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SOUTH AUSTRALIAN DRUG TRENDS 1997

Findings from the Illicit Drug Reporting System (IDRS)

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LIST OF ABBREVIATIONS

ADIS	Alcohol and Drug Information Service
CDHFS	Commonwealth Department of Health and Family Services
DASC	Drug and Alcohol Services Council, SA
IDRS	Illicit Drug Reporting System
IDU	Injecting drug users
KIS	Key informant study
NDARC	National Drug and Alcohol Research Centre
OTHER	Refers to other (secondary) indicators

EXECUTIVE SUMMARY

In 1997, the National Drug and Alcohol Research Centre (NDARC) was commissioned by the Commonwealth Department of Health and Family Services to conduct a multi-State trial of the Illicit Drug Reporting System (IDRS) in three Australian states: New South Wales, Victoria and South Australia. NDARC commissioned the Drug and Alcohol Services Council (DASC) to undertake the South Australian component of the trial. This report presents the results of the South Australian study, including indicators of patterns and trends in illicit drug use in Adelaide from three sources:

- **a survey of injecting drug users;**
- **a qualitative study of key informants who work in the drug field (eg. health, law enforcement, outreach and research professionals); and**
- **an examination of existing drug indicators (eg. survey data, health and police data).**

Survey of injecting drug users (IDU)

IDU tend to use most illicit drugs, and their patterns of use are sensitive to changes in those factors which affect drug use like price, purity and availability. As such, IDU can serve as a sentinel group for monitoring trends in illicit drug use. One hundred and nineteen IDU from the Adelaide metropolitan area were interviewed between April and May 1997. Participants were recruited through advertisements placed in street papers and fliers placed at venues (eg. dance venues) and needle exchanges. All IDU interviewed had injected a drug at least once a month in the previous six months and were 16 years of age or older. Interviews took between 30 and 45 minutes to administer and were conducted in locations convenient to the users. The demographics of the sample were similar to those of other recent studies of IDU in Australia. The median age of the sample was 30 years, 61% were male, about one third were unemployed, the median number of school years completed was 11, two thirds of the sample had some form of tertiary education, 31% had a prison history and 38% were currently in treatment.

The survey of injecting drug users suggested several issues and trends:

- **polydrug use amongst Adelaide IDU was the norm**
- **the injection of non-injectable drugs such as benzodiazepines and methadone was reported by a significant proportion of the sample. One in five IDU had injected benzodiazepines (indicative of high risk drug use) and one in four had injected methadone**
- **a new cohort of IDU in Adelaide has been recruited to injecting through amphetamine use**
- **transition from amphetamine injecting to heroin injecting was common**
- **amphetamine was more likely to be the first drug injected by IDU living in the southern and western Adelaide suburbs**
- **heroin was more likely to be the first drug injected by IDU living in the central/eastern Adelaide suburbs**
- **heroin could be purchased for $50 a cap or $400 a gram, purity was medium to high and it was easy to obtain. Price, purity and availability of heroin had not**

changed in the previous six months

- **amphetamines could be purchased for $50 a gram or $1,000 an ounce, purity was variable, and they were easy to obtain. Price and availability of amphetamines had not changed in the previous six months, but purity levels had fluctuated**
- **cocaine could be purchased for $50 a cap or $250 a gram, purity was medium to low and it was difficult to obtain. Price had remained stable over the previous six months but purity fluctuated and availability continued to be intermittent**
- **cannabis could be purchased for $25 a gram or bag and $250 an ounce, potency was high and it was very easy to obtain. Price and availability had remained stable over the previous six months but potency had increased**
- **six out of every ten heroin users reported experiencing a heroin overdose but IDU also reported an increased awareness of the need to reduce risks for heroin overdose. One quarter of all IDU reported risky needle use and half reported engaging in drug related crime**
- **IDU reported police activity was stable to increasing, but most indicated that police activity had not made it difficult for them to obtain drugs**

Key informant study

In order to provide an overview of key issues in illicit drug use, 27 key informants were interviewed between June and September 1997. These included workers in drug treatment agencies, other health services, community services, user groups, police services, needle exchanges and research organisations. All had at least weekly contact with illicit drug users in the past six months and/or had contact with 10 or more illicit drug users in the last six months. The following major trends emerged from the key informant interviews.

Opiates

- **heroin was easy to obtain in Adelaide. Heroin rock had become more available although, overall, availability of heroin was unchanged in the previous six months**
- **prevalence of heroin use was increasing**
- **there had been an increase in the numbers smoking heroin, particularly amongst females and in the Vietnamese community**
- **fewer heroin overdoses had been observed and increased awareness of overdose risks amongst IDU was reported**
- **awareness of safer injecting practices amongst heroin users had increased**
- **there had been an increase in the proportion of heroin users who were dealing drugs to support their drug use**
- **benzodiazepine use was prevalent amongst heroin users**
- **more heroin users were using LSD**
- **more heroin users were reporting that they had tested positive to Hepatitis C**

Stimulants

- **prevalence of amphetamine use was increasing, especially in the southern suburbs**
- **amphetamine users often used alcohol in a binge pattern, as well as cannabis and ecstasy**

- **benzodiazepines were used by older, dependent users to manage their amphetamine withdrawal**
- **the risk of overdose amongst amphetamine users had increased because of their polydrug use**
- **most amphetamine users were not in treatment despite extensive polydrug use and severe drug related problems amongst regular, dependent users**
- **the proportion of amphetamine users who were dealing drugs to support their drug use was increasing, although the overall rate of crime amongst amphetamine users was low**
- **key informants reported the price of cocaine had decreased, purity had increased and, although the drug remained difficult to obtain, availability had increased**
- **there had been an increase in the prevalence of cocaine use, particularly in the southern suburbs**
- **cocaine use tended to be intermittent due to fluctuations in its availability**
- **there had been an increase in the prevalence of cocaine injecting**
- **amongst amphetamine and heroin users, there had been an increase in the prevalence of cocaine use and ecstasy use**
- **there had been an increase in the availability of ecstasy and an increase in the prevalence of ecstasy use**

Cannabis

- **an increase in hydroponically grown cannabis was associated with increasing potency of the cannabis available in Adelaide**
- **the low price of cannabis in Adelaide was associated with increased frequency of use amongst cannabis users**

Other drugs

- **few changes in police activity were observed although activity targeting amphetamines had increased**
- **there was an increase in the use of harm minimisation strategies in police practice**
- **a trend was observed towards young illicit drug users pooling their money to buy drugs and then sharing the drugs purchased, each using only a small amount**

Other indicators

To complement and validate data collected from the IDU and key informant surveys, a range of secondary data sources were consulted, including population surveys, health data, law enforcement statistics and data from special research projects. In order to be nationally comparable, such indicators were required to meet certain criteria (ie. they should be available at least annually, include 50 or more cases and provide details on the four main illicit drugs under investigation). The following major trends emerged from analysing secondary data:

- **there was a reduction in the number of heroin seizures over the past six months**
- **mean purity levels of heroin seizures were lower in the period January-June 1997**

compared to July-December 1996

- **there was little change in purity levels of amphetamine over the past twelve months**
- **there was an increase in the number of amphetamine offences in the past six months**
- **there were few seizures of cocaine over the past twelve months**
- **purity of cocaine seized over the past year varied substantially**
- **there was a notable increase in the number of ecstasy seizures over the past six months**
- **there was an increase in the number of cannabis, amphetamine and heroin offences recorded by SA Police in the past six months**
- **4% of HIV incident cases and 60% of Hepatitis C notifications were attributed to injecting drug use in 1996**

Comparisons with recent previous research in Adelaide indicated:

- **the proportion of IDU who injected amphetamines increased between 1994 and 1997**
- **the proportion of IDU who injected cocaine increased between 1994 and 1997 and between 1996 and 1997**
- **the proportion of IDU who injected cocaine, hallucinogens, ecstasy and opiates (other than heroin and methadone) increased between 1996 and 1997**
- **amphetamine replaced opiates as the most common drug for first injection between 1994 and 1997**
- **the price and availability of amphetamines in Adelaide remained stable between 1995/96 and 1997, while purity levels fluctuated over the same period of time**
- **there was an increase in the frequency of overdoses reported by IDU between 1994 and 1997**
- **there was an increase in the prevalence of non-fatal overdose between 1994 and 1997**
- **there is some evidence to suggest that the prevalence of overdose increased between 1996 and 1997**

Summary of drug trends

The main trends identified in the study overall were as follows:

Heroin

- **price, purity and availability of heroin stable during past 6 months**
- **heroin rock had become more available**
- **reduction in the number of heroin seizures over the past six months**
- **mean purity levels of heroin seizures fluctuated during 1996/97**
- **prevalence of heroin use was increasing**
- **there had been an increase in the numbers smoking heroin, particularly amongst females and in the Vietnamese community**
- **benzodiazepine use continued to be prevalent amongst heroin users**
- **more heroin users were using LSD**

Amphetamines

- **price, purity and availability of amphetamine stable during past 6 months**
- **amphetamine production laboratories becoming more mobile to avoid detection**
- **increased amphetamine use**
- **increase in amphetamine-related offences**
- **injection of amphetamine increased**
- **amphetamine was the first drug injected by the majority of IDUs**
- **most users not in treatment, despite severe drug-related problems**
- **benzodiazepine use among older dependent amphetamine users**
- **increase in cocaine and ecstasy use among amphetamine users**
- **binging on alcohol in conjunction with amphetamine use**

Cocaine

- **price stable, purity and availability fluctuating**
- **increased use**
- **increased injection of cocaine**
- **increased use of cocaine among heroin and amphetamine users**

Cannabis

- **price and availability stable, but potency increased**
- **increased frequency of use among cannabis users**
- **increase in hydroponically grown cannabis, thought to be associated with increased potency**

Other drugs

- **injecting of benzodiazepines and methadone**
- **increased ecstasy availability**
- **increased ecstasy use**
- **increase in the number of ecstasy seizures**
- **increased use of ecstasy among heroin and amphetamine users**
- **increased injecting of ecstasy among IDUs**

Other issues and problems

- **increase in heroin-related overdoses in previous 12 months, but evidence of a decrease in past 6 months**
- **overdose fatalities showed an overall increase since 1991 but decreased slightly from 1995 to 1996**
- **increased awareness of overdose risks among IDUs**
- **increased awareness of safer injecting practises**
- **decreased number of new HIV cases related to injecting drug use**
- **increase in number of heroin users testing positive to Hepatitis C**

- **police activity focussed more on manufacture and trafficking, and more conducive to harm minimisation**
- **police effort to identify organised networks of cannabis growers who use hydroponic equipment**
- **police activity was stable to increasing**
- **increase drug users dealing drugs to support their drug use**
- **most IDU indicated that police activity had not made it difficult for them to obtain drugs**
- **offences relating to cannabis, heroin and amphetamine increased**
- **a trend was observed towards young illicit drug users pooling their money to buy drugs and then sharing the drugs purchased, each using only a small amount.**

Research implications

These findings suggest the following key areas for further investigation in South Australia:

1. **research into and development of interventions for those experiencing harm associated with amphetamine use;**

2. **research into patterns of and harms associated with amphetamine and other illicit drug use amongst unemployed youth;**

3. **research into the aetiology of cocaine, ecstasy and hallucinogen injecting, including related harms;**

4. **research into the impact of changes in policing practice on overall levels of drug related harm;**

5. **development of harm minimisation advice for users of cocaine;**

6. **research into changes in the availability of cocaine, including factors affecting this market;**

7. **research into and development of interventions to address injection of non-injectable drugs amongst IDU, such as methadone and benzodiazepines;**

8. **research into the impact of drug purity levels on routes of drug administration amongst illicit drug users;**

9. **research into patterns of and trends in illicit drug use and drug availability amongst Aboriginal and Torres Strait Islander communities;**

10. **research into patterns of and trends in illicit drug use amongst people from Vietnamese communities.**

1.0 INTRODUCTION

In 1997, the National Drug and Alcohol Research Centre (NDARC) was commissioned by the Commonwealth Department of Health and Family Services to conduct a multi-State trial of the Illicit Drug Reporting System (IDRS) in three Australian states: New South Wales, Victoria and South Australia. NDARC commissioned the Drug and Alcohol Services Council (DASC) to undertake the South Australian component of the trial. This report presents the results of the South Australian study.

The national trial followed on from a review of options for an IDRS by Grant Wardlaw (1994) and a subsequent pilot study conducted in New South Wales of several methods (Hando et al., 1997). The pilot study evaluated possible components of an IDRS, and examined a range of methodological issues. These included the degree of convergent validity between methods and comparing methods on criteria such as feasibility of use, obtaining nationally comparable data, the timeliness of the information obtained and the financial and other resources required. As a result of this work, a methodology to be used in the present trial was recommended and a procedure manual developed (Hando and Darke, 1998).

The national trial evaluated three methods for collecting information about illicit drug trends and issues: a survey of injecting drug users, a qualitative study of key informants who work in the drug field (eg. health, law enforcement, outreach and research professionals) and an examination of existing drug indicators (eg. survey data, health and police data). This range of methods was employed to maximise the coverage of the relevant issues, and is consistent with recommended best practice in assessing drug trends (Hartnoll et al., 1985; National Institute on Drug Abuse, 1995).

The trial targeted IDU as a 'sentinel' group for illicit drug use trends. IDU are a group who tend to use most illicit drugs (Darke et al., 1994a, 1994b; Darke and Hall, 1995) and their patterns of use are sensitive to changes in factors which impact on drug use, such as drug availability and purity, police activity, availability of equipment, and many other factors. IDU in capital cities were targeted as the larger number of users in city areas enables the costs of the system to be minimised.

The trial also incorporated a qualitative key informant study as a method for obtaining an overview of the key issues and indicating areas for further, more rigorous examination. The method used in the present trial is designed to be a rapid assessment technique: the pilot study showed that, with key informants, telephone interviews provided a more cost-effective method of data collection than focus groups, and did not result in any loss in the quality of information obtained (Hando et al., 1997).

The third method used in the trial is the analysis of secondary data. Secondary data sources are valuable in providing a way to validate information obtained from the other sources and also to complement that information. Hando and her associates (1997) reviewed the literature on illicit drug data sets in Australia and made recommendations regarding criteria for including data sets in an Australian IDRS.

1.1 STUDY AIMS

The aims of the South Australian component of the national study were to:

i. trial the proposed methodology in South Australia;

ii. provide indicators of trends in illicit drug use in South Australia.

2.0 METHOD

Three methods were used in the study:

- **a survey of injecting drug users;**
- **a qualitative study of key informants who work in the drug field (eg. health, law enforcement, outreach and research professionals); and**
- **an examination of existing drug indicators (eg. survey data, health and police data).**

These procedures were developed by Hando et al. (1997). Staff from NDARC (Julie Hando and Dr Shane Darke) provided training to the Adelaide researchers in all procedures used in the present study, as well as a procedure manual (Hando & Darke, 1998).

2.1 INJECTING DRUG USER (IDU) SURVEY

A sample of 119 IDU were interviewed between April and May 1997. Entry criteria for the study were injecting drug use at least once a month in the previous six months and an age of 16 years or older. All participants resided in the Adelaide metropolitan area.

Participants were recruited through advertisements placed in street papers and fliers left at venues (eg. dance venues) and needle exchanges. Interested IDU contacted the researchers, were screened for entry to the study, and arrangements for an interview were made at a place convenient to the participant (eg. coffee shops, parks, hotels). Informed consent was obtained and the interview administered, lasting 30 to 45 minutes. A contribution of $20 was made to each participant in compensation for the time spent on the study interview.

The structured interview schedule was based on previous research conducted at NDARC (eg. Darke et al., 1992, 1994a). Sections on demographics, drug use, price, purity and availability of drugs, crime, risk-taking, health and general trends were included. All interviews were administered by trained interviewers who had a sound knowledge of issues relating to illicit and injecting drug use. Descriptive and inferential analyses were conducted using SPSS (SPSS Inc., 1993). Regional differences are presented where relevant.

2.2 KEY INFORMANT STUDY

Key informants were interviewed between June and September 1997. Entry criteria for the key informant study were at least weekly contact with illicit drug users in the past six months and/or contact with 10 or more illicit drug users in the last six months. All key informants were (paid or volunteer) workers in drug treatment agencies, other health services, community services, user groups, police services, needle exchanges or research organisations. They were referred to the IDRS research team by their peers or supervisors who passed on to them a study information sheet and consent form from the researchers. Interested workers forwarded a completed consent form and their contact details to the researchers. They were then contacted by the researchers, screened for entry to the study, and arrangements for a telephone interview were made at a mutually convenient time.

In total, 27 key informants were interviewed, including 19 males and eight females, whose work brought them into regular contact with injecting drug users. Key informants included three drug treatment workers (11%), one methadone worker (4%), one needle exchange worker (4%), two general health workers (7%), one user group representative (4%), four outreach workers (15%), four youth workers (15%), two researchers (7%) and nine police officers (33%). Key informants were asked to identify the main illicit drug used by the drug users they had most contact with in the past six months: 13 (48%) identified heroin, 11 (41%) identified amphetamines, two (7%) identified cannabis and one (4%) identified illicit benzodiazepines. While no key informant identified cocaine as the main illicit drug, several provided comments on cocaine use and trends. Eighty-two per cent of key informants reported that their work brought them into contact with IDU while the remaining 18% reported that both their work and personal/social lives brought them into contact with IDU.

The key informant interview took between 30 to 40 minutes to administer. The instrument used was developed based on previous research conducted at NDARC on a World Health Organization key informant study of cocaine use (Hando and Flaherty, 1993; Hando, Flaherty and Rutter, 1997), and included sections on drug use patterns, drug availability, criminal behaviour and health issues.

All open-ended responses were transcribed immediately after the interview in as much detail as possible. Open-ended responses were analysed using a word processor. Closed-ended questions were analysed using SPSS (SPSS Inc., 1993).

2.3 OTHER INDICATORS

To complement and validate data collected from the IDU and key informant surveys, a range of secondary data sources were consulted, including population surveys, health data, law enforcement statistics and data from special research projects.

The pilot study for the IDRS (Hando et al., 1997) recommended that databases used as secondary indicators should meet the following criteria:

- **be available at least annually**
- **include 50 or more cases**
- **provide brief details of illicit drug use**
- **be collected in the main study site (ie Adelaide or South Australia for the present study)**
- **include details on the four main illicit drugs under investigation**

Data sources which fulfilled these criteria and therefore have been included in this report are:

- **treatment admission data, provided by the Drug and Alcohol Services Council**
- **telephone advisory data, collected by the Alcohol and Drug Information Service**
- **police offence data, provided by South Australian Police**

- **drug purity data, collected by the Forensic Science Centre and analysed by the Australian Bureau of Criminal Intelligence**
- **HIV and Hepatitis incidence and prevalence data, collected by the STD Control Branch of the South Australian Health Commission**
- **data from the National Household Survey, conducted on behalf of the National Drug Strategy**
- **data on schoolchildren's drug use, provided by the Anti-Cancer Council**
- **additional research data (eg. studies of amphetamine use (Vincent and Shoobridge, 1997a) and heroin overdose (McGregor, 1997, personal communication))**

Some additional indicators were unavailable at the time of writing this report, or were not available in an accessible (ie computerised) format. These include ambulance and emergency room data, toxicological data from drug-related deaths, and data from special research projects currently underway in South Australia.

3.0 CURRENT DRUG SCENE AND RECENT TRENDS

3.1 AN OVERVIEW OF THE IDU SAMPLE

The demographic characteristics of the Adelaide IDU sample are summarised in Table 1.

Table 1: Demographic characteristics of IDU sample

	Adelaide Metropolitan n=119
Age (median years)	30
Sex (% male)	61
Employment (%):	
Not employed	36
Full time	27
Part time/casual	20
Student	11
Home duties	6
% Ethnicity:	
ESB	97
NESB	2
Aboriginal	1
School education (mdn yrs)	11
Tertiary education (%):	
None	33
Trade/technical	34
University/college	33
Prison history (%)	31
Current in drug treatment (%)	38

ESB = English speaking background; NESB = Non-English speaking background

The median age of users was 30 years (range 16-57). Just over 60% of the sample was male. Nearly half of the sample were employed in either full-time or part-time work, and just over one third were unemployed. The median number of years of school completed was 11 (range 9-12) and two thirds of the sample had some form of tertiary education, half in trade or technical education and half in university or college education. About one third of the sample reported having been in prison. The majority (62%) were not currently in any form of drug treatment. One third were in methadone treatment and 5% were in some other form of treatment.

The IDU sample were reasonably distributed across the entire Adelaide metropolitan area, with 28% residing in the central/eastern suburbs (average age: 31.2 years), 20% in the western suburbs (average age 30.3 years), 31% in the southern suburbs (average age: 26.9 years) and 21% in the northern suburbs (average age: 34.8 years). The only demographic difference between IDU from these regions was in age ($F_{(3, 114)}$=5.8, p=.001): IDU from the southern suburbs were significantly younger than those from the central/eastern (post-hoc comparison $t_{(114)}$=2.42, p=.017) and northern suburbs (post-hoc comparison $t_{(114)}$=-4.12, p=.000) and those from the northern suburbs were significantly older than those from the western suburbs (post-hoc comparison $t_{(114)}$=-2.15, p=.034). As only one difference was found in drug use patterns between IDU from these regions (see section 3.2), regional results are not presented separately in this report.

Of the 119 IDU in the sample, 116 had an English speaking background and only one was of Aboriginal or Torres Strait Islander descent.

3.2 DRUG USE HISTORY OF THE IDU SAMPLE

The mean age of first injection was 20 years (range 13-39). The first drug injected was amphetamine for 55% of the sample and heroin for 42% of the sample. The proportion of IDU who were currently in treatment was significantly lower amongst those who had first injected amphetamine - 28% - than amongst those who had first injected heroin - 52% ($\chi^2_{(1)}$=6.1, p=.014). Females constituted 34% of those who had first injected heroin and 43% of those who had first injected amphetamine, but this difference was not significant. There was also no difference between the age of first injection for those who first injected heroin and those who first injected amphetamine. However, the current age of IDU who first injected amphetamine was significantly younger than the current age of IDU who first injected heroin. The average current age of the heroin group was 33.6 years while the average age of the amphetamine group was 27.3 years ($t_{(113)}$=5.04, p=.000). Consistent with this finding, the average length of injecting career amongst those who first injected amphetamine was 7.2 years, while the average length of injecting career amongst those who had first injected heroin was 14.0 years ($F_{(1,112)}$=30.87, p=.000). These findings suggest that the younger cohort of IDU were recruited to injecting through amphetamine use while the older cohort of IDU were recruited to injecting through heroin use.

Nearly all of those who first injected amphetamine made the transition to heroin use. Amongst those for whom amphetamine was the first drug injected, over 83% had used heroin, 83% had injected heroin and 77% had injected heroin in the six months preceding

the interview.

While amphetamine was the first drug injected by 55% of IDU, heroin was the drug of choice for the majority of IDU (64%). Sixteen per cent preferred amphetamines, 9% preferred cocaine, 4% preferred cannabis, 3% preferred ecstasy and 2% preferred other opiates. Amongst those who first injected amphetamine, 50% stated that heroin was their drug of choice while 30% said that amphetamine was their drug of choice. None of those who first injected heroin reported that their drug of choice was amphetamine.

The only difference between the drug use patterns of IDU living in different regions of Adelaide was in the first drug injected. In the central/eastern suburbs, heroin was more likely than amphetamine to be the first drug injected, while in the southern and western suburbs, amphetamine was more likely to be the first drug injected ($\chi^2_{(3)}$=12.9, p=.005).

Table 2 summarises the drug use history of the IDU sample. Most of the IDU had used most of the illicit and licit drugs, confirming the polydrug using nature of IDU. Only steroids, anti-depressants and inhalants had been used by less than half the sample. The median number of drugs ever used by IDU was 10, and the median number of drugs ever injected was four. The median number of drugs used in the six months prior to interview was six while the median number of drugs injected in the previous six months was two.

The drugs most commonly injected were heroin, amphetamines and cocaine. The drugs most commonly smoked other than cannabis and tobacco were heroin, other opiates and cocaine. The drugs most commonly snorted were cocaine and hallucinogens while the drugs most commonly swallowed other than alcohol were hallucinogens, benzodiazepines and amphetamines.

The drugs used most frequently in the last six months (ie. on the most days) were tobacco, methadone, cannabis, heroin, alcohol and amphetamines. The drugs used least frequently in the last six months (ie. on the fewest days) were hallucinogens, ecstasy, inhalants and cocaine.

The most common drug taking behaviour in the last six months, excluding tobacco and cannabis use, was injecting heroin (86%), followed in order by drinking alcohol (84%), taking benzodiazepine tablets (51%), swallowing methadone (41%), injecting amphetamines (40%) and injecting cocaine (29%).

More detailed results relating to the main drug type are presented in the following sections.

Table 2: Drug use history of Adelaide IDU sample (n=119)

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 %	No. days used last 6 months (mdn)
Heroin	90	90	86	40	12	23	3	10	1	68
Methadone	58	25	11					53	41	180
Other opiate	59	44	17	30	6	7	2	35	21	7
Amphetamine	95	89	40	19	5	66	10	56	9	17
Cocaine	79	67	29	12	3	57	10	7	1	6
Hallucinogens	90	19	4	5	1	0	0	77	24	2
Ecstasy	58	27	13	3	3	3	2	50	20	5
Benzodiazepines	77	21	4	6	1	1	0	72	51	26
Steroids	4	3	1					5	0	-
Alcohol	98	5	0					90	84	52
Cannabis	97									110
Anti-depressants	24									138
Inhalants	43									6
Tobacco	89									180

3.3 HEROIN

3.3.1 IDU survey

Nearly two thirds (64%) of IDU indicated that heroin was their main drug of choice and for 42% of the sample heroin had been the first drug they had injected. Table 2 shows that 90% of the sample reported they had used heroin in their lifetime: 90% said they had injected it, 40% reported smoking, 23% said they had snorted and 10% said they had swallowed heroin. In the six months preceding the survey, 86% had injected heroin, 12% had smoked heroin, 3% had snorted and one per cent had swallowed heroin. Heroin was the most commonly injected of all the drugs examined. In the last six months, heroin was used on a median of 68 days (about three days a week). Six IDU observed that the number of heroin users in Adelaide had increased over the six months prior to the survey.

Price, purity and availability of heroin

Eighty-five per cent of IDU reported buying heroin powder in the last six months and 75% reported buying heroin rock.

Approximately 96% of IDU (n=114) were able to report on the price, purity and availability of heroin. Table 3 shows that users reported paying $50 for a "cap"[1] of heroin and $400 for a gram. These prices had remained stable over the six months preceding the survey. While purchases in both quantities were common, more users reported buying heroin in caps (86%) than in grams (62%) in the previous six months. Users estimated that the purity of heroin was medium to high but perceptions of trends in purity were mixed. The largest proportion indicated that purity levels were fluctuating (45%) but significant proportions also reported that purity had increased over the last six months (27%) or had remained stable (23%). IDU overwhelmingly said that heroin was easy to obtain (93%) and that this situation had remained stable over the previous six months (66%).

The majority of users reported obtaining their heroin from a friend (38%) or from a dealer's home (29%) with only 18% obtaining their heroin from a street dealer.

[1] **A "cap" is a small amount of heroin, often wrapped in foil or sealed in a plastic water balloon, which is used for individual sales (Maher, 1996).**

Table 3: IDU estimates of heroin availability

Purchase amount	**$50/cap** **$400/gram**
Δ in price over last 6 months	**Stable (88%)**
Purity	**Medium (49%)** **High (35%)**
Δ in purity over last 6 months	**Fluctuating (45%)** **Increasing (27%)** **Stable (28%)**
Availability	**Easy to obtain (93%)**
Δ in availability over last 6 months	**Stable (66%)**

3.3.2 Key informant study

Current heroin patterns

Table 4 shows that key informants (n = 13) reported that the majority of heroin users were male, aged between 15 and 40 years old, had achieved only Year 9 or 10 at school, were mostly unemployed and most had a prison history. This information, together with other comments made, suggested that most key informants had contact with heroin users who were significantly disadvantaged and had a range of problems other than those directly related to their drug use.

Heroin users were reported to come from diverse ethnic backgrounds. While the majority were reported as of Anglo-Celtic descent, significant numbers of users from the Asian (especially Vietnamese) and Aboriginal communities were also reported. Key informants also estimated that about 10% of heroin users were homosexual or bisexual. Amongst key informants who were not working in drug treatment, estimates of the proportion of heroin users in treatment varied between 5% and 30%.

Heroin users were reported typically to purchase heroin powder and to inject daily, most between two and three times. However, amongst the young more disadvantaged users (eg. homeless, unemployed), users tended to use only when they had money and usually shared their heroin with their friends, each getting a taste. A significant number of heroin users were also reported to purchase heroin rock. According to key informants, most heroin users consumed several classes of drug in addition to their heroin use. This included daily cannabis use, often to alleviate heroin withdrawal symptoms, and the use of

benzodiazepines, mostly by oral administration. A large proportion of heroin users were also using other opiates, especially morphine and codeine, and about 5% were said to inject methadone. Many heroin users also used amphetamines, usually by injection, and about 10% of heroin users were reported to inject speed on a daily basis. Some key informants noted an increase in LSD use amongst heroin users.

Most informants said that the heroin users they knew were experiencing severe drug related problems.

Heroin trends

Key informants reported an increase in the numbers of people using heroin. An increase in the smoking of heroin was also reported by some informants, particularly amongst females and in the Vietnamese community. However smoking remained an uncommon route of administration.

One informant noted an increase in exchanges of South Australian cannabis for heroin from New South Wales. Police informants indicated that the number of arrests for heroin related offences had been stable or had slightly increased in the six months preceding the survey while estimates of trends in seizures were not consistent.

Table 4: Key informant estimates of heroin use and trends

Who's using	**70% male** **15-40 years old** **Highest education level achieved: Year 9 or 10** **80% unemployed** **70%-80% have a prison history** **Diverse ethnic backgrounds** **10% homosexual or bisexual**
Δ in user demographics	**More using heroin**
Routes of administration	**Mainly injected** **Smoked**
Δ in routes of administration	**Increase in the numbers smoking**
Other drug use	**Polydrug using group** **Many use a variety of opioids** **Most use cannabis daily** **Many use benzodiazepines**

	More using LSD

Price, purity and availability of heroin

Table 5 shows that key informants estimated the cost of heroin was $50 a "cap" and about $375 per gram, and that these prices were stable. Most reported that the purity of heroin was high. Some key informants observed that there had been an increase in the availability of rock heroin and, as a consequence, purity was higher. The majority reported that heroin purity had increased over the previous six months. All key informants said that heroin was easy to obtain and that this situation was unchanged over the six month period.

Table 5: Key informant estimates of heroin availability

Purchase amount	**$50/cap** **$375/gram**
Δ in price	**Stable (83%)**
Purity	**High (54%)** **Medium (31%)**
Δ in purity	**Increased (54%)** **Stable (23%)**
Availability	**Easy to obtain (100%)**
Δ in availability	**Stable (77%)**

3.3.3 Other indicators

Survey data

The National Drug Strategy Household Survey, conducted biennially throughout Australia, obtains information on illicit drug use in the general population. However, given the relatively small numbers of illicit drug users surveyed (particularly in the less populated states like South Australia), detailed analyses of data by age and gender are not possible. Data from the 1995 National Household Survey show that the prevalence of heroin use is relatively low in the general population; less than 1% of South Australians reported ever using the drug, while less than 0.2% reported using heroin in 1995. These low rates of use

together with the small numbers sampled mean that there are wide confidence intervals around these point estimates of prevalence, making it difficult to detect changes in drug use over time.

Regular use of heroin is uncommon among South Australian schoolchildren (Drug and Alcohol Services Council, 1996 unpublished data). Less than 1% of 11-16 year old students in Years 7 to 11 reported weekly use of heroin in 1996. Three per cent of this group reported they had tried heroin at some time in their lives.

McGregor (1997, personal communication), in her study of heroin overdose in Adelaide in 1996, found that amongst heroin users, the median number of days on which heroin was used in the last six months was 49 days (compared with 68 days amongst a comparable sub-sample from the present study). Loxley and her associates (1995), in a study of IDU in Adelaide in 1994, found that 78% had used opioids in the previous month (compared with approximately 84% in the present study). Opioids were the first drug type injected by 50% of the 1994 sample (compared with 43% of the present sample). Vincent and Shoobridge (1997a) found that 33% of amphetamine users (both injectors and non-injectors) in Adelaide in 1995/96 had also used heroin.

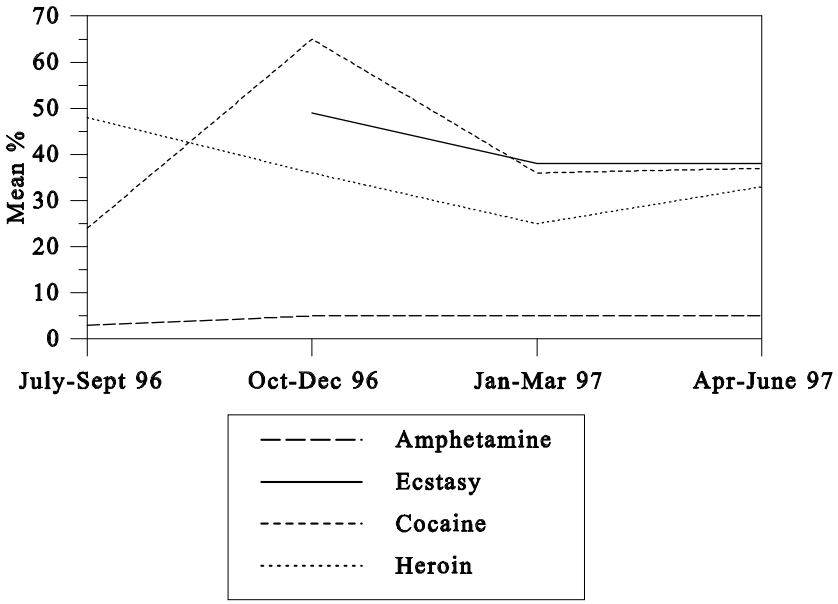
Law enforcement data

The Forensic Science Centre provided quarterly purity data on drugs seized in South Australia during 1996/97 and received for testing within the relevant quarter (the period between date of seizure by police and date of receipt at the forensic laboratory can vary from a few days to several months). Between July 1996 and June 1997, 464 heroin seizures were analysed. Around 62% of these occurred in the six months between July and December 1996. The majority of seizures were small (street) seizures under 2 grams (93%). Seizures over two grams showed higher purity (50%) than seizures under 2 grams (37%). Similar changes in purity between quarters occurred for both small and larger seizures.

A mean purity level of 37% was recorded (range 6-91%) for the July-June period, with some fluctuation (23%) occurring between quarters (see Figure 1). Mean purity levels of seizures analysed between January and June 1997 (range 6-79%) were generally lower than those of the previous six months (range 10-91%).

Figure 1. Purity of South Australian seizures 1996-97[2]

[2]**No ecstasy seizures were obtained in the July-September 1996 quarter.**


70
60
50
40
30
20
10
0
Mean %
July-Sept 96
Oct-Dec 96
Jan-Mar 97
Apr-June 97
Amphetamine
Ecstasy
Cocaine
Heroin

3.3.4 Summary of heroin trends

The following trends were reported to have occurred:

- **heroin could be purchased for $50 a cap or $400 a gram, purity was medium to high and it was easy to obtain. Price, purity and availability of heroin had not changed in the previous six months although heroin rock had become more available**
- **there was a reduction in the number of heroin seizures over the past six months**
- **mean purity levels of heroin seizures were lower in the period January-June 1997 compared with July-December 1996**
- **prevalence of heroin use was increasing**
- **there had been an increase in the numbers smoking heroin, particularly amongst females and in the Vietnamese community**
- **benzodiazepine use was prevalent amongst heroin users**
- **more heroin users were using LSD**

3.4 AMPHETAMINES

3.4.1 IDU survey

Amphetamine was the first drug injected by 55% of IDU and was the drug of choice of 16%. Nearly all IDU (95%) had used amphetamines at some time in their lives. Amphetamine was the second most commonly injected drug after heroin: 89% had injected amphetamine. Amphetamine had also been smoked by 19% of users, snorted by 66% and swallowed by 56% of users. Amphetamine was mostly used in a powder form by IDU (45.8%), with only a few users reporting they had used either liquid (5%) or prescription amphetamine (5%).

Amphetamine was also the second most commonly injected drug in the last six months after heroin: 40% of users had injected amphetamine in the six months preceding the survey. Injection was the dominant route of administration for amphetamines in the previous six months, followed by snorting (10%), swallowing (9%) and smoking (5%). Amongst those who had used amphetamines in the previous six months, the median number of days on which the drug was used was 17.

Price, purity and availability of amphetamines

Just over two thirds of IDU (72%, n=86) were able to respond confidently regarding the price, purity and availability of amphetamines.

Table 6 shows that the majority reported purchasing amphetamine for $50 a gram and $1,000 an ounce with 81% indicating that the price had remained stable over the last 6 months. More users reported buying amphetamines in grams (63%) than in ounces (27%). No clear picture of the purity of amphetamine emerged from the IDU survey with IDU perceptions being extremely variable: 40% said purity was low, 35% said purity was medium and 25% said purity was high. Views as to trends in purity over the previous six months were similarly varied, with 42% reporting fluctuating purity, 34% reporting purity was stable and 21% reporting purity had decreased. However, the majority (90%) stated that amphetamines were easy to get and that this situation had not changed over the last six months (74%).

Table 6: IDU estimates of amphetamine availability

Purchase amount	**$50/gram** **$1,000/ounce**
Δ in price over last 6 months	**Stable (81%)**
Purity	**Low (40%)** **Medium (35%)** **High (25%)**
Δ in purity over last 6 months	**Fluctuating (42%)** **Stable (34%)** **Decreasing (21%)**
Availability	**Easy to get (90%)**
Δ in availability over last 6 months	**Stable (74%)**

3.4.2 Key Informant Study

Current amphetamine patterns

Table 7 shows that key informants (n= 11) reported about 65% of amphetamine users were male and most were aged between 15 and 35 years. Most users had an English speaking background with the majority (80%) being of Anglo-Celtic descent and the rest of Mediterranean backgrounds. Key informants noted that few Aboriginal and Torres Strait Islander people used amphetamines. Most users had no more than 10 years of school education. Amphetamine users were described as being mostly unemployed (70%-80%) or working in casual employment (20%-30%), with several key informants noting that these people typically worked in the fast-food and hospitality industries. More females than males were said to be employed. Fewer than 5% of users known by key informants were said to be homosexual or bisexual. Only about 30% of amphetamine users were thought to have a prison history and most users were not in treatment: key informants not working in treatment settings estimated less than 5% of amphetamine users were in treatment.

Key informants estimated that about 50% of amphetamine users injected the drug, with about half of these injecting daily. The other 50% of amphetamine users swallowed the drug, usually as a powder dissolved in a drink. Males were said to more often use alcohol as the diluent while females were more likely to use a non-alcoholic diluent. Dependent users were more likely to inject than swallow speed, although most people who injected

speed were not dependent users: estimates of the proportion of injecting amphetamine users who were dependent varied between 10% and 30%. Non-dependent users were reported to use amphetamines one to three times a week and consume 0.5 to one gram each time. Dependent users were reported to use, on average, one gram per day but consumption sometimes increased to two grams per day.

Between 90% and 100% of amphetamine users also used cannabis, many to cope with the "come-down" after amphetamine use. Most also used alcohol, typically in a binge pattern. A significant proportion of users consumed both amphetamines and alcohol together in binges, using amphetamines to counteract the effects of alcohol, and *vice versa*, throughout a night. Ten to 15% of amphetamine users also used cocaine with most snorting rather than injecting the drug. Ecstasy use was also commonly reported amongst amphetamine users with multiple 'trips' (up to ten) being used over the course of a night. Older, dependent amphetamine users also used benzodiazepines to self-medicate withdrawal symptoms. Young amphetamine users (13-15 years of age) often also used inhalants.

Amphetamine trends

Key informants described an increase in the number of people using amphetamines in the six months preceding the survey. This was reported in most metropolitan areas but was more marked in the southern suburbs of Adelaide. Key informants also noted an increase in the use of cocaine and ecstasy by amphetamine users. Estimates of the severity of drug related problems amongst users varied: key informants noted that many amphetamine users were "social" users and did not have severe problems. However, among dependent users, problems were described as moderate to severe. Two key informants described an increase in psychiatric problems amongst amphetamine users and an increase in overdoses related to polydrug use. An increase in assaults related to amphetamine-induced aggression was also reported by two informants.

Table 7: Key informant estimates of amphetamine use and trends

Who's using	**15-35 years of age** **65% male** **80% Anglo-Celtic background** **Highest education level achieved: Year 10** **70%-80% unemployed** **30% have a prison history** **Most not in treatment**
Δ in user demographics	**Increase in numbers using** **More use in southern suburbs of Adelaide**
Routes of administration	**Injected** **Swallowed (usually powder dissolved in a drink)**
Δ in routes of administration	**—**
Other drug use	**Cannabis** **Alcohol (binge pattern)** **Ecstasy** **Benzodiazepines amongst older, dependent users**

Price, purity and availability of amphetamines

Key informants reported that most amphetamine users purchased the drug as a powder. Table 8 shows that key informants reported amphetamines cost $50 per gram and $1,000 per ounce, and these prices had been stable over the six months preceding the survey. Key informant estimates of the purity of amphetamines were inconsistent, as were estimates of trends in purity. However, all key informants agreed that amphetamines were easy to get. Most said this had not changed over the six months preceding the survey, although key informants from the southern suburbs reported the availability of amphetamines had increased in their area. Key informants indicated that most illegal amphetamine in Adelaide was manufactured locally, with laboratories becoming more mobile (eg. located on boats or being temporarily established in a bush location) to avoid detection.

Table 8: Key informant estimates of amphetamine availability

Purchase amount	**$50/gram** **$1,000/ounce**
Δ in price	**Stable (64%)**
Purity	**Medium (43%)** **High (28%)** **Low (28%)**
Δ in purity	**Increased (38%)** **Stable (25%)** **Decreased (25%)**
Availability	**Easy (100%)**
Δ in availability	**Stable (60%)** **Easier (20%)**

3.4.3 Other indicators

Survey data

After cannabis, amphetamine is the second most commonly used illicit drug in South Australia. According to the 1995 National Household Survey, amphetamines have been tried by around 4% of South Australians aged 14 years and over. The vast majority of these people - around 68% - said they no longer use this drug. Of the 1% of the general population who currently take amphetamines, most use on an infrequent, irregular basis (ie 1-4 months or less often).

Like heroin, regular use of amphetamines by schoolchildren in South Australia is low: less than 1% of 11-16 year old students in Years 7 to 11 reported weekly use of amphetamines in 1996 and 4.9% reported ever having used amphetamines.

McGregor (1997, personal communication), in her study of 218 heroin IDU in Adelaide in 1996, found that 80% had used amphetamines, 73% had injected amphetamines and 36% had injected amphetamines in the six months prior to interview. The median number of days amphetamines had been used by this sample in the previous six months was 5 days. This compares with the present study where, in a similar sub-sample of users, 94% had used amphetamines, 87% had injected amphetamines and 33% had injected amphetamines in the six months prior to the survey. The median number of days on which amphetamines had been used in the previous six months in 1997 was 12 days.

Vincent and Shoobridge (1997a), in their study of amphetamine use and interventions in Adelaide in 1995/96, found that injecting amphetamine users aged under 25 years had first injected amphetamines at a significantly younger age (17.7 years) than injecting users aged 25 years and over (21.6 years). They also found that the mean duration between first use of amphetamine and first injection of amphetamine was 2.2 years, although amongst users aged under 25 years the mean duration was less than one year while amongst users aged 25 years and older, the mean duration was almost three years. Vincent and Shoobridge also noted that amongst their sample of amphetamine users (both injectors and non-injectors), amphetamines had been used on a median of 48 days in the previous six months, over 40% had binged for a median of four consecutive days at least once in the previous six months and 86% reported using less than one gram of amphetamine when they used the drug. Only 2% of the sample was in treatment at the time of interview. The researchers found that amphetamines could be purchased for $50 per gram in 1995/96, that this price had been stable over the previous two years, that amphetamines were easy to get in Adelaide but that purity of the drug was variable (Vincent et al., 1997; Vincent and Shoobridge, 1997b).

Loxley and her associates (1995) found that amphetamines had been used in the month prior to interview by 36% of Adelaide IDU in 1994, and that 46% of IDU reported amphetamine as the drug they first injected. This compares with 82% of IDU in the present study who reported using amphetamines six or more times in the previous six months and 55% of IDU who reported amphetamine was the first drug they injected.

Law enforcement data

A total of 448 seizures of amphetamine (including methamphetamine) were analysed between July 1996 and June 1997 in South Australia. Around 60% of these were analysed between July and December 1996. Mean purity levels of around 4% (range <1-61%) were recorded for the July-June period, with little fluctuation (2%) between quarters (Figure 1). Eighty-four percent of seizures were less than 2 grams. The mean purity of small seizures (< 2 grams) was 4%, compared to 7% for larger seizures.

3.4.4 Summary of amphetamine trends

- **Amphetamines could be purchased for $50 a gram or $1,000 an ounce, there was little change in purity over the previous six months, and they were easy to obtain. Price and availability of amphetamines had not changed in the previous six months.**
- **There has been an increase in the number of amphetamine offences in the past six months**
- **Prevalence of amphetamine use was increasing, especially in the southern suburbs**
- **Amphetamine users often used alcohol in a binge pattern, as well as cannabis and ecstasy**
- **Benzodiazepines were used by older, dependent users to manage their amphetamine withdrawal**
- **Most amphetamine users were not in treatment despite extensive polydrug use and severe drug related problems amongst regular, dependent users**

- **The proportion of IDU who inject amphetamines has increased since 1994**
- **Amphetamine replaced opiates as the most common drug for first injection between 1994 and 1997**

3.5 COCAINE

3.5.1 IDU survey

Seventy-nine percent of IDU had used cocaine and 9% reported that it was their drug of choice. The majority of IDU (67%) reported they had injected cocaine, 57% had snorted it, 12% had smoked it and 7% had swallowed the drug. In the last six months, injection was the most common method of administering cocaine with 29% injecting, 10% snorting, 1% swallowing and 3% smoking the drug. However, use of cocaine was infrequent; the median number of days on which it was used in the last six months was 6 days.

Thirty-seven per cent of IDU — the overwhelming majority of those who had used cocaine in the last six months — had used cocaine in powder form in that period, while only three IDU (2.5%) reported using crack cocaine.

Price, purity and availability of cocaine

Less than a third of the sample (n=39) felt confident providing estimates of the price, purity and availability of cocaine.

Table 9 shows that users reported that the usual price paid for cocaine was $250 for a gram and $50 for a "cap". More reported buying cocaine in grams (32%) than in caps (23%). The majority also reported that the price had been stable over the previous six months. Purity was reported to be medium to low, and most felt that the purity of cocaine had fluctuated over the six month period. Users also indicated that cocaine was only available intermittently and so frequency of use was low. Ratings of the availability of cocaine reflect this situation: 80% rated it difficult to obtain and nearly half indicated that this situation had not changed over the six month period, with a further 42% saying that availability fluctuated. Comments from IDU indicated that they would use more of the drug if it was available.

Table 9: IDU estimates of cocaine availability

Purchase amount	**$50/cap** **$250/gram**
Δ in price over last 6 months	**Stable (84%)**
Purity	**Medium (52%)** **Low (27%)**
Δ in purity over last 6 months	**Fluctuating (63%)**
Availability	**Difficult to obtain (80%)**
Δ in availability over last 6 months	**Stable (47%)** **Fluctuating (42%)**
Other	**Cocaine available intermittently** **Frequency of use is low**

3.5.2 Key informant study

Current cocaine patterns and trends

Key informants reported that cocaine use was becoming more popular, although no key informants identified cocaine as a primary drug of use amongst users they knew. While the drug was difficult to obtain, it had become more available and a little cheaper. These factors had contributed to an increase in the numbers of people using cocaine and this was especially so in the southern suburbs of Adelaide (see Table 10). Key informants also reported an increase in the prevalence of cocaine injecting. Cocaine use was reported amongst many heroin users (who typically injected it) and amongst a smaller proportion of speed users (50% of whom snorted it and 50% of whom injected the drug). Informants reported that cocaine was not used regularly by most users, due to its cost and intermittent availability.

Table 10: Key informant estimates of cocaine use and trends

Who's using	**Users of amphetamines and heroin**
Δ in user demographics	**More use in southern suburbs**
Routes of administration	**Snorted** **Injected**
Δ in routes of administration	**Increase in injecting**
Other drug use	**Heroin** **Amphetamines**
Other trends	**—**

Price, purity and availability of cocaine

Table 11 shows that key informants reported that the price of cocaine had decreased in Adelaide over the previous six months while its purity had increased. Two key informants indicated that they were aware of some crack cocaine having been available in Adelaide in the six months prior to the study. One informant reported that about half the cocaine entering Adelaide is being made into crack, although police key informants reported that they had not observed any crack in Adelaide in the previous 12 months.

Table 11: Key informant estimates of cocaine availability

Purchase amount	**$200/gram**
Δ in price	**Decreased**
Purity	**—**
Δ in purity	**Increased**
Availability	**Difficult to obtain**
Δ in availability	**Easier**

3.5.3 Other Indicators

Survey data

In South Australia, prevalence of cocaine use among the general population remains low, with around 3% having ever tried, and 1% currently taking the drug. Regular use amongst South Australian schoolchildren is also low: less than 1% of 11-16 year old students in Years 7 to 11 reported weekly use of cocaine in 1996 and 2.3% reported ever using cocaine.

McGregor (1997, personal communication) found, amongst Adelaide heroin users in 1996, that 65% had used cocaine, 49% had injected cocaine, 12% had injected cocaine in the six months prior to the survey and cocaine had been used on a median of four days in the six months prior to the survey. This compares with figures from a comparable sub-sample of the present study showing 80% had used cocaine, 69% had injected cocaine and 28% had injected cocaine in the previous six months with cocaine being used on a median of five days in the six months prior to the study (see detailed discussion in section 3.9).

Vincent and Shoobridge (1997a) found that 34% of amphetamine users (both injectors and non-injectors) in Adelaide in 1995/96 had also used cocaine.

Loxley et al. (1995) found that 7% of Adelaide IDU in 1994 had used cocaine in the month prior to interview. This compares with 54% of IDU who had used cocaine six or more times in the previous six months in the present study.

Law enforcement data

There were 15 seizures of cocaine (all <2 grams) analysed in South Australia between July 1996 and June 1997. The mean purity of these seizures was 33.7% (range 19-65%), with considerable fluctuation (41%) recorded between quarters (Figure 1).

3.5.4 Summary of cocaine trends

- **Cocaine could be purchased for $50 a cap or $250 a gram, purity varied substantially and it was difficult to obtain. Price had remained stable over the previous six months but purity fluctuated and availability continued to be intermittent**
- **There had been an increase in the prevalence of cocaine use, particularly in the southern suburbs**
- **Cocaine use tended to be intermittent due to fluctuations in its availability**
- **There had been an increase in the prevalence of cocaine injecting**
- **Amongst amphetamine and heroin users, there had been an increase in the prevalence of cocaine use and ecstasy use**
- **The proportion of IDU who inject cocaine has increased since 1994 and since 1996**

3.6 CANNABIS

3.6.1 IDU survey

Cannabis had been used by nearly all IDU surveyed (97%) on a median number of 110 days in the previous six months (over four days a week). Eighty-five percent of IDU had used cannabis leaf in the last six months, 22% had used hash and 9% had used hash oil.

Price, potency and availability of cannabis

Nearly all IDU (92%) felt confident providing estimates of the price, potency and availability of cannabis. Table 12 shows that users reported paying $250 for an ounce of cannabis and $25 for a gram or bag. Most users reported the price of cannabis was stable. Eighty-five per cent of IDU reported cannabis was of high strength and that the strength of cannabis over the previous six months had been increasing (40%) or stable (31%). Users also reported that cannabis was widely available, being very easy to obtain. Most said that this situation had been stable over the previous six months although a third stated that cannabis had become easier to obtain over that period.

Table 12: IDU estimates of cannabis availability

Purchase amount	**$25/gram or "bag"** **$250/oz**
Δ in price over last 6 months	**Stable (47%)**
Potency	**High (85%)**
Δ in potency over last 6 months	**Increasing (40%)** **Stable (31%)**
Availability	**Easy (99%)**
Δ in availability over last 6 months	**Stable (53%)** **Easier (33%)**

3.6.2 Key informant study

Current cannabis patterns

Key informants (n=2) indicated that cannabis use was widespread. Table 13 shows that key informants reported most users were aged between 18 and 35 years, although there were many users who were either older and younger than this. About 70% of users were male.

Users were described as coming from most ethnic groups. Similarly, users were varied in terms of education level and employment background, although key informants estimated that there was a higher proportion of cannabis users amongst those who were unemployed. Most cannabis users were reported to have no prison history and were not in treatment. Most cannabis users smoked the drug on a daily basis.

Cannabis trends

Key informants reported little change in the patterns of cannabis use over the six months preceding the survey. The only trend observed was toward an increasing number of daily cannabis users, due to lower prices of cannabis in Adelaide. Most key informants reported an increase in hydroponically grown cannabis in Adelaide. Police reported that there had been no fluctuations in cannabis arrests and seizures over the course of 1997. This reflected the high proportion of cannabis grown hydroponically and was different to previous years when seasonal factors affected the growth of cannabis and, thereby, arrest rates and seizures.

Table 13: Key informant estimates of cannabis use and trends

Who's using	**18-35 year olds (mostly)**
Δ in user demographics	**—**
Routes of administration	**Smoked**
Δ in routes of administration	**—**
Other drug use	**—**
Other trends	**Increased availability of hydroponically grown cannabis ("skunk")** **Increase in percentage of users smoking cannabis daily**

Price, potency and availability of cannabis

Table 14 shows that key informants estimated the price of cannabis was $25 a bag or gram. Many noted an increase in the availability of potent, hydroponically grown cannabis. They reported that this high-grade cannabis was widely available and that its price was decreasing while potency was increasing.

Table 14: Key informant estimates of cannabis availability

Purchase amount	**$25/gram or bag**
Δ in price	**Decreasing**
Potency	**Medium to high**
Δ in potency	**Stable to increasing**
Availability	**Easy to obtain**
Δ in availability	**Stable**

3.6.3 Other Indicators

Survey data

Data from the 1995 National Household Survey show that in South Australia cannabis was the most widely tried illicit drug. In 1995 approximately 36% of males and 29% of females surveyed said they had ever tried cannabis. Of these people, around 39% of males and 33% of females said they had used cannabis during 1995. Approximately 15% of males and 11% of females said they used cannabis once a week or more often in 1995.

Cannabis is also the most commonly used illicit drug among schoolchildren in South Australia. In 1996, 36% of 12-16 year old students in Years 7 to 11 reported using cannabis at some time in their lives. Lifetime use increased with age; in 1996, 88% of 12 year olds said they had never tried cannabis. This compared with 44% of 16 year olds. Regular use also increased with age, with approximately one in four 16 year olds reporting weekly cannabis use.

Amongst Adelaide heroin users in 1996, 94% reported cannabis use on a median of 140 days in the previous six months (McGregor, 1997, personal communication) while amongst amphetamine users (injecting and non-injecting), 94% reported having used cannabis and 29% reported cannabis was their drug of choice (Vincent and Shoobridge, 1997a).

3.6.4 Summary of cannabis trends

- **Cannabis could be purchased for $25 a gram or bag and $250 an ounce, potency was high and it was very easy to obtain. Price and availability had remained stable over the previous six months but potency had increased**
- **The low price of cannabis in Adelaide was associated with increased frequency of use amongst cannabis users**
- **An increase in hydroponically grown cannabis was associated with increasing potency of the cannabis available in Adelaide**

3.7 OTHER DRUGS

3.7.1 IDU survey

After heroin, amphetamine and cocaine, other opiates were the next most commonly injected drugs: 17% reported they had injected opiates other than heroin or methadone over the six months preceding the survey. Twenty-one per cent reported swallowing other opiates, 2% snorting and 6% smoking other opiates in the same period. In all, 36% said they had used opiates in the last six months: 11% of the total sample said they had used Morphine and 8% had used Panadeine Forte. Fewer than 4% reported using any other type of opiate.

Over 50% of IDU reported using benzodiazepines in the six months preceding the survey on a median number of 26 days (about 1 day per week). Most users swallowed these drugs, with a small percentage (4%) injecting benzodiazepines. The most common benzodiazepines used by IDU were Valium (26%) and Rohypnol (15%). Fewer than 4% had used any other brand of benzodiazepines.

Only 11% of users reported injecting methadone in the six months before the survey while 41% reported swallowing methadone. Given that 33% of the sample reported being in methadone treatment, these figures suggest only a small illicit market in methadone in Adelaide.

Hallucinogens had been used by about one in four IDU and ecstasy by one in five in the six months prior to the study. Most had swallowed these drugs but 13% had injected ecstasy. Only 4% had used mushrooms.

Twenty-four per cent of IDU reported use of anti-depressants in their lifetime and 13% reported use in the previous six months on a median of 138 days. Seven per cent reported daily use of anti-depressants. While the study did not distinguish between prescribed and illicit use of anti-depressants, it seems likely that, given their daily use, anti-depressant use was prescribed for a significant proportion of the group.

3.7.2 Key informant study

Many key informants noted an increase in the availability and use of LSD and ecstasy over the six months preceding the survey, particularly in the southern suburbs of Adelaide. Most who used ecstasy used it in a binge pattern, often with alcohol. Ecstasy use was reported amongst both heroin and amphetamine users. However, key informants reported that ecstasy users whose primary drug of choice was ecstasy were more often employed, better educated and more "middle-class" than ecstasy users whose primary drug of choice was amphetamine or heroin. Increasing use of LSD was also noted by a number of key informants.

Illicit use of benzodiazepines was commonly reported by key informants. User demographics were said to be changing, with an increase in the number of young users taking benzodiazepines. Users of illicit benzodiazepines were reported typically to be

polydrug users. Amongst homeless, inner-city people, benzodiazepine use was common, much of the drug being obtained through "doctor-shopping" (ie. obtaining several prescriptions for benzodiazepines by attending a number of surgeries and reporting symptoms amenable to benzodiazepine treatment). Most of this homeless group also used cannabis and a range of other illicit pills, but only 5% also used heroin. Amongst heroin users, benzodiazepine use was reputedly common. Regular, dependent, injecting amphetamine users also used illicit benzodiazepines.

3.7.3 Other indicators

Survey data

The National Household Survey also provides estimates on the use of other illicit drugs in South Australia, including LSD, ecstasy, inhalants and steroids. In 1995 around 5% of the general population reported ever using LSD, 2% inhalants, 1.4% Ecstasy and 1.1% steroids.

Less than 1% of 11-16 year old students in Years 7 to 11 reported weekly use of ecstasy and 2.3% reported lifetime ecstasy use. Weekly use of LSD was reported by 1.2% of students while lifetime use was reported by 7.6% of students.

In 1994 (Loxley et al., 1995), nearly 16% of Adelaide IDU reported use of hallucinogens in the month prior to interview. This compares with nearly 10% of IDU in the present study who reported using hallucinogens six or more times in the six months prior to interview.

In 1996 (McGregor, 1997, personal communication), 75% of Adelaide heroin users reported having used hallucinogens, 17% reported they had injected hallucinogens and 1% reported they had injected hallucinogens in the six months prior to interview. This compares with results from a comparable sub-sample from the present study where 91% reported they had used hallucinogens, 21% reported they had injected hallucinogens and 5% reported injecting hallucinogens in the six months prior to interview (see section 3.9 for a more detailed discussion of this comparison). A similar comparison can be made for ecstasy and benzodiazepine use: ecstasy had been used by 55% in 1996 and 57% in 1997, injected by 24% in 1996 and 27% in 1997, and injected in the six months prior to interview by 6% in 1996 and 10% in 1997; benzodiazepines had been used by 74% in 1996 and 79% in 1997, injected by 10% in 1996 and 25% in 1997 and injected in the six months prior to interview by 4% in 1996 and 5% in 1997.

Law enforcement data

A total of 39 seizures of ecstasy were analysed between July 1996 and June 1997. Of these, 22 (56%) occurred between April and June 1997, 10 (26%) between January and March 1997 and 7 (18%) between October and December 1996. No seizures were analysed between July and September 1996. The mean purity level for the July-June period was 42.5% (range 28-80%).

3.7.4 Summary of other drug trends

- **The injection of non-injectable drugs such as benzodiazepines and methadone was reported by a significant proportion of the sample. One in five IDU had injected benzodiazepines (indicative of high risk drug use) and one in four had injected methadone.**
- **Amongst amphetamine and heroin users, there has been an increase in the prevalence of cocaine use and ecstasy use.**
- **There has been an increase in the availability of ecstasy and an increase in the prevalence of ecstasy use.**
- **There has been a notable increase in the number of ecstasy seizures over the past six months**
- **The proportion of IDU who inject hallucinogens and ecstasy has increased between 1996 and 1997.**

3.8 DRUG-RELATED ISSUES

3.8.1 IDU survey

Table 15 summarises the main findings from the IDU survey in relation to drug related issues.

Half of the IDU reported committing crime in the month preceding the interview: 14% reported property crime, 41% reported drug dealing, 11% reported engaging in fraud and none reported violent crime. The only comparable estimate of criminal behaviour amongst IDU in South Australia is an estimate of 60% of heroin users entering methadone treatment engaging in property crime or drug dealing in the previous month in 1991 (White, personal communication, 1996). It is likely that a sample entering treatment will be a more dysfunctional group than the sample recruited to the present study, 62% of whom were not in treatment. Some support for this observation is found in a comparison of the unemployment rate in the two samples: just over 50% of the methadone sample were unemployed compared with 36% in the present study (White et al., 1996). The estimate of 50% who engaged in any crime in the present study is lower than but still comparable with the estimate of 59% in a similar sample of IDU from inner-city Sydney in 1996 (O'Brien et al., 1996).

Amongst those who had used heroin, 62% reported they had experienced an overdose on a median of two occasions. Twenty-nine per cent of heroin users reported an overdose within the last 12 months and 18% within the last six months. Thirty-four per cent of heroin users (55% of those who had experienced an overdose) had been treated with the opioid antagonist naloxone (Narcan®). Nineteen per cent of heroin users had been treated with naloxone in the last 12 months. These figures are comparable with those reported for similar samples in New South Wales in 1996 (Darke et al., 1996; Hando et al., 1997). Comparisons with previous South Australian figures are discussed in Section 3.9.

Over half of the IDU reported use of benzodiazepines in the six months preceding the survey, and key informants remarked on the high prevalence of benzodiazepine use amongst both amphetamine users and heroin users. One in five IDU had injected benzodiazepines and one in four IDU had injected methadone. The injection of benzodiazepines and methadone is associated with significant personal risks for users. Use of benzodiazepines has also been found to relate to more frequent injecting activity, more frequent use of heroin and amphetamines, higher rates of polydrug use, higher levels of risky needle use and higher rates of unemployment (Darke et al., 1992). The prevalence of benzodiazepine use in the present Adelaide sample is lower than that found in a similar sample in Sydney in 1996 (Hando et al, 1997), but nevertheless suggests a significant proportion of IDU who are engaging in high risk drug use in Adelaide.

Twenty-five per cent of IDU reported engaging in some form of risky needle use, either by using a needle after someone else had used it (19%), or lending their needle to someone else after using it themselves (18%). In all cases where a needle was used after someone else had used it, only one person had used the needle previously. This raises significant concerns regarding the risk of infection (and re-infection) with blood borne communicable diseases

such as HIV and Hepatitis C. There were no differences between males and females in the proportion engaging in risky needle use. Several users remarked on the increased awareness of safer injecting practices amongst IDU and the increased proportion of IDU using precautions to reduce the risk of overdose.

The mean health score for IDU on the health scale of the Opiate Treatment Index was 15.0 (standard deviation: 8.2, range=0-36). This does not differ significantly from normative data for Australian IDU (mean=12.6, standard deviation = 7.6, range =0-42) (Darke et al., 1991). Most common injection related problems reported for the month preceding the interview were difficulty injecting (45%), scarring and bruising (43%) and having a dirty hit which made them feel sick (25%).

The first drug injected by over half of the IDU was amphetamine, while 42% had first injected heroin. The current age of those who had first injected amphetamine was younger than those who had first injected heroin. This may suggest a younger cohort of IDU recruited to injecting through amphetamine use in contrast to the older cohort of IDU who were recruited to injecting through heroin use. Darke and Hall (1995) found evidence to suggest a new cohort of amphetamine using polydrug users was emerging in Australia.

IDU reported the level of police activity over the previous six months was either stable (33%) or had increased (35%). None reported reduced police activity. Sixty per cent said that recent police activity had not made it more difficult for them to score drugs while 24% said that police activity had made it more difficult to score. Most (70%) reported no change in the number of their friends who had been busted recently while 27% said that more of their friends had been busted recently.

A number of drug related issues were raised by IDU in unprompted remarks. Most common amongst these were expressions of support for the legalisation of currently illicit drugs, especially cannabis (n=9) and support for the conduct of a trial of heroin in the treatment of opioid dependence (n=6). A number of IDU also noted that more of the people they knew were in methadone treatment.

Table 15: IDU estimates of drug-related issues

Health	**Six out of every ten heroin users reported experiencing a heroin overdose** **One quarter of all IDU reported risky needle use**
Crime	**Half of all IDU reported engaging in drug related crime**
Police activity	**IDU reported police activity was stable to increasing, but most indicated that police activity had not made it difficult for them to**

	obtain drugs

3.8.2 Key informant study

Table 16 summarises the main findings from the Key Informant study in relation to drug related issues.

Key informants remarked that among regular dependent heroin and amphetamine users, drug related problems were often severe. Health problems, unemployment, legal and financial problems were commonly cited.

A number of key informants observed that IDU were more aware of safer injecting practices and methods to lower their risk of overdose. Most informants observed a reduction in the level of overdose in the six months prior to the survey. However, some key informants on amphetamine users reported that they believed there was an increased risk of overdose amongst this group due to polydrug use. More heroin users had also reported to key informants that they had tested positive for Hepatitis C.

Most key informants reported that levels of crime amongst heroin users remained high but, in general, were unchanged over the six months preceding the survey. Crime amongst primary amphetamine users was reported to be much lower than that for heroin users. However, several key informants commented that an increasing proportion of users were engaging in selling drugs to support their own drug use. In relation to armed robberies committed by heroin users, there were reports that the targets of these crimes had switched away from financial institutions and towards "softer" targets such as delicatessens and service stations.

Police reported that more people with no criminal or drug using history were selling cannabis: hydroponic cannabis growing is seen as financially lucrative and low-risk since growers can successfully exploit the cannabis expiation notice system in South Australia. No changes in crime by cannabis users were reported, with some key informants noting that drug related criminal activity was not typical of cannabis users. Police noted that most growers of cannabis they came into contact with were not users of cannabis. Police also reported little change in police activity over the six months preceding the survey, although indicated that more effort was being made to identify organised networks of people using hydroponic equipment to grow fewer than ten plants each, for a significant profit across the entire syndicate.

Key informants noted few changes in the levels of police activity, although there was some perception that the level of activity targeting amphetamines had increased. However, many key informants noted a change in the type of policing practice associated with drugs. Several comments indicated that police activity was focussed more on the manufacture and trafficking of drugs and less on drug users. Several key informants also noted that they perceived police interactions with users were less likely to be punitive, were increasingly conducive to harm minimisation and were consistent with a community policing approach.

Two key informants observed that among young illicit drug users there was a trend towards users pooling their money to buy drugs (amphetamines, 'pills', cannabis and heroin) and then share the drugs purchased, often only using a small amount each.

Table 16: Key informant estimates of drug-related issues

Drug type	
Heroin	**Safer injecting practices** **More heroin users tested positive to Hepatitis C** **Fewer heroin overdoses** **Increased use of precautions to avoid overdose** **Severe drug related problems amongst regular dependent IDU**
Stimulants	**Increased risk of overdose due to polydrug use** **Severe drug related problems amongst regular dependent IDU**
Cannabis	**—**
Other	**More users dealing to support drug use** **Police activity increasingly in line with harm minimisation** **Young people sharing money and drugs**

3.8.3 Other indicators

Health data

The Drug and Alcohol Services Council (DASC) provides a range of outpatient and inpatient services for which client data are available. In 1996/97, 4158 people attended a DASC treatment service. Approximately 34% of DASC clients reported using opioids, 25% cannabis, 9% amphetamines and 1% reported cocaine use.

A total of 7490 telephone calls were made to DASC's Alcohol and Drug Information Service (ADIS) during the period 1 July 1996 and 30 June 1997. Most of these calls were received by members of the general public wishing to obtain information about specific drugs. Of these calls 1048 (14%) related to cannabis, 384 (5%) related to heroin, 237 (3%) related to amphetamines and 27 (0.4%) related to cocaine. Figure 2 shows that there has been little variation in the number of calls by drug type over the past twelve months.

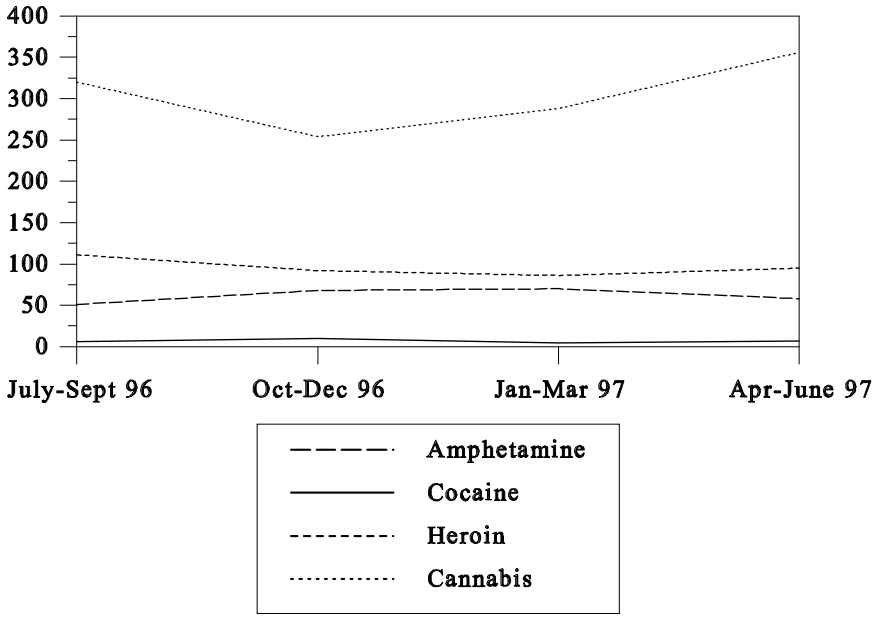


Figure 2: ADIS drug mentions, 1996/97

Based on methodologies employed by Hall and Darke (1997) to measure opiate overdose fatalities, data have been obtained from the Australian Bureau of Statistics on the number of deaths attributed to opioid dependence and accidental opioid poisoning. These data show that among persons aged 15 to 54 years there were 32 opiate overdose deaths (37.9 per million population) in South Australia in 1996. The rate of fatal overdose in 1996 was slightly lower than in 1995 (38 deaths, 45.1 per million population), but the same as 1994 (32 deaths, 38.1 per million population). A notable increase in overdose deaths had occurred from 1991 when only 13 deaths occurred (15.7 per million population).

In South Australia a total of 656 people were diagnosed with HIV infection between 1985 and 31 March 1997. Of these people 102 (or 15.5% of diagnoses) had a history of injecting drug use (STD Control Branch, 1997). Since 1987 there has been a substantial fall in the number of new HIV diagnoses where injecting drug use has been the primary risk factor, from 30% of cases in 1987 to 4% of cases in 1996 (of the 9 cases diagnosed in the first three months of 1997, none reported injecting drug use as a risk factor).

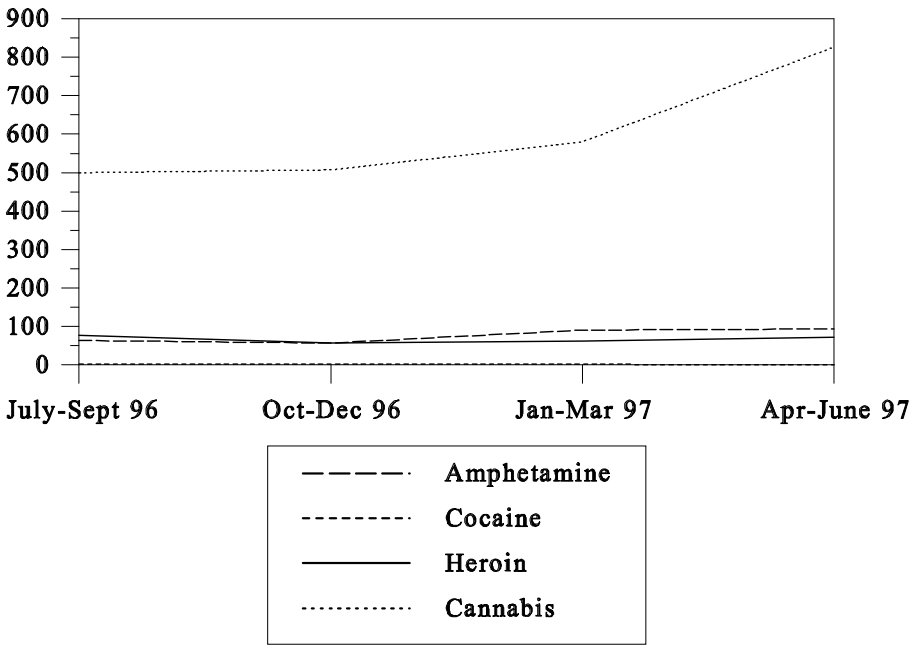
Since blood testing for Hepatitis C become available in 1990, injecting drug users have been shown to be a major risk group for Hepatitis C (Crofts et al., 1993). Data for South Australia show that between January and March 1997 there were 231 medical notifications for individuals who tested Hepatitis C antibody positive for the first time. Of these notifications, 60% were attributed to injecting drug use, either wholly or in combination with tattoos or blood transfusions (STD Control Branch, 1997).

A detailed comparison of the prevalence and frequency of heroin overdose found in the present study with the findings of previous research is presented in Appendix 1. In 1994, around 47% of Adelaide IDU reported experiencing a drug overdose in their lifetime, on a median of one occasion (Loxley et al., 1995). In the 1996 study, 48% reported having experienced an overdose although the frequency of overdose was higher, with a median number of two overdoses per person (McGregor, 1997, personal communication).

Law enforcement data

Unpublished data from South Australian Police show that there was a 26% increase in the number of drug offences between January-March and April-June in 1997. Figure 3 shows that heroin offences have fluctuated over the past twelve months, while cannabis and amphetamine offences have generally increased in the first six months of 1997. The number of cannabis offences reported to police increased by 42% between the March and June quarters.

Figure 3: Police offence data, 1996/97



3.8.4 Summary of other issues

The following trends were noted during the previous 6-12 months:

- **police activity was stable to increasing**
- **police activity focussed more on manufacture and trafficking, and more conducive to harm minimisation**
- **police effort to identify organised networks of cannabis growers who use hydroponic equipment**
- **increase drug users dealing drugs to support their drug use**
- **most IDU indicated that police activity had not made it difficult for them to obtain drugs.**
- **offences relating to cannabis, heroin and amphetamine increased**
- **a trend was observed towards young illicit drug users pooling their money to buy drugs and then sharing the drugs purchased, each using only a small amount.**

3.9 SUMMARY OF TRENDS BY DRUG TYPE

Table 17 summarises the main findings of the survey in relation to drug use and related issues, while Table 18 summarises the findings from the survey in relation to drug price, purity and availability. Trends endorsed by the IDU or key informant survey are indicated with an 'X'.

Table 17: Trends in drug use and drug-related issues

	IDU survey	Key informant study	Other indicators*
Heroin:			
Increased heroin use	**X**	**X**	
More likely to be the first drug injected in central/east Adelaide	**X**		
Smoking heroin increased, particularly amongst females and in the Vietnamese community		**X**	
Benzodiazepine use was prevalent among heroin users	**X**	**X**	
Increased overdoses since 1994-96			**S**
Less overdoses in last 6 months		**X**	
Overdose deaths stable/falling			**S**
Increased awareness of overdose	**X**	**X**	
Increased use of ecstasy, cocaine and hallucinogens among heroin users		**X**	**S**

	IDU survey	Key informant study	Other indicators*
Amphetamine:			
Increased use of amphetamines	**X**	**X**	**S**
More likely to be first drug injected in southern/western Adelaide	**X**		
Replaced opiates as most common drug first injected (1994-97)	**X**		**S**
Transition from amphetamine injecting to heroin injecting common	**X**		
Most users not in treatment	**X**	**X**	**S**
Binging on alcohol and amphetamine		**X**	**S**
Benzodiazepine use by older, dependent users		**X**	
Risk of overdose increased due to polydrug use		**X**	
Increased use of ecstasy, cocaine and hallucinogens among amphetamine users		**X**	**S**
Cocaine:			
Increased cocaine use		**X**	**S**
Intermittent use associated with fluctuating availability	**X**	**X**	
Increased injection of cocaine		**X**	**S**

	IDU survey	Key informant study	Other indicators*
Cannabis:			
Increased frequency of use associated with low price of cannabis		**X**	
Increased potency of cannabis	**X**	**X**	
Increased hydroponically grown cannabis		**X**	
Other drugs:			
Increased availability of ecstasy		**X**	**L**
Increased use of ecstasy		**X**	**S**
Other issues:			
Increase in Hepatitis C among heroin users		**X**	
Increased awareness of safer injecting practices among IDU	**X**	**X**	
Increased drug dealing among users to support their drug use		**X**	
Police activity stable to increasing	**X**		**L**
Police activity had not made it difficult for IDU to obtain drugs	**X**		
Increased use of harm minimisation strategies in police practice		**X**	
Young illicit drug users pooled their money to by drugs which they shared		**X**	
Polydrug use among IDU	**X**	**X**	**S**
Injection of non-injectables, i.e. methadone and benzodiazepines	**X**	**X**	

***S = Survey data; H = Health data; L = Law enforcement data**

Table 18: Trends in drug price, purity and availability

	IDU survey	Key informant study	Other indicators
Heroin:			
Price	**$50/cap, $400/gm**	**X**	
Change in price	**Stable**	**X**	
Purity	**Medium to high**	**X**	**Average: 25%-33%**
Change in purity	**Fluctuating**	**Increased**	**Increased**
Availability	**Easy to get**	**X**	
Change in availability	**Stable**	**X**	**Reduction in seizures**
Amphetamine:			
Price	**$50/gram, $1,000/oz**	**X**	
Change in price	**Stable**	**X**	**Stable**
Purity	**Medium to low**	**X**	**5%**
Change in purity	**Fluctuating**	**X**	**Stable**
Availability	**Easy to get**	**X**	
Change in availability	**Stable**	**X**	**Stable**
Cocaine:			
Price	**$50/cap, $250/gm**	**$200/gram**	
Change in price	**Stable**	**Decreased**	
Purity	**Medium to low**	**-**	**34% (Average)**
Change in purity	**Fluctuating**	**Increased**	**Fluctuating**
Availability	**Difficult to get**	**X**	**Few seizures of cocaine**
Change in availability	**Stable/Fluctuating**	**Easier**	
Cannabis:			
Price	**$25/gm, $250/oz**	**X**	
Change in price	**Stable**	**Decreasing**	
Potency	**High**	**X**	
Change in potency	**Increased**	**X**	

Availability	**Easy to get**	**X**	
Change in availability	**Stable**	**X**	

4.0 DISCUSSION

The present study was undertaken to trial the proposed methodology for a national IDRS in Adelaide and to provide indicators of trends in illicit drug use in Adelaide.

Few difficulties were experienced in undertaking the three methods recommended for the national IDRS. Recruitment of IDU to the study was successful and the demographics of the sample were similar to those of the samples collected in inner-city and south-western Sydney for the IDRS pilot study (Hando et al., 1997) and in other recent studies of IDU in Australia (eg. Darke and Hall, 1995; Hando et al., 1997, Loxley et al., 1995).

Some difficulties were experienced in recruitment for the key informant study: ethical considerations required that, as the study was a trial and not a part of an ongoing monitoring system at this time, the researchers could not directly approach potential key informants seeking their participation in the study. Potential key informants were given information sheets and consent forms by work colleagues which they could return to the researchers if they elected to participate in the study. This procedure resulted in a very slow recruitment rate, difficulties in ensuring a cross-section of types of key informants, and difficulties recruiting the desired number of key informants (30 to 40). It is not anticipated that this procedure for the recruitment of key informants would be required in an ongoing IDRS: it was not part of the recommended procedure and was required only in the Adelaide study. The difficulties experienced therefore do not effect our evaluation of the feasibility of the recommended procedures for the IDRS.

Secondary data suitable for inclusion in the study were identified through the study's steering group and most were readily obtained. Data which could not be incorporated into the present study but which would be appropriate for inclusion in a national IDRS included some forensic data and data from ambulance services and hospital accident and emergency departments. Inquiries made in the course of the study indicated that most of these data sources are likely to be computerised by 1998 in South Australia and therefore will be available to early warning systems like the IDRS from that time.

The results of the present study point to the value of the multiple methods in obtaining trend data on illicit drugs. The three methods provided data relevant to overlapping but different groups of illicit drug users. The IDU survey obtained information about a polydrug using group with intimate knowledge of illicit drugs. The IDU were a heterogenous group, many of whom clearly engaged in functional lifestyles: despite significant drug use, two thirds were employed, half had not committed any crime in the month prior to the survey, three-quarters had not engaged in risky needle use in the previous month, 45% had not experienced an overdose and two thirds were not in treatment. In contrast, key informants tended to be most familiar with a more dysfunctional and marginalised group of illicit drug users for whom illicit drug use was largely incidental to other problems in their lives, such as unemployment and homelessness.

This bias in the key informant group in the present study was partly due to the under-representation of those who are likely to come into contact with illicit drug users for reasons other than law enforcement and the provision of health and welfare services. In particular, greater representation of user group representatives, needle exchange workers and researchers needs to be achieved in future key informant studies. However, the key informant group in the present study was able to give valuable information about an important and larger group of illicit drug users which, while different to that accessed through the IDU survey, also overlapped that sample. Most of the secondary data available to the present study were not available on a quarterly basis and so were not useable as an independent source of trend information. However, these data were useful in providing objective confirmation of IDU and key informant perceptions. It is anticipated that future studies of this sort will have access to more data on a quarterly basis as a number of manual systems become computerised.

The proposed methodology for the national IDRS was demonstrated to be feasible to implement in a small capital city such as Adelaide and the multiple methods were valuable in obtaining a broad picture of the illicit drug scene.

4.1 SUMMARY OF MAIN FINDINGS

The data collected in the present study suggest a number of trends and issues in illicit drug use in Adelaide, most of which pertain to changes in the past six months. These are summarised below, together with the sources of that information.

Heroin

- **prevalence of heroin use was increasing (KIS)**
- **availability of heroin stable and easy to obtain (IDU; KIS)**
- **price of heroin stable at $50/cap $375-$400/gm (IDU; KIS)**
- **variable reports about changes in heroin purity (IDU; KIS; OTHER)**
- **decrease in police seizures (OTHER)**
- **increase in drug-related offences (OTHER)**
- **heroin rock had become more available (KIS)**
- **increase smoking heroin, particularly among females and in the Vietnamese community (KIS)**
- **heroin was more likely to be the first drug injected by IDU living in the central/eastern Adelaide suburbs (IDU)**
- **decrease in heroin overdoses (KIS; OTHER)**
- **increased awareness of overdose risks among IDU (IDU; KIS)**
- **more heroin users were using LSD (KIS)**
- **increased awareness of safer injecting practices among heroin users (KIS)**
- **increase in number of heroin users dealing drugs to support their drug use (KIS)**
- **more heroin users reported testing positive to Hepatitis C (KIS)**
- **polydrug use among heroin users (IDU; KIS)**
- **use of non-injectable drugs by IDU, i.e. benzodiazepines and methadone (IDU; KIS)**

Amphetamines

- **amphetamine was more likely to be the first drug injected (IDU; KIS)**
- **varied reports about changes in amphetamine purity: fluctuating (IDU; KIS), stable (OTHER)**
- **increase in the number of drug-related offences (OTHER)**
- **transition from amphetamine injecting to heroin injecting: 80% had made the transition from injecting amphetamine to injecting heroin (IDU)**
- **price amphetamines stable at $50/gram or $1,000/ounce (IDU; KIS)**
- **availability of amphetamines stable (IDU; KIS) and easy to obtain (KIS)**
- **increase in amphetamine use, especially in the southern suburbs (KIS)**
- **risk of overdose among amphetamine users increased because of their polydrug use (KIS)**
- **most amphetamine users were not in treatment (KIS)**
- **increase in number of amphetamine users dealing drugs to support their drug use (KIS)**
- **polydrug use among amphetamine users (IDU; KIS)**
- **amphetamine users often used alcohol in a binge pattern (KIS)**
- **use of cannabis and ecstasy among amphetamine users (KIS)**
- **use of benzodiazepines by amphetamine users (IDU; KIS)**

Cocaine

- **varied reports about changes in price of cocaine ($50/cap, $200-$250/gm): stable (IDU) decreased (KIS)**
- **varied reports about changes in purity of cocaine: fluctuating (IDU; OTHER) increased (KIS)**
- **availability of cocaine intermittent and difficult to obtain (IDU; KIS) although KIS indicated that availability increased**
- **increased cocaine use, but intermittent due to fluctuating availability (KIS)**
- **increase in cocaine injecting (KIS)**
- **increase in cocaine use among amphetamine and heroin users (KIS)**
- **few seizures of cocaine over the past twelve months (OTHER)**

Cannabis

- **large increase in drug-related offences (OTHER)**
- **increase in hydroponically grown cannabis (KIS)**
- **availability of cannabis very easy and stable (KIS; IDU)**
- **price of cannabis low and stable (KIS; IDU)**
- **potency of cannabis increased (IDU; KIS)**
- **increased frequency of use amongst cannabis users (KIS)**

Other drugs

- **increased ecstasy availability (KIS)**
- **increase in ecstasy use (KIS)**
- **substantial increase in the number of ecstasy seizures over the past six months**

(OTHER)

Other issues

- **police activity was stable to increasing (IDU; KIS), with an increase in police activity targeting amphetamines (KIS)**
- **police activity had not made it difficult to obtain drugs (IDU)**
- **increase in harm minimisation strategies used by police (KIS)**
- **police activity targeted manufacturing and trafficking rather than drug use (KIS)**
- **a trend towards young illicit drug users pooling their money to buy drugs and then sharing the drugs purchased, each using only a small amount (KIS)**

4.2 COMPARISONS WITH RECENT PREVIOUS RESEARCH

A comparison of the data obtained in the 1997 IDRS with previous relevant research conducted in South Australia can be found in Appendix 1. This section summarises the main findings from Appendix 1.

- **The proportion of IDU who injected amphetamines increased between 1994 and 1997.**
- **The proportion of IDU who injected cocaine increased between 1994 and 1997 and between 1996 and 1997.**
- **The proportion of IDU who injected cocaine, hallucinogens, ecstasy and opiates (other than heroin and methadone) increased between 1996 and 1997.**
- **Amphetamine replaced opiates as the most common drug for first injection between 1994 and 1997.**
- **The price and availability of amphetamines in Adelaide remained stable between 1995/96 and 1997, while purity levels fluctuated over the same period of time.**
- **There was an increase in the frequency of overdoses reported by IDU between 1994 and 1997.**
- **There was an increase in the prevalence of non-fatal overdose between 1994 and 1997.**
- **There is some evidence to suggest that the prevalence of overdose increased between 1996 and 1997.**

No clear trends emerged from telephone advisory and drug treatment secondary data sources.

4.3 IMPLICATIONS FOR RESEARCH

These findings suggest the following key areas for further investigation:

1. **Research into and development of interventions for those experiencing harm associated with amphetamine use. A significant proportion of amphetamine users were reported to experience severe drug related harm. However, the proportion of these users in treatment is reported to be low, due to a lack of appropriate interventions for this group.**

2. **Research into patterns of and harms associated with amphetamine and other illicit drug use amongst unemployed youth. Key informants in the present study pointed to the high**

levels of amphetamine use, cannabis use and use of a range of psychostimulants and benzodiazepines among unemployed youth. This drug use was reported as being largely incidental to problems associated with unemployment. Further investigation of patterns of illicit drug use amongst this group, with reference to cultural norms (eg. pooling money and sharing drugs), the nature and extent of polydrug use and the nature and extent of drug related harm and transitions to injecting behaviour would better define relevant problems.

3. **Research into the aetiology of cocaine, ecstasy and hallucinogen injecting, including related harms. Increases in the prevalence of injection of psychostimulants suggest the need for a better understanding of initiation into this type of drug use and its associated harms.**

4. **Research into the impact of changes in policing practice on overall levels of drug related harm. Several comments were made by participants in the present study relating to increased implementation of harm minimisation strategies in police practice. The impact of these changes needs to be monitored in terms of total drug related harm.**

5. **Development of harm minimisation advice for users of cocaine. Increased use of cocaine suggests the need to ensure users are informed of strategies to reduce their personal risk of harm associated with this drug.**

6. **Research into changes in the availability of cocaine in Adelaide, including factors affecting this market. Both IDU and key informants reported that use of cocaine in Adelaide would increase if availability of the drug increased. Fluctuations in the supply of cocaine in Adelaide appear to be poorly understood and are a barrier to effective planning for harm minimisation.**

7. **Research into and development of interventions to address injection of non-injectable drugs amongst IDU. Over 20% of IDU reported injecting benzodiazepines and over 25% reported injecting methadone. These behaviours are associated with significant personal risks for users.**

8. **Research into the impact of drug purity levels on routes of drug administration amongst illicit drug users in Australia. An increase in the smoking of heroin was noted by some key informants, at a time when heroin purity is higher in Adelaide than it has been for some time. The potential for changes in drug purity to impact on drug related harm requires further investigation in an Australian context.**

9. **Research into patterns of and trends in illicit drug use and drug availability amongst Aboriginal and Torres Strait Islander communities in South Australia. The present study did not attempt to access Aboriginal and Torres Strait Islander communities. However, key informants indicated significant problems associated with heroin use and, to a lesser extent, amphetamine use.**

10. **Research into patterns of and trends in illicit drug use amongst people from Vietnamese communities in South Australia. The present study did not attempt to access Vietnamese**

communities. However, key informants indicated significant problems associated with heroin use.

Research and development work is currently proceeding in a number of these areas. The National Centre for Education and Training in Addiction is conducting the second phase of a study examining hazardous amphetamine use and interventions for users (Vincent and Shoobridge, 1997a). The Centre is also involved in research into injecting drug use amongst an Aboriginal community in rural South Australia (Shoobridge et al., 1997). The National Drug and Alcohol Research Centre (NDARC) and the Drug and Alcohol Services Council are collaborating on research into opioid use amongst Vietnamese communities in Australia, including Adelaide. Under the auspices of the National Community Based Approach to Drug Law Enforcement project (being coordinated by the National Police Research Unit), a methodology to examine the impact of police practices on overall levels of drug related harm is likely to be developed.

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Appendix 1. TRENDS IN SOUTH AUSTRALIA SINCE 1994

This report represents the first IDRS trial undertaken in South Australia. Consequently, there are no comparable data for 1995-1996. To provide a context for the South Australian 1997 IDRS findings, the following section compares IDRS data with other relevant research conducted from 1994 onwards.

Drug use and availability

The results of three previous studies of injecting drug users in Adelaide have been compared with the results of the present study to examine trends in drug use and drug prices and availability.

1. Comparison with 1996 data (McGregor, 1997, personal communication)

In 1996, as part of an evaluation of an intervention to reduce heroin overdose in Adelaide, McGregor (1997, personal communication) collected information from 218 heroin IDU in Adelaide. The sample differed from the sample in the present study in that only heroin users were recruited to the 1996 study. However, if the 1996 sample is compared with only those IDU from the present study who had used heroin in the last six months, the samples are similar: participants were recruited using similar methodologies and were similar in terms of gender mix (1996: 55% males; 1997: 63% males), proportion unemployed (1996: 41%; 1997: 37%), mean years at school (1996: 10.8 years; 1997: 11 years). The proportions not in treatment did differ between the two samples, with 72% not in treatment in 1996 and 57% not in treatment in 1997.

Table 19 provides a comparison between the drug using histories of these two samples. For all drugs except heroin (which all IDU had used), more IDU in 1997 reported having used the drug and having injected the drug than IDU in 1996. A comparison of the prevalence of recent drug use between the two years suggests a decrease in the numbers injecting amphetamines and an increase in the numbers injecting all other drugs. It is also noticeable that the frequency of heroin use in the 1997 sample (median of 68 days in the last six months) is higher than that in the 1996 sample (median of 49 days in the last six months) while cannabis use is more frequent in the 1997 sample. However, given the small numbers involved and the fact that neither study used random sampling methods, confirmation of any trends suggested by these comparisons should be obtained from other sources before any conclusions about trends in drug use are reached.

Table 19: Drug use history of heroin using IDU in Adelaide: comparison of data from 1996 (McGregor, 1997, personal communication) and the 1997 IDRS

	Ever used %		Ever injected %		Injected in last six months %		Median number of days used in last six months	
Year	1996	1997	1996	1997	1996	1997	1996	1997
Heroin	100	100	100	100	9	100	49	68
Other opiates (not methadone)	61	69	39	51	14	20	8	7
Amphetamines	80	94	73	87	36	33	5	12
Cocaine	65	80	49	69	12	28	4	5
Hallucinogens	75	91	17	21	1	5	2	2
Ecstasy	55	57	24	27	6	10	2	4
Benzodiazepines	74	79	10	25	4	5	24	28
Cannabis	94	97	—	—	—	—	140	104

2. Comparison with 1995/96 data (Vincent and Shoobridge, 1997a)

In 1995/96, a study of 100 amphetamine users in metropolitan Adelaide was conducted as part of a larger study of amphetamine use and interventions in South Australia (Vincent and Shoobridge, 1997a). The sample for the study included one third who had not injected amphetamines in the previous six months and fewer than one third who had injected any other drug in the previous six months (Vincent et al., 1997). As such, the sample is quite different to that in the present IDU study where a criterion for entry to the study was injecting drug use in the last six months. Demographic comparisons confirm the very different nature of the two samples. Comparisons were also conducted between the amphetamine study sample and two sub-groups of the present IDU sample: those who used amphetamines in the previous six months and those whose drug of choice was amphetamine. However, in both cases, the demographics and the drug use patterns were sufficiently different from those of the amphetamine study sample that no meaningful information about trends in drug use could be obtained from the comparisons.

However, Vincent and Shoobridge also collected information regarding the price, quality and availability of amphetamines in Adelaide in 1995/96. Amphetamine users reported

purchasing amphetamine for a median price of $50 per gram (Vincent et al., 1997). Key informants reported the same price and said that this price had been stable over the previous two years (Vincent and Shoobridge, 1997b). Key informants also reported that the drug was readily available in Adelaide and that the quality was variable. There are no differences between this information and that obtained in the present study, suggesting the amphetamine market in Adelaide has been stable for at least the last 12 months.

3. Comparison with 1994 data (Loxley et al., 1995)

The only other data comparable to the information collected in the present study were collected in 1994. As part of the Australian Study of HIV and Injecting Drug Use (Loxley et al., 1995), 213 injecting drug users from Adelaide were interviewed in an investigation of exposure to and risks for blood borne infections amongst Australian IDU. The study also included samples from Melbourne, Perth and Sydney. The Adelaide sample included both primary amphetamine users and primary injecting users and, as such, is similar to that recruited in the present study of IDU. The gender mix between the two studies was also similar, although levels of employment in the 1994 sample were much lower (18.3%) compared with the present study (46.6%) and education levels differed between the studies (27% had completed Year 12 in the 1994 study while 37% had completed Year 12 in the present study).

Table 20 shows a comparison between reported drug use in the last month amongst the 1994 sample and those who reported using these drugs six or more times in the last six months in the 1997 sample. The 1994 study assessed drug use in the month prior to interview. This was not assessed in the 1997 study, so an attempt to estimate monthly drug use in this sample has been made by examining those who had used each drug six or more times in the previous six months. This analysis is unlikely to result in information which is directly comparable with that from the 1994 study, but provides a broad indication of differences. Caution also needs to be used in interpreting these comparisons due to the low numbers involved and the fact that neither study used random sampling methods. The 1997 sample shows markedly higher levels of use of amphetamines and cocaine, a slightly higher level of opioid use and a lower prevalence of hallucinogen use. Given the size of the difference between the two years in prevalence of amphetamine and cocaine use, it appears likely that the results at least reflect a real increase in prevalence of use of these drugs since 1994.

Table 20: Drug types used by IDU in Adelaide: comparison of Loxley et al. (1995) and the 1997 IDRS

	Amphetamines	Opioids	Cocaine	Hallucinogens
Loxley et al. (1995)	35.7%	77.5%	7.0%	15.5%

IDRS (1997)	**82.0%**	**84.0%**	**54.1%**	**9.7%**

Loxley and her associates (1994) also examined the drug which IDU had first injected in Adelaide in 1994. Table 21 shows the comparison with the 1997 sample. The proportion of IDU who first injected amphetamine has increased since 1994 with a corresponding drop in the proportion who first injected an opiate.

Table 21: First drug injected by IDU in Adelaide: comparison of Loxley et al. (1995) and the 1997 IDRS

	Amphetamines	Opioids	Other
Loxley et al. (1995)	**45.5%**	**49.8%**	**4.7%**
IDRS (1997)	**54.6%**	**42.9%**	**2.5%**

The comparisons between these three studies and the information collected in the present study suggest that there has been an increase in the proportion of IDU who inject amphetamines and cocaine since 1994, and an increase in the proportion of IDU who inject opiates other than heroin and methadone, cocaine, hallucinogens and ecstasy between 1996 and 1997. Since 1994, amphetamines have also become the most common drug of first injection, replacing opiates as the most common drug of first injection. Information relating to the price and availability of amphetamines in Adelaide suggest that the market has been stable for at least the last year.

Heroin overdose

Two sources in addition to the present study are available for rates of heroin overdose in Adelaide. Loxley et al. (1995), in their study of 213 injecting drug users from Adelaide, reported on the level of overdose amongst IDU in Adelaide in 1994, while McGregor (1997, personal communication), in her study of 218 heroin IDU in Adelaide in 1996, also collected information about heroin overdose. Table 22 shows a comparison between the 1994 data, the 1996 data and data from the present study.

In 1994, around 47% of Adelaide IDU reported experiencing a drug overdose in their lifetime, on a median of one occasion. The prevalence of overdose was similar in the 1996 study, although the frequency of overdose was higher, with a median number of two overdoses per person in 1996. The proportion of IDU in 1997 who reported an overdose (62%) is higher than that found in 1996, while the frequency of overdoses reported in the two years is the same.

Given that secondary data sources show that the prevalence of fatal overdose increased between 1994 and 1996 (see section 3.8.3), it seems unlikely that the prevalence of non-fatal overdose would not increase at a similar rate over this time period. The low prevalence of overdose found in the 1996 study, therefore seems surprising. This interpretation would suggest that the 1997 estimate is more likely to reflect the present rate of overdose, and is also more comparable to recent estimates of the prevalence of overdose in New South Wales (eg. Darke et al, 1996), although lower rates have also been found in that state (Hando et al., 1997). However, it is also notable that the 1996 and 1997 samples differed in reported frequency of heroin use: the median number of days in the last six months that heroin was used by the 1996 sample was 49 days and by the 1997 sample, 68 days. This may suggest the reason for the higher prevalence of overdose in the 1997 sample. It is not clear whether this difference in frequency of heroin use is related to a trend over the two years towards increasing frequency of use amongst users or whether the 1997 sample simply reflects a slightly different population of heroin users. It is notable that the proportion of severe overdoses (ie. suggested by the administration of naloxone) has not changed between the two years. As before, only small numbers are involved and random samples were not used, so caution should be exercised in reaching conclusions based on these comparisons.

Table 22: Overdose among IDU in Adelaide: comparison of Loxley et al. (1995), data from 1996 (McGregor, 1997, personal communication), and the 1997 IDRS

	Loxley et al. (1995)	McGregor (1997)	IDRS (1997)
Year of study	1994	1996	1997
% ever overdosed	47%	48%	62%
Median number of overdoses	1	2	2
Median time since last overdose	-	18 months	18 months
% who overdosed in last 6 months	-	11%	17%
% of overdoses who had naloxone	-	54%	54%

Overall, the studies of heroin overdose suggest an increase in the frequency of overdoses reported by IDU since 1994. An increase in prevalence of overdose since 1994 is also suggested by the data, but trends between 1996 and 1997 are not clear, especially given IDU and key informant reports of a trend towards fewer overdoses on the six months preceding the present study.

Key findings

- **The proportion of IDU who injected amphetamines increased between 1994 and 1997.**
- **The proportion of IDU who injected cocaine increased between 1994 and 1997 and between 1996 and 1997.**
- **The proportion of IDU who injected cocaine, hallucinogens, ecstasy and opiates (other than heroin and methadone) increased between 1996 and 1997.**
- **The price and availability of amphetamines in Adelaide has remained stable for at least the last 12 months, while purity levels have continued to fluctuate over the same period of time.**
- **There has been an increase in the frequency of overdoses reported by IDU since 1994.**
- **There has been an increase in the prevalence of non-fatal overdose since 1994.**
- **There is some evidence to suggest that the prevalence of overdose has increased since 1996.**