug use among IDU, with nearly two-thirds (63%) having used them in the last six months. The main type of benzodiazepine used was diazepam (e.g., Valium). There was a decrease in the use of flunitrazepam (e.g., Rohypnol) in NSW, where previously it had been the most commonly used benzodiazepine among IDU. Injection of benzodiazepines was not prevalent (14%), with most IDU reporting oral use. Even though injection of benzodiazepines was not a common mode of administration, its prevalence is worth noting because of associated serious adverse health effects, such as thrombosis (Ross et al., 1997).

3.7.5 Anti-depressants

Recent antidepressant use was not common among IDU (19%), although levels of use are still a concern given the increased risk of opioid overdose with tricyclic antidepressant use (Darke and Ross, 1999). Most IDU reported use of the newer SSRI antidepressants, which present less overdose risk than the older tricyclic antidepressants. Use of the tricyclic antidepressants was still high in NSW, with 45% of those having used antidepressants in the last six months reporting their use.

3.7.6 Inhalants

As in previous years, inhalant use among IDU in NSW, SA and VIC was very low with only 3-9% having used recently. The most common inhalant used in each of these states was amyl nitrate. The only other trends noted with regard to inhalant use were in NT and WA, where sniffing of petrol and other inhalants (e.g., toluene, aerosols, and glue) was reported.

3.7.7 Summary of other drugs

- Use of ecstasy and other designer drugs increased in Sydney and Adelaide, and there was an increase in serious acute adverse side-effects from these drugs reported in Sydney.
- Injection of morphine was very prevalent in NT and TAS.
- Benzodiazepine use remained a common form of polydrug use among IDU, although the use of Rohypnol had decreased in Sydney since 1998.
- Methadone injection was particularly high in NSW, but was decreasing.

3.8 DRUG-RELATED ISSUES

3.8.1 Drug treatment data

Data relating to drug treatment showed that heroin use has a disproportionate impact on health and treatment services relative to the proportion of people who use the drug. The number of hospital episodes attributed to opiates far exceeds that for any other illicit drug type (Figure 31). Similarly, a pilot study of the National Minimum Data Set Project for Alcohol and Other Drug Treatment Services, conducted in 1998, found that the number of treatment clients seeking help for heroin or opioids was similar to alcohol and more than triple that for cannabis (Figure 32). These findings were mirrored by more recent data from Victoria (Figure 33), which also showed more clients seeking treatment for opioids than for alcohol. Opiates also account for nearly all drug-related deaths in Australia, causing 635 deaths in 1997 compared with 7 deaths attributed to stimulants, hallucinogens, or cannabis (Figure 34).

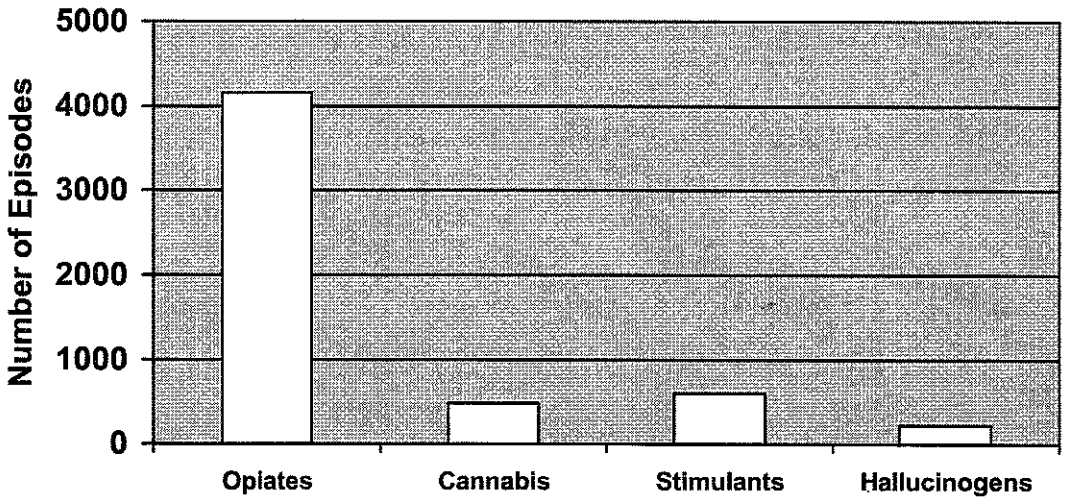

Figure 31. Number of hospital episodes attributed to each drug type, 1996/97 (AIHW National Hospital Morbidity Database)

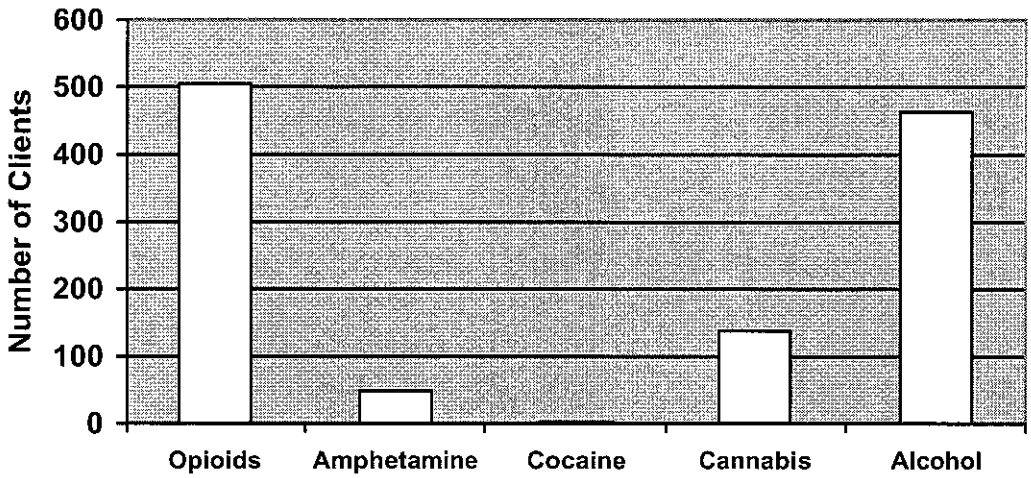

Figure 32. Number of drug treatment clients by drug type, 1998 (National Minimum Data Set Project for Alcohol and Other Drug Treatment Services)

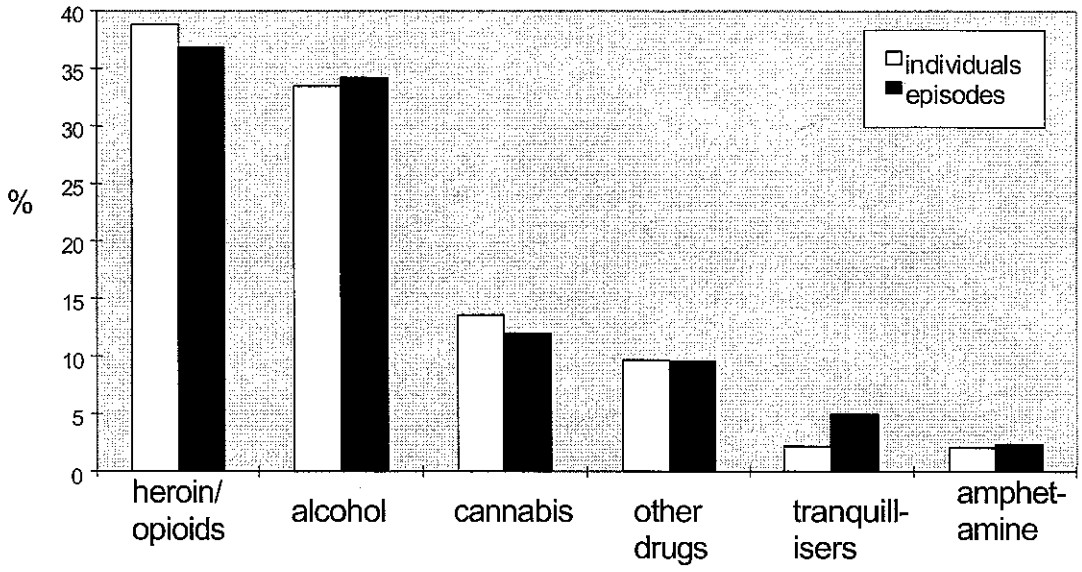

Figure 33. Distribution of clients according to main presenting drug problem - Interim ADIS 1997/1998 (Source: Victorian Department of Human Services, Drug Treatment Services)

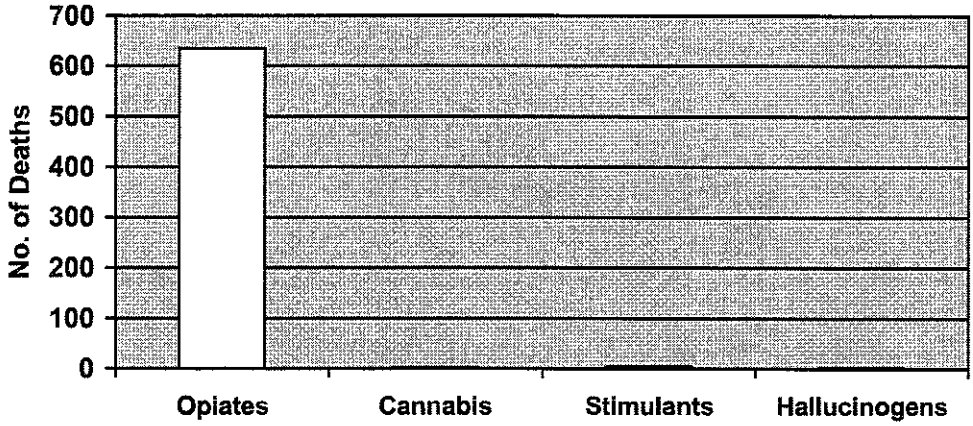

Figure 34. Number of deaths attributed to drug use by drug type, 1997 (AIHW National Mortality Database)

ADIS INQUIRIES

Table 12 shows the relative proportion of ADIS calls (or equivalent service) relating to the main drug types by jurisdiction during the 1998/99 financial year. The total number of calls on which these proportions were based is also indicated in Table 12, but does not represent all calls received by the services during the period.

From Table 12 it can be seen that cannabis received the highest proportion of inquiries in most states, with the exception of NSW, VIC and the ACT, where the number of inquiries relating to opiates exceeded that for any other drug. Amphetamine inquiries were more common in SA and WA than other jurisdictions, a finding consistent with the higher levels of amphetamine use in these jurisdictions. There were few inquiries relating to cocaine in any jurisdiction.

Table 12. Percentage of ADIS inquires relating to each drug type in 1998/99

	VIC N=13082	NSW N=13192	SA N=2448	WA N=3631	ACT N=72	TAS N=136
Heroin	62	51	27	36	50	33
Cannabis	31	30	47	38	37	49
Amphetamine	6	12	24	25	12	17
Cocaine	1	3	2	1	1	0.5

Note. Comparable data were not available for QLD or NT

Quarterly ADIS data has been collected since 1997 in NSW, VIC and SA. This data shows that the predominance of heroin inquiries in NSW was a trend that first emerged in 1998 (Figure 35). SA had a considerable number of calls relating to heroin, but cannabis was still the most commonly mentioned drug (Figure 36). It is noteworthy that in SA there were more calls relating to heroin (n=671) than to amphetamine (n=594), a trend that began in 1999.

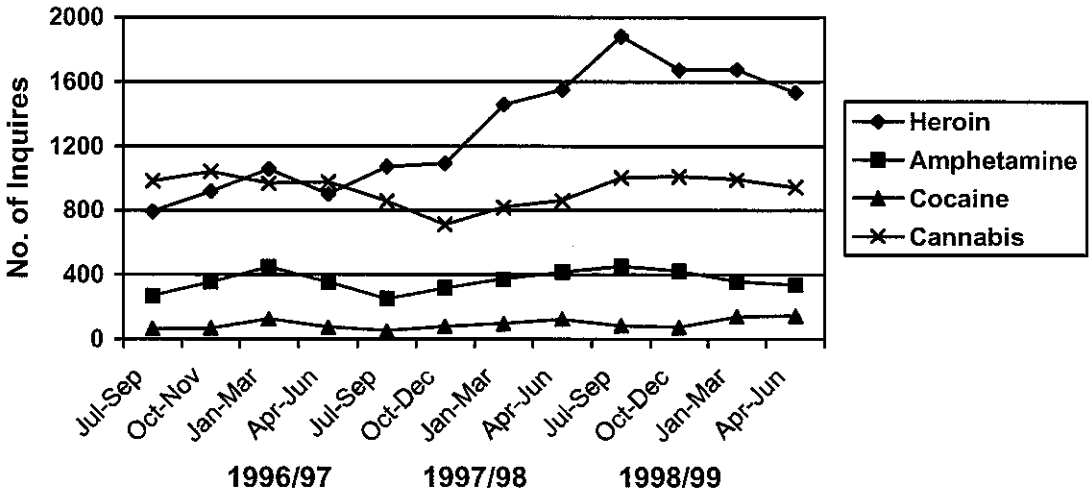

Figure 35. Number of ADIS inquiries in NSW relating to each drug type by quarter, 1996/97-1998/99

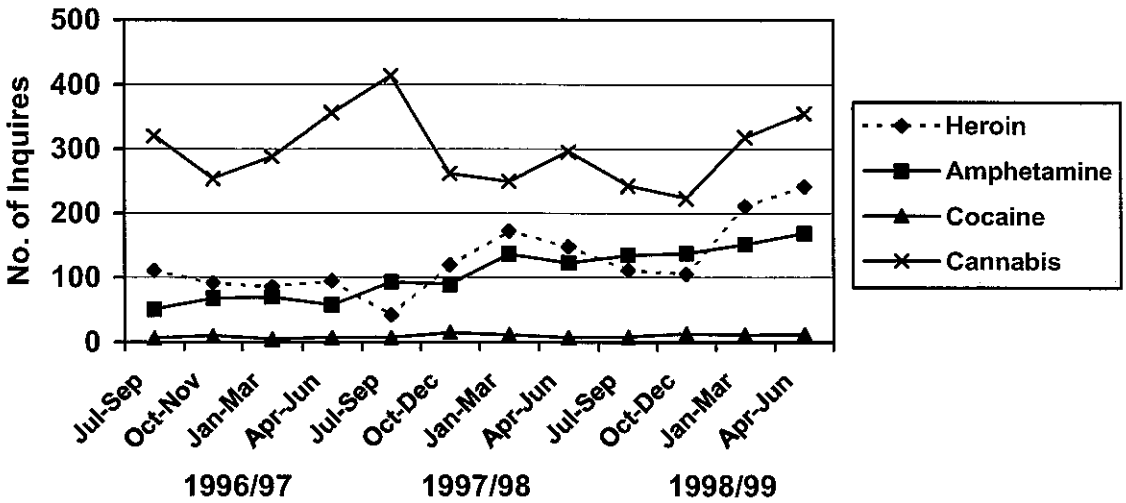

Figure 36. Number of ADIS inquiries in SA relating to each drug type by quarter, 1996/97-1998/99

3.8.2 Heroin overdose

The recent increase in opioid overdoses in Australia is part of a continuing trend over the last few decades (see Figure 13 in Section 3.2.5). The number of opioid-related overdoses has continued to increase in 1998 relative to 1997, and remained highest in NSW (Table 13). NSW accounted for nearly half the opioid overdose deaths in the country, while Victoria accounted for a further 28%. The increase in the number of opioid overdose deaths can not be attributed to a population increase, as the rate of overdose deaths per million population has doubled over the past decade to be 87.1 in 1998.

Most deaths occurred in the 25-34 year age range (116.1 per million population), with the average age at death being 30.1 years. This finding is at odds with the perception that young inexperienced opiate users are at the highest risk of overdose. The average age of fatal overdose victims has remained relatively stable over the last decade.

The majority of fatal overdose cases were male (84%). The proportion of male deaths among opioid users is over-represented, with current surveys suggesting that only 50-70% of opioid users are male (see Section 3.1, Table 5; McKetin et al. 1999). Male opioid users are no more likely to suffer non-fatal overdose than females (Darke et al., 1996), suggesting that males are at a higher risk than females from dying of an opioid overdose.

Research shows that heroin purity levels are only moderately correlated with the number of overdose fatalities that occur (Darke et al. 1999a). Likely risk factors for opioid overdose are concurrent consumption of CNS depressants, particularly alcohol, and injecting in a public place, while treatment appears to play a protective role (Darke et al., 1996, 1999b). The extent of these risk factors among IDU is explored further under non-fatal overdoses.

Table 13. Number of opioid overdose deaths among those aged 15-44 years by jurisdiction, 1988-98

	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

NON-FATAL HEROIN OVERDOSE

About half of IDU surveyed by the IDRS in 1999 had experienced a non-fatal heroin overdose, and about one in four had done so within the last year. Males were no more likely to have overdosed in the last year than females (29% vs. 29%), in contrast to fatal overdose where males are over represented. As in 1998, fewer IDU from Adelaide reported recent non-fatal overdoses than IDU in NSW or VIC.

Research suggests that the risk factors for overdose are concurrent consumption of other CNS depressants, particularly alcohol, while treatment plays a protective role (Darke et al., 1996). Public injecting also increases risk of overdose (Darke et al., 1999b). Table 14 shows the proportion of IDU who engaged in these risk factors, or were in treatment, by state. It can be seen that IDU from Adelaide, who experienced the fewest overdoses, were the least likely to inject in public places and the most likely to be in treatment. In contrast, about half of the IDU surveyed in NSW and VIC had their last injection in a public place, and only about one-third were in treatment. About one in ten (9.3%) had consumed alcohol and taken heroin on the day prior to interview, this risk factor being highest in NSW.

Table 14. Percent of IDU reporting non-fatal overdose, and risk behaviours for overdose, by city

	Sydney	Melbourne	Adelaide
Ever overdosed	49	54	51
Overdosed last 12 months	28	36	20
Last injection in public place	53	50	36
Currently in treatment	26	36	47
Consumed alcohol and heroin on day prior to interview	12	7	8

3.8.3 HIV/HCV prevalence and needle sharing behaviour

HIV/HCV SEROPREVALENCE

The 1998 Australian NSP Survey found that the seroprevalence of HIV among IDU was very low, with 1.5% of IDU attending NSPs testing positive for HIV (National Centre in HIV Epidemiology and Clinical Research, 1999). In sharp contrast, seroprevalence of Hepatitis C among the same sample was 49%. The prevalence of HCV had decreased over the last four years (Figure 37).

Hepatitis C prevalence increased with years of injecting drug use, being as low as 17% among those who had initiated injecting drug use within the last three years. On the

other hand, two-thirds of IDU who had been injecting for at least six years were HCV seropositive. HCV seroprevalence was substantially higher in NSW than other jurisdictions (69% vs. 27-54%).

HIV prevalence was higher in NT than other jurisdictions (8.1% vs. 0-4.7%) (Figure 38). Although this figure may be inaccurate due to a small sample of IDU tested in NT (n=87), Roberts (1998) also found that 8.5% of a sample of IDU in the NT (n=79) had tested positive for HIV. It may be worthwhile to verify the extent of HIV among IDU in the NT, and if elevated relative to other jurisdictions, implement additional strategies to further reduce transmission of the virus.

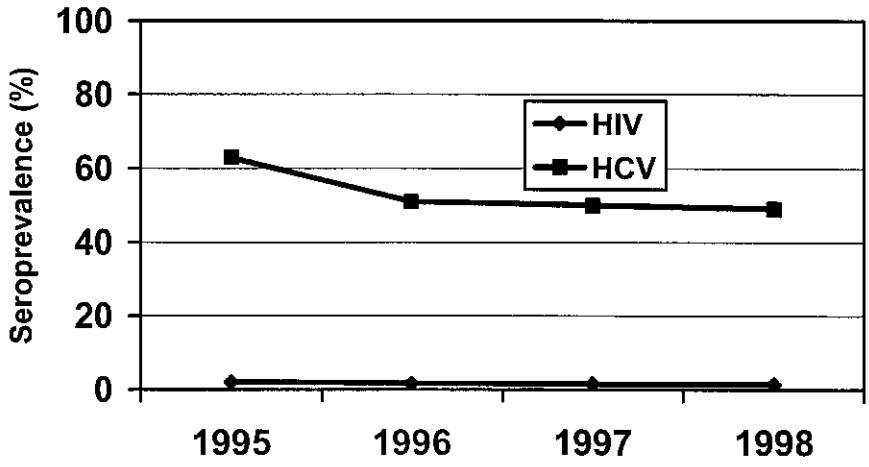

Figure 37. HIV and HCV seroprevalence among IDU in Australia, 1995-98 (1998 Australian NSP Survey)

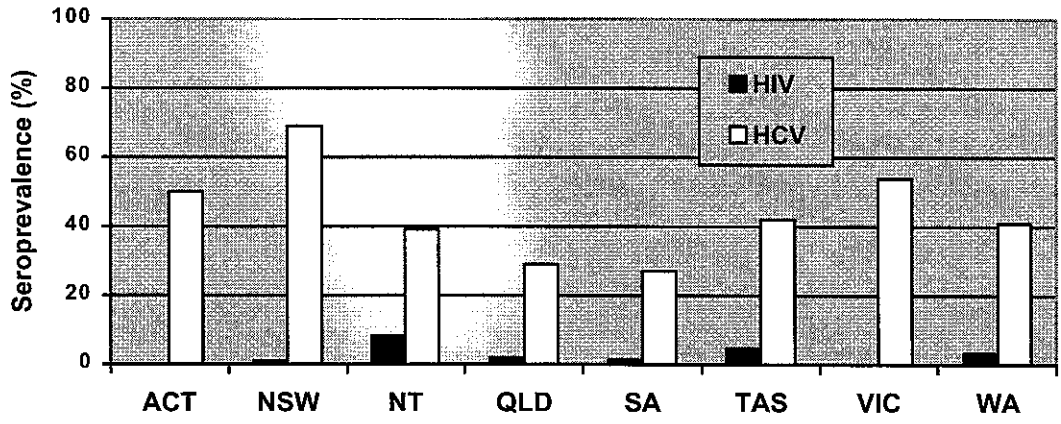

Figure 38. HIV and HCV seroprevalence in 1998 by jurisdiction (1998 Australian NSP Survey)

The IDRS IDU survey found that about one in five IDU had borrowed a used needle in the last month in NSW, but only one in ten had done so in SA and VIC (Table 15). Reported rates of lending used needles were higher, (9-24%) which may be a more honest representation of the amount of needle sharing that occurs. This rate of sharing used needles had dropped in SA and VIC, but there was no substantial change in needle sharing among IDU in NSW. The 1998 Australian NSP Survey found similar rates of needle sharing across Australia, with 20% of IDU reporting having borrowed a used needle in the last month. This represented a decrease relative to four years ago, when 29% reported having borrowed a used needle in the last month. Although needle sharing was relatively low and decreasing, there was a high rate of sharing other injecting equipment, mainly spoons, among IDU in all three states (Table 15). Sharing of other injecting equipment may increase the risk of blood borne virus transmission.

Table 15. Percent of IDU who had shared needles or other injecting equipment, by jurisdiction

	Sydney	Melbourne	Adelaide
1997			
Lent needle	21	26	18
Borrowed needle	15	22	19
1998			
Lent needle	23	34	24
Borrowed needle	23	23	21
1999			
Lent needle	24	22	9
Borrowed needle	17	9	9
Borrowed any equipment*	57	43	46

*spoons, fits, filters, tourniquets,

3.8.4 Crime

As in previous years, there was a high level of criminal involvement among the IDU surveyed by the IDRS. Just over half reported committing a crime in the last month, most commonly dealing and property crime (Table 16). The level of self-reported crime and patterns of crime were similar between jurisdictions (Dwyer and Rumbold, 2000; Humeniuk, 2000; McKetin et al., 2000) and had not changed relative to previous years.

Nearly half of IDU reported having been arrested in the last year, mostly for property crime, but many were also arrested for use or possession of illicit drugs. In contrast, only 5% were arrested for dealing illicit drugs (Table 16).

Table 16. Self-reported crime among IDU and proportion arrested in the last year, by type of crime (N=410)

	Self-reported crime in last month (%)	Arrested in last year (%)
Use	N/A	12
Dealing	26	5
Property Crime	38	18
Fraud	11	2
Violent Crime	8	6
Any Crime	55	44

The high level of criminal involvement among IDU corresponds to their high expenditure on illicit drugs. Thirty-seven percent of the IDU sample had spent over $100 on illicit drugs during the previous day (Figure 39). Jurisdictional trends showed that there was a strong correspondence between frequency of injecting drug use, expenditure on drugs and being arrested. The IDU surveyed in NSW were much more likely to inject daily, spend more than $100 a day on illicit drugs, and have been arrested in the last year, than IDU in VIC, followed by SA (Table 17).

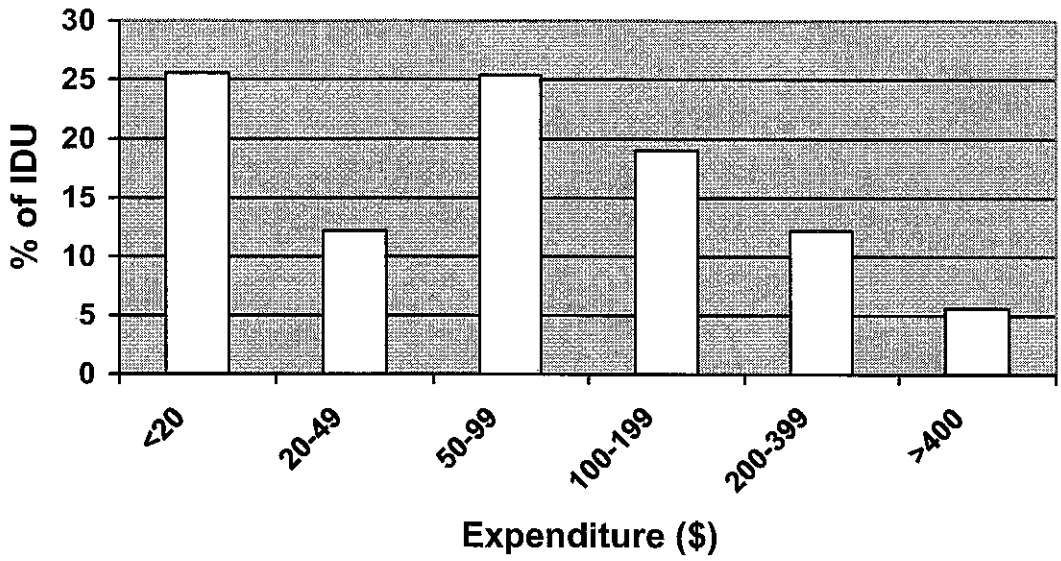

Figure 39. Expenditure on illicit drugs during the previous day among IDU surveyed in 1999 (N=410)

Table 17. Frequency of injection, expenditure on illicit drugs, and arrest among IDU in 1999, by jurisdiction

	NSW N=156 %	VIC N=154 %	SA N=100 %
Inject more than daily	83	53	30
Spend more than $100 a day on illicit drugs	45	36	25
Arrested in last year	55	48	23

3.8.5 Summary of drug-related trends

- Opiates were the primary illicit drug for which drug users engaged in treatment in Australia. The number of clients receiving treatment for opioid use in 1998-1999 appeared to be slightly higher than for alcohol use.
- The number of drug users in treatment for opiate use, and the number of general inquiries relating to opiates, have continued to increase in 1999 relative to previous years.
- Opiates account for more hospitalisations and deaths than any other illicit drug.
- The rate of opioid overdose was increasing in Australia and is highest in NSW, followed by VIC.
- HCV seroprevalence among IDU was high (49%), but had decreased over the last four years.
- Needle sharing behaviour among IDU was stable to decreasing.
- HIV seroprevalence among IDU remained very low, although appeared substantially higher in NT.
- There was a high level of criminal involvement among IDU that appeared to be related to their frequency of injecting drug use and expenditure on illicit drugs.

4 SUMMARY AND CONCLUSION

SUMMARY OF FINDINGS

This report presents the findings from the first year of the national IDRS. A striking feature of the findings was the divergence of drug trends in different Australian regions. These differences are summarised below. Another finding was that prevalence of drug use and the impact of drug use on health and welfare were often disparate. For this reason, it is important to consider trends in both the prevalence of use and the public health impact of drug use, in order to address the drug problem.

Heroin
Heroin use was concentrated in the south-east corner of Australia, particularly New South Wales and Victoria, where the drug was more pure and cost less than in other parts of Australia. The dominance of heroin in these regions was consistent with the importation of heroin into Australia, whereby most heroin enters Australia through Sydney and to a lesser extent through Melbourne (ABCI, 1999). There were reports of increased heroin use in all jurisdictions, except for NT and TAS where heroin use was low and fluctuated with availability of the drug. Although much less prevalent than other forms of illicit drug use, heroin was found to have the largest impact on treatment services, hospital admissions and deaths attributable to drug use. Death from opiate overdose remained the most salient harm associated with heroin use. Overdose deaths had continued to increase in 1998 to 737, half of which occurred in NSW and a further 28% in VIC.

Amphetamine
Amphetamine use patterns were inverse to those for heroin. QLD had the highest levels of amphetamine use among IDU, the highest purity levels, and had the highest availability of the new more pure form of methamphetamine called "base". Consistent with these higher levels of amphetamine use, over half (58%) of the clandestine amphetamine laboratories detected in Australia in 1997/98 were located in QLD (ABCI, 1999). There were reports of increased amphetamine use in most Australian jurisdictions, except for NSW and VIC where amphetamine use among IDU was low and stable to decreasing.

Cocaine
Cocaine use was not common in Australia, with the exception of Sydney, where it remained a common form of polydrug use among IDU. Patterns of cocaine use in Sydney had stabilised since 1998, as had the price and availability of the drug. The relative ease with which cocaine could be obtained in Sydney was apparent from IDU reports, most of whom reported purchasing cocaine from a street dealer. The higher availability of cocaine in Sydney was consistent with evidence suggesting Sydney is the main entry point for cocaine imported into Australia (ABCI, 1999).

Cannabis
The most notable feature of cannabis trends was their uniformity across jurisdictions. Cannabis use was prevalent across Australia; with potent cannabis being readily available

in all jurisdictions. Use was most prevalent among those aged 14-29 years, one in three of whom had used the drug recently. About one in five cannabis users suffered from cannabis dependence or engaged in harmful use of cannabis, making it the most common form of drug dependence in Australia.

If there was one finding central to the 1999 IDRS, it was that patterns of drug use differ widely between jurisdictions, and patterns of use often correlated with drug availability. This finding suggests that the type of drugs used by problematic drug users, such as IDU, often reflects availability of drugs as much as their preference for particular drugs.

METHODOLOGICAL CONSIDERATIONS

Reiterating the aim of the national IDRS, that it acts as a strategic early warning system to detect trends of national significance, it appears that the national IDRS methodology was successful. Broad trends across Australia have been detected, as have several emergent trends that require further attention. One major advantage of the IDRS methodology was the accumulation of data from IDU surveys, with at least 400 IDU surveyed each year This is a sufficiently large sample size to confidently monitor trends in the demographics of IDU, make interstate comparisons, and explore the relationship between drug use patterns and associated harms.

One way to further enhance the methodology of the IDRS would be to expand the IDU survey to all jurisdictions. Including an IDU survey in every jurisdiction would improve comparability of the IDRS and also improve the accuracy of data collected on drug price and availability.

IDRS findings have provided direction for formal research over the last three years, with researchers taking initiative to follow up on imperatives outlined by the IDRS. There is currently no formal mechanism, however, through which the IDRS can initiate more in-depth research into emergent drug trends. One way to improve further investigation of research issues highlighted by the IDRS would be to link it to a mechanism that could quickly commission the collection of more detailed data (Wardlaw, 1994).

IMPLICATIONS

The main aim of the national IDRS is to identify emergent drug problems of national significance that require more detailed investigation. The findings from the 1999 IDRS suggest that the following issues require further attention. They include issues pertaining to both major drug trends and to their successful detection by the IDRS.

- The availability of more pure methamphetamine has major health implications for users, such as, increased risk of dependence, adverse acute drug effects, and methamphetamine psychosis. Further research is needed to establish the extent of "base" methamphetamine use, particularly its injection in QLD.

- There appears to have been a drop in the age of initiation into injecting drug use, along with reports of more young heroin users. These trends have major health

implications, as IDU who initiate injection at a younger age are more likely to inject heroin, inject frequently, and suffer more health problems associated with their drug use.

- There was a high prevalence of cannabis use in all jurisdictions. Use was most prevalent among those aged 14-29 years, and cannabis dependence was the most common type of illicit drug dependence in Australia.

- Systematic monitoring of the THC content of cannabis needs to be carried out in order to accurately monitor cannabis potency.

The implications listed above are the main priority areas for research at a national level. There are many other implications that stem from IDRS findings, particularly the findings from each jurisdiction. Some of the implications may have already received research attention to-date, while others have implications for policy and research at a local level.

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6 APPENDIX

DRUG PRICE

DRUG AVAILABILITY

DRUG PURITY

DRUG USE

Table A1. Median price of heroin reported by IDU for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	400	400	280	240
	VIC		450	400	300
	SA		400	400	400
Cap	NSW	30	30	30	30
	VIC		40	25	25
	SA		50	50	50

Table A2. Median price of amphetamine reported by IDU for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	100	100	100	80
	VIC		50	50	50
	SA		50	50	50
Ounce	NSW	-	1000	1000	900
	VIC		600	750	700
	SA		900	875	1100

Table A3. Median price of cocaine reported by IDU for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	200	200	200	200
	VIC		300	200	250
	SA		250	250	250
Cap	NSW	80	80	50	50
	VIC		-	-	60*
	SA		50	50	80

*based on one report

Table A4. Median price of cannabis reported by IDU for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	25	25	20	20
	VIC		25	20	20
	SA		25	20	25*
Ounce	NSW	400	400	350	350
	VIC		350	320	280
	SA		250	235	200

*approximately 2 grams

Table A5. Percent of IDU who could comment on the price of different heroin purchase units for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	59	50	60	66
	VIC		44	51	55
	SA		54	62	43
Cap	NSW	40	83	93	88
	VIC		53	75	88
	SA		79	86	74

Table A6. Percent of IDU who could comment on the price of different amphetamine purchase units for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	22	45	23	31
	VIC		50	-	23
	SA		63	85	42
Ounce	NSW	-	15	3	11
	VIC		7	11	7
	SA		27	36	12

Table A7. Percent of IDU who could comment on the price of different cocaine purchase units for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	13	20	48	33
	VIC		5	7	3
	SA		32	31	6
Cap	NSW	5	19	92	49
	VIC		2	1	1
	SA		23	20	3

Table A8. Percent of IDU who could comment on the price of different cannabis purchase units for NSW in 1996-99, VIC and SA in 1997-99.

Unit	State	Year			
		1996	1997	1998	1999
Gram	NSW	25	61	63	65
	VIC		69	72	69
	SA		31	42	82
Ounce	NSW	38	61	44	51
	VIC		27	54	48
	SA		77	89	73

Table A9. Mean availability ratings (0-3) for heroin, cocaine, amphetamine and cannabis in NSW in 1996-99, VIC and SA in 1997-99. Higher scores reflect easier availability.

Drug	State	Year			
		1996	1997	1998	1999
Heroin	NSW	2.6	2.8	2.5	2.6
	VIC		2.8	2.8	2.9
	SA		2.2	2.4	2.6
Amphetamine	NSW	2.0	2.3	2.3	2.0
	VIC		1.8	1.7	1.4
	SA		2.2	2.4	2.0
Cocaine	NSW	1.9	2.1	2.3	2.2
	VIC		1.4	1.4	1.5
	SA		1.0	1.3	2.0
Cannabis	NSW	1.8	2.5	2.4	2.5
	VIC		2.5	2.4	2.3
	SA		2.8	2.6	2.7

Note. 0 = very difficult to obtain; 1 = difficult to obtain; 2 = easy to obtain; 3 = very easy to obtain.

Table A10. Annual mean purity (%) of heroin, amphetamine, cocaine, and ecstasy (MDMA and related derivatives) seizures made in Australia, 1996/97 - 1998/99, by jurisdiction.

Drug	State	Year		
		1996/97	1997/98	1998/99
Heroin	NSW-AFP	64	71	67
	VIC	35	62	69
	SA	37	59	61
	QLD	48	49	59
	WA	48	58	57
	NT	33	28	
	TAS	-	-	
	ACT	56	68	71
Amphetamine/ Methamphet-amine	NSW-AFP	20	21	14
	VIC	5	12	11
	SA	4	6	7
	QLD	10	13	23
	WA	7	9	12
	NT	7	9	13
	TAS	-	7	8
	ACT	6	6	12
Cocaine	NSW-AFP	59	64	50
	VIC	37	54	49
	SA	35	44	53
	QLD	27	35	42
	WA	36	27	58
	NT	-	-	-
	TAS	-	-	-
	ACT	-	47	-
MDMA and derivatives[a]	NSW-AFP	26	32	32
	VIC	28	30	28
	SA	40	30	32
	QLD	34	31	33
	WA	31	31	40
	NT	-	45	40
	TAS	-	-	-
	ACT	34	21	22

Note. NSW-AFP figures are based on AFP seizures only, which may be of higher purity than street level drugs. [a] MDMA, MDEA, MBDB, BDMPEA, MDA, MDE, PMA

Table A11. Purity (%) of drug seizures made in Australia by quarter, 1997/98 and 1998/99.

YEAR	QTR	Drug type				
		Heroin	Amphet-amine	Meth-amphetamine	Cocaine	MDMA and related derivatives[a]
97/98	1st	53	7	9	34	36
	2nd	56	7	13	47	20
	3rd	58	5	11	46	27
	4th	63	12	12	50	35
98/99	1st	66	8	15	51	29
	2nd	66	5	19	54	31
	3rd	66	9	16	39	40
	4th	59	6	16	52	34

Note. QTR = quarter. [a] MDMA, MDEA, MBDB, BDMPEA, MDA, MDE, PMA

Table A12. Mean IDU ratings of cannabis potency (1-3) for NSW in 1996-99, VIC and SA in 1997-99.

	State	Year			
		1996	1997	1998	1999
Cannabis	NSW	2.6	2.6	2.7	2.8
	VIC		2.7	2.7	2.6
	SA		2.8	2.8	2.9

Note. Higher ratings correspond to higher potency: 1 = low, 2 = medium, 3 = high.

Table A13. Drug use history of the IDU samples in 1999

Drug Class	Ever used %	Ever injected %	Injected last 6 months %	Ever smoked %	Smoked Last 6 months %	Ever snorted %	Snorted last 6 months %	Ever swallowed %	Swallowed last 6 months %	Used last 6 months %	Days used last 6 months[a]
SYDNEY (N = 156)											
Heroin	99	99	99	55	20	24	4	18	7	99	180
Amphetamine	81	76	36	10	3	52	7	35	4	37	5
Cocaine	86	81	63	15	7	35	8	5	1	67	12
Cannabis	96									83	90
MELBOURNE (N = 154)											
Heroin	99	99	96	58	22	29	6	28	14	96	160
Amphetamine	88	86	40	10	1	62	10	57	14	40	4
Cocaine	46	29	3	5	0	30	6	6	1	7	1
Cannabis	96									86	90
ADELAIDE (N = 100)											
Heroin	90	87	75	43	3	30	3	18	3	75	60
Amphetamine	93	92	46	21	5	69	17	72	18	47	40
Cocaine	75	66	18	10	4	43	14	7	0	27	2
Cannabis	98									80	78

[a]Among IDU who used in the last six months

Table A14. Drug use history of the IDU samples in 1998

Drug Class	Ever used %	Ever injected %	Injected last 6 months %	Ever smoked %	Smoked Last 6 months %	Ever snorted %	Snorted last 6 months %	Ever swallowed %	Swallowed last 6 months %	Used last 6 months %	Days used last 6 months[a]
SYDNEY (N = 176)											
Heroin	100	99	93	55	22	27	5	17	7	93	180
Amphetamine	71	64	30	11	2	44	14	38	9	35	9
Cocaine	81	69	55	9	3	38	17	5	4	59	25
Cannabis	92									69	60
MELBOURNE (N = 293)											
Heroin	98	97	93	52	21	22	3	26	10	93	150
Amphetamine	92	85	40	13	4	69	16	52	10	40	5
Cocaine	50	34	9	10	1	31	5	7	2	12	3
Cannabis	97									88	90
ADELAIDE (N = 140)											
Heroin	84	84	71	35	4	26	1	14	4	71	72
Amphetamine	98	98	68	24	6	76	20	67	14	70	25
Cocaine	81	68	32	16	4	48	12	11	1	34	5
Cannabis	99									84	120

[a] Among IDU who had used the drug in the last six months

Table A15. Drug use history of the IDU samples in 1997

Drug Class	Ever used %	Ever injected %	Injected last 6 months %	Ever smoked %	Smoked last 6 months %	Ever snorted %	Snorted last 6 months %	Ever swallowed %	Swallowed last 6 months %	Used last 6 months %	Days used last 6 months [a]
SYDNEY (N = 154)											
Heroin	98	97	90	61	19	29	5	23	10	91	120
Amphetamine	87	83	53	24	5	65	14	54	10	55	10
Cocaine	69	57	28	18	4	43	9	12	1	34	4
Cannabis	97									85	100
MELBOURNE (N = 254)											
Heroin	97	97	95	48	19	29	4	31	15	95	105
Amphetamine	95	88	45	12	4	71	13	54	26	47	10
Cocaine	58	42	5	13	2	39	5	8	2	10	2
Cannabis	99									82	150
ADELAIDE (N = 119)											
Heroin	90	90	86	40	12	23	3	10	1	88	68
Amphetamine	95	89	40	19	5	66	10	56	9	45	17
Cocaine	79	67	29	12	3	57	10	7	1	33	6
Cannabis	97									83	110

[a] Among IDU who had used the drug in the last six months

Table A16. Heroin form and route of administration for IDU who had used heroin in the last six months in 1997-99 by state.

	State	Year		
		1997	1998	1999
ROUTE (% IDU)				
injected	NSW	99	99	100
	VIC	99	99	100
	SA	97	100	100
snorted	NSW	5	5	4
	VIC	5	3	6
	SA	3	2	4
smoked	NSW	21	24	20
	VIC	19	21	23
	SA	13	6	4
swallowed	NSW	11	8	7
	VIC	15	11	15
	SA	1	5	4
FORM (% IDU)				
powder	NSW	89	87	81
	VIC	95	76	80
	SA	96	80	99
rock	NSW	94	95	98
	VIC	91	97	99
	SA	85	80	57

Table A17. Amphetamine form and route of administration for IDU who had used amphetamine in the last six months in 1997-99 by state.

	State	Year		
		1997	1998	1999
ROUTE (% IDU)				
injected	NSW	94	87	95
	VIC	93	91	97
	SA	87	97	96
snorted	NSW	26	41	17
	VIC	28	34	2
	SA	22	29	32
smoked	NSW	9	5	91
	VIC	8	7	26
	SA	11	8	11
swallowed	NSW	19	26	10
	VIC	16	24	35
	SA	20	20	38
FORM (% IDU)				
powder	NSW	100	95	93
	VIC	100	100	93
	SA	100	96	100
liquid	NSW	3	8	5
	VIC	7	5	2
	SA	11	10	11
prescription	NSW	10	8	5
	VIC	16	13	7
	SA	11	17	28
ice/shabu	NSW			7
	VIC			8
	SA			13

Table A18. Cocaine form and route of administration for IDU who had used cocaine in the last six months in 1997-99 by state.

	State	Year		
		1997	1998	1999
ROUTE (% IDU)				
injected	NSW	83	91	94
	VIC	48	66	27
	SA	85	92	67
snorted	NSW	27	27	12
	VIC	48	43	73
	SA	31	36	48
smoked	NSW	12	5	11
	VIC	16	6	0
	SA	8	11	15
swallowed	NSW	4	7	2
	VIC	16	17	18
	SA	3	4	0
FORM (% IDU)				
powder	NSW	90	99	96
	VIC	88	87	100
	SA	95	96	89
freebase	NSW	12	8	4
	VIC	4	6	9
	SA	8	4	11

Table A19. Cannabis form used by IDU who had used cannabis in the last six months in 1997-99 by state.

	State	Year		
		1997	1998	1999
FORM (% IDU)				
head	NSW			97
	VIC			99
	SA			98
leaf	NSW			33
	VIC			42
	SA			55
hash	NSW	24	20	15
	VIC	26	23	17
	SA	25	41	25
hash oil	NSW	8	10	6
	VIC	18	20	8
	SA	9	20	6