SOUTH AUSTRALIAN DRUG TRENDS 2002

Findings from the Illicit Drug Reporting System (IDRS)

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NDARC Technical Report No.146

ISBN 1 877027 316

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ACKNOWLEDGEMENTS

This research was funded by the Commonwealth Department of Health and Ageing and the National Drug Law Enforcement Agency through the National Drug and Alcohol Research Centre. The authors would like to thank Ms Bridget Barker, Ms Courtney Breen, Dr Louisa Degenhardt, Dr Richard Mattick, Ms Amanda Roxburgh and Dr. Libby Topp of NDARC for their support and assistance throughout this study.

The authors also wish to acknowledge and thank:

- The four research interviewers who conducted the interviews with injecting drug users: Cath Danz, Sophie La Vincente, Sue Porter and Jo Weekley.

- The 36 key informants who willingly provided their time, efforts and experience to contribute to the IDRS.

- Staff at the Clean Needle Sites around Adelaide who assisted in the recruitment of the injecting drug users, and who gave their time and resources in facilitating this process.

- The ongoing support of the IDRS South Australian advisory committee including Simone Cormack (DASC), Damon Brogan (South Australian Voice for Intravenous Education/AIDS Council), Associate Professor Robert Ali (DASC), Robert Braithwaite (DHS), Dr. Paul Pigou (Forensic Science Services), Hugh Grantham (SA Ambulance Service), Dr Russell Waddell (SA Health Commission), Detective Superintendent Dennis Edmonds (SAPOL) and Professor Jason White (University of Adelaide/DASC).

- The organisations that generously provided indicator data, including the Drug and Alcohol Services Council, the State Forensic Science Centre, the Australian Crime Commission (formerly the Australian Bureau of Criminal Intelligence), the Australian Institute of Criminology, the South Australian Police, the Australian Bureau of Statistics, the South Australian Ambulance Service, the Royal Adelaide Hospital, the AIDS Council of South Australia and the National Drug and Alcohol Research Centre.

Finally, the authors wish to thank the 100 injecting drug users who participated in the IDU survey.

LIST OF ABBREVIATIONS

ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AFL	Australian Forensic Laboratories
AFP	Australian Federal Police
AIC	Australian Institute of Criminology
ATSI	Aboriginal and Torres Strait Islander
CNP	Clean Needle Program
DASC	Drug and Alcohol Services Council
ESB	English Speaking Background
GHB or GBH	Gamma hydroxybutyrate ('fantasy')
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug Users
KI	Key Informants
LAAM	Levo-Alpha Acetyl Methadol
MDMA	3, 4-methylenedioxymethamphetamine ('ecstasy')
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NESB	Non-English Speaking Background
NSP	Needle and Syringe Program
OTHER	Refers to collation of secondary indicators of drug use
PMA	para-methoxyamphetamine
RAH	Royal Adelaide Hospital
SA	South Australia
SAPOL	South Australian Police

EXECUTIVE SUMMARY

The 2002 Illicit Drug Reporting System (IDRS) detected several drug trends during the 12 months between mid-2001 and mid-2002, based on analyses of an injecting drug user (IDU) survey, a key informant (KI) survey, and other indicators of drug use. Table 1 contains a summary of information on the price, availability, purity and use of each of the four main illicit drugs monitored by the IDRS.

HEROIN

Heroin appeared to be readily available, and this availability increased over the 12 months prior to the 2002 survey. The price of heroin increased compared with the 2001 IDRS, and although the purity also increased, it did not appear to have returned to the levels observed before the heroin shortage. The use of heroin overall decreased compared with previous years, although the rock form appeared to have increased in use and availability. The trend observed in the 2001 IDRS of the increase in the use of other drugs, predominantly methamphetamine and morphine, was also evident in the 2002 survey.

METHAMPHETAMINE

Methamphetamine was also readily available, and the price per point was lower than in the 2001 IDRS. The stronger forms of methamphetamine (paste, base, ice, crystal) have increased in use and availability since 1999, and recent use among the IDU was much greater than for heroin. The use of methamphetamine generally appears to have increased in recent years, in particular among younger people.

COCAINE

The reported availability of cocaine was inconsistent, with around half of IDU stating it was easy to obtain, and half reporting that it was difficult. The price of cocaine was higher compared with the 2001 IDRS. The purity was reported as medium to high by IDU, and there were no seizures of cocaine by either SAPOL or AFP that were analysed in 2001/02. The use of cocaine appears small in South Australia compared with other drugs, but key informant reports over the last couple of years have suggested that use is increasing.

CANNABIS

Cannabis was highly available, and the prices were identical or slightly lower than those reported in the 2001 IDRS. The potency was high according to both IDU and key informants, and the majority of cannabis in South Australia was sold as 'hydroponic'. The use of cannabis appears to be relatively stable in South Australia.

Table 1: Trends in the price, availability, purity and use of heroin, methamphetamine, cocaine and cannabis

	Heroin	Methamphetamine	Cocaine	Cannabis
Price				
Cap	$50	N/A	$50	$25 ('bag'/'deal')
Gram	$450	$50 (powder) $25 (base/paste) $25 (crystal/ice)	$250	$180 (ounce)
Point	N/A	N/A	N/A	N/A
Change	Stable to increasing	Stable	Stable	Stable
Availability	Very easy/easy	Very easy/easy	No clear trend: half found it easy to obtain; half found it difficult	Very easy/easy
Change	Stable to increasing	Stable to easier for non-powder forms Stable for powder form	Stable	Stable
Purity	54.3% (AFP)[a] 22.4% (SAPOL)[a] Low to medium[b]	2% (AFP)[a] 14.6% (SAPOL)[a] Medium to high[b]	No seizures[a] Medium to high[b]	High[b]
Change	No clear trend in changes in purity, but belief that purity has not returned to the pre-shortage levels	No consistency in reports on changes in purity	Stable to increasing	Stable
Use	• Use is widespread, the frequency of use decreased • Increase in use and availa of rock • Continuing trend in of other drugs: mainly methamphetamine and morphine	• Continued high prevalence of use compared with previous years • Increase in the availal and use of stronger forms • Increase in younger	• Small in SA compared with other drugs • Use infrequent: median of three in prior six months	• Use stable and widespread • Most cannabis in SA is sold as 'hydroponic' • Form is nearly always 'head'

[a]Median purity of seizures by SAPOL and/or AFP that were analysed at the AFL. [b]Based on IDU and Key informant estimates.

THE USE OF OTHER DRUGS

A summary of trends in the use of other drugs is found in Table 2. Methadone use remained stable, and there was no increase in reports of injecting. Benzodiazepine use was widespread but stable among the IDU. Diazepam was the most popular, used by 65% of those who reported taking these drugs. Use of ecstasy and other party drugs was low in this population, although there was some evidence that use is increasing. The use of anti-depressants, hallucinogens and inhalants was stable and low. Other opiate use was also stable, with panadeine forte the most popular type. Morphine use increased markedly compared with the 2000 IDRS survey. Illicit use was high, and a large percentage of morphine users reported injecting. Steroid use was not investigated.

Table 2: Trends in the use of other drugs

Methadone	• 39% of IDU who had used methadone in the previous six months were *not* in treatment. This is similar to the 2001 IDRS (40%), but higher than in 2000 (33%) • Injecting of methadone (19% in the previous six months) was similar to the 2001 IDRS (16%) • Methadone was predominantly used licitly, in syrup form • No evidence of an increase in the number of patients in opioid substitution programs (including public, private and prison) compared with the previous year
Buprenorphine	• Addition to the 2002 IDRS • 18% of IDU reported ever having used, and 10% had used in the previous six months • Only 3% had injected in the previous six months • Buprenorphine was predominantly used licitly
Benzodiazepines (BZD)	• Use was widespread among IDU but stable (57% recently used) • Nearly half of these used BZD at least twice per week • Diazepam was used by 65% of IDU who used BZD, temazepam by 21% and oxazepam by 11% • Over two-thirds (68%) reported illicit use of BZD • Increase in injecting of BZD: 13% had injected in previous six months compared with 9% in the 2001 IDRS and 4.7% in 2000
Antidepressants	• Prevalence of use was stable (20% reported recent use) • Predominantly used for therapeutic purposes • SSRIs, SSNRIs or tricyclic anti-depressants used
Ecstasy	• Price has decreased: currently ranges from $25 to $40 (ACC) • Mean purity of MDMA 30% (ACC) • Not widely used among IDU • 13% of IDU reported recent injecting of ecstasy
Hallucinogens	• Small increase in the use of fantasy and ketamine compared with the 2001 IDRS • Low prevalence of regular use among IDU (18% recently used) • 83% nominated LSD as the main hallucinogen used

Other Opiates	• Associated with younger users, and use is recreational • Price per trip ranges from $15 to $30 (ACC) • 28% of IDU reported recent use (stable) • The majority (86%) were using less than once a week • Panadeine forte and opium were the most popular • 9% of IDU reported recent use of homebake heroin
Morphine	• 46% reported use in the previous six months. This is similar to the 2001 IDRS (43%), but significantly higher than in past surveys (7.5% in 2000) • 96% of those who used morphine in the previous six months had injected it (44% of total IDU), and use was mainly illicit • 14% of IDU reported morphine as the drug last injected • 22% of those who had used morphine in the previous six months used on a daily basis
Inhalants	• Low prevalence of regular use among IDU (4% recently used) • Associated with younger users, and use is recreational

DRUG-RELATED ISSUES

Other drug-related problems and issues found in the 2002 IDRS are summarised in Table 3. Injection-related problems were prevalent among the IDU, particularly among injectors of morphine and benzodiazepines. Only 7% of IDU reported using a needle after someone else in the previous month, which is similar to the 2001 IDRS (10%), but much lower than in 2000 (24%). Similarly, only 5% reported lending their needle to someone else, and only 28% reported sharing injecting equipment, which was significantly lower than in the 2001 IDRS (59%). Thirty-nine percent of IDU who had ever used heroin had experienced at least one overdose, and 68% had viewed an overdose. The number of drug-related presentations to the Emergency Department of the Royal Adelaide Hospital remained relatively stable for alcohol, cannabis and cocaine. However, there was a slight decrease in attendances related to the amphetamines, and a large decrease in those related to heroin, continuing the trend observed in the 2001 IDRS. There was also a marked decrease in the number of opioid-related fatalities in South Australia in 2001.

Thirty-four percent of IDU had committed a crime in the previous month (compared with 40% in 2001) and 39% had been arrested in the previous 12 months, mainly for violent crimes and property crimes. There was an increase in police activity according to IDU, although it did not affect the ability of IDU to obtain their drugs.

Table 3: Trends in drug-related issues

General Health	• 55% percent of IDU had experienced at least one injection-related problem in the previous month (compared with 63% in 2001 IDRS) • Morphine injectors were more likely to experience difficulty injecting than those who had not injected morphine • Benzodiazepine injectors were more likely to experience difficulty injecting and thrombosis than those who had not injected these drugs • 30% of IDU reported seeing a professional for a mental health problem, in most cases for depression • Decrease in heroin nominated as primary drug of concern among clients presenting to DASC treatment services; increase in amphetamines, other opioids and cannabis
Needle sharing	• 7% of IDU had used a needle after someone else at least once in the previous month (10% in 2001 IDRS, 24% in 2000) • 5% of IDU had lent a needle to someone else at least once in the previous month (14% in 2001 IDRS, 22% in 2000) • 28% of IDU had shared equipment (59% in 2001 IDRS, 50% in 2000)
Overdose	• 39% of heroin-using IDU had overdosed on heroin (46% in the 2001 IDRS) and 68% had been present at an overdose (69% in 2001) • Marked decrease in number of opioid-related fatalities in South Australia in 2001 (*n*=15 compared with 40 in 2000 and 52 in 1999) • Decrease (75%) in drug-related presentations to the Emergency Department for heroin compared with the previous year
Police activity	• 51% of IDU reported an increase in police activity. This was higher than in the 2001 IDRS (39%) • Type of increase included more uniform and undercover police, questioning and searching of people and vehicles and targeting of areas and people associated with drug use and dealing • Does not appear to have affected ability of IDU to obtain drugs, or the number of friends apprehended by police • Decrease in reported offences by SAPOL for possession of opiates, cannabis, cocaine and amphetamines, but increase in offences for provision of cannabis
Crime	• 34% of IDU had committed at least one crime in the previous month and 39% were arrested within the previous 12 months • Arrests were predominantly for violent crimes or property crimes • Key informants reported that crime is associated more with heroin and methamphetamine use than with cannabis use

RESEARCH AND POLICY IMPLICATIONS

The findings of the 2002 IDRS in South Australia show that some trends observed over recent years appear to have continued in 2002. These observations highlight the need to deal with emerging drug trends and the potential impacts they may have on the community, the public health system and the law enforcement sector. Some of the issues outlined below are currently under investigation.

- The continued increase in the popularity and use of methamphetamine highlights the need for ongoing efforts aimed at reducing the potential harms associated with use, including risks associated with injecting, the risk of dependence, and the risks of severe behavioural disturbances, including psychosis;
- There is a need for further investigation into the increasing burden that methamphetamine-related psychosis is placing upon the state's acute care public health services, as well as appropriate ways of treating the problem;
- The continuation of effects from the recent heroin shortage suggests the need to explore in greater detail impacts of the shortage on patterns of drug use, and related harms;
- The increased use of illicit morphine may warrant further investigation, in order to identify sources of the drug, and harms that may be associated with its use;
- Further investigation should be made into patterns and trends in cannabis use among non-injecting drug users.

1.0 INTRODUCTION

The Illicit Drug Reporting System (IDRS) was trialed in 1997 under the auspices of the National Drug and Alcohol Research Centre (NDARC) to examine drug trends in three Australian jurisdictions. This work was commissioned and supported by the Commonwealth Department of Health and Ageing. The trial consisted of conducting the complete IDRS in New South Wales, Victoria and South Australia (see Hando *et al.,* 1998 for a national comparison, and Cormack *et al.,* 1998 for the South Australian findings). The 'core' IDRS incorporated a triangulated approach to data collection on drug trends, and consisted of a survey of injecting drug users, a semi-structured survey of key informants who had regular contact with drug users, and secondary data sources or indicators relevant to drug use.

The IDRS process was repeated in 1998 in the same three jurisdictions, and in 1999 they were joined by Western Australia, Northern Territory, Australian Capital Territory, Queensland and Tasmania. The year 2002 is the sixth year that the IDRS has been conducted in South Australia, and the fourth year that it has included all states and territories (see Topp *et al.,* 2002 for a national comparison of 2001 findings, and Longo *et al.,* 2002 for the South Australian perspective).

The IDRS provides a coordinated and ongoing monitoring system predominantly focusing on heroin, methamphetamine, cocaine and cannabis, and acts as a strategic early warning system for emerging illicit drug problems. The IDRS is a sensitive and timely indicator of drug trends both nationally and by jurisdiction, and is representative, simple to execute and cost-effective. As well as drug trends, the findings highlight areas where further research is required, or where changes need to be made in terms of education, health promotion, treatment services and policy.

The 2002 South Australian Drug Trends Report summarises information collected by the South Australian component of the national IDRS using three methods: a survey of injecting drug users, key informant interviews with professionals working in the drug and alcohol or related fields, and existing and up-to-date data indicators relating to drugs and drug use. The three sources complement each other, each having their own strengths and weaknesses. The results are summarised by drug type in tables designed to provide the reader with a 'snapshot' overview of drug trends in South Australia.

1.1 STUDY AIM

The aim of the South Australian component of the 2002 IDRS was to provide information on drug trends in South Australia, particularly focusing on the 12 months between mid-2001 and mid-2002.

2.0 METHOD

A triangulated approach was utilised for this study, with information on drug trends coming from three primary sources. This approach is based on a procedure outlined by Hando & Darke (1998). The three sources were as follows:

- A survey of injecting drug users (IDU);
- A semi-structured survey of key informants (KI) who work in the drug and alcohol area, or some related field, and who have regular contact with drug users;
- An examination of existing and current indicators (OTHER) relating to drugs, drug use and drug-related issues.

2.1 INJECTING DRUG USER (IDU) SURVEY

A sample of 100 injecting drug users (IDU) was interviewed between June and August 2002. Criteria for entry into the study were: having injected drugs at least once a month in the previous six months, being over 16 years of age, and living in the Adelaide metropolitan area.

Participants were recruited from sites around Adelaide associated with the Clean Needle Program. In previous years peer interviewers have been used to collect interview data, and this has largely been done through a 'word of mouth' or 'snowballing' recruitment method. While this method has been successful, from 2001 it was decided to use trained research interviewers to be consistent with the IDRS data collection procedures in other jurisdictions. The majority of subjects were thus recruited at these sites, and additional persons were recruited by the snowballing approach.

There were four research interviewers who had a sound working knowledge of issues related to illicit and injecting drug use. They were trained prior to data collection on administration of the survey instrument. Informed consent was obtained from participants before proceeding, and the interviews were conducted at a location convenient to the person being interviewed. The interviews each took between 30 and 60 minutes to complete, and subjects were compensated for their time.

The structured interview schedule was based on previous research conducted at NDARC (see Darke *et al.,* 1992, 1994). Sections on demographics, drug use, price, purity and availability of drugs (heroin, methamphetamine, cocaine and cannabis), crime, risk-taking, health and general trends were included. In general, participants were asked to consider changes on the above parameters over the previous six to 12 months (mid-2001 to mid-2002). The results were analysed statistically using SPSS for Windows, Version 10.1.0.

2.2 KEY INFORMANT SURVEY (KI)

Key informants were interviewed between July and September 2002. Entry criteria for the KI were: at least weekly contact with illicit drug users in the previous six months, or contact with 10 or more illicit drug users in the previous six months. All key informants were paid or volunteer workers in drug treatment agencies, other health services, community services, drug user groups, SA police, corrections, needle exchanges or research organisations. Key informants were recruited based on their participation in previous IDRS

surveys, and on recommendations made by existing key informants and colleagues. Potential key informants were contacted via telephone and assessed for suitability according to the criteria. A mutually convenient time was then made for a telephone interview, although some key informants were interviewed in person.

In total, 36 key informants were interviewed (19 males and 17 females). Key informants comprised a range of persons from varied professions: ten health workers (youth workers, community drug and alcohol workers, psychologists and specific cultural group workers), seven drug treatment workers (medical officers, nurses and telephone counsellors), eleven user representatives (peer educators, outreach and clean needle program workers) and eight police officers (from Operation Mantle, Drugs and Organised Crime, and State Intelligence Branch).

Key informants were asked to identify the main illicit drug used by the drug users they had the most contact with in the previous six months. Of the 21 who spoke about one drug only, nine identified methamphetamine (43%), seven identified heroin (33%) and five identified cannabis (24%). There were 15 key informants who gave information on more than one drug. In three cases this was provided on all drugs investigated in this study, and in one case for heroin and cocaine. In the remaining 11 cases information was provided on methamphetamine and at least one other drug, comprising heroin (n=3), cannabis (n=4), cocaine (n=1), heroin and cocaine (n=2) and heroin and cannabis (n=4) As in past surveys, those who spoke about cocaine had not had a great deal of experience with this drug, but were able to give some information on patterns and trends.

The key informant interview took between 30 and 60 minutes to administer. The instrument used was based on previous research conducted at NDARC for the World Health Organisation (Hando & Flaherty, 1993). The instrument included sections on demographics, drug use patterns, drug price, purity and availability, criminal behaviour, police activity and health issues. In general, key informants were asked for information on the above parameters relevant to the previous six to 12 months. The responses to the semi-structured interview were transcribed and analysed for content and trends. Quantitative responses were analysed using SPSS for Windows, Version 10.1.0.

2.3 SECONDARY INDICATORS OF DRUG USE (OTHER)

To complement and validate data collected from the injecting drug user and key informant surveys, a range of secondary data sources were utilised including population surveys and other health and law enforcement data. The pilot study for the IDRS (Hando *et al.,* 1997) recommended that secondary indicator data should:

- Be available at least annually;
- Include 50 or more cases;
- Provide brief details of illicit drug use;
- Be located in the main study site (Adelaide or South Australia for the present study);
- Include details of the four main illicit drugs under investigation.

Data sources that fulfilled the above criteria and were included in the report were:

- National Drug Strategy Household Survey on prevalence of drug use in the community provided by the Australian Institute of Health and Welfare (AIHW);

- Schoolchildren's Survey of drug use for South Australia provided by the Drug and Alcohol Services Council (DASC);
- Telephone advisory data provided by the Alcohol and Drug Information Service (ADIS) of South Australia;
- Clean Needle Program (CNP) data;
- Australian Needle and Syringe Program (NSP) Survey data;
- Census data from the Clients of Treatment Services Agencies project (COTSA);
- Results of study carried out by the University of South Australia and the AIDS Council of South Australia on Hepatitis C and the Injecting Drug Community;
- Drug-related presentations to the Royal Adelaide Hospital (RAH) Accident and Emergency Department provided by the RAH;
- Number of ambulance attendances provided by the South Australian Ambulance Service (SAAS);
- Patients on Opioid Substitution Programs provided by the Drugs of Dependence Unit, Department of Human Services;
- Admissions data from the Drug and Alcohol Services Council (DASC);
- Purity of drug seizures made by South Australian Police (SAPOL) and the Australian Federal Police (AFP), provided by the Australian Forensic Laboratory (AFL) and the Australian Crime Commission (ACC), formerly the Australian Bureau of Criminal Intelligence (ABCI);
- Price of illicit drugs information provided by the ACC;
- Statewide rates of drug-related arrests provided by SAPOL;
- Statewide rates of opioid-related fatalities provided by the Australian Bureau of Statistics (ABS).

3.0 CURRENT DRUG SCENE AND RECENT TRENDS

3.1 OVERVIEW OF THE IDU SAMPLE

3.1.1 DEMOGRAPHIC PROFILE OF THE IDU SAMPLE

The demographic profile of the IDU sample is summarised in Table 4.

Table 4: Demographic characteristics of the IDU sample (*n*=100)

Demographic	% of IDU
Gender	
Male	66
Female	34
Area	
Central/Eastern	14
Western	41
Southern	29
Northern	13
No fixed address/missing	3
Main language spoken at home	
English	94
Aboriginal dialect	3
Other	3
Identify as ATSI	18
Employment	
Not employed	74
Full time	9
Part time/Casual	5
Student	5
Home duties	6
Sex industry worker	1
Tertiary Education	
None	51
Trade/technical	38
University	11
Currently in treatment	24
Age (median in years)	32
School Education (median in years)	10

There was a higher percentage of males (66%) in the 2002 IDU sample compared with previous IDRS surveys (61% in 2001 and 58% in 2000), but this was not statistically significant. The median age of subjects was 32 years (range 16-53 years), which was similar to past years. There was no significant difference between males and females in mean age (32.5 versus 31.8 years, $p>0.05$). There were six IDU (6%) who spoke a language other than English at home. In three cases this was an Aboriginal dialect, one Vietnamese, one Cantonese and one Greek. Furthermore, 18% of IDU identified as Aboriginal or Torres Strait Islander (ATSI). This is similar to the 2001 IDRS survey (20%), but significantly higher than past surveys: in both 1999 and 2000 the percentage of the sample who identified as ATSI was 8% (Fisher's Exact Test $p<0.05$). The number of school years completed ranged from two to 12 years, and 67% of subjects had completed at least year 10. Just under half the sample (49%) had completed courses after school, in most cases receiving trade or technical qualifications. The majority of the sample (74%) was currently unemployed. This is also similar to the 2001 IDRS, where 77% were unemployed, but is significantly higher than in the 2000 survey, where only 47% of the sample was unemployed ($\chi^2_1=14.9$, $p<0.001$). Finally, 55% of the sample reported that they had spent time in prison, which was similar to the 2001 and 2000 IDRS surveys (50% and 44%, respectively).

The demographic characteristics of IDU were very similar in the 2002 and 2001 IDRS surveys, although there were some differences in comparison to earlier surveys carried out in 1999 and 2000. These findings may, in part, be due to a change in the methods used to recruit subjects in the 2001 IDRS, which were the same methods used in 2002. In previous years peer interviewers were used to collect interview data, and this was largely done through a 'word of mouth' or 'snowballing' recruitment method. While this has been successful, in 2001 it was decided to use trained research interviewers to be consistent with the IDRS data collection procedures in other jurisdictions.

Just under one-quarter of the IDU (24%) were currently in some form of drug treatment. This is lower than that reported in the 2001 survey (34%), although it was not statistically significant. The most common form was opioid maintenance pharmacotherapy. That is, 19% of IDU received methadone and 2% received buprenorphine. The remaining 3% were undergoing drug counselling. For those who were in treatment, the median length of time they had been receiving this treatment was 14 months (range two to 144 months).

3.1.2 DRUG USE HISTORY OF THE IDU SAMPLE

The median age of first injection among the IDU was 17 years (mean 18.7 years, range 12-46 years). There was no significant difference in the mean age of first injection between males and females (18.2 versus 19.4 years, $t_{98}=1.0$, $p>0.05$). However, there was a difference in the mean age that subjects first injected according to area, with those from central/eastern areas significantly older than those from southern areas (central/eastern 22.4 years, southern 16.9 years, western 18.8 years, northern 18.5 years).

The favourite or preferred drug was methamphetamine for 52% of the IDU sample, followed by heroin (30%). Smaller percentages nominated morphine or other opiates (7%), cocaine (4%), cannabis (3%), ecstasy (1%) or LSD (1%). The remaining 2% were unable to specify their favourite drug. Heroin and methamphetamine were also the predominant drugs of choice in samples from previous IDRS surveys, although the difference in preference between them appears to be narrowing over time. In the 2000 and 1999 surveys,

56% and 66% of IDU, respectively, nominated heroin as their favourite drug compared with 30% and 22% for methamphetamine. In 2001 the percentages nominating heroin and methamphetamine were very similar (43% compared with 37%, respectively). The results from the 2001 sample suggested that the popularity of methamphetamine is increasing, while that of heroin is decreasing, and this trend was also evident in the 2002 survey.

Consistent with their nominated drug of choice, 60% of the IDU reported that methamphetamine was the last drug they had injected, followed by 25% reporting heroin. The remaining IDU reported that the last drug they had injected was morphine (14%) or other opiates (1%). Accordingly, methamphetamine was the drug that had been injected most often by IDU in the previous month (57%), followed by heroin (22%), morphine (17%), methadone (1%) and a combination of methamphetamine and morphine (2%). This result also confirms the trend that emerged in the 2001 survey, where methamphetamine was the drug last injected and most often injected (50% and 43%, respectively) followed by heroin (32% and 38%, respectively). This represents a marked change from previous IDRS surveys, where heroin was the drug injected most often (59% in 2000 and 61% in 1999).

Similarly, the first drug ever injected by IDU in the 2002 survey was most often methamphetamine (64%) followed by heroin (30%). The remaining IDU first injected cocaine (1%), other opiates (1%), benzodiazepines (1%), alcohol (1%), hallucinogens (1%) or anti-histamines (1%). This is consistent with the 2001 National Drug Strategy Household Survey, which found that among those surveyed in the general population in Australia who reported having injected drugs, 60% nominated amphetamines as the first drug injected, followed by heroin (31%), other opiates (3.1%), steroids (2.7%) and cocaine (2.3%). Similarly, the most common drugs recently injected were amphetamines (77%), followed again by heroin (23%), other opiates (19%), ecstasy (14%) and cocaine (14%). The survey results looking only at South Australia also found that amphetamines were the drugs most often injected, by 78% of those surveyed.

Overall, only 20% of persons for whom methamphetamine was the first drug injected now called heroin their drug of choice, and 16% had injected heroin most in the previous month. Again, this reflects a continuing trend from the 2001 survey, where 33% of persons for whom methamphetamine was the first drug injected now called heroin their drug of choice, and 28% had injected heroin most in the previous month. This contrasts with results from previous years, where there was a much greater shift from using methamphetamine to heroin (59% in 1999 and 43% in 2000). The increasing shift to methamphetamine use was also evident in that one-third of persons for whom heroin was the first drug injected now called methamphetamine their drug of choice, and 40% had injected methamphetamine most in the previous month. This trend was more pronounced compared with the 2001 survey, where 27% of persons for whom heroin was the first drug injected now called methamphetamine their drug of choice, and 27% had injected methamphetamine most in the previous month. This also contrasts with previous years, where the number of subjects who made the transition from heroin to methamphetamine was very small (2.8% in 2000 and 0% in 1999).

Thus, in the 2001 survey there appeared to be some overlap in the use of methamphetamine and heroin, and this trend clearly continued in the 2002 survey. There were 30 subjects (30%) who had first injected heroin. Of these, 47% also nominated heroin as their drug of choice, and one-third had injected heroin most often in the previous month. However, one-third nominated methamphetamine as their drug of choice. There were 64 subjects (64%) who had first injected methamphetamine. Of these, 61% also

nominated methamphetamine as their drug of choice, and 64% had injected methamphetamine most often in the previous month.

An additional question was included in the 2002 IDRS, which sought to identify the main reason for any discrepancy between the drug of choice nominated by IDU, and the drug they reported injecting the most in the previous month. There were 22 IDU whose drug of choice differed from the drug they had injected most. Half of these (n=11) nominated heroin as their preferred drug, and the drug they had injected most in the previous month was morphine (n=7), methamphetamine (n=3) or methadone (n=1). The one IDU who had recently injected methadone attributed this to the reduced purity of heroin. Those who had recently injected methamphetamine gave the reason as the reduced availability of heroin. For those who had recently injected morphine, four attributed this to the reduced availability of heroin; two the increased price of heroin and one the reduced purity of heroin. In addition, one IDU reported that they used whatever opiate was readily available to them. Three IDU had nominated cocaine as their preferred drug. Two were injecting methamphetamine due to the high price of cocaine, and one was injecting heroin due to the reduced availability of cocaine.

Table 5 summarises the drug use history of the IDU sample, and Figure 1 shows the extent of drug use reported among the IDU in the previous six months. The majority of the sample had used both licit and illicit drugs, confirming the high incidence of poly-drug use among the IDU population. The median number of drugs ever used by IDU was 11 (range: 4-16), while the median number of drugs that had been used in the previous six months was six (range: 2-14). Tobacco was the most commonly used drug in the previous six months by 93% of the IDU sample, followed by at least one form of methamphetamine (85%), cannabis (85%), alcohol (61%), benzodiazepines (57%), heroin (48%), morphine (46%), methadone (36%), other opiates (28%), cocaine (26%), ecstasy (25%), antidepressants (20%), hallucinogens (18%), buprenorphine (10%), homebake heroin (9%) and inhalants (4%). A distinction was also made between the powder form of methamphetamine (used by 56% of IDU in the previous six months), the paste or base form (used by 65%) and the crystal form (used by 56%).

There were no significant differences between males and females in the median number of drugs used, either ever (11.5 vs. 11; U=977.5; p>0.05) or in the previous six months (5.5 vs. 6; U=1059, p>0.05). However, there was a significant difference according to age. Subjects aged 30 years or less had used a median of 10.5 drugs ever, compared with 12 drugs for subjects aged over 30 years (U=919; p<0.05). There was no significant difference in the number of drugs used in the previous six months. Subjects aged 30 years or less had used a median of 5.5 drugs compared with six drugs for subjects over 30 years (U=1111; p>0.05).

The IDU were also asked which drugs, if any, they had taken on the day prior to the survey. Only 3% said they had not taken any drugs, and the majority had taken more than one. The most commonly used drugs were cannabis (56%) and alcohol (21%). Heroin was used by 18% of IDU, followed by benzodiazepines (15%) and the various forms of methamphetamine: powder (14%), base/paste (12%) and crystal (11%). Methadone was taken by 14%, morphine by 13% and other opiates by 5%. Only 7% had taken anti-depressants, and one IDU had taken cocaine. The most common combination was cannabis + another drug, including some form of methamphetamine (16%), heroin (7%) and alcohol (4%). A further 6% had taken cannabis, methamphetamine and alcohol, and 2% had taken cannabis, heroin and alcohol. Heroin + benzodiazepines were taken by 5%,

alcohol + morphine by 3%, and alcohol, cannabis and morphine by 3%. Only 2% had taken heroin and methadone on the same day.

The majority of IDU (82%) were in a private home the previous time they had injected a drug. The remainder last injected while they were in a car (11%), a public toilet (4%), a street, park or beach (2%) or in a hotel room (1%). Nearly three-quarters of subjects (73%) had injected at least twice per week in the previous month. There were 40% who injected at least twice per week but not daily, 7% who injected once per day, 15% who injected 2 to 3 times per day, and 11% who injected more than three times a day in the previous month. The remaining 26% had injected once a week or less, and one subject had not injected in the previous month.

4 HEROIN

Trends in heroin use were obtained from reports given by 48 (48%) of the 100 IDU who felt confident to give at least some information about the price, purity and availability of heroin. These were subjects who had reported using heroin in the previous six months, and the numbers and percentages reported in this section refer only to those 48 subjects. This is lower than the number who gave information on heroin in past IDRS surveys (65% of the total sample in 2001, 70% in 2000 and 74% in 1999). This difference was also statistically significant (χ^2_1=5.2, p<0.05). However, despite this decrease in *recent* use, the percentage of IDU who reported ever having used heroin was similar to past years (84% compared with 87% in the 2001 survey). Information was also provided by 17 key informants, although some were only able to give limited information on specific aspects of heroin use. The key informants who gave comprehensive information consisted of five user representatives (peer educators/clean needle program workers), two medical officers, three police officers and one community drug and alcohol worker.

Table 5: Drug use history of the IDU sample
(% of the total sample, *n*=100)

Drug class	Ever used	Used last 6 months	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
1. Heroin	84	48	82	45	41	8	16	4	14	2	24
2. Methadone	63	36	40	19					58	32	105
3. Buprenorphine	18	10	6	3	0	0	0	0	17	9	33
4. Morphine	71	46	66	44	3	0	2	0	43	22	12
5. Homebake	24	9	24	8	5	1	3	2	4	3	5
6. Other opiates	53	28	30	13	11	4	2	1	35	18	6
7. Methamphetamine (powder form)	96	56	88	51	16	3	61	13	49	11	6
8. Methamphetamine (base/paste form)	77	65	76	65	3	2	5	3	19	13	20
9. Methamphetamine (crystal/ice form)	84	56	80	55	8	2	6	2	17	12	15
10. Methamphetamine (any form)	100	85	100	85	23	7	63	16	54	23	36
11. Cocaine	82	26	59	20	14	2	51	10	8	0	3
12. Ecstasy	63	25	32	13	3	1	10	6	57	21	4

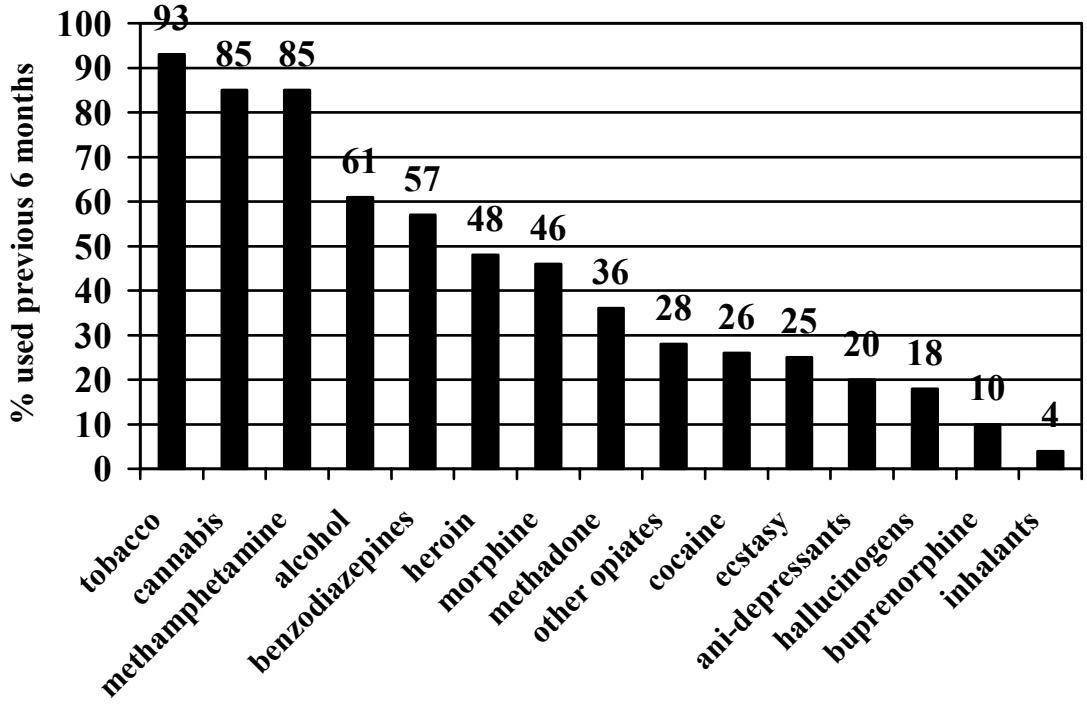
** Median number of days used in the previous six months by those IDU using the drug class in that period*

Table 5 (cont'd): Drug use history of the IDU sample
(% of the total sample, *n*=100)

Drug class	Ever used	Used last 6 months	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
13. Hallucinogens	87	18	31	3	9	1	5	1	85	17	3
14. Benzodiazepines	82	57	32	13	4	2	2	0	80	54	20
15. Alcohol	95	61	13	1					93	61	10
16. Cannabis	94	85									180
17. Anti-depressants	42	20									180
18. Inhalants	34	4									10
19. Tobacco	96	93									180

** Median number of days used in the previous six months by those IDU using the drug class in that period*

Figure 1: Drug use among the IDU sample in the previous six months



4.1 PRICE

The median price of one gram of heroin reported by 29 IDU was $475 (range $275 to $750). This was much higher than the median price reported in the 2001 and 2000 surveys ($375 and $310, respectively). It was also higher than the median price reported in earlier surveys, which was $400 in both 1998 and 1999. The median price of one gram of heroin *most recently purchased* by 11 IDU was $450, and ranged in price from $250 to $500. This is also higher than that reported in past surveys ($350 in 2001 and $320 in 2000). The range of prices reported for a gram of heroin by key informants (*n*=3) also varied, ranging between $400 and $600, but was consistent with IDU reports.

There were 17 IDU who reported recently buying heroin in half-gram weights, with a median price of $250 (range: $180-$350). As with the reported prices for a gram, this was higher than in past surveys ($200 in 2001, $180 in 2000 and $237.50 in 1999). One key informant provided an estimate of $250-$300 for the price of a half-weight. Four also commented that it is very hard to get grams or half-grams; that heroin is mainly sold in 'caps' or 'packets' and is not generally measured by actual weight.

Other amounts of heroin were also recently purchased by some of the IDU including a quarter of a gram of heroin (*n*=17, median = $100, range: $80-$175), an eighth of a gram of heroin (*n*=3, median = $100, range: $50-$210), a 'packet' of heroin (*n*=5, median = $100, range = $50-$100), 1.5 grams of heroin (*n*=1, price = $600) and 7 grams of heroin (*n*=1, $2500).

The purchase of heroin in caps was reported by 28 IDU. The median price was $50, ranging in price from $45 to $125. The median price of one cap of heroin *most recently purchased* by 19 IDU was also $50, and ranged in price from $50 to $100. Five key informants gave information on the price of a cap, stating it fell between $50 and $100, although $50 was the most commonly reported price. The prices reported for this amount of heroin are comparable to those reported in both the 2001 and 2000 surveys. However, it is important to note that both users and key informants expressed some confusion over the actual measurable amount of such a purchase. One key informant distinguished between a $50 cap (approximately 1 point) and a $100 cap (approximately 2 points). Another suggested that the lack of quantification of such amounts may be deliberate on the part of the dealer so that people are unaware of how much (or how little) they are actually purchasing for their money. Despite this confusion, it appears that very little heroin is sold in amounts other than caps or packets, and that the standard amount sold is simply referred to as a '$100 deal'.

Some prices were provided by the Australian Crime Commission (ACC), formerly the Australian Bureau of Criminal Intelligence (ABCI), for the 2001/02 financial year. There was no information available on the price of one gram of heroin, although the price of one cap (approximately 0.1 to 0.3 gram) was between $50 and $100. The ACC also gave the price of an 8-ball (3.5 grams) as $1750, and the price of one ounce (28 grams) as between $8000 and $10000. However, comparisons with IDU and KI were not possible, as they did not report on the prices of these quantities of heroin.

There were 36 IDU who gave information about the current price of heroin and whether there had been any changes. Of these, 58% reported that in the previous six months the price of heroin had been stable, and one-third thought that the price of heroin had increased. Only two subjects thought it had decreased and one that it had fluctuated. Nearly all the key informants who gave information concerning heroin also thought that the price had remained stable. This is not entirely consistent with the median price for a gram of heroin reported by both IDU and KI, which was much higher than that reported in the 2001 IDRS ($450 compared with $350).

4.2 AVAILABILITY

Heroin was considered easy or very easy to obtain by nearly 81% of the 36 IDU who felt confident to answer (n=29, 80.6%). The remainder thought that it was either difficult (13.9%) or very difficult (5.6%). The IDU were also asked if they thought the availability of heroin had changed over the previous six months. Half thought it had remained stable, and one-third thought it had become easier to obtain. The remaining IDU thought that heroin had become more difficult to obtain (13.9%) or that the availability had fluctuated over the previous six months (2.8%).

All key informants believed that heroin was easy or very easy to obtain. This differs to reports from the key informants surveyed in the 2001 IDRS, who mostly stated that heroin was difficult or very difficult to obtain. There was also consistent agreement that the availability of heroin had increased in the previous six months.

The results from both IDU and KI suggest that, compared with the results reported in the 2001 IDRS, the availability of heroin has increased. However, it still appears to be more difficult to obtain than in past surveys (in both 1999 and 2000, 96% of IDU believed that

heroin was easy or very easy to obtain). This increase in availability found in the 2002 survey is consistent with users' reports that the heroin shortage or 'drought' experienced in 2001 is no longer as pronounced as it was six-to-twelve months prior to the survey. More detailed information on the impact of the heroin shortage in Adelaide is contained in the 2001 IDRS report (Longo *et al.,* 2002).

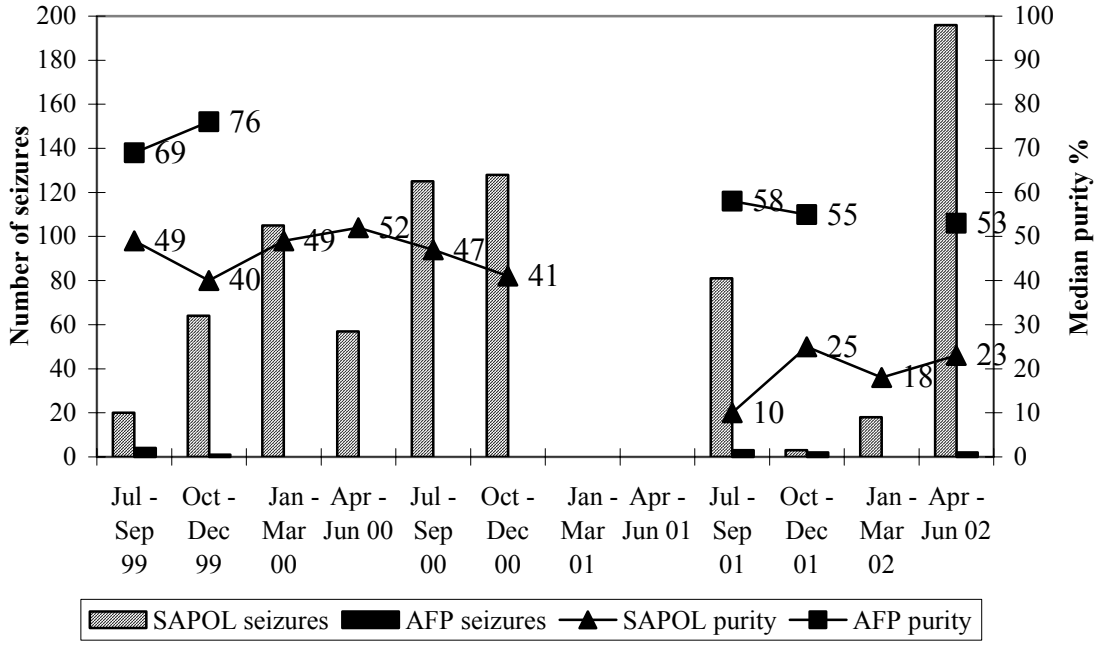
Of the IDU who gave information about where they usually scored their heroin, 30.6% reported purchasing from a mobile dealer, which involved ringing the dealer on their (mobile) telephone, and arranging a place to meet. The remainder purchased heroin from friends (19.4%), the dealer's home (19.4%), had heroin delivered to their home (13.9%), purchased from a street dealer (11.1%) or were given heroin by friends (5.6%). The IDU were also asked to estimate how long it usually took them to score heroin in the previous six months. The median length of time was 20 minutes, ranging from five minutes to three hours.

4.3 PURITY

The current purity of heroin was considered low by 55.6% of the IDU who felt confident to answer (n=20). Around 22% reported that it was medium, and only 5.6% that it was high. The remaining 16.7% reported that the current purity fluctuated. Most key informants believed that the current purity of heroin was medium, with consistent reports of an increase in purity over the previous six months. However, two stated that the purity had not returned to the level it was prior to the heroin shortage. This differs from the results in the 2001 survey, where nearly three-quarters of IDU reported that the purity of heroin was low. When asked about changes in purity of heroin over the previous six months, there was no clear trend, with 50% of IDU reporting that the purity had decreased and 19.4% that it was fluctuating. A further 16.7% believed the purity was stable, and 13.9% thought that heroin purity had increased over the previous six months. This is higher than in the 2001 survey, where only 3.8% reported that purity had increased.

The Australian Crime Commission (ACC), formerly the Australian Bureau of Criminal Intelligence (ABCI), provided quarterly purity data on heroin seized in South Australia during the 1999/00, 2000/01 and 2001/02 financial years. These data were obtained from analyses by the Australian Forensic Laboratory of seizures by state police (SAPOL) and the Australian Federal Police (AFP). Figure 2 shows the number of samples analysed and the median purity over time for both SAPOL and AFP seizures. Very few seizures by the AFP were analysed, although the median purity was reasonably high. However, there was a big decrease in the overall median purity between 1999/00 (69%) and 2001/02 (54%). Although there were substantially more seizures by SAPOL that were analysed, the median purity was much lower than those by the AFP. There was no information available on the median purity in the period following the heroin shortage (January-June 2001), but purity was extremely low in July-September 2001 (10%), and the median purity overall in 2001/02 was only 22%. However, there was an increase in both the number of samples analysed, and the median purity between July-September 2001 (81 samples; 10%) and April-June 2002 (196 samples; 23%). There is thus evidence that the purity of heroin increased in the latter part of 2001. The purity data from the ACC are consistent with the estimates provided by IDU and key informants, which gave the current heroin purity as 'medium to low'.

Figure 2 : Number of heroin seizures analysed and median heroin purity in SA 1999-2002*



*Due to industrial action, no data were available on SAPOL seizures for the periods Jan-Mar 01 and Apr-Jun 01. For AFP seizures, missing data indicates that no seizures were analysed during those periods.

4.4 USE

4.4.1 Prevalence of use among the general population

The 1998 National Drug Strategy Household Survey (NDSHS) revealed that among those surveyed in the general population in South Australia, 1.8% had ever used heroin, and 0.5% had used in the previous 12 months. The proportion of those surveyed in the Australian population who had ever injected an illicit drug increased from 1.3% in 1995, to 2.1% in 1998. The results from the 2001 NDSHS are not comparable with prior surveys with respect to the lifetime use of drugs due to a change in the wording of the question. In past years, respondents were asked if they had "ever *tried*" illicit drugs. In 2001, the question was changed to "ever *used*". This may have been construed by respondents as indicating regular or serious use, as opposed to just trying the drug. The results obtained may be an underestimate, and consequently the 2002 IDRS refers only to reports of recent use in the 12 months prior to the survey, where the form of the question was the same as previous years. In the 2001 NDSHS, 0.1% of those surveyed in South Australia reported recent use of heroin. Looking at the National results, 0.6% had recently injected any illicit drug. This is slightly lower than in the 1998 survey (0.8%).

The results of the 2001 Australian Needle and Syringe Program (NSP) survey reported that heroin was the last drug injected by 25% of the 276 South Australian IDU who were surveyed. This is much lower than in past NSP surveys. In 2000, 56% nominated heroin as the last drug injected, with 45% nominating heroin in both 1999 and 1998. Heroin use among schoolchildren appeared to be somewhat higher than the general population

according to the 1999 South Australian Schoolchildren's survey. Around three percent of schoolchildren aged 12-17 years had ever used heroin, while 0.9% reported using heroin in the previous week. It is possible that the use of heroin has increased since the time this survey was conducted in 1999. The survey was also conducted in 2002, but the results are not yet available.

4.4.2 Current patterns and trends in heroin use

The characteristics of heroin users in the 2002 IDRS were obtained from IDU who reported using heroin in the last six months (*n*=48; 48%). Most heroin users were in their mid-twenties to early-thirties, with a median age of 33.5 years. This is consistent with information obtained from key informants, who reported that heroin users were predominantly aged between 20 and 35 years, with an overall age range of 14 to 60 years. One key informant who dealt specifically with clients from non-English speaking backgrounds reported that these users tended to be younger: between 18 and 25 years.

Two-thirds of heroin users in the 2002 sample were male. This is consistent with the reports from key informants, who reported that between 60% and 70% of heroin users were male. However, two observed that they may be more likely to come into contact with the male users as they tend to purchase and distribute heroin, as well as access needles from clean needle sites.

The majority of heroin users in this sample of IDU nominated English as the main language spoken at home (94%), although 8% identified as Aboriginal or Torres Strait Islander (ATSI). This is much lower than in the 2001 survey, where 23% identified as ATSI. Most key informants observed that the heroin users they come into contact with are mainly Caucasians, with percentages ranging from 60% to 90%. On average, between 10% and 40% are Vietnamese, and 10% to 20% are Aboriginal. It is important to note that these percentages may be dependent on the area in which the key informants worked, and two informants specifically stated that they only see Caucasian clients as other ethnic groups tend to access different services.

Nearly 71% of heroin-using IDU reported being unemployed. There were 8.3% who were employed full time, with a further 8.3% employed on a part time or casual basis. The remainder (12.5%) were either students or carried out home duties. Key informants also consistently reported that the majority of heroin users are unemployed or on disability pensions. The heroin users in this sample had 10 years of education on average, and 52.1% had a previous prison history. These results were also in line with key informant reports that heroin users on average have high school level education: generally up to year 10 or 11. However, two KI said that they do see some clients who have tertiary level education.

Both powder (79.2%) and rock (79.2%) were reported as being used in the previous six months by the heroin-using IDU, and 58% reported having used both forms. The use of rock heroin increased slightly compared with the 2001 IDRS where 72.3% reported using this form, although the percentage was still somewhat lower than in 2000 (85.9%). In contrast, the use of the powder form has decreased from 92.3% in the 2001 survey to 79.2% in the present sample, and heroin rock was reported as the most frequently used form in the previous six months by two-thirds of the sample, which was the reverse finding to the 2001 IDRS. The key informants who were able to provide information reported that heroin is available in both powder and rock form. Consistent with the IDU, they also

reported an increase in the availability of the rock form. However, most key informants noted that compressed powder is often sold as rock, probably so that users think that the drug is of higher quality and purity, as it is believed that rock is much harder to cut.

Injection was the most common route of administration among the IDU, and 93.8% of heroin users who had used heroin in the previous six months (n=45) had also injected it during that time. Similarly, key informants all reported intravenous use, although two key informants noted that smoking is highly prevalent among Asian communities.

Key informants reported varied frequency of heroin use. A significant proportion used heroin on a daily basis, between 1 and 2 times per day. There were also reports of weekly and fortnightly use, or using once every few months. As was reported in the 2001 IDRS, the frequency of use was believed to be dependent on the purity and availability of heroin, as well as users' financial situation. Although the quantities used also varied widely, the average amount according to key informants was a $100 'packet' per day. One key informant observed that the quantity of heroin used had increased due to the low purity of the drug, with users needing larger amounts to achieve the effects. Although the availability of heroin appears to have increased, the purity is not believed to have returned to the levels seen before the heroin shortage.

The IDU also reported a wide variation in heroin use, with an average of 50 days of use in the previous six months (SD 60 days, range 1-180), and a median of 24 days. This is similar to that reported in 2001, where IDU reported an average of 57 days of use and a median of 30 days. However, the percentage that reported using heroin in the previous six months was significantly different between 2002 and 2001 (48% compared with 65%, χ^2_1=5.2, p<0.05). There has also been a significant decrease in both the percentage of IDU who reported using heroin in the previous six months, and the frequency of use among these users compared with the 2000 data. The heroin-using IDU in 2000 (73% of the total sample: χ^2_1=12.4, p<0.001) reported an average of 83 days of use and a median of 60 days (t_{124}=2.9, p<0.01). Only five of the heroin-using IDU (10.4%) reported daily use in the 2002 survey. Furthermore, less than half of the heroin-using IDU (n=22; 45.8%) reported that heroin was the drug they had injected most in the previous month, and only seven of these (31.8%) had injected heroin at least once per day.

As was found in the 2001 survey, over one-third (35.4%) of persons that had used heroin in the previous six months reported receiving treatment for opioid dependence, which may account for some of the less frequent users. The median number of months in treatment was 12 (range 2-144 months). Of the IDU who had mostly injected heroin over any other drug in the previous month (n=22), 22.7% said they injected heroin weekly or less than weekly. A further 45.5% said they injected more than once a week but not daily, 4.5% said they injected once a day, 9.1% said they injected 2 to 3 times per day, and 18.2% reported injecting heroin more than three times a day. It is interesting to note that less than half of IDU (45.8%) who reported using heroin in the previous six months actually nominated heroin as the drug they had injected most often. Key informants reported that between 30% and 80% of the heroin users they come into contact with are in drug treatment programs. These are always opioid substitution programs, either methadone or buprenorphine. A few KI also spoke of clients seeking referrals for drug counselling. One key informant, a community drug and alcohol worker who mainly provided information on patterns and trends among methamphetamine users, noted a decline in people seeking treatment for heroin at his clinic. In December 2001 he reported seeing 1-2 heroin users

per week wanting to start on methadone maintenance, but now the majority of clients are seeking access to services for methamphetamine.

The majority of heroin users in the 2002 sample resided in the western suburbs (52.1%) and the southern suburbs (22.9%), with lower percentages in the inner city and east (16.7%) and in the north (6.3%). While this distribution differs from that of previous years, it is more likely due to sampling variation. The findings from the 2002 survey indicate that heroin use is geographically widespread in Adelaide. This is consistent with key informant reports, although several noted that there seems to be a high prevalence of heroin use in the western suburbs.

The key informants spoke about current patterns and trends among heroin users. The heroin shortage that occurred in early 2001 has had a clear impact on patterns and trends in heroin use. As was found in the 2001 IDRS, there were consistent reports that many users have switched from heroin to methamphetamine. Although there was evidence that heroin availability and purity increased over the last six to 12 months, there have been continuing reports of this switch. Key informants noted that many heroin users who made the change to methamphetamine during the shortage have chosen not to go back to using heroin. One KI attributed this to the fact that methamphetamine is cheaper and stronger, and thus the effects last longer at a reduced price. However, not all heroin users affected by the shortage switched to methamphetamine. Key informants noted an increase in the use of other opiates, mainly morphine and methadone, as well as physeptone tablets and buprenorphine. These are often illicitly obtained, and many users inject these drugs, particularly morphine. Many have continued taking these drugs, or are mixing them with heroin now that it is more available. These tend to be users who wanted to stay with opiate-based drugs and would not switch to stimulants such as methamphetamine. One key informant estimated that 25% of former heroin users now call methadone their drug of choice, and that many use it intravenously. Another KI, a community drug and alcohol worker, also estimated that 30% of heroin users switched to methamphetamine during the shortage.

Key informants also noted other trends that they attributed to the heroin shortage. One observed that some users stopped taking drugs altogether, but that many of these started using again when heroin became more readily available. Three reported that some users who switched to methamphetamine during the shortage now use both drugs, depending on the relative price, purity and availability at the time. A community drug and alcohol worker commented that a consequence of the heroin shortage has been that there is no longer a clear distinction between people who use depressant drugs and those who use stimulant drugs. Heroin users will often take whatever is available, and do not always understand the difference in effects between these two groups of drugs, which can cause problems.

All key informants who had contact with heroin users, as well as 48 IDU, commented on new trends relating to heroin use over the previous six to 12 months. Several common themes emerged among the IDU. There were 27 who had observed a decrease in both frequency and quantity of heroin use, with a concomitant increase in the use of other drugs. The other drugs were predominantly methamphetamine or morphine. This switch to other drugs was attributed by the IDU to the reduced availability of heroin and the decreased purity. Although many IDU stated that the purity of heroin has improved since the heroin shortage, it has not returned to the levels seen in previous years, and seven subjects reported needing to use larger amounts to get the same effect. This in turn makes heroin more expensive to purchase, which one IDU stated has led to an increase in crime

among heavy users to support this use. Despite the general agreement that there has been a decrease in heroin use, five IDU noted that injecting drug use is often related more to needle fixation than what drug is actually being injected. Consequently, people will use whatever drug is available at the time, whether it be heroin, other opiates or methamphetamine. Some will use both opiates and stimulants, subject to price, purity and availability. Conversely, four IDU reported an increase in heroin use related to the recent increase in heroin availability, which has caused some users to go back to using heroin. Five IDU observed that heroin users seem to be starting at a younger age, with a further four stating that overall, drug users seem to be much younger. Finally, eight IDU noted an increase in people experimenting with drugs and using drugs generally. They reported that people also seem to use stronger drugs right from the start. Instead of using cannabis or ecstasy recreationally, they will go straight to injecting heroin or methamphetamine.

A key informant who is a police officer with the Drugs and Organised Crime Division noted that heroin is not as available as it was several years ago, and although there has been a recent increase in availability, the purity is still low according to his police informants. In addition, the price of heroin also fluctuates depending on purity. The key informant reported that as of July 2002, the purity of heroin was higher than it has been, but still much lower than prior to the shortage. The key informant also reported that the number of arrests for heroin was stable. However, there has been a decrease in the *amount* of heroin seized, which may reflect a decrease in the prevalence of heroin on the street. It is interesting to note that the police officers interviewed in the 2001 IDRS who operate at a street level were not able to provide much information, if any, on heroin in 2002. The focus has shifted to methamphetamine. In contrast, the police officers in Drugs and Organised Crime who deal with higher-level dealing and trafficking seemed to come into more contact with heroin, although this is predominantly dealers, not users.

Three key informants provided information on changes in the price, purity and availability of other drugs taken by heroin users, and in all cases the use of these other drugs was attributed to the heroin shortage. Two noted an increase in the purity and availability of methamphetamine, which has become the new drug for people to use when they find it difficult to obtain heroin. It was suggested that the aim of high-level suppliers was to create a demand for methamphetamine, and establish its place in the drug market. One of these also said the price of methamphetamine has decreased. Two key informants reported the use of other opiates, primarily an increase in the illicit use of methadone and morphine. One stated that there is a market for opiate-based pills (predominantly morphine), and that they are easy to obtain and low in price.

In addition to the drug use patterns that occurred as a result of the heroin shortage, key informants also spoke about other drugs that are taken by heroin users, either in conjunction with heroin or independently. Cannabis use is ubiquitous, and benzodiazepines are also often used either during the 'come-down' or together with heroin. One KI said that benzodiazepines are sometimes taken before heroin to increase the effects, especially if the quality of heroin is low. Most key informants said that 'party drugs' such as ecstasy, GHB (fantasy) and ketamine were not used much among heroin users, but two had noted a small increase recently. This was again attributed to the heroin shortage, which according to one key informant provided the opportunity for heroin users to experiment with different drugs. Overall, cocaine was not reported as widely used, mainly as it is too expensive and difficult to obtain, although three KI had noted a small increase. However, cocaine use is more sporadic, and opportunistic rather than regular.

Key informants were also asked to comment on any changes they had observed in the previous six to 12 months among heroin users. The same themes emerged, namely the ongoing effects of the heroin shortage on drug usage patterns. It was agreed that the heroin scene has changed, that it is harder for people to score heroin consistently, leading to the use of other drugs. This includes an increase in the use of methamphetamine, with one key informant estimating that 50% of ATSI had switched to methamphetamine during the shortage, and that many of them have continued using this drug. This KI was a doctor involved in opioid substitution programs who dealt specifically with ATSI and people from non-English speaking backgrounds. The heroin shortage does not appear to have had as marked an effect on the Asian community, who were still able to access heroin during the shortage. There was also a reported increase in people using pills, such as morphine, physeptone and benzodiazepines, as well as methadone. As mentioned previously, there is still a market for these drugs, and other groups of drug users are also taking them. One KI, a clean needle program and outreach worker, observed that the increase in police activity has also led to an increase in the market for these pills as they are easier to obtain and distribute than heroin.

Five key informants noted that the purity of heroin has increased, but that it is not back to the levels seen before the heroin shortage. Two also said that heroin availability has increased, but is also not back to pre-shortage levels. One observed an increase in the rock form of heroin. A key informant who works at a clean needle site in Adelaide noted a steady increase in opioids nominated as the drug being injected by clients. Data collected at the site indicated that the percentage rose from 53% in July 2001 to 62% in May 2002. This is consistent with reports from both IDU and KI that the heroin shortage ended around June 2001. This key informant also observed an increase in people seeking methadone maintenance treatment as a result of the heroin shortage. Although it was stated that the majority stayed with treatment, some are also taking heroin now that is has become more available. Another key informant, a doctor involved in the opioid substitution program, noted many clients saying that methamphetamine helped them during withdrawal from heroin.

4.5 SUMMARY OF HEROIN TRENDS

Table 6 contains a summary of trends in the price, purity and availability and use of heroin in the previous 12 months, between mid-2001 and mid-2002. Heroin appeared to be readily available, and this availability increased over the previous 12 months. The price of heroin increased compared with the 2001 IDRS, and although the purity increased, it did not appear to have returned to the levels observed before the heroin shortage. This is consistent with purity data from the ACC, which recorded an average purity of 22.4% for heroin seized by SAPOL in the 2001/02 financial year. The use of heroin overall decreased compared with previous years, with 48% of IDU reporting having used heroin in the previous six months. However, rock heroin appeared to have increased in use and availability. The trend observed in the 2001 IDRS of the increase in the use of other drugs, predominantly morphine and methamphetamine, was also evident in the 2002 survey.

Table 6: Trends in the price, availability, purity and use of heroin

Price	
Gram	$450 ($250-$500); Stable to increasing
Cap	$50; Stable
Availability	Very easy to easy; Stable to increasing
Purity	22.4% (SAPOL) Low to medium (IDU); no clear trend in the perceived changes in purity, but belief that purity has not returned to pre-shortage levels
Use	Use is geographically widespread, but frequency of use has decreased Increase in use and availability of rock heroin Continuing trend in the use of other drugs, predominantly morphine and methamphetamine

5 METHAMPHETAMINE

In the past, the IDRS has used the overarching term 'amphetamines' to refer to both amphetamine and methamphetamine. Throughout the 1980s, the form of illicit amphetamine most available in Australia was amphetamine sulfate (Chesher, 1993). Following the legislative controls introduced in the early 1990s on the distribution of the main precursor chemicals (Wardlaw, 1993), illicit manufacturers were forced to rely on different recipes for 'cooking' amphetamine. In the 1990s, the proportion of amphetamine-type substance seizures that were methamphetamine (rather than amphetamine) steadily increased until methamphetamine clearly dominated the market. In Australia today, the powder traditionally known as 'speed' is almost exclusively methamphetamine rather than amphetamine. The more potent forms of this family of drugs, known by terms such as ice, shabu, paste, wax, base and crystal meth, are also methamphetamine (Topp, 2001). In the IDRS, the distinction is drawn between the powder form (referred to in this report as 'powder methamphetamine' or 'speed') that has traditionally been available in Australia, and the more potent forms that have in recent years become increasingly available and more widely used.

These more potent forms can be divided into two groups. The first is referred to as 'paste' or 'base' due to its sticky consistency. The other form is referred to as 'crystal meth' or 'ice', and as the name suggests, has been described as a white crystalline substance or a coarse, crystalline powder. One point is thought to create an effect equivalent to one gram of the powder form. However, it is important to note that, as was observed in the 2001 IDRS, there was confusion among some of the IDU and key informants as to what the various terms refer to and how the forms of the drug relate to each other. For example, many IDU thought the base and crystal forms were two distinct drugs, and many were unaware that they were all forms of methamphetamine. In contrast, others were aware of the distinction between the powder and the non-powder forms, but used the latter to refer to all the various types. The term used by many IDU was simply 'speed', which was used to describe everything from the powder form to the stronger forms. One thing that clearly emerged from this confusion in the 2001 IDRS, and which was confirmed in the 2002 survey, was that the powder form of methamphetamine has made way for the more potent forms.

While the 2001 IDRS collected some data on crystal methamphetamine and methamphetamine base, this year represents the first time that a distinction has been made between the different forms of methamphetamine to collect more comprehensive data on the use, purity and availability of each of the forms. This year, flashcards with colour photographs were also used to begin clarifying more precisely the characteristics of the different forms of methamphetamines that are marketed as 'speed', 'base', and 'crystal' (Churchill and Topp, 2002). The results of this investigation are presented in section 3.3.5. A copy of the flashcard, with discussion of the groupings, is located on the NDARC website: at http://ndarc.med.unsw.edu.au/ndarc.nsf/website/IDRS.bulletins. There has also been a discussion of Australian methamphetamine markets by Topp and Churchill and Topp in the June 2002 issue of the *IDRS Bulletin*, also accessible from the NDARC website http://ndarc.med.unsw.edu.au/ndarc.nsf/website/IDRS.bulletins.

Trends in methamphetamine use in the 2002 IDRS were obtained from reports given by 85 (85%) of the 100 IDU interviewed who felt confident to give information about price, purity and availability. As with heroin, these were subjects who reported using some form

of methamphetamine in the previous six months. Information was also provided by 23 key informants, who consisted of four user representatives (peer educators/clean needle program workers), four police officers, six counsellors/drug and alcohol treatment workers, three needle exchange/outreach workers, two telephone counsellors, two drug and alcohol nurses, one medical officer and one forensic psychiatrist. The 2002 IDRS had a predominance of methamphetamine users from the western suburbs (41.2%), followed by the southern suburbs (29.4%). There were 14.1% who resided in the northern suburbs and 11.8% in the central and eastern suburbs. Three subjects had no fixed address. As with the heroin users, the geographical distribution of methamphetamine users was somewhat different from that reported in previous IDRS surveys. However, this change may be due to differences in sampling methods.

The key informants who spoke about methamphetamine represented the main geographical areas around Adelaide. This suggests that methamphetamine use is widespread across Adelaide, although the Western suburbs were reported as being one of the areas most associated with drug use.

5.1 PRICE

The price of methamphetamine was found to be variable depending upon the form or quality purchased. As stated earlier, a distinction was drawn between the powder form and the more potent forms seen in recent years. The predominance of these stronger forms was reflected in the IDU reports, with only 26 subjects providing some information on the price, purity and availability of the powder, or 'speed'. Furthermore, in most cases the information provided was limited to a few aspects only. In contrast, 65 subjects were able to give at least some information on the non-powder forms. These are known by various names, including 'paste', 'wax', 'base, 'ice' and more commonly 'crystal meth'.

The median price of one gram of powder methamphetamine, as commented on by 18 of the IDU, was $50 (range $30-$330). This is comparable with the median price in both 2001 and 2000 surveys. The median price of one gram of powder *most recently purchased* by 12 IDU was also $50, and ranged in price from $45 to $100. Two key informants provided information on the price of a gram, ranging from $40 to $50. The above prices for one gram refer to powder that has been 'cut' or 'stepped on' with other additives to increase the bulk, and decrease the purity of the drug. Thirteen key informants and 65 IDU also referred to purchasing methamphetamine in non-powder form, which is of higher purity, but lesser volume.

The prices for the non-powder forms of methamphetamine will be listed separately, although in some cases IDU reported that the prices were identical irrespective of the form. For the base or paste forms, 44 IDU reported that the median price of one point was $35, ranging from $10 to $75. The median price of one point *most recently purchased* by 33 IDU was $25, and ranged in price from $15 to $50. For the crystal forms, 30 IDU gave the same median price for one point as the base/paste forms ($35; range $10 to $75). The median price of one point of crystal *most recently purchased* by 23 IDU was also identical: $25 (range $15 to $50). Information was also provided on the price of a gram of these non-powder forms of methamphetamine. For base/paste, the median price reported by 31 IDU was $200, ranging from $100 to $500. The median price of a gram *most recently purchased* by 20 IDU was also $200 (range $70 to $250). For the crystal forms, the median price reported by 29 IDU was $200 (range $100 to $350), and *most recently purchased* was slightly lower, at $190 per gram ($n$=14; range $70 to $200). Reports from key informants were consistent

with IDU. Thirteen gave information on the price of a point, ranging from $10 to $50 (median price $30). Six also spoke about the price of a gram, ranging from $150 to $500 (median price $150). One key informant commented that the price is often dependent on the age of the user, and their social networks. Younger users tend to pay more, as they may not have established contacts in the drug scene.

Very few IDU were able to provide information on prices of other amounts of the powder form of methamphetamine. The median price of one 8-ball as reported by four IDU was $175 (range: $125-$500). Three reported that the median price for ½ gram was $100 (range $50 to $100). Two subjects gave the price for three grams ($100), one for 1/8 gram ($240) and one for an ounce ($850).

A larger number of IDU gave information on the prices of other amounts of non-powder methamphetamine. Again, a distinction has been made between the base/paste and crystal forms, although some subjects used them interchangeably, and some stated that there was no price difference. For the base/paste forms, 23 IDU gave information on the *most recently purchased* price of ½ gram, with a median price of $100 (range $50-$125). For the crystal forms, the median price for ½ gram as reported by 17 IDU was also $100 (range $50-$100). The median price of an 8-ball of the base/paste forms was reported by 10 IDU as $450 (range $350-$500). The median price for the crystal forms was reported by eight IDU as $425 (range $350-$625). Ten IDU gave information on the price of 2-3 points, which ranged from $30-$100 (median $50), and was identical irrespective of the form of methamphetamine. One IDU reported the price of an ounce of non-powder methamphetamine: $3000 for base/paste and $4200 for crystal. Finally, one IDU commented that it is customary to ask for a monetary amount instead of an actual weight, for example "$20 worth" or "$50 worth", depending on how much money you have at the time, and how well you know the dealer.

These prices are not entirely consistent with those provided by the ACC for the 2001/02 financial year. The price of one street deal or point of methamphetamine was reported to be $50, one 8-ball was $300, and one ounce was between $2500 and $3500. However, the price given for one gram was similar to that reported by IDU, ranging from $200 to $250.

Only a small number of IDU (n=23) were able to give information on whether the price of the powder form had changed in the previous six months. Of these, 73.9% reported that the price was stable. The remainder reported that the price had decreased (17.3%), increased (4.3%) or fluctuated (4.3%). A higher number of subjects provided information on price changes for the non-powder forms of methamphetamine. For the base/paste forms, 47 were able to answer. Of these, 60% said the price was stable, 14.9% said it had decreased and 14.9% said it had increased. The remainder said the price fluctuated (10.6%). For the crystal forms, a similar trend emerged. Of the 37 who provided information, 64.9% said the price was stable, 21.6% said it had decreased and 8.1% said it had increased. The remaining 5.4% said the price fluctuated. There were 13 key informants who provided information on whether the price of methamphetamine had changed in the previous six months. They reported that the price was stable (n=7) or had decreased (n=6). One KI, a clean needle program worker, observed that the price per point has been consistently decreasing over time, from $50 a few years ago to as little as $10.

5.2 AVAILABILITY

Only 25 IDU provided information on the current availability of the powder form. The majority (76%) stated it was easy or very easy to obtain, and the remaining 24% considered it difficult or very difficult. Availability of powder methamphetamine over the previous six months was reported as stable by 80.8%, more difficult by 15.4% and easier by 3.8%. Nearly all the key informants commented on the availability of methamphetamine, and all said that it was very easy to obtain. In addition, availability was reported by KI as stable to increasing, and in particular several had noted an increase in crystal meth. One had also observed an increase in methamphetamine in response to the decreased availability of heroin.

The usual sources for purchasing powder methamphetamine were varied among the IDU. The majority reported purchasing from a dealer's home (47.8%), a friend (17.4%), a mobile dealer (17.4%) or by home delivery (13%). Only one reported purchasing from a street dealer. Subjects were also asked to estimate the length of time it usually takes them to score powder methamphetamine. The median was 30 minutes, ranging from five minutes to two hours.

For the non-powder forms of methamphetamine, 50 IDU were able to provide information on availability of the base or paste forms. As with the powder form, the majority (90%) stated it was easy or very easy to obtain, and the remaining 10% said that it was difficult. Availability over the previous six months was considered stable by two-thirds, easier by 22.9% and more difficult by only 6.3%. There were 42 IDU (49.4%) who provided information on availability of the crystal forms. Nearly all (85.7%) stated that it was easy or very easy to obtain, and that availability had remained stable over the previous six months (53.7%). A further 22% thought that the availability had increased.

Of the IDU who gave information about where they usually scored the non-powder forms of methamphetamine, the majority reported purchasing the base/paste forms from a dealer's home (30%), a friend (32%), a mobile dealer (16%) or by home delivery (10%). There were 8% who purchased from a street dealer, while the remaining 2% (n=1) bought from a bikie club. For the crystal forms, the usual purchase locations were similar. There were 37.5% who usually purchased from a friend, 20% from a dealer's home, 17.5% from a mobile dealer and 15% by home delivery. The remaining IDU reported usually purchasing from a street dealer (n=2), a bikie club (n=1) or that they produced it themselves (n=1).

As with the powder forms of methamphetamine, subjects were asked to estimate how long it usually takes them to score. The median length of time was identical for both non-powder forms: 30 minutes, ranging from "immediately" to 24 hours.

5.3 PURITY

Only 24 IDU were able to provide information on the current purity of the powder form. Two-thirds stated that the purity was high or medium, 25% that it was low and 8.3% that it fluctuated. This was different to the IDU reports in the 2001 IDRS, where two-thirds said the purity was medium to low. When asked about changes in purity of powder methamphetamine over the previous six months, there was no consistency in the reports.

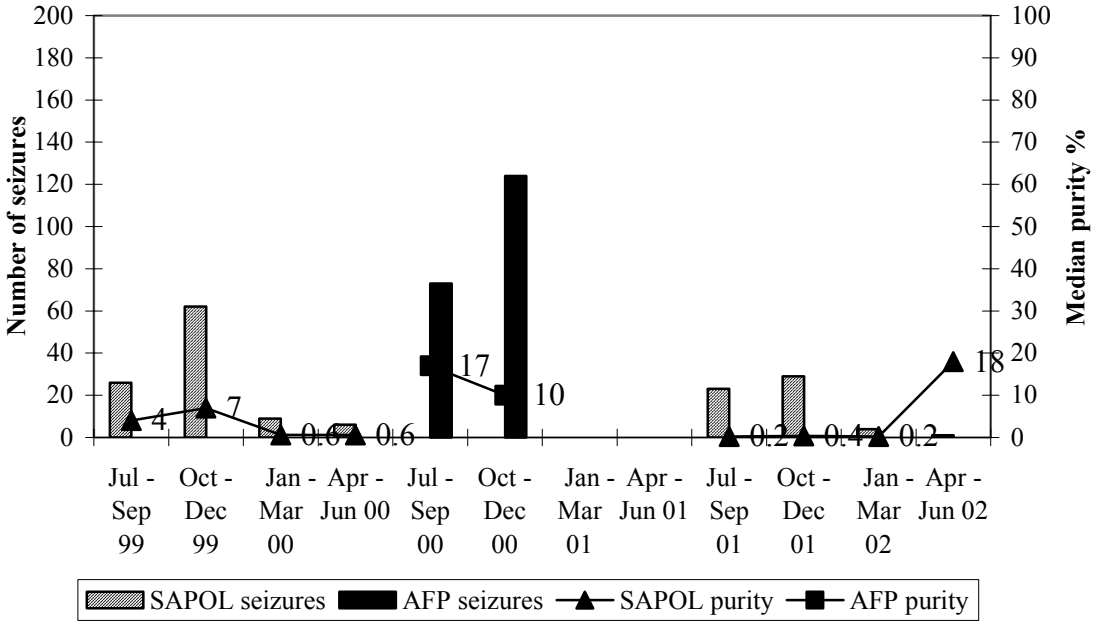
Just over half (54.2%) said it was stable, 20.8% believed it had decreased and 20.8% that it had increased.

For the non-powder forms of methamphetamine, 49 IDU were able to provide information on the current purity of the base/paste. The majority believed it was high (49%) or medium (22.2%). A further 16.3% said the purity fluctuated, and only 12.2% said it was low. Concerning changes in purity over the previous six months, there was again no consistency in IDU reports. There were 28.6% who thought the purity fluctuated, 26.5% said it was stable and 24.5% that it had decreased. The remaining 20.4% said that the purity had increased. The results for the crystal forms of methamphetamine were similar. The majority believed that the current purity of crystal was high (75.6%) or medium (14.6%), with only one stating the purity was low. When asked about changes in purity over the previous six months, 53.8% said it was stable, 20.5% that it had increased and 15.4% that it had decreased. The remaining 10.3% thought that the purity had fluctuated. This is similar to the 2001 IDRS, where the non-powder forms of methamphetamine were considered by most IDU to be high in purity. The overall inconsistency in reports of changes in purity reflects the confusion among many users as to the various forms of methamphetamine, some of whom were not clear on which form they were actually using, and how the forms differ from each another.

There were 16 key informants who provided information on the current purity of methamphetamine. In all cases but one, they were referring to the non-powder forms (paste, base, crystal). Most reported that the purity was high, although a few said that it fluctuated depending on the social networks of the user. The key informant who spoke about the powder form also said that the purity fluctuated, and that the non-powder forms were much higher in purity. Most also agreed that the purity was stable or had increased over the previous six months. Again, the purity of the powder form was reported as fluctuating.

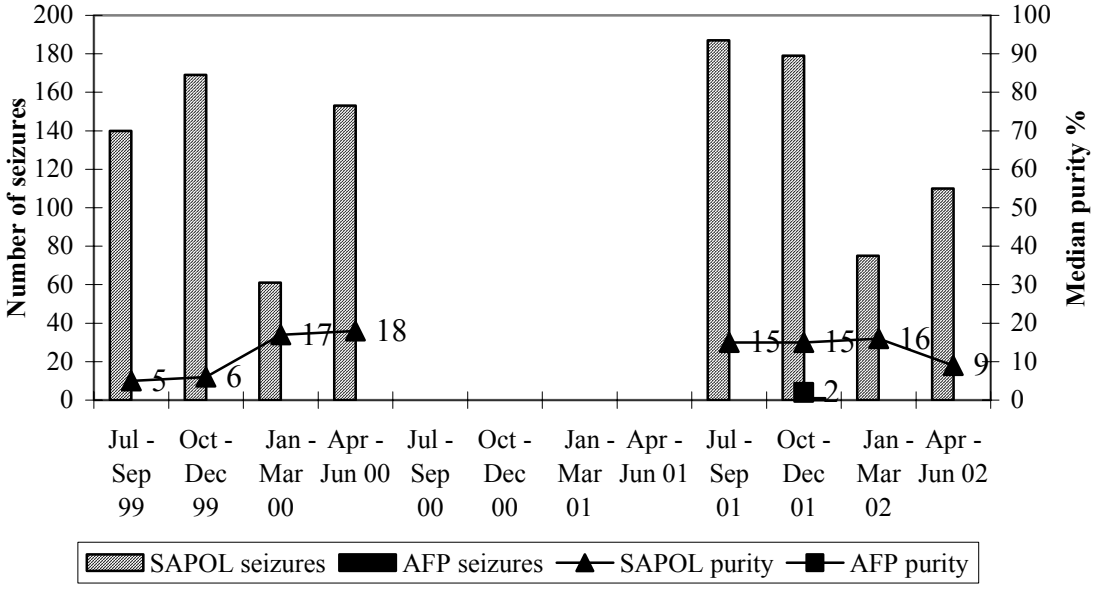
The ACC provided quarterly purity data on amphetamine and methamphetamine seized in South Australia during the 1999/00, 2000/01 and 2001/02 financial years. Figure 3 shows the number of samples analysed and the median purity over time for both SAPOL and AFP seizures of amphetamine. For seizures by the AFP, an analysis of purity levels was only available in the first two quarters of 2000/01. Overall, the median purity was 11%, with a total of 197 samples analysed. For seizures by SAPOL, there was no information available in 2000/01. The purity of seizures analysed in 1999/00 and 2001/02 was very low, with an overall median purity of 3.3% in 1999/00 (103 samples) and 0.3% in 2001/02 (57 samples). Although the median purity in the final quarter of 2002 (April-June) was 18%, it was based on the analysis of one sample of amphetamine. For methamphetamine, there was only one sample analysed from seizures by AFP. This was in the 2001/02 financial year, and the median purity was only 2% (see figure 4). However, the analysis of methamphetamine seizures by SAPOL found much higher purity levels, and there were a greater number of samples analysed. Although no information was available in 2001/02, in 1999/00 the median purity was 8% (523 samples analysed) and this increased to 15% in 2001/02 (551 samples analysed). This is consistent with reports that what is now sold as 'speed' is predominantly methamphetamine. There were also more analyses from methamphetamine seizures by state police, which may reflect that speed is mainly manufactured locally.

Figure 3 : Number of amphetamine seizures analysed and median amphetamine purity in SA 1999-2002*



*Due to industrial action, no data were available on SAPOL seizures for the periods Jan-Mar 01 and Apr-Jun 01. For AFP seizures and for SAPOL seizures in other time periods, missing data indicates that no seizures were analysed during those periods.

Figure 4: Number of methamphetamine seizures analysed and median methamphetamine purity in SA 1999-2002*



*Due to industrial action, no data were available on SAPOL seizures for the periods Jan-Mar 01 and Apr-Jun 01. For AFP seizures and for SAPOL seizures in other time periods, missing data indicates that no seizures were analysed during those periods.

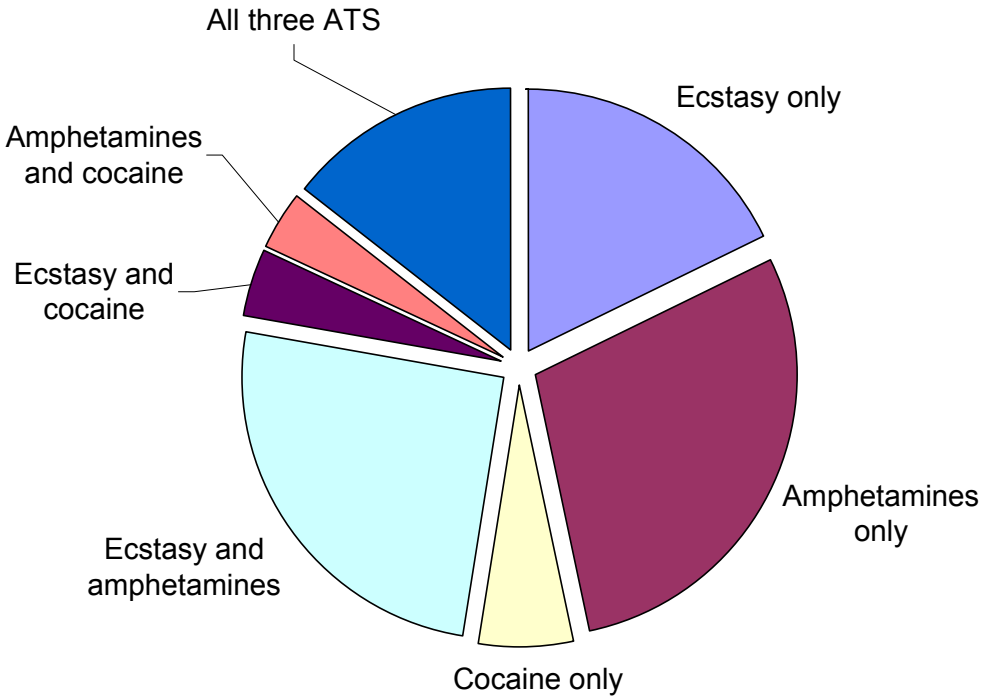
5.4 USE

5.4.1 Prevalence of use among different populations

The following data sources do not distinguish between the various forms of amphetamines. The 1998 National Drug Strategy Household Survey found that among those surveyed in the general population in South Australia, 8.2% had ever used amphetamines, and 3.5% had used in the previous 12 months. The use of amphetamines was more prevalent among the general population than heroin, but comparable to heroin use among injecting drug users. In the 2001 survey, 4.3% reported recent use of amphetamines, which is slightly higher than in 1998. In addition, the data revealed that amphetamine users tend to use multiple forms of amphetamine-type substances, including amphetamines, cocaine and ecstasy (see figure 5). However, it is important to note that this figure refers to overall use of these drugs, not just intravenous use. The use of amphetamines among schoolchildren was slightly lower compared with the general population according to the 1999 South Australian Schoolchildren's survey. Eight percent of schoolchildren aged 12 to 17 years had ever used amphetamines, while 1.8% reported using amphetamines in the previous week.

The results of the 2001 Australian Needle and Syringe Program (NSP) survey reported that amphetamine was the last drug injected by 52% of the 276 South Australian IDU who were surveyed. This is much higher than in past NSP surveys, where heroin was the main drug reported as last injected. In 2000, 30% nominated amphetamine as the last drug injected, with 42% nominating amphetamine in 1999 and 38% in 1998.

Figure 5: Recent use of amphetamine-type substances, Australia, 2001



Data taken from the 2001 National Drug Strategy Household Survey, Australian Institute of Health and Welfare

5.4.2 Current patterns and trends in methamphetamine use

Among the IDU sample for the 2002 IDRS, 85% (*n*=85) had used at least one form of the drug (powder, crystal, base) in the previous six months. The median age of this group was 31 years, and 65.9% were male. The key informants reported that the majority of users are aged between 20 and 35 years, although there is a broad range, including users as young as 13 or 14 years. KI believed the distribution of males and females ranges from 50% male to 90% male, with three-quarters stating that between 60% and 75% of users are male. The IDU had a median of 10 years of education, and 93% nominated English as the main language spoken at home. Just over one-fifth of the IDU (21.2%) identified as Aboriginal or Torres Strait Islander (ATSI). This is much higher than in the 2001 IDRS, where 8% identified as ATSI. This is also consistent with key informants, who reported that users are predominantly Caucasian, and that the majority completed either Year 10 or 11. Nearly three-quarters of the methamphetamine-using group were unemployed, 9.4% were employed full-time, 4.7% were employed part-time/casually and 5.9% were studying. The remaining IDU were either sex industry workers (1.2%) or involved in home duties (4.7%). Around 47% had completed courses after school, either trade or technical (37.6%) or university (9.4%). Key informants also reported that a large number of the methamphetamine users with whom they come into contact are unemployed, with estimates ranging from one-third , to all of them. In addition, many stated that high percentages are on disability or sickness benefits. Those who are employed are usually tradespeople, labourers or factory workers, in particular shift workers.

Several forms of methamphetamine were reported as being used in the previous six months by the IDU. The most commonly used forms were base/paste (76.5%), followed by crystal /ice (65.9%)and powder (65.9%). Methamphetamine in liquid form was used by 22.4% and prescription amphetamine obtained illicitly by 5.9%. No IDU reported using prescription amphetamine obtained licitly. When the IDU were asked which form they used most often in the previous six months, the majority said either base/paste (47.1%) or crystal (32.9%). A much lower percentage reported that powder was the form most often used in the previous six months (16.5%), followed by the liquid (3.5%). There were no subjects who reported mainly using prescription amphetamine. Overall, these results are similar to the 2001 IDRS, although there has been a decline in the use of the crystal form, with a concomitant increase in the use of the base/paste form. However, in comparison with the 2000 and 1999 surveys, there has been a marked increase in the use of these stronger forms. In 2000 only 21.4% of IDU reported use in the previous six months, and in 1999 the percentage was 12.1%. There has also been an overall decrease in the use of the powder form since 2000 (96.4%), although there was a slight increase between 2001 (58%) and 2002 (65.9%). Use of the purer forms of methamphetamine is associated with increased likelihood of adverse physical, psychiatric and social problems including depression, anxiety, paranoia, aggression, violent behaviour and psychosis in more severe cases.

Key informant reports were consistent with those of IDU. All stated that either base/paste or crystal were the forms most commonly used among those with whom they had contact. Several noted that the powder form was also used, but mainly if the other forms are not available, or if users are restricted by their financial situation, as the powder is believed to be less expensive. Two key informants, a police officer and a community drug and alcohol worker who both work in the Western suburbs, commented that powder may be used more in these areas due to users having less money to spend. Another informant, a clean needle worker also based in the West observed that users call the stronger forms of

methamphetamine "pure"; that there is a perception that these forms are cleaner and safer to inject.

Injection was the most common route of administration among the IDU surveyed, and all IDU who had used some form of methamphetamine in the previous six months had also injected it during this time. Other routes of administration among the IDU were swallowing (*n*=25; 29.4%), snorting (*n*=16; 18.8%) and smoking (*n*=7; 8.2%). This was consistent with key informants, all of whom reported that methamphetamine is predominantly injected, although two noted that the more recreational or binge users take it either orally or intranasally. Looking at the four main forms of methamphetamine separately for IDU who had used some form in the previous six months, 60% had injected the powder, 20% the liquid, 77% the base/paste and 65% the crystal. Oral administration was also common, with 13% having recently swallowed the powder, 9% the liquid, 15% the base/paste and 14% the crystal. Snorting was reported more often for the powder form (15%), with only 3.5% having recently snorted the base/paste and 2.4% the crystal. Smoking any form of methamphetamine was rare: 3.5% had recently smoked the powder, 2% the base/paste and 2% the crystal. It is important to note that subjects may have used more than one form of methamphetamine on the same day.

The median number of days in the previous six months on which IDU reported using any form of methamphetamine was 36 days, with a mean of 60 days (range 1-180). Although the mean number of days of use was similar to the 2001 IDRS (62 days) and the mode was identical (180 days), the median number was much lower (52 days in the 2001 survey). In the previous six months, 18.8% of IDU had used monthly or less, 24.7% more than monthly but not weekly, 43.5% at least once per week but not daily and 12.9% reported using on a daily basis. Looking at reported use in the previous month, 25.9% reported injecting weekly or less, 41.2% injected weekly but not daily, and the remaining 32% injected daily (8.2% injected once per day, 15.3% 2-3 times per day and 8.2% more than three times per day).

The number of days of use was also calculated for each different form of methamphetamine, although again it is important to note that subjects may have used more than one form on the same day. The powder was used on a median of six days (mean=16, range 1-180), the liquid on a median of 12 days (mean=47, range 2-180), the base/paste on a median of 20 days (mean=36, range 1-180) and the crystal on a median of 15 days (mean=38, range 1-180).

Only 11 IDU (12.9%) who had used any form of methamphetamine in the previous six months reported daily use in the 2002 survey, although 57 (67.1%) reported that methamphetamine was the drug they had injected most in the previous month. Nearly one-quarter of these (*n*=13; 22.8%) had injected methamphetamine at least once per day, with 24 (42.1%) injecting more than once per week but not daily, and 20 (35.1%) injecting weekly or less.

Key informants reported varied frequency of methamphetamine use, which was largely attributed to the route of administration and level of dependence. Most intravenous users will use on a daily basis, often more than once per day, and quantities ranged from 1-10 points per session. There were also several who reported use between 2 and 4 times per week, subject to how much money they had available. A clean needle program worker stated that many users would use on a daily basis if they could afford it. In contrast, the

more recreational users, who are more likely to take methamphetamine orally, use more sporadically, on average 1-2 times per month, or just on weekends.

Only 20% of methamphetamine-using IDU were currently in some form of drug treatment. This percentage is lower than the heroin-using IDU, of which 34.5% were in treatment, and is slightly lower than that reported in the 2001 IDRS (27%). There were 15.3% on methadone maintenance, 1.2% on buprenorphine and 3.5% undergoing drug counselling. This finding is consistent with the reports from many key informants who, similar to that reported in the 2001 IDRS, noted the lack of adequate treatment services and programs for methamphetamine users. However, several spoke of an increase in clients inquiring about possible treatments available for methamphetamine withdrawal. One KI, a doctor who works in opioid substitution programs, noted an increase in methamphetamine users accessing services. As there are no maintenance treatments currently available, these users access detoxification and counselling services, and often seek prescriptions for anti-depressants or mood stabilisers.

The key informants also spoke about current patterns and trends among methamphetamine users. As reported with the heroin users, they are almost exclusively poly-drug users, with the most common ones being cannabis, benzodiazepines and alcohol. While benzodiazepines tend to be used in the 'come-down' or 'crash' following use, cannabis and alcohol are also used in conjunction with methamphetamine. However, it is interesting to note the emergence of two groups of regular intravenous methamphetamine users as described by the key informants, whose use of other drugs was similar. The first consists of users for whom methamphetamine was always their predominant drug of choice, and this group is very unlikely to also use heroin, or in fact to have ever used heroin. The second group consists of those who had previously used heroin, but who switched to methamphetamine during the heroin shortage and have not returned to using heroin. Alternatively, some users in this second group now use both heroin and methamphetamine depending on their financial situation and the availability and purity of these drugs. Several KI observed that in this situation, users take heroin or other opiates to help with the 'come-down' after using methamphetamine. Use of cocaine was reported as fairly low, but this was attributed mainly to the high price and low availability. Those users who are well connected will take cocaine, but in general, use is infrequent and opportunistic. Party drugs such as ecstasy and hallucinogens are also used sporadically among intravenous methamphetamine users, although recreational users (generally younger people) will take them more frequently. These recreational users tend to take methamphetamine orally in conjunction with these drugs. Key informants also noted that party drugs are not taken intravenously.

A large number of IDU (n=71) commented on new trends relating to methamphetamine use over the previous six to 12 months. There were 32 IDU who noted an increase in methamphetamine use, relating to both frequency and quantity. As reported previously, an additional 27 IDU also spoke of an increase in the use of other drugs, predominantly methamphetamine, as a result of the heroin shortage, where many users switched from heroin to methamphetamine. Six IDU commented that methamphetamine users include people you would not expect to use, that the image of the stereotypical drug user is not always accurate. There were 15 IDU who stated that methamphetamine users seem to be starting at a younger age, and are progressing immediately to intravenous use. Eight IDU noted an increase in people experimenting with drugs and using drugs generally. They reported that people also seem to use stronger drugs right from the start. Instead of using cannabis or ecstasy recreationally, they will go straight to injecting heroin or

methamphetamine. One subject also commented that people who get into drugs are more likely to start with methamphetamine instead of heroin. Three IDU noted an increase in methamphetamine production. They commented that methamphetamine is relatively easy to make and that you are not always sure what you are getting; that it can be cut with all kinds of other products. However, six IDU also emphasised that methamphetamine is very strong, and that there has been a shift from powder to crystal or base. Furthermore, five IDU reported that users are experiencing psychosis with methamphetamine use due to the increased strength, and that some are choosing to use the powder as the other forms are too strong. Two IDU also commented that the methamphetamine scene is much worse than with heroin, with more violence and crime. Finally, a consistent theme reported in the 2002 IDRS is that there are so many different types of methamphetamine available, and that the pictures provided by the interviewers to identify the various forms used (see section 3.3.5) are not comprehensive.

All key informants who had contact with methamphetamine users (*n*=23) provided information on new trends that they had observed over the previous six to 12 months. Firstly, 15 spoke about the methods of use, with the remaining eight stating that they had not noted any changes. Consistent with the IDU, the key informants said that there has been a reduction in the use of the powder forms of methamphetamine, with the predominant (and much stronger) forms being base/paste or crystal. However, in some areas with a lower socio-economic status, powder is still available as it is less expensive. In addition, key informants reported a reluctance by some clients to use the stronger forms as the 'come-down' is very intense, and they also perceive that these forms are much more addictive than the powder. A clean needle program worker noted that speed is exclusively methamphetamine now; as there was a transitional period in 2001 where both amphetamine and methamphetamine could be purchased. Another key informant working on the clean needle program also noted an increasing trend for intravenous use of methamphetamine by people who in the past only took the drug orally. This KI also said that both frequency and quantity of use appears to have increased, as the drug is so cheap. The majority of key informants (*n*=17) noted changes in the type or number of people using methamphetamine. This was reported as an *increase* in use, although this was attributed by some KI as resulting from the switch to methamphetamine by heroin users, as methamphetamine is much cheaper and more available than heroin. Those key informants who work at clean needle sites noted an increase in clients using the needle exchange, and that more are nominating methamphetamine as the main drug being injected. In addition, a clean needle site that has in the past been primarily accessed by heroin users has undergone a clear shift, with most clients now stating that they use methamphetamine.

Several key informants also observed a disproportionate number of users aged below 25 years. One commented that the use of methamphetamine seems to have become more acceptable among the younger users, that it is regarded in a similar way to using alcohol and cannabis. It has also become more acceptable to use intravenously, with people not wanting to "waste" any of the drug by using other routes of administration. Two key informants who work as telephone counsellors reported an increase in callers wanting information on methamphetamine, including access to services for withdrawal. They also reported a decrease in people calling for information on heroin. Finally, two key informants who have contact with indigenous drug-using populations noted an increase in methamphetamine use among this group, reflecting a shift from heroin use. Three key informants reported a trend for methamphetamine users to experiment with other drugs such as fantasy and ketamine, and they are often used in the 'come-down'.

Finally, 19 key informants reported on other changes they had observed among methamphetamine users in the previous six to 12 months. The main theme that emerged was the prevalence of health problems among this group. This included mental health issues such as paranoia, violence and psychosis, as well as injection-related problems such as Hepatitis C. The mental health problems were specifically related to the increase in availability and use of the stronger forms, particularly crystal meth. A forensic psychologist dealing specifically with methamphetamine users who have mental health issues stated that there has been an increase in the purity of methamphetamine, and that the effects, including dependence, manifest themselves much quicker among users. There were also consistent reports of users going through a period of adjustment to using these stronger forms of methamphetamine, especially for those who have switched from using heroin. However, four KI noted that for some users, this adjustment period has ended and that there seem to be less adverse effects than were observed 12 months previously.

Five key informants who spoke about heroin also provided information about patterns and trends in methamphetamine use. Their information was consistent with the KI who spoke exclusively about methamphetamine. It was reported that people are using larger quantities of methamphetamine, and that it is much stronger and readily available. They also noted an increase in younger people injecting methamphetamine. One KI observed that these younger users are not connected to existing networks of users, and that they have a low risk perception, and consequently it is hard to reach them with harm minimisation techniques. Two also noted an increase in problems among this group, including violence, family and mental health issues, as well as risk-taking behaviour such as unprotected sex and drug-driving.

5.5 FLASHCARD ANALYSIS

Photographs were grouped by Churchill and Topp (2002) into three categories, which they hypothesised *a priori* to correspond to the three types of methamphetamine. Category A types were thought to represent powder methamphetamine or speed, category B represented base, and category C represented crystal meth. Those participants who reported using speed, base or crystal were shown a flashcard containing photos from the three categories, and asked to identify the picture(s) that resembled what they had used. There were a number of pictures in each category, and participants could nominate any number of photos from any category. In the sections that follow, the most commonly identified pictures are shown.

Table 7 shows the reports from users of each of the forms of methamphetamine. Only those persons who reported use in the past six months are included in the table. For each form of methamphetamine, those who reported *any* use within the past six months, and those who reported *primarily* using each form, are presented. It is important to note that many IDU commented that the pictures were not comprehensive; that they had used or seen many other forms not represented on the sheet. Moreover, not all IDU who had used methamphetamine in the previous six months were able to provide information on the forms they had used, and consequently table 7 only contains reports from those who were able to respond.

Table 7: Reports from speed, base and crystal users regarding the form of these drugs

	Speed		Base		Crystal	
	Any[1] (*n*=56)	Most common form used (*n*=14)	Any[1] (*n*=65)	Most common form used[2] (*n*=40)	Any[1] (*n*=56)	Most common form used (*n*=28)
% any A	52	43	49	30	45	-
% any B	50	36	54	45	46	39
% any C	41	21	43	20	54	61

1. Note that percentages are not additive as persons could nominate more than one picture.
2. Note that percentages do not add to 100 due to missing data.

Speed

Of the IDU who had used speed in the last six months, just over half (52%) identified pictures from the A class photographs. The most common ones were A1, A4 and A3. However, 50% also identified pictures from the B class photographs, and 41% from the C class photographs.

When asked about which form of methamphetamine they had used the most in the preceding six months, the IDU were again asked to identify which picture resembled that form they had used. Among those who had used speed the most in the previous six months (*n*=14), 43% identified pictures from the A class, with A1 and A4 being the most common. Again, a high percentage (36%) identified pictures from the B class photographs were identified and 21% from the C class photographs.

A Class photographs (most identified)

A1

A3

A4

Base

Of the IDU who had used base in the last six months, 54% identified pictures from the B class photographs as resembling the form they had used. Within that category, B4 was the photograph most identified, followed by B3. As was found with speed, high proportions identified samples from photographs in the A class (49%) and C class (43%).

Among those who had used base the most in the previous six months (*n*=40), 45% identified pictures from the B class, with B4 again being the most common one identified. The A class photographs were identified by 30%, while 20% identified pictures from the C Class photographs.

B Class Photographs (most identified)

B3

B4

Crystal meth

Of the IDU who had used crystal in the last six months, a similar pattern was found. While just over half (54%) identified pictures from the C class photographs as resembling the form they had used, 46% identified class B photographs and 45% identified class A. Within that category, C4 was the photograph most identified, followed by C2 and C5.

Among the IDU who had used crystal the most in the last six months (*n*=28), 61%) identified pictures from the C class photographs, with C4 also being the most common one. The remaining 39% identified B class photographs, and no IDU identified class A photographs.

C Class Photographs (most identified)

C2

C4

C5

Summary

The above analysis provides some empirical support for the methamphetamine categories ascribed by Churchill and Topp (2002). However, it also highlights the ambiguity that exists among users with respect to the various forms of methamphetamine currently available. As mentioned previously, many IDU noted that the photographs they were shown did not always correspond with the forms they had used. The inconsistencies in identifying these forms from the photographs may be partly due to the fact that many subjects reported using more than one form of methamphetamine in the same day, and thus may not accurately recall the specific types used. Past IDRS surveys have found that even among regular users, there is confusion as to what the various terms refer to and how the different forms of methamphetamine relate to each other. For example, some subjects used the terms interchangeably, some thought the base and crystal forms were two distinct drugs, and many were unaware that they were all forms of methamphetamine. The generic term often used was simply 'speed', which was used to describe everything from the powder to the stronger forms. These inconsistencies only emphasise the need for further research to be conducted in this area. This is the first time that this section has been included in the IDRS survey, and the results obtained will begin to clarify more precisely the characteristics of the different forms of methamphetamines that are available. This section can be further refined and expanded in subsequent surveys, which may include having a more comprehensive set of photographs, as well as enabling comparisons between the various jurisdictions.

5.6 SUMMARY OF METHAMPHETAMINE TRENDS

Table 8 contains a summary of trends in the price, purity, availability and use of methamphetamine in the previous 12 months, between mid-2001 and mid-2002. Methamphetamine also appeared to be readily available, and the price per point was lower than in the 2001 IDRS. The stronger forms of methamphetamine (paste, base, ice, crystal) have increased in use and availability since 1999, and recent use among the IDU was much greater than for heroin. The use of methamphetamine generally appears to have increased in recent years, in particular among younger people.

Table 8: Trends in the price, availability, purity and use of methamphetamine

Price	
One gram (street/powder)	$50 ($45-$100) Stable
One point (base/paste)	$25 ($15-$50) Stable
One point (crystal)	$25 ($15-$50) Stable
Availability	Very easy to easy Stable to easier for non-powder forms Stable for powder form
Purity	14.6% (SAPOL) Medium to high for all forms No consistency in reports on changes in purity
Use	Increase in general use; increase in younger users Increase in availability and use of stronger forms of methamphetamine

6 COCAINE

Only 26 IDU (26%) said they had used cocaine in the previous six months, and 16 were able to provide at least some information on price, purity and availability. This was higher than the number who gave information on cocaine in both the 2001 and 2000 surveys (10% and 5.6%, respectively), but is much lower than the number who gave information on the other drugs investigated in this report. Similarly, only seven key informants spoke about cocaine, and many gave limited information on specific aspects related to use. Furthermore, it was not the major drug that the drug users with whom they had contact had been using. The key informants who provided the most comprehensive information included two community drug and alcohol workers, two police officers and one drug and alcohol researcher. Key informants were inconsistent in their reports on the geographical distribution of cocaine use. The police officers noted that users and dealers tend to be from the upper socio-economic areas, and that it is difficult for law enforcement to break into this scene. They acknowledged that cocaine is being used in Adelaide but that they don't come across it very often. Another key informant reported that cocaine use is widespread, but also that it is associated with a more secretive and elitist group of users. In the current sample, the IDU who reported using cocaine in the previous six months were more likely to live in the western suburbs (53.8%) or the southern suburbs (29.6%). A further 11.5% lived in the central and eastern suburbs and the remaining 7.7% had no fixed address.

6.1 PRICE

The median price given by 14 IDU for one gram of cocaine was $250 (range: $200-$350). This price was higher than that reported in the 2001 survey ($225), but still lower than that reported in 2000 ($300). Eight IDU also provided the price of their *most recently purchased* gram of cocaine. The median price was also $250 (range: $150-$250). Three IDU reported on the price of a cap of cocaine, two stating it cost $50 and one that it cost $75. One of these also gave the price for the last cap of cocaine purchased, which was $50. Four IDU reported purchasing half a gram of cocaine with a median price of $112.50 (range: $50-$125), and one purchased one eighth of a gram for $50. Four IDU reported buying an 8-ball with a median price of $725 (range $550-$1000), and one bought four points for $60. No IDU reported the price of one-quarter of a gram. The prices reported by IDU are consistent with those of key informants. Two were able to provide information on the price of a gram ($250 and $350), and two gave the price of a cap as $50. In addition, one gave the price of half a gram as $125.

Of the 26 IDU who had used cocaine in the last six months, only 11 were able to provide some information on any recent changes in the price. The majority (n=9; 81.8%) thought the price of cocaine had remained stable over the previous six months. The remaining two IDU thought that the price had either increased (n=1) or decreased (n=1). Key informants also agreed that the price of cocaine was stable.

These prices are comparable with the prices provided by the ACC for the 2001/02 financial year. The price for one gram of cocaine was between $200 and $250, and the price for an 8-ball was $750. Larger amounts were also recorded by the ACC, including half an ounce for $3200, and an ounce for between $5200 and $6500.

6.2 AVAILABILITY

While 26% of IDU said they had used cocaine in the previous six months, only 16 were able to provide information on availability. Cocaine was considered very easy or easy to obtain by 56.2%, and difficult or very difficult by the remaining 43.8%. The majority of these (68.8%) stated that the availability of cocaine over the previous six months was stable. In contrast, nearly all IDU in the 2001 IDRS who spoke about the availability of cocaine reported that it was easy or very easy to obtain, although it is important to note that this was based on a small sample (n=10). Two IDU in the 2002 survey also commented that cocaine is much more prevalent now and easier to get than it used to be, when you needed to have the right contacts to be able to purchase it. The four key informants who spoke about the purity of cocaine varied in their reports. Two said that it was very easy to obtain and two said that it was very difficult. However, all agreed that it is a fairly closed scene and you need to have the right connections. In addition, two commented that cocaine does appear to have increased in availability, and that use has become more mainstream.

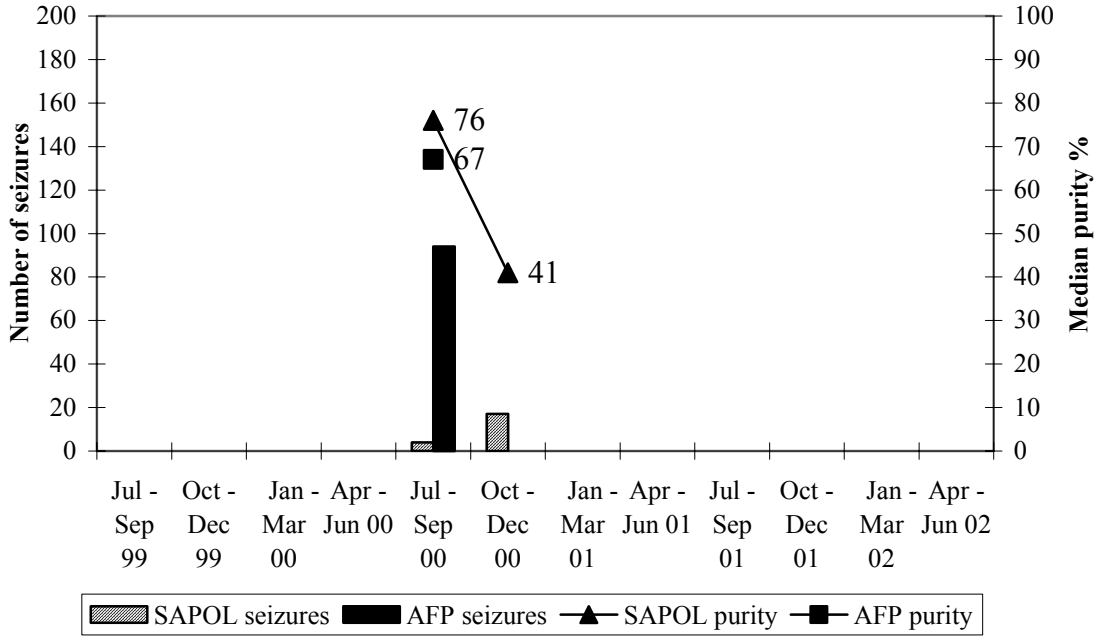
Of the 26 IDU who reported using cocaine in the previous six months, 16 (61.5%) provided information on where they usually scored the drug. The majority reported either purchasing cocaine from a friend or being given it as a gift from a friend (68.8%), purchasing it from a mobile dealer (12.5%), a dealer's home (12.5%) or a street dealer (6.3%). This is consistent with reports that the cocaine market is much more closed and secretive than other drug markets, with most users obtaining it from established social networks. The IDU were also asked to estimate how long it usually took them to score cocaine in the previous six months. The median length of time was 30 minutes, ranging from one minute (i.e. almost immediately) to 24 hours.

6.3 PURITY

All but two of the IDU who gave information on cocaine purity reported that it was medium to high, one said it was low and one that it fluctuated. There was a varied response by IDU in regards to changes in cocaine purity over the previous six months, although the majority reported that it was either stable (41.7%) or increasing (33.3%). Three key informants gave information on cocaine purity. One said that it was high and one that it fluctuated. The third, a police officer, said that cocaine seizures at the top of the distribution scale are around 70% purity, but when it has been cut for street-level distribution, it tends to be around 30%.

The ACC provided quarterly purity data on cocaine seized in South Australia during the 1999/00, 2000/01 and 2001/02 financial years. Figure 6 shows the number of samples analysed and the median purity over time for both SAPOL and AFP seizures. However, data were not available in the 1999/00 and 2001/02 financial years as there was no analysis of seizures made by either AFP or SAPOL. In 2000/01, there were 94 samples analysed from AFP seizures of cocaine, with a median purity of 67%. The median purity of samples analysed from SAPOL seizures was similar (69%), with 21 samples analysed. Although based only on a small number of seizures, this is consistent with IDU and KI reports that cocaine purity is relatively high.

Figure 6: Number of cocaine seizures analysed and median cocaine purity in SA 1999-2002*



*Due to industrial action, no data were available on SAPOL seizures for the periods Jan-Mar 01 and Apr-Jun 01. For AFP seizures and for SAPOL seizures in other time periods, missing data indicates that no seizures were analysed during those periods.

6.4 USE

6.4.1 Prevalence of use among different populations

The 1998 National Drug Strategy Household Survey found that among those surveyed in the general population in South Australia, 2.3% had ever used cocaine, and 0.6% had used in the previous 12 months. In the 2001 survey, use was comparable to 1998, with 0.7% of those surveyed reporting use within the previous 12 months. Cocaine use among schoolchildren was similar to the general population according to the 1999 South Australian Schoolchildren's survey. Nearly 4% of schoolchildren aged 12 to 17 years had ever used cocaine while 1% reported using in the previous week. These percentages are slightly higher than those reported in the 1996 Schoolchildren's survey (2.4% and 0.4%, respectively).

The results of the 2001 Australian Needle and Syringe Program (NSP) survey reported that cocaine was the last drug injected by 3% of the 276 South Australian IDU who were surveyed. This is slightly higher than in past NSP surveys, but overall the prevalence of cocaine injecting was low. In 2000, 1% nominated cocaine as the last drug injected, and 2% in the 1999 survey.

6.4.2 Current patterns and new trends in cocaine use

In the 2002 IDU sample, 26 subjects (26%) reported using cocaine in the previous six months. Cocaine users had a median age of 31.5 years. The gender distribution was similar to the overall sample, with 65.4% male. They had a slightly higher median number of years of education (11 years), and 53.8% had a previous prison history. The majority of cocaine users (92.3%) spoke English as their main language at home, and only two (7.7%) identified as ATSI. This percentage is much lower than the overall IDU sample (18%). Nearly three-quarters of those that used cocaine in the previous six months were unemployed (n=19; 73.1%). Four (15.4%) were students, and the remainder worked either full-time or part-time. Only three key informants provided information on the demographic characteristics of cocaine users. The age ranged between 18 and 40 years, although they tend to be between 20 and 30 years. Cocaine users were more likely to be male (60% to 70%), but one KI said this might be because more males are involved in dealing and distribution as opposed to actually using, and another noted that cocaine use is high among sex workers, who are predominantly female. All three agreed that cocaine users are mainly Caucasian, and that the level of education varied. A community drug and alcohol worker noted that cocaine use has become more mainstream. It was previously associated with people in higher socio-economic areas, but now people with lower secondary levels of education are using.

Of the 26 IDU that had used cocaine in the previous six months, all reported using cocaine powder or rock and only 7.7% (n=2) reporting using crack cocaine. Cocaine in powder or rock form was the most commonly used (96.2%), with only one IDU nominating crack cocaine. This is consistent with key informants, who spoke only about powder and rock forms of cocaine. One observed there had been some talk of the use of crack cocaine, but that there was no evidence of this among the cocaine users with whom this key informant has contact.

Intravenous use was the most commonly reported route of administration in the previous six months (n=20, 76.9%) followed by snorting (n=10, 38.5%) and smoking (n=2, 7.7%). No IDU reported swallowing cocaine. The mean number of days that cocaine was used in the previous six months was 17.4 (range: 1-180), but this value is highly skewed, as the median number of days was only three. The majority of IDU used cocaine monthly or less (n=19, 73.1%), three reported using more than once a month but not weekly, three reported using more than once a week and only one reported using on a daily basis. The percentage of IDU who reported using cocaine in the last six months was similar to the 2001 IDRS (27%), and although higher than in 2000 (19.6%), the difference was not statistically significant (χ^2_1=0.9, p>0.05).

The three key informants agreed that cocaine use was mainly intravenous among those with whom they have contact, but one (a community drug and alcohol worker) noted that the more recreational or binge users tend to use orally or intranasally. Two were not able to report on frequency of use, stating that cocaine has just started to be mentioned among their clients. One noted that use is mainly opportunistic; when cocaine is available and when they can afford it. This KI also said that dealers are more likely to sell cocaine on credit, as it is hard to get. They consistently reported the use of cannabis and benzodiazepines among this group, as well as alcohol and party drugs such as ecstasy, hallucinogens and methamphetamine. One noted that those who only use cocaine tend to

be younger and more conservative, and will not use heroin, although they will use methamphetamine orally or intranasally, especially if cocaine is not available.

These findings suggest that, as found in past IDRS surveys, the cocaine users in this sample were predominantly users of other drugs who occasionally used cocaine. This is substantiated by the fact that only four IDU (15.4%) who reported using cocaine in the previous six months also nominated it as their favourite or preferred drug, with 38.5% nominating heroin and 34.6% methamphetamine. Furthermore, when asked what drug they had injected most in the previous month, only one IDU said cocaine. Over 46% nominated methamphetamine, 34.6% heroin and 11.5% morphine. Finally, when asked for the first drug injected, 53.8% nominated methamphetamine, 38.5% heroin, and only one IDU said cocaine.

The three key informants who gave comprehensive information about cocaine all said that use appears to be increasing. Two community drug and alcohol workers and a researcher who has contact with cocaine users through personal or social contact have observed an increase in people reporting use. In addition, a police officer that provided information on methamphetamine also noted an increase in cocaine on the streets. This key informant deals with the policing of illicit drugs at a street level. However, there were no reports of people specifically entering into treatment for cocaine use, rather they tend to be heroin or methamphetamine users who also take cocaine when it is available and when they can afford it.

6.5 SUMMARY OF COCAINE TRENDS

Table 9 contains a summary of trends in the price, purity, availability and use of cocaine in the previous twelve months, between mid-2001 and mid-2002. The reported availability of cocaine was inconsistent, with around half of IDU stating it was easy to obtain, and half reporting that it was difficult. The price of cocaine was higher compared with the 2001 IDRS, but still lower compared with that reported in 2000. However, it was difficult to make any meaningful comparisons with such small sample sizes. The purity was reported as medium to high by IDU, and there were no seizures of cocaine by either SAPOL or AFP that were analysed in 2001/02. The use of cocaine appears small in South Australia compared with other drugs, but key informant reports over the last couple of years have suggested that use is increasing. The IDU also reported that cocaine is readily available in Adelaide, but is still a closed scene where good contacts and networks are required to obtain the drug.

Table 9: Trends in the price, availability, purity and use of cocaine

Price	
One gram	$250 ($150-$250); Stable
One cap	$50 ($50-$75); Stable
Availability	No clear trend: half of IDU found it easy/very easy to obtain; half found it difficult/very difficult
Purity	Medium to high Stable to increasing No seizures of cocaine by SAPOL or AFP were analysed
Use	Small in SA compared with other drugs. Although use has increased since the 2000 IDRS, has not changed since the 2001 survey Use is still infrequent: median of three days in previous six months

7 CANNABIS

Information on trends in cannabis use was obtained from reports given by 16 key informants and 85 IDU (85%). Methamphetamine and heroin were the predominant drugs of choice among the IDU, with only 3% nominating cannabis as their favourite or preferred drug. However, cannabis use was highly prevalent among the IDU population. Nearly all IDU (94%) had tried cannabis, and 85% had used it in the previous six months. The key informants who gave the most comprehensive information about cannabis (*n*=13) consisted of three needle exchange/outreach workers, two police officers, two researchers/analysts, two telephone counsellors, one drug and alcohol nurse, two community drug and alcohol workers and one clinical psychologist. Key informants were familiar with cannabis users from all of the four main residential areas, and some of them gave information about use in more than one area. Cannabis is widely prevalent and popular in all of the areas that have been mentioned for both methamphetamine and heroin.

7.1 PRICE

The median price for an ounce of cannabis as provided by 60 IDU was $200 (range: $130-$375). This price was identical to that reported in the 2001 survey. The median price of an ounce *most recently purchased* by 30 IDU was $180, and ranged in price from $100 to $300. Only two key informants reported the cost of an ounce, with one stating that 'outdoor' cannabis is cheaper than 'indoor' cannabis ($100-$150 for outdoor and $200-$300 for indoor). The other key informant (a police officer) stated that the price of an ounce ranged between $250 and $500.

The most popular way to buy cannabis as reported by 53 IDU was in a 'bag' (sometimes called a 'money bag', 'J-bag' or 'stick'). The median price of a bag of cannabis *most recently purchased* was $25 (range: $10-$25). This price was identical to the 2001 and 2000 IDRS, and has been a standard price for cannabis in South Australia for several years. All key informants who commented on cannabis price also gave $25 per bag as the standard price, ranging from $10 to $50, depending on the quality and quantity of cannabis.

Previous anecdotal information from South Australia suggests that bag sizes can vary from 1 to 3 grams (Humeniuk, 2000). An additional component was added to the 2002 IDRS to try and clarify the average size and weight of bags sold in South Australia. The IDU who reported using cannabis in the previous six months were asked if they were able to provide information on the weight of cannabis bags, and identify possible factors that may affect the amount sold. There were 33 IDU who gave a single value of the average weight of cannabis bags sold in South Australia, with a median of 2 grams and a mean of 2.5 grams (range 1-7). A further 19 gave both a lower and upper weight range for cannabis bags. The median lower range was 2 grams (mean 2.1; range 1-3.5) and the median upper range was 3 grams (mean 2.9; range 1.5-5).

There were 58 IDU who were able to comment further on the potential factors that can affect the weight of cannabis bags. Several common themes emerged, with 21 subjects stating that the most important factor affecting the size of bags is the quality of the cannabis. This includes whether it is from hydroponic systems or outdoor crops, with the perception being that hydroponic cannabis is of higher quality, and thus one would expect

a greater amount if the cannabis were grown outdoors. Other factors include the general appearance of the cannabis: whether it consists of heads/buds or leaf/stems, whether the cannabis is seedy, and whether it is wet or dry (again, the perception is that wet cannabis is of higher quality). Another important factor is the relationship between the grower or seller, and the buyer. There were 17 subjects who spoke about "mates rates", and that you would expect a bigger bag if you were purchasing from a friend, especially if the friend also grows their own cannabis. The motivation of the dealer is also important, with 15 subjects reporting that this can affect the size of a bag. This is determined by factors such as whether the dealer wants (or needs) to make a profit, how much they originally paid for the cannabis or whether they grow their own, and again if the purchaser is friends with the dealer then they are likely to be given a larger quantity.

Seasonal variation or availability was reported as a potential factor by 12 subjects, although this is not as relevant with hydroponically grown cannabis. However, a few said that there might be growing cycles even with hydroponic systems. For cannabis that is grown outdoors, bags tend to be bigger during the peak growing season. Four subjects also noted that the proliferation of hydroponic systems has meant that the size of a bag is more related to the quality of the cannabis. One subject said that the increase in hydroponic busts has led to a decrease in the amount of cannabis contained in bags. Another noted that bags in South Australia are much bigger than the other states, where for $25 you will get about 1 gram per bag. Three subjects also made additional comments relating to their observed increase in the strength and availability of cannabis over time, and that it has caused psychosis among some of their friends.

One key informant, a researcher who has contact with cannabis users through work and personal contact, was also able to provide information on the weight of cannabis bags in South Australia. The key informant stated that bags do not tend to be sold by weight, that it is based more on appearance, with the quality of the cannabis more important than the quantity. Again, there is the perception that hydroponic cannabis is of higher quality. Therefore, for the same price, a bag of outdoor cannabis is likely to be bigger, and if buying an ounce, outdoor cannabis is likely to be cheaper than hydroponic. Who you know is also a contributing factor in the amount contained in a bag: you are likely to get a larger amount if purchasing from a friend.

Information was also obtained from three cannabis users who grow cannabis for personal use and for distribution among their friends. They reported that bags are not generally weighed when they are bought; in contrast to an ounce that is a measurable quantity. When dividing up an ounce to sell, each bag will end up being around 2-2.5 grams. It is also considered appropriate to offer the buyer a choice of 3-4 bags. They noted that the size of the bag can be dependent on how much you paid for the ounce initially, and who you are selling it to (ie to a friend, or to make a profit). They also agreed that the quality of the cannabis is more important than the quantity; if the quality were weaker then you would expect a bigger bag. The amount of cannabis purchased in a bag also depends on the time of year, availability and the relationship between buyer and supplier. High quality cannabis was described by these informants as consisting of "big buds and no seeds". Hydroponic cannabis was again perceived to be of better quality and stronger than outdoor cannabis.

The IDU also reported that cannabis is sold in other amounts. Buying cannabis in half ounces (14 grams) was commonly reported (n=20, median=$100, range: $50-$100) and quarter ounces (7 grams, n=11, median=$50, no range). Larger amounts included 6 ounces

(*n*=1, $600) and one pound (448 grams, *n*=7, median=$2300, range: $2000-$2700). A small number of IDU reported buying various amounts of hash (cannabis resin). This included one gram of hash (*n*=7, median=$25, range: $20-$50), one cap of hash oil (*n*=2, median=$22.50, range: $20-$25), one gram of cannabis (*n*=5, median=$10, range: $5-$25) and two grams of cannabis (*n*=4, median=$25, no range). Two key informants, both police officers, also gave information on the price for a pound of cannabis, ranging from $2000-$4000.

Very little information was provided by the ACC on the price of cannabis in South Australia for 2001/02 financial year. In previous years the prices were divided into four groups: leaf, head, hydroponic and skunk. However, it was noted this year that sales are almost exclusively in 'deals' of approximately 3 grams, which contain a high percentage of head grown either hydroponically or outdoors. The price for 3 grams was given as between $50 and $80. This is consistent with reports from IDU and key informants, who stated that leaf is very rarely used in South Australia. Other prices given by the ACC include one pound for between $2300 and $2700, and one mature plant for between $2000 and $4000. No information was available on smaller amounts, or on the price of hash or hash oil. Looking at the prices provided by the ACC for other jurisdictions, it is notable that the prices reported by IDU and KI in South Australia were much lower. For example, in New South Wales the price for an ounce of head ranged between $400 and $700, in Western Australia the price was $350 and in Victoria the price was $250. Similar prices were reported for an ounce of hydroponic cannabis. Prices for a deal ranged between $20 and $25 in all other jurisdictions, but this is for approximately one gram of cannabis, whereas reports from IDU and KI in South Australia suggest that a standard deal or bag is closer to 2 or 2.5 grams.

Over 80% of the IDU who gave information about cannabis reported that in the previous six months the price of cannabis was stable. The remainder reported that the price had increased (9.1%), decreased (6.1%) or fluctuated (4.5%). Those key informants who gave information concerning cannabis price, purity and availability also thought that the price was stable, although one reported a decrease.

7.2 AVAILABILITY

There were 72 IDU who gave information on the availability of cannabis. Cannabis was considered easy or very easy to obtain by most (88.9%). The availability of cannabis over the previous six months was generally considered to be stable (82%), although 13.9% thought it had become more difficult or that it fluctuated. Similarly, all key informants reported that cannabis was very easy to obtain, and thought the availability had remained stable over the previous six months.

The majority of IDU who had used cannabis bought their cannabis from a friend (45.9%) or had received it as a gift from a friend (16.2%). Nearly 7% reported growing their own cannabis, and a further 16.2% scored cannabis from a dealer's home. The remainder reported scoring from a street dealer (10.8%) or mobile dealer (2.7%).

The IDU were asked to estimate how long it usually took them to score cannabis in the previous six months. The median length of time was 20 minutes, ranging from "immediately" (reflecting those who grew their own cannabis) to six hours. They were also asked to provide information on the initial source of the cannabis they had bought. Nearly

one-quarter (23%) did not know the original source, with the majority (51.4%) reporting that it was obtained from a small-time backyard grower. Only 18.9% had obtained their cannabis from a large-scale grower, and the remaining 6.8% grew their own.

7.3 PURITY

There were 71 IDU who gave information on the current potency or strength of cannabis. Nearly three-quarters (74.6%) reported that it was high. The remainder reported it as medium (18.3%), low (2.8%) or fluctuating (7%). This is comparable with the reports of cannabis potency in the 2001 and 2000 IDU samples. All key informants reported that the current potency of cannabis was high. When asked about changes in potency over the previous six months, the majority of IDU (74.6%) believed it was stable, and 8.5% believed potency had increased. The remaining IDU thought it had either decreased (7%) or fluctuated (9.9%). All but one of the key informants believed cannabis potency had remained stable over the previous six months, with one stating it had increased.
There was no information available from the ACC on actual % THC content of cannabis seizures. Forensic laboratories only provide identification as to whether the substance is cannabis or some other plant.

7.4 USE

7.4.1 Prevalence of use among different populations

The 1998 National Drug Strategy Household Survey revealed that, among those surveyed in the general population in South Australia, cannabis was the most popular illicit drug used. Just over 39% had ever used cannabis, and 17.6% had used in the previous 12 months. In the 2001 survey, recent use in South Australia decreased compared with 1998, to 14.2%. However, it was still the most frequently reported illicit drug.

Cannabis use among schoolchildren was slightly lower compared with the general population according to the 1999 South Australian Schoolchildren's survey. Thirty percent of schoolchildren aged 12 to 17 years had ever used cannabis, while 10.9% reported using in the previous week.

Among the cannabis-using IDU interviewed in this sample, poly-drug use was high, and a significant percentage had also used methamphetamine and/or heroin in the previous six months (89% and 46%, respectively). It is worth noting that there is a population of cannabis users for whom cannabis is their main drug of choice and who are less likely to use other 'harder' drugs. Humeniuk *et al.* (1999) interviewed 202 South Australian cannabis users in 1996 and found that 15% had used heroin in the previous month, 20% had used amphetamines and 15% had used cocaine. However, in the current IDU population, cannabis use appeared to be secondary to the use of other drugs. Only 3.5% (n=3) of current cannabis users nominated cannabis as their preferred drug, with 53% nominating methamphetamine and 28% nominating heroin.

7.4.2 Current patterns and trends in cannabis use

Most IDU who had used cannabis in the previous six months were in their late twenties to early thirties (median age 31 years), had a median of 10 years of education, and 52.9% had a previous prison history. The majority of cannabis users nominated English as the main language spoken at home, and 20% identified as ATSI. The gender distribution was similar to that of the overall sample, with 67.1% male. Among IDU who had used cannabis, 76.5% were unemployed, 8.2% were full-time employed, 3.5% were part-time/casually employed, and the remaining 11.8% were involved in home duties, study or sex industry work.

Key informants observed that cannabis use is ubiquitous in Adelaide. They reported a wide range of ages, from as young as 12 years, to 60 years. Most stated that a higher percentage of the cannabis users with whom they come into contact are male, between 50% and 80%. While this may reflect that a higher number of males seek counselling or treatment for cannabis use, a key informant who works as a researcher and user representative reported that 70% of the cannabis users with whom he comes into contact are male. The educational level of cannabis users was also broad, ranging from Year 10 to tertiary qualifications. Two key informants also reported that the majority of users they come into contact with are still at school.

In previous IDRS surveys a distinction was made between the use of 'head' or 'leaf' from the cannabis plant. The flowering heads have a much higher concentration of THC, the active component in cannabis (Hall *et al.,* 1994). It has become evident that the lower potency leaf matter is very rarely used in South Australia by cannabis users. This is based on information from both users and key informants. Thus, the 2002 survey distinguishes between hydroponic cannabis (also called 'indoor' or 'skunk') and 'outdoor' or 'bush' cannabis. Hydroponic cannabis was used by nearly all IDU (92.9%), followed by outdoor cannabis (80%). A lower percentage reported using hash in the previous six months (44.7%), and 23.5% reported using hash oil. The IDU were also asked to nominate which form they used most often in the previous six months. Hydroponic was overwhelmingly chosen as the most common form (88.2%), followed by outdoor or bush cannabis (11.8%). No IDU nominated hash or hash oil as the predominant forms used in the previous six months.

All key informants reported that cannabis is often used daily, and often multiple times per day. This is consistent with data obtained from the IDU, where the median number of days used in the previous six months was 180, which reflects daily use (mean 132 days). Occasional users were the smallest group in this sample, using once a fortnight or on special occasions (n=4; 4.7%). Another group (9.4%) used on a weekly basis. There were 27.1% who used more than once a week, but not daily. The largest group were daily users (58.8%). Key informants reported a range of quantities being used daily, from one cone up to six cones (which, according to users, is approximately equivalent to between one-third and one-half of a standard 'bag'). Some less frequent users may use one bag per week. The route of administration is nearly always smoked, although on special occasions it may be taken orally, usually in cakes or biscuits. Two key informants noted the overwhelming use of bongs and pipes, as it is believed by users that cannabis cigarettes waste a lot of the drug. Consistent with IDU, key informants also reported that the majority of cannabis is hydroponic, and that the form is always head. Hydroponic is perceived to be of higher quality, although there is a group who prefer outdoor cannabis as it is believed to contain

fewer chemicals. The two police officers noted that there had been large seizures of both hydroponic and outdoor cannabis in the previous 12 months, and that both types were of high quality.

Key informants were also asked to comment on recent patterns and trends observed among cannabis users, and whether there had been any changes in the previous six to 12 months. It was generally agreed that poly-drug use is prevalent, although there seem to be two distinct groups of cannabis users. One group nominated cannabis as their main drug of choice, and do not tend to inject drugs such as heroin and methamphetamine. However, they will regularly use alcohol and tobacco, and a sub-group (estimated by two KI as between 10% and 20% of these cannabis users) will also use methamphetamine and ecstasy recreationally. The second group consists of intravenous heroin and methamphetamine users who are also daily users of cannabis. It is likely that patterns and trends of cannabis use will differ between these two groups, as well as frequency of use of other drugs. All key informants, who comprise a varied range of occupations and level of contact with users (police officers, counsellors, user representatives) stated that the cannabis market is fairly stable in South Australia. The only changes noted by one KI was a reduction in outdoor crops and an increasing shift to hydroponic growing, as well as the observation that the number of people who at least try or experiment with cannabis is increasing all the time.

In terms of treatment, two key informants (a community drug and alcohol worker and a clinical psychologist) stated that they do counsel clients for cannabis use, but that they tend to be extensive poly-drug users. Cannabis is only one of the drugs used, and is not usually the one that is causing problems (at least according to the clients).

7.5 SUMMARY OF CANNABIS TRENDS

Table 10 contains a summary of trends in the price, purity, availability and use of cannabis in the previous 12 months, between mid-2001 and mid-2002. Cannabis was highly available, and the prices were identical or slightly lower than those reported in the 2001 IDRS. The potency was high according to both IDU and key informants, and the majority of cannabis in South Australia was sold as 'hydroponic'. The use of cannabis appears to be relatively stable in South Australia.

Table 10: Trends in the price, availability, purity and use of cannabis

Price	
Ounce	$180 ($100 - 300); Stable
Bag/deal	$25 ($10 - $25); Stable
Availability	Very easy or easy; Stable
Potency	High; Stable Form is nearly always 'head'
Use	Stable and widespread Most cannabis in South Australia is sold as 'hydroponic'

8 OTHER DRUGS

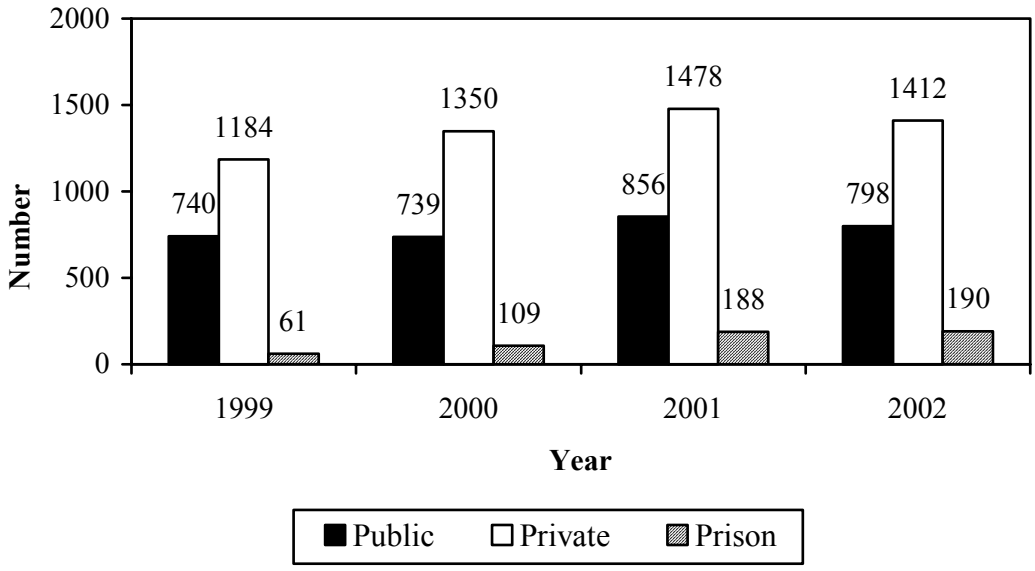
8.1 METHADONE

There were 63 IDU (63%) who reported ever using methadone and 36 (36%) who had used in the previous six months. Recent use was mainly licit in syrup form (61.1%), with 44.4% having used illicitly. Physeptone tablets were only used illicitly, with 16.7% reporting use in the previous six months. The mean number of days that methadone was used in the previous six months was 100 (range: 1-180 days). Although there was some evidence of illicit use of methadone, licit forms were most often used in the previous six months, by 61.1% of IDU. Methadone syrup obtained illicitly was the form most often used by 36.1%, and physeptone tablets used illicitly by 2.8%.

Methadone use was markedly less prevalent in the general population, with results from the 2001 National Drug Strategy Household Survey reporting that 0.3% of persons surveyed in South Australia had ever used methadone, and 0.1% had used in the previous 12 months.

Data provided by the Drug and Alcohol Services Council indicate that as at the 30th June 2002, 840 individuals were registered on the Public Opioid Maintenance Pharmacotherapy Program (which includes both methadone and buprenorphine). This represents a decrease of 4.4% in the total reported at the same time in the previous year. Interestingly, there was an 11% increase between June 2000 and June 2001, which may be partly due to the heroin shortage that occurred during that period. The majority of clients (92%) collected their dose from community pharmacies, and the remaining 8% from clinics. Although 55% of clients were male, there were a higher number of female clients in the 15-24 and 30-34 year age ranges, a trend that was also observed in the 2001 IDRS. There has also been an increase (16%) in the number of clients in the 15-19 year age range. The only age group to show a decrease in numbers were those clients aged over 55 years of age. Similarly, data from the Drugs of Dependence Unit (Department of Human Services) as at 31st August, 2002 do not indicate an increase in the number of patients in opioid substitution programs (including public, private and prison) compared with the previous year (see figure 7).

Figure 7: Number of Patients in Opioid Substitution Programs



Just over one-fifth (22%) of IDU had received methadone maintenance treatment in the six months preceding the survey. These IDU accounted for 61.1% of those who had used any methadone in the previous six months. The remaining 38.9% of IDU had used methadone outside the realm of methadone maintenance treatment. This is similar to that in the 2001 IDRS (39.5%). The IDU who were in methadone maintenance treatment had used between 30 and 180 days during the previous six months (median=180, mean=155). All used at least once a week, and 77.2% used daily.

Several key informants, most of whom came into contact with heroin users, gave information on patterns of methadone use. Their estimates of the proportion of heroin users in methadone treatment averaged between 30% and 80%. Many had also noted an increase in the number of people on methadone maintenance programs that they attributed to the heroin shortage.

Forty percent of all IDU had ever injected methadone and 19% had injected in the previous six months. This is similar to that reported in previous IDRS surveys (16% in 2001 and 21.5% in 2000). There were no IDU in 2002 reporting that methadone was the last drug they had injected. A very small percentage reported last injecting methadone in 2001 (4%).

The results of the 2001 Australian Needle and Syringe Program (NSP) survey reported that methadone was the last drug injected by 4% of the 276 South Australian IDU who were surveyed. This is slightly higher than in past NSP surveys, but overall the prevalence of methadone injecting was low. In 2000, 2% nominated methadone as the last drug injected, and 1% in the 1999 survey.

The 2002 IDRS also obtained information on the use of buprenorphine, another option recently available to clients attending opioid maintenance pharmacotherapy units. As at 30th June, 2002, 112 clients (13.3%) were registered to the buprenorphine program through the Drug and Alcohol Services Council. A further 101 clients (12%) were prescribed either methadone, buprenorphine or alternative drugs for the relief of pain. The National Drug Strategy Household Survey did not provide information on the percentage of people in the general population that had used buprenorphine. In the 2002 IDRS, 18% of IDU reported having used buprenorphine, and 10% had used in the previous six months. Only 6% reported ever having injected buprenorphine, and 3% had injected in the previous six months (30% of those who had used it in that time). No IDU had smoked or snorted buprenorphine, and the majority had swallowed it (90% of those who had used it in the previous six months). The median number of days used was 33 (range 2-120 days). Of those who had used buprenorphine in the previous six months, 70% had used it licitly, and 50% illicitly. However, the majority (60%) reported that they had *mainly* used it licitly.

Information on buprenorphine use was obtained from several key informants. They noted an increase in heroin users going into treatment, and that buprenorphine is regarded by many as a preferable alternative to methadone, especially among users in the Vietnamese community. However, one key informant, a community drug and alcohol worker, had heard reports that buprenorphine was being illegally diverted and sold on the streets to people who had trouble accessing heroin.

8.2 BENZODIAZEPINES

The majority of IDU (82%) reported using benzodiazepines, with 57% (*n*=57) using in the previous six months. The route of administration was predominantly oral (94.7%), but 22.8% reported injected benzodiazepines in the previous six months (13% of total IDU). This is higher than the percentage of IDU who had recently injected in the 2001 IDRS (9%), although the difference was not statistically significant. No IDU had snorted benzodiazepines, and two had smoked them. The median number of days used in the previous six months was 20 and the mean was 57. Just under half of IDU who had used benzodiazepines in the previous six months had used at least once per week (45.6%). However, there was wide variation in frequency of use, ranging from 1 to 180 days. Just over half (54.4%) used less than once per week, 26.3% used at least once per week but not daily, and 19.3% used on a daily basis.

As in previous years, the majority of key informants interviewed concerning both heroin and methamphetamine commented that benzodiazepines were widely used among the drug users with whom they had contact. Prevalence of use varied from every day, to using only during the 'come-down' or 'crash'. Key informants who described methamphetamine or cocaine use reported that benzodiazepines were taken to help with the 'crash' following binges. Key informants who described heroin use said that benzodiazepines were often used to enhance the effects of heroin, or used when heroin was not available to cope with withdrawal. In contrast, KI reported that users who consider cannabis their main drug of choice, and who do not use drugs intravenously, tend not to use benzodiazepines. They will predominantly use cannabis, as well as licit drugs such as tobacco and alcohol.

By far the most popular benzodiazepine used in the previous six months was diazepam (64.9%), followed by temazepam (21.1%). Oxazepam was used by 10.5% and nitrazepam by 5.3%. Flunitrazepam and alprazolam were each used by one IDU. Preference for diazepam was also observed in the 2001 and 2000 surveys (59.6% and 55.9%, respectively). The prevalence of the main type of benzodiazepine used by IDU is shown in Table 11. It is worth noting the very low prevalence of flunitrazepam in both 2002 and 2001 surveys. In contrast, it was the most frequently used benzodiazepine in the 2000 IDRS after diazepam, reported by 13.2% of IDU. Although the use of temazepam is much higher than in 2000 (11.7%), use has not increased since the 2001 IDRS (26.3%). Prevalence of use was much lower in the general population according to the 2001 National Drug Strategy Household Survey. It was found that 1.4% of those surveyed in South Australia reported recent use of benzodiazepines. This also reflects a change from the 1998 survey, where 3.7% reported recent use. The Australia-wide results from the survey found that none of the respondents nominated benzodiazepines as the drug first injected, with 3% reporting recently injecting.

Over two-thirds of the IDU who had used benzodiazepines in the previous six months used them licitly (68.4%), although there was a substantial percentage (52.6%) that reported illicit use. However, the majority (59.6%) stated that their use was mainly licit, with 40.4% obtaining their benzodiazepines illicitly (which usually meant using a friend or partner's prescription).

Table 11: Main type of benzodiazepine used by IDU in the previous six months*

Benzodiazepine	Frequency	Percentage
DIAZEPAM (eg. Valium, Antenex)	37	64.9%
TEMAZEPAM (eg. Normison, Euhypnos)	12	21.1%
OXAZEPAM (eg. Serepax)	6	10.5%
NITRAZEPAM (eg. Mogadon)	3	5.3%
ALPRAZOLAM (eg. Xanax)	1	1.8%
TRIAZOLAM (eg Halcion)	1	1.8%
FLUNITRAZEPAM (eg. Rohypnol)	1	1.8%
UNKNOWN	1	1.8%

** Total exceeds 100% as some IDU reported regular use of more than one benzodiazepine*

8.2.2 Doctor Shopping

Since a significant proportion of IDU also use pharmaceutical drugs (see Table 5), specifically benzodiazepines, patterns of doctor shopping were reviewed in South Australia for the period 1995/96 to 2000/01 (2001/02 data were not able to be accessed at the time of this report). However, it is important to note that it is not known what proportion of the IDU community obtain their benzodiazepines legally (via doctor shopping) and illegally (via the black market). The only information available in the IDRS is that around 53% of IDU who had used benzodiazepines in the previous six months had obtained them illicitly, although the majority reported mainly obtaining them licitly.

The Health Insurance Commission (HIC) identifies people as "doctor shoppers" if, in one year, a person:

- Sees 15 or more different general practitioners
- Has 30 or more Medicare consultations
- Obtains more PBS prescriptions than appears to be clinically necessary

HIC 1999/00 data[1] showed that:

- The drugs that are most often accessed include benzodiazepines (35.5%), codeine compounds (14.6%) and narcotic analgesics (8.4%).
- 77% of Doctor Shoppers are in capital cities, 8% in other major cities, and the remainder in other rural or remote areas.
- The majority (57%) of doctor shoppers are aged between 30 and 49 years, with the 15 to 29 year group being the next largest, with 20%.
- 58% of doctor shoppers are female.
- The top ten Australian residential postcodes with the greatest Doctor Shopper activity (defined as in excess of 6500 PBS prescriptions) did not include any in South Australia.

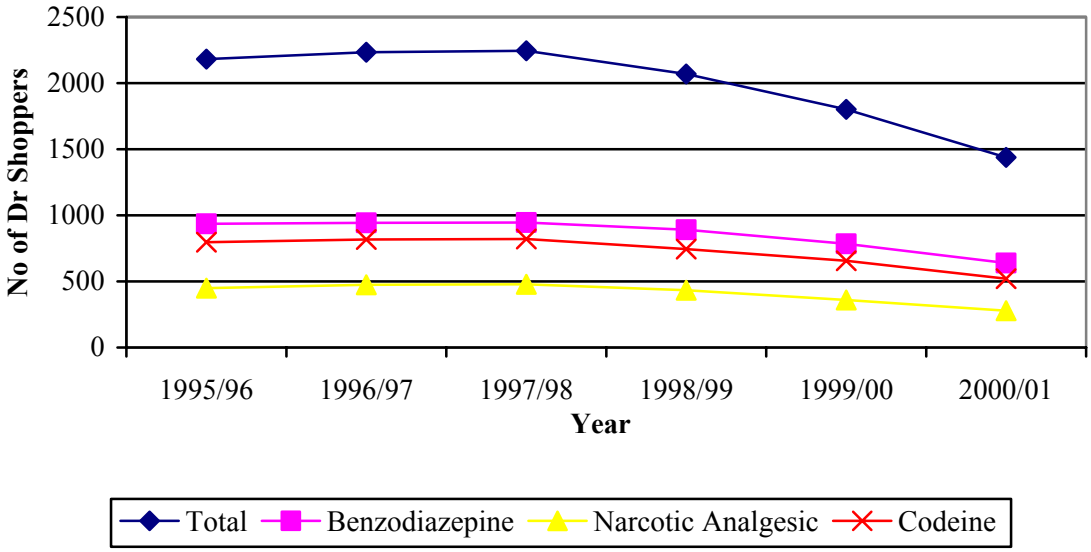
Figure 8 shows the number of doctor shoppers in South Australia both overall, and for each of the three main drug classes identified by the HIC doctor shopper program, from

[1] **http://www.hic.gov.au/providers/publications_guidelines/program_review_fact_sheets/doctor_shopping.htm**

1995/96 to 2000/01. The total number of doctor shoppers has steadily declined over the past five financial years, from 2182 in 1995/96 to 1438 in 2000/01 (a decrease of 34%). Similarly, the total number of doctor shoppers accessing benzodiazepines has decreased over this period of time, from 936 in 1995/96 to 639 in 2000/01 (a decrease of 32%).

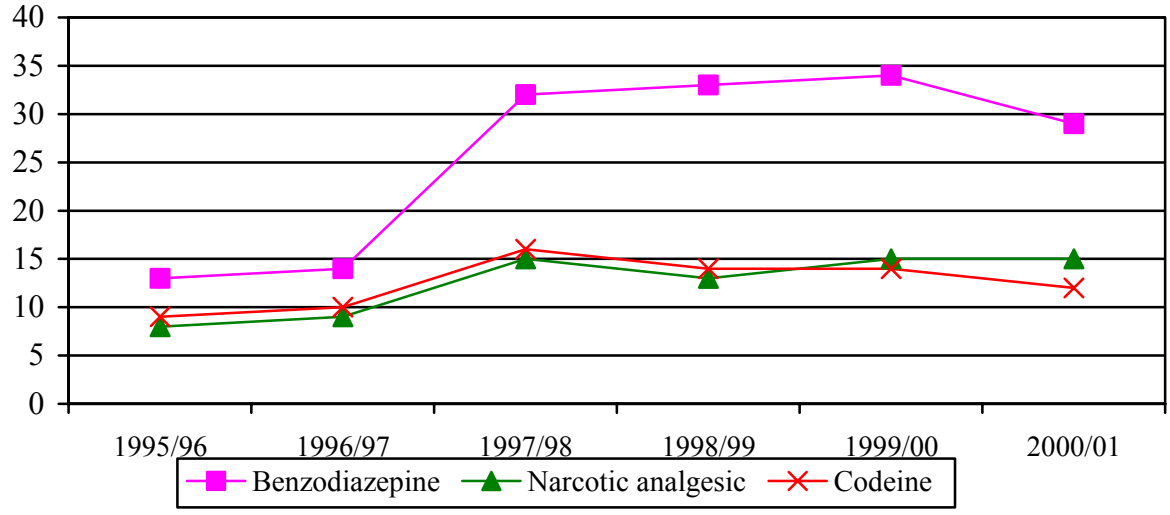
Figure 9 shows the trends in the median number of scripts per doctor shopper for each of the main drug classes. Although figure 8 highlighted that the number of benzodiazepine doctor shoppers has steadily decreased over the past four years, figure 9 indicates that the median number of scripts accessed by this group has more than doubled since the beginning of the program (*n*=13), and stabilised between 1997/98 and 1999/00 to around 33 scripts per doctor shopper. However, there was a small decrease in 2000/01 to 29 scripts. A similar pattern is apparent for narcotic analgesic doctor shoppers (steadily declined) and their median number of scripts (doubled and stabilised). The number of scripts for codeine has remained fairly constant, and the numbers are much smaller compared with those for benzodiazepines.

Figure 8: Number of doctor shoppers overall and for three main drug classes in South Australia



Source: Health Insurance Commission

Figure 9: Median number of scripts per doctor shopper in South Australia



Source: Health Insurance Commission

In summary, although there are fewer doctor shoppers, the median number of scripts doctor shoppers have obtained for benzodiazepines and narcotic analgesics has doubled between 1995/96 and 2000/01. This suggests that either the remaining doctor shoppers may be a more committed group of benzodiazepine and narcotic users, or perhaps that there is greater diversion of pharmaceuticals to illicit markets. Data on HIC-defined doctor shoppers for 2001/02 will serve to better examine whether this trend continues, after the introduction of changes in the scheduling of some benzodiazepines, and with the introduction of programs designed to assist dependent benzodiazepine users to moderate and reduce their use.

8.3 ANTIDEPRESSANTS

The use of antidepressants was reported by 42% (*n*=42) of the IDU sample, and 20% had used in the previous six months on a median of 180 days (range 1-180 days). Prevalence of recent use was slightly lower in the 2001 IDRS (15%). Sixty percent had used anti-depressants on a daily or near daily basis, and all but one reported that their use was licit. It is not clear why the remainder were not using daily, particularly given that antidepressants generally do not have an immediate and psychoactive effect. However, it is possible that some IDU had only started taking anti-depressants in the last couple of months, which would explain the lower frequency of use over the entire six-month period. Anecdotal reports from users of party drugs suggest that antidepressants are sometimes used with these drugs to enhance their effects, or to assist with the anxiety and depression sometimes experienced during the 'come-down'.

All but one of the IDU who had used anti-depressants in the previous six months was able to provide the drug's proprietary name. Of the 19 who provided this information, there were 14 (73.7%) who were using the newer anti-depressants. These were either SSRIs (Selective Serotonin Reuptake Inhibitors) or SNRIs (Serotonin and Noradrenaline Reuptake Inhibitors). There were four who reported using anti-psychotic drugs, and the remaining three were using tricyclic anti-depressants.

Key informants generally did not provide information on patterns of use of anti-depressants among the drug users with whom they had contact. However, there were reports that some are prescribed anti-depressants, mainly methamphetamine users. One key informant, a community drug and alcohol worker, estimated that one-third of methamphetamine users take anti-depressants. In addition, two informants reported that some take these drugs before they go out thinking that it will help them with the 'come-down', and ease the adverse effects of methamphetamine, including acute withdrawal. Another community drug and alcohol worker also reported that most of the users with whom he has contact have undergone treatment for depression and are taking anti-depressants, and observed that there appears to be a relationship between methamphetamine use and depression. Finally, a clean needle program worker noted an increase in users inquiring about anti-psychotic drugs. Two key informants who spoke about cannabis users reported that a large percentage (up to 80%) of clients had been prescribed anti-depressants to treat anxiety and depression.

8.4 ECSTASY AND OTHER PARTY DRUGS

Among the IDU interviewed, 63 (63%) had used ecstasy, and 25 (25%) reported using in the previous six months. Recent use was similar to the 2001 IDRS (24%). Only one IDU said that ecstasy was their drug of choice. Nearly one-third (32%) reported having injected ecstasy, and 13% had injected in the previous six months. Of the 25 IDU who had used ecstasy in the previous six months, the most common route of administration was swallowing, reported by 84%. There were 52% who had injected, 24% who had snorted and only 4% (n=1) who had smoked. The median number of days used in the previous six months was four (mean=10.5), ranging from 1 to 60 days. The majority (72%) had used ecstasy monthly or less, and only three (12%) had used at least once per week. The use of GHB ('fantasy) in the previous six months was also reported by 17 IDU (17%), and ketamine ('special K') by eight IDU (8%).

Ecstasy use among the IDU was greater than among those surveyed in the general population in South Australia. According to the 1998 National Drug Strategy Household Survey, 2.8% of persons interviewed had ever used ecstasy, and 1% had used in the previous 12 months. In 2001, 2% reported that they had used ecstasy in the previous 12 months. Ecstasy use among schoolchildren was similar to the general population. The 1999 Schoolchildren's Survey reported that 3.1% of schoolchildren had ever used ecstasy, and 1% had used in the previous week.

The price of one ecstasy tablet reported by the ACC was between $25 and $40 for the 2001/02 financial year. Moreover, the price per tablet decreased with purchases of 10 tablets or more, ranging from $270 to $300. The price has decreased compared with the 2000/01 financial year, where a single tablet ranged from $35 to $80.

The ACC also reported that the mean purity of SAPOL seizures of MDMA in the 2001/02 financial year was 30% (range 0.1% to 76%). This information was based on 42 seizures, 33 of which were ≤ 2 grams and nine greater than 2 grams. Purity data were also provided for MDA and PMA. The mean purity of MDA based on 17 seizures was 17% (range 1.6% to 23.4%). The mean purity of PMA based on 18 seizures was much higher: 69% (range 52.2% to 73.1%). The mean purity in both the 1999/00 and 2000/01 financial years was 37%. However, it is important to note that it is difficult to make comparisons over time, as

2001/02 is the first time that a separation was made between the purity of the different derivatives.

The key informants most likely to report on the use of ecstasy and other party drugs were those who had contact with methamphetamine and cocaine users. Those who reported on trends among heroin users generally noted low levels of use among this group, although several observed that the heroin shortage led to some experimentation with drugs such as ecstasy, fantasy and ketamine, including the intravenous use of these drugs. Among stimulant users, ecstasy and other party drugs are used recreationally, and thus fairly sporadically. Use of these drugs is unlikely to be intravenous, and several key informants observed that they are more prevalent among younger people. It was also noted that the use of ecstasy, fantasy and ketamine is more common among non-injecting drug users, who also use methamphetamine recreationally. For more information about patterns and trends in the use of ecstasy and other 'party drugs' in Adelaide, see the reports by Longo *et al.* (2001, 2002, 2003).

8.5 OTHER OPIATES

Fifty-three percent of IDU reported ever using other opiates, and 28% reported use in the previous six months. This is comparable with previous years, with 23% reporting recent use in the 2001 IDRS and 22.4% in 2000. However, the 2000 survey did not have morphine as a separate category. Excluding morphine, 15% of IDU in 2000 reported using other opiates in the previous six months. There has therefore been an increase in the use of other opiates in the 2002 and 2001 samples, although this was not statistically significant. These data cannot be compared with the National Drug Strategy Household Surveys, which define 'other opiate' use as inclusive of all pain killers/analgesics including pain relief medication such as panadeine and non-steroidal anti-inflammatory drugs.

The majority of IDU who reported using other opiates in the previous six months used them orally (64.3%), but 46.4% said they had injected these drugs. This is much higher than in the 2001 IDRS, where only 26% who had recently used other opiates had injected them. Only four IDU had recently smoked other opiates, and one reported snorting. The median number of days used in the previous six months was six (mean=11.5, range 1-48 days). No IDU reported daily use. The majority used less than once per week (85.7%), with the remaining 14.3% using at least once per week. Other opiates were used licitly by 35.7% of IDU who had used them in the previous six months, and illicitly by 85.7%. The majority (78.6%) reported that they had *mainly* used other opiates illicitly. This differs from the 2001 survey where the majority (65%) reported licit use.

The 2002 IDRS also obtained information on the use of 'homebake'. Homebake is an opiate-based drug that is largely produced from pharmaceutical preparations containing codeine (Reynolds *et al.,* 1987). Only 9% of IDU reported using homebake in the previous six months, although 24% had used it at some point in their lifetime. Use was predominantly intravenous (88.9% of those who had used it in the previous six months had injected it), although one IDU reported smoking, two snorting and three swallowing. The median number of days in the preceding six months was five (range 1-48 days). Five of the IDU who reported recent use of homebake (55.6%) also reported that homebake was the opiate they had used most frequently in the previous six months.

Table 12 shows the main type of other opiate (excluding morphine) used by IDU in the previous six months. Panadeine forte was the most frequently used, followed by opium.

Table 12: Main type of other opiate used by IDU in the previous six months

Opiate	Frequency	Percentage
Panadeine forte	13	46.4%
Opium	7	25.0%
Oxycodone	4	14.3%
Codeine phosphate	3	10.7%
Prodone	1	3.6%
Total	**28**	**100%**

As in the 2001 survey, morphine was a separate category in this year's study, whereas in previous years it was included in the 'other opiate' category. There were 71 IDU (71%) who reported ever having used morphine, and 46 (46%) had used in the previous six months. This is similar to the 2001 IDRS, where 43% of the sample had recently used morphine. However, it is significantly higher than in the 2000 survey, where only 12% of the sample reported that morphine was the main type of other opiate they had used in the previous six months (Fisher's Exact Test $p<0.001$). The majority of IDU in the 2002 survey who used morphine had injected it (95.7%; 44% of total IDU), and 47.8% had swallowed it (22% of total IDU). No IDU reported either smoking or snorting. Morphine was also the last drug injected by 14% of the total sample (and by 30.4% of those who had used it in the previous six months), preceded only by heroin and methamphetamine. This trend was also observed in the 2001 IDRS, where morphine was the last drug injected by 11% of the total sample. In comparison, only 2.8% of IDU in the 2000 IDRS had last injected other opiates, preceded by heroin, the amphetamines and methadone. This difference was statistically significant (Fisher's Exact Test $p<0.01$).

The results of the 2001 Australian Needle and Syringe Program (NSP) survey reported that morphine was the last drug injected by 7% of the 276 South Australian IDU who were surveyed. This is higher than in past NSP surveys; in 2000, 3% nominated morphine as the last drug injected, and 4% in the 1999 survey. Furthermore, the incidence of injecting morphine and at least one other drug also increased.

The median number of days that morphine was used in the previous six months was 12 (mean=54, range 1-180 days). This was higher than in 2001, where the median days of use was three. Ten IDU (21.7%) reported using morphine daily. The remainder used less than once per week (63%) or at least once per week (15.2%). Morphine was used licitly by 28.3% of IDU, and illicitly by 84.8%. In contrast to the other opiates, the majority of IDU (78.3%) reported that they had mainly used morphine *illicitly* in the previous six months. The most commonly used brand of morphine was Kapanol (by 56.5%) or MS Contin (21.7%). A further five (10.9%) reported using both Kapanol and MS Contin equally, and the remaining five did not know which brand they had been using.

The results of the 2001 IDRS provided evidence of a switch to the use of other opiates, particularly morphine, among many of the heroin-using IDU. This was partly attributed to the heroin shortage. In 2002, a question was added to the survey for those IDU who reported that the drug injected most in the previous month was not their drug of choice. In

17 cases, morphine was nominated as the drug injected most often in the previous month. Of these, eight reported that heroin was their drug of choice, one nominated opiates generally and two nominated methamphetamine. The remaining six reported that morphine was their drug of choice. The reasons given among the IDU who gave heroin as their preferred drug was the increased price of heroin (*n*=2), the decreased purity (*n*=2) and the decreased availability (*n*=4).

One key informant was able to provide information on the price, purity and availability of morphine. The KI was a doctor involved in the opioid substitution program. The price of morphine as reported by users with whom the key informant came into contact was $30 for a 100-mg tablet. The purity of morphine is high and it is very easy to obtain. The key informant observed that morphine is much cheaper than heroin and is mainly obtained illicitly. There are reports of people obtaining morphine from pain clinics to treat legitimate conditions, and then selling it to users. There has been evidence of a decrease in morphine use at the moment as heroin availability has increased. However, going back 3-12 months, many heroin users switched to using morphine and some have stayed with morphine, as it is less expensive.

8.6 HALLUCINOGENS

A high percentage of IDU (87%) reported ever having used hallucinogens, although only 18% had used in the previous six months. This result is similar to that found in past IDRS surveys. This category of drugs includes naturally occurring hallucinogens such as 'magic mushrooms', or synthetically derived compounds such as LSD ('acid' or 'trips'). The 1998 National Drug Strategy Household Survey reported that 9% of those surveyed in the general population in South Australia had ever used LSD, and 3.1% had used in the previous 12 months. In the 2001 survey, recent use was slightly lower (1.9%). Use among schoolchildren was similar, with 9.2% reporting they had used hallucinogens, and 1.9% saying they had used in the previous week (1999 Schoolchildren's Survey). In the total IDU sample, 18% reported using LSD in the last six months, while 6% reported using magic mushrooms. The majority (83.3%) nominated LSD as the *main* form they had used, and 16.7% said magic mushrooms.

Swallowing hallucinogens was the most common route of administration for the 18 IDU who had used them in the previous six months (94.4%), while only three (16.7% reported injecting. There was one subject who had recently smoked hallucinogens, and one who reported snorting. The median number of days used was three (mean=10, range 1-75 days). The majority (83.3%) had used monthly or less, and only two (11.1%) had used at least once per week.

Key informants who provided information about hallucinogens reported low prevalence of use. As with ecstasy, use tended to be recreational and sporadic, and was predominantly among younger people. Hallucinogens were reported as mainly taken by recreational cocaine and methamphetamine users, and among those cannabis users who do not inject other drugs.

The price of LSD as provided by the ACC in the 2001/02 financial year, was $15 to $30 for one trip, dropping to $10 for purchases between 100 and 1000 trips. Comparable data from previous years were only available for the period January to June 1999, where the price was $20 to $25 for one trip, and $10 for more than 25 trips.

8.7 INHALANTS

There were 34 IDU (34%) who reported ever having used inhalants, with only four (4%) having used in the previous six months. The 1998 National Drug Strategy Household Survey results for South Australia reported that 4.2% of those surveyed in the general population had ever used inhalants, and 0.7% had used in the previous 12 months. Recent use did not change in the 2001 survey. Persons of school age appear to have a much higher prevalence of inhalant use than the general population, with 20% reporting they had used inhalants, and 4.5% reporting use in the previous week (1999 Schoolchildren's Survey).

Three of the four IDU who had used inhalants in the previous six months nominated nitrous oxide as the main one they had used, and one reported use of lighter fluid. Subjects reported a median of ten days of use (range 2-30 days). Only one had used inhalants more than once per week.

Very few key informants mentioned the use of inhalants. Consistent with the IDU results, KI observed that the use of these drugs is predominantly among younger users. They experiment with inhalants in the short-term, but usually stop using after their teenage years. Inhalants are also associated with the party drug scene, and are often used together with drugs such as ecstasy.

8.8 ANABOLIC STEROIDS

The prevalence of steroids was not examined in this sample. In previous years of the IDRS the number who reporting using steroids was very small. In the 2000 survey, only six IDU (5.6%) had ever used steroids and none of these had used in the previous six months. Similar results were reported in the 1999 survey, with 6% reporting having ever used steroids, and only one had used in the previous six months. Any potential users would presumably have been identified as subjects were asked whether they had used 'any other drug(s)' that were not covered in the survey.

8.9 SUMMARY OF TRENDS IN THE USE OF OTHER DRUGS

A summary of trends in the use of other drugs is found in Table 13. Methadone use remained stable, and there was no increase in reports of injecting. Benzodiazepine use was widespread but stable among the IDU. Diazepam was the most popular, used by 65% of those who reported taking these drugs. Use of ecstasy and other party drugs was low in this population, although there was some evidence that use is increasing. The use of anti-depressants, hallucinogens and inhalants was stable and low. Other opiate use was also stable, with panadeine forte the most popular type. Morphine use increased markedly compared with the 2000 IDRS survey. Illicit use was high, and a large percentage of morphine users reported injecting. Steroid use was not investigated.

Table 13: Summary of trends in the use of other drugs

Methadone	• 39% of IDU who had used methadone in the previous six months were *not* in treatment. This is similar to the 2001 IDRS (40%), but higher than in 2000 (33%) • Injecting of methadone (19% in the previous six months) was si to the 2001 IDRS (16%) • Methadone was predominantly used licitly, in syrup form • No evidence of an increase in the number of patients in opioid substitution programs (including public, private and prison) compared with the previous year
Buprenorphine	• Addition to the 2002 IDRS • 18% of IDU reported ever having used, and 10% had used in the previous six months • Only 3% had injected in the previous six months • Buprenorphine was predominantly used licitly
Benzodiazepines (BZD)	• Use was widespread among IDU but stable (57% recently used) • Nearly half of these used BZD at least twice per week • Diazepam was used by 65% of IDU who used BZD, temazepam by 21% and oxazepam by 11% • Over two-thirds (68%) reported illicit use of BZD • Increase in injecting of BZD: 13% had injected in previous six months compared with 9% in the 2001 IDRS and 4.7% in 2000
Antidepressants	• Prevalence of use was stable (20% reported recent use) • Predominantly used for therapeutic purposes • SSRIs, SSNRIs or tricyclic anti-depressants used
Ecstasy	• Price has decreased: currently ranges from $25 to $40 (ACC) • Mean purity of MDMA 30% (ACC) • Not widely used among IDU • 13% of IDU reported recent injecting of ecstasy • Small increase in the use of fantasy and ketamine compared with the 2001 IDRS
Hallucinogens	• Low prevalence of regular use among IDU (18% recently used) • 83% nominated LSD as the main hallucinogen used • Associated with younger users, and use is recreational • Price per trip ranges from $15 to $30 (ACC)
Other Opiates	• 28% of IDU reported recent use (stable) • The majority (86%) were using less than once a week • Panadeine forte and opium were the most popular • 9% of IDU reported recent use of homebake heroin
Morphine	• 46% reported use in the previous six months. This is similar to the 2001 IDRS (43%), but significantly higher than in past surveys (7.5% in 2000)

Morphine (cont.)	• 96% of those who used morphine in the previous six months injected it (44% of total IDU), and use was mainly illicit • 14% of IDU reported morphine as the drug last injected • 22% of those who had used morphine in the previous six months used on a daily basis
Inhalants	• Low prevalence of regular use among IDU (4% recently used) • Associated with younger users, and use is recreational

9 DRUG-RELATED ISSUES

9.1 GENERAL HEALTH

Fifty-five percent of IDU (n=55) reported experiencing at least one injection-related health problem in the previous month, with a mean of 1.7 problems (range: 1-4). Of these, most reported experiencing either one (56.4%) or two (23.6%) problems. The remainder had experienced three (16.4%) or four (3.6%) problems.

The most commonly reported injection-related health problems were difficulty injecting (72.7%), prominent scarring or bruising (58.2%) and thrombosis (21.8%). Five IDU (9.1%) had experienced a 'dirty hit' (and consequently felt sick) and 3.6% had developed abscesses or infections. Only one IDU had a non-fatal overdose in the previous month. This IDU had overdosed on methamphetamine, and was asked if any other drugs had been taken concurrently. The only other drug taken at the time of the overdose was cannabis. Information was also sought on whether there had been any treatment given after the overdose, such as attending hospital, or seeing a psychiatrist or counsellor. The subject reported that no form of treatment had been administered.

Comparisons were made between IDU who had recently injected methadone (n=19) and those who had not (n=81). There were no significant differences between the two groups on the nature of injection-related problems experienced in the previous month. There was also no significant difference in the mean number of total problems. Similar comparisons were carried out between IDU who had recently injected morphine (n=44) and those who had not (n=56). The only significant difference found was that a higher percentage of IDU who had recently injected morphine reported difficulty injecting compared with those who had not (52.3% versus 30.4%: χ^2_1=4.1, p<0.05). Finally, comparisons were made between IDU who had recently injected benzodiazepines (n=13) and those who had not (n=87). Significantly higher percentages of users that had recently injected benzodiazepines reported difficulty injecting (69.2% versus 35.6%: Fisher's Exact Test p<0.05) and thrombosis (38.5% versus 8%: Fisher's Exact Test p<0.012).

Key informants who had contact with heroin users discussed several health issues among this group that had changed over the previous six to 12 months. A peer educator and clean needle program worker observed that the end of the heroin shortage does not appear to have increased the number of overdoses. It was suggested that this might be partly due to the purity of heroin, which while higher than it has been, is still much lower than it was before the shortage. This is consistent with indicator data on the number of opioid-related fatalities in South Australia, which decreased markedly in 2001, and seems to have decreased even further in 2002 (see Figures 7 and 8). It was also suggested that the low purity of heroin might be due to suppliers knowing that users will be happy to access heroin, irrespective of the purity. They are thus capitalising on this by cutting it further to increase their profit, and still being able to sell it.

Another clean needle program worker, who is also an outreach worker, noted that people appear to be less afraid to access clean needle services. A decrease has been observed in the disposal of dirty needles around the clean needle site, as well as a decrease in reports of needle sharing among users. This is consistent with reports from IDU on needle-sharing practices (see section 4.2 for further information). Many key informants reported a high

prevalence of Hepatitis C, but this was mainly attributed to past needle-sharing behaviour, and they have not noticed an increase. There were also reports of a decrease in heroin overdoses, but one KI suggested that there may now be a rise in overdoses due to other drugs, such as methamphetamine or opiate-based pills such as morphine.

Several key informants also discussed an increase in health problems among those heroin users that have switched to the use of other drugs. This includes mental health issues such as psychosis attributed to the use of methamphetamine, and in particular the consequences of using both heroin and methamphetamine. This is something that has not occurred in the past, with drug users almost exclusively using only stimulants or depressants, not swapping from one to the other. One key informant commented that people have become trapped into using other drugs incorrectly as a result of the change in the heroin market, such as injecting other opiates and benzodiazepines. There is also the issue of increasing the frequency and quantity of heroin among injecting drug users that is associated with the reduced purity. A doctor who comes into contact with heroin users entering opioid substitution programs estimated that between 30% and 40% of these users suffer from depression. Finally, a community drug and alcohol worker noted that the main short-term effect regularly noticed by heroin users is the rate of overdoses. However, those users who have switched to meth are now seeing the manifestation of adverse effects so much quicker, including weight loss, malnutrition and violence.

Key informants who had contact with methamphetamine users also discussed several health issues that had changed over the previous six to 12 months. The most common was an increase in mental health problems among users, including depression, anxiety, paranoia and aggression, as well as incidences of drug-induced psychosis. There were also reports of physical problems such as weight loss, fatigue and malnutrition. In some cases this was attributed to the switch to methamphetamine among heroin users. A forensic psychologist observed that heroin users are not accustomed to methamphetamine and many are unaware of the opposing pharmacological effects, which manifest themselves in unexpected and often unpredictable physical and psychological problems. Two telephone counsellors reported an increase in calls from parents concerned about their children becoming more aggressive and violent. Three KI, all community drug and alcohol workers or counsellors, also highlighted problems occurring as a result of the increased strength of methamphetamine. More clients report incidences of psychosis and are prescribed anti-psychotics, with one KI estimating that 10% show signs of methamphetamine-induced psychosis.

One of the community drug and alcohol workers also noted a trend for some methamphetamine users to start taking heroin just to be able to enter methadone programs, as there are no equivalent treatments currently available for methamphetamine. It was emphasised that users need to be educated on the difference between the powder form that has traditionally been referred to as 'speed' and forms such as crystal meth, as many are unaware of this difference and are still taking large amounts. One observed that clients who reported using heroin for as long as 10 years started experiencing problems with methamphetamine after only a few months of use. Similarly, a police officer that focuses on street-level dealing noted that methamphetamine is causing more problems than heroin ever did, and that the onset of adverse effects seems to be much quicker. Interestingly, this police officer was also interviewed in the 2001 IDRS, and provided information on heroin users. However, in the 2002 survey the key informant spoke about methamphetamine, stating that the focus has shifted over the last 12 months and that he now primarily comes into contact with methamphetamine users and dealers. This was also

the case with two other police officers that operate at a street-level in Adelaide, one of which reported that around 20% of the methamphetamine users he sees have a diagnosed psychiatric disorder. In contrast, four staff members at a clean needle site where clients are predominantly young and homeless noted that while they had observed an increase in psychosis among their clients in mid-to-late 2001, it seemed to have stabilised in the first half of 2002. They attributed this to the increase in use and availability of strong forms of methamphetamine that occurred around the time of the heroin shortage in early 2001, and that after the initial adjustment period, users might have become accustomed to this increased strength, or more able to control their use.

As was found with key informants who spoke about heroin users, there were consistent reports of a reduction in needle-sharing among methamphetamine users that access clean needle sites. Clients are also aware of the importance of returning needles, and will enforce and encourage it among themselves. However, there are reports that users still share other injecting equipment, as they might not be aware that they are still at risk of contracting blood-borne viruses in this way.

Nine key informants spoke about problems experienced by the cannabis users with whom they come into contact. The main problems reported included depression, paranoia, lack of energy, unemployment and general unmotivation among users. Several noted an increase in psychosis among the younger cannabis users, whereas the older users are affected more by problems such as memory loss and respiratory tract infections. There were also reports of social isolation among chronic users. Two informants who work as telephone counsellors noted an increase in calls from long-term cannabis users who are trying to stop, and experiencing severe withdrawal symptoms, including sweating, nausea and violent behaviour. There were also concerns by key informants who primarily come into contact with younger users of the physical and psychological effects of cannabis use. One observed that cannabis is much stronger now, with young people using hydroponically grown head right from the start, whereas in the past users experimented initially with leaf. This is thought to have long-term consequences, and there are already reports of depression and paranoia among users, as well as problems at school and in family relationships. A key informant who works as a clinical psychologist noted the number of people who use cannabis and think it is safe. They may report symptoms such as depression, anxiety and paranoia, but will not make the link with their cannabis use.

Key informants did not report any problems associated with cocaine use. They stated that this is primarily because use of cocaine is sporadic; that cocaine is rarely the primary drug of concern. If it is available and users can afford it, they will take it. Consequently, key informants had not heard of health problems specifically related to cocaine, but noted that there may be problems in the future, as use does appear to be increasing.

A new section was added to the 2002 IDRS, which sought to obtain information on the prevalence and nature of mental health problems experienced by IDU in the previous six months. These did not include treatment for drug dependence. In total, 30% of IDU reported attending a professional for a mental health problem, and some of these attended more than one. Fourteen percent of IDU had been to a GP, and 14% had been to a psychiatrist. A further 9% had been to a counsellor, and 8% to a psychologist. Smaller percentages reported seeing a mental health nurse (4%), a community health nurse (2%) or attended a hospital emergency department (2%). Subjects were also asked to nominate the mental health problem for which they had sought help, and some nominated more than one problem. The most common problem was depression, reported by 17% of IDU. There

were 9% that reported anxiety or panic attacks, 5% paranoia, 5% post-traumatic stress disorder, 3% drug-induced psychosis, 2% other psychoses not attributed to drug use and 2% phobias. In addition, one subject reported schizophrenia, one sought counselling for grief and another for gender dysphoria.

Information on the health issues associated with the use of ecstasy and other 'party drugs' can be obtained from the 'party drugs' module of the IDRS (Longo *et al.,* 2001; 2002; 2003).

Another indicator of general health and treatment seeking behaviour comes from the Alcohol and Drug Information Service (ADIS) run by the Drug and Alcohol Services Council. The callers fell into three main groups: people who required information and/or counselling about their own perceived drug problem or that or a relative or friend (54.9%), calls from service providers (23.6%) and members of the general public wishing to obtain information about specific drugs (14%). A total of 12,538 telephone contacts were made during the 2001/02 financial year where a record was made of some or all of the characteristics of the caller and the main drug type for which information was being sought. Most contact calls were related to alcohol 9320 (*n*=3107, 33.3%) followed by cannabis (*n*=1760, 18.9%). There were 839 (9%) opiate-related contacts, predominantly for heroin (*n*=362, 3.9%), methadone (*n*=71, 0.8%) or other opioid pharmacotherapies such as naltrexone and buprenorphine (*n*=302, 3.2%). There were 104 callers (1.1%) who were asking about opioids generally. There were 1472 contacts related to the amphetamines (15.8%), 50 for cocaine (0.5%), 135 for ecstasy (1.4%), 70 for hallucinogens and other party drugs (0.8%) and 236 for benzodiazepines (2.5%). There were an additional 732 calls requesting information on more than one drug, or drugs in general (7.9%). There were also a number of calls where the drug name was unable to be identified by the caller (*n*=254*,* 2,7%). There has been a decrease in the number of calls for heroin compared with the 2000/01 financial year (3.9% compared with 6.1% in 2000/01), and a small increase in the number of calls for the amphetamines (15.8% compared with 14.9% in 2000/01).

Similarly, presentations to drug and alcohol treatment services of the Drug and Alcohol Services Council show that alcohol was mentioned most often as the primary drug of concern for clients (see Table 14). There was a change between 2000/01 and 2001/02 for heroin and amphetamines, with a 33% *decrease* in heroin being nominated as the primary drug of concern, and a 31% *increase* for amphetamines. There was also a 24% increase for other opioids, and a 27% increase for cannabis. The number of clients who reported either cocaine or benzodiazepines as their primary drug of concern remained stable.

Table 14: Primary drug of concern nominated by clients of the Drug and Alcohol Services Council for 2000/01 and 2001/02

Drug Type	2000/01	2001/02
Alcohol	2243	2497
Amphetamines	598	869
Heroin	933	621
Opioid analgesics	388	512
Cannabis	470	641
Benzodiazepines	111	113
Cocaine	10	19
Tobacco	7	12
Other	475	139
Unknown	344	583
TOTAL	**5579**	**6006**

Data were also obtained from the 2001 national census of clients of treatment service agencies (COTSA). This is the fourth time that this census has been carried out, having also been conducted in 1990, 1992 and 1995. The main purpose of the census was to identify the characteristics of clients attending drug and alcohol treatment services (Shand & Mattick, 2001). Table 15 shows the percentage of clients in South Australian treatment service agencies being treated for each drug problem, and compares the 2001 results with those obtained in the 1995 census (Torres *et al.,* 1995). In 2001 a total of 31 agencies participated in the survey, and responses were obtained from 259 clients attending these agencies for substance abuse. Since 1995, there has been a marked increase in clients presenting to treatment agencies for opiates and amphetamines; indeed, the percentage of clients in 2001 presenting for opiates was similar to that for alcohol. There has also been a decrease in the percentage of clients presenting for problems associated with cannabis use.

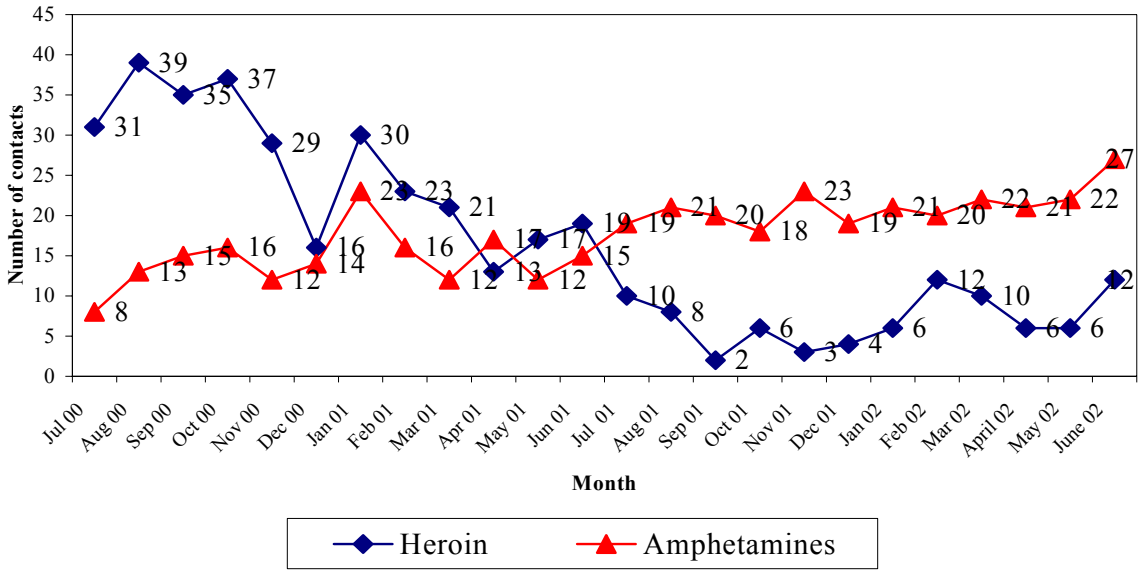
Table 15: Main drug problem[a] for clients in South Australian treatment service agencies

Drug Type	% in 1995	% in 2001
Alcohol	55.6	38.2
Opiates – including heroin	21.1	37.5
Amphetamines[b]	3.8	10.0
Cannabis	8.0	4.6
Cocaine	0.0	0.4
Benzodiazepines	4.6	1.5
Hallucinogens and Inhalants	1.2	0.0
Tobacco	0.8	1.9
Other drugs	0.0	0.0
Poly-drug use	12.6	6.6

[a] *Total may exceed 100% as some agencies nominated more than one main drug problem per client* [b] *Includes amphetamine-related substances (e.g. ecstasy)*

Treatment data were obtained from the Drug and Alcohol Services Council on the number of admissions to the inpatient detoxification unit since July 2000. Although there was a decrease in the number of heroin-related admissions between January and September 2001, there has been a small but steady increase between September 2001 and June 2002. However, the number of admissions for heroin is still much lower compared with the latter half of 2000. There have also been a fairly consistent number of admissions for the amphetamines over the previous 12 months (see figure 10). In total, 55% of admissions to DASC inpatient services in 2001/02 were for amphetamines, with only 18% for heroin. The remainder were for other opiates (15%) or benzodiazepines (12%).

Figure 10: Inpatient Contacts for the Drug and Alcohol Services Council from July 2000 to June 2002



9.2 NEEDLE SHARING BEHAVIOUR

In the previous month, 93% of IDU reported that they had *not* used a needle after someone else. This was similar to that reported in 2001 (90%), but significantly higher than that reported in 2000, where 75.7% of IDU reported that they had not used a needle after someone else (Fisher's Exact Test $p<0.01$). This is also consistent with key informants who stated that there is an awareness of the risks associated with sharing needles. Two key informants who work at clean needle sites around Adelaide noted an increase in clients accessing the service, and that users themselves are encouraging the use of clean needles among their peers. Of the seven IDU who did report using needles after someone else, only one had done so more than twice in the previous month. All of these said they had used a needle after one person only, and in every case but one it was their regular sexual partner or a close friend. One person reported sharing a needle with an acquaintance, and no IDU reported sharing needles with strangers. Similarly, 95% of IDU in 2002 reported that in the previous month, they had not lent their needle to anyone else after they had used it. This is higher than that reported in 2001 and 2000, where 86% and 78.5% of IDU, respectively, had not lent a needle to someone else. The difference was not quite statistically significant compared with the 2001 survey (Fisher's Exact Test $p=0.051$), but there was a significant difference compared with 2000 (Fisher's Exact Test $p<0.001$). Of

the five IDU who had lent their needle to someone, four (80%) had lent their used needles once or twice and only one had lent them more than five times.

More IDU reported sharing injecting equipment than sharing needles, although the percentage was significantly lower than in the 2001 survey (28% compared with 59% in 2001: Fisher's Exact Test $p<0.001$). While 72% reported not sharing any equipment in the previous month, 21% had shared spoons or mixing containers, 13% had shared filters, 12% had shared tourniquets and 11% had shared water.

A study was carried out by the School of Occupational Therapy at the University of South Australia, in conjunction with the AIDS Council of South Australia, looking at factors relating to Hepatitis C among the injecting drug community in Adelaide. Surveys were administered to 64 injecting drug users at a clean needle site. Over half of respondents (58%) reported testing positive for Hepatitis C, although 92% reported either high or very high levels of personal awareness of the risks for contracting Hepatitis C through injecting drugs. However, a high percentage reported recently sharing at least one form of injecting equipment, most commonly water (52%), filters (48%) and spoons (45%). As was found in the 2002 IDRS, in most cases equipment was shared with a partner or friend. Needle sharing was reported by 14% of respondents.

9.3 OVERDOSE

Of the 84 IDU that had ever used heroin, 39.3% (n=33) reported overdosing at least once (range: 1-40). This is slightly lower than the percentage reported in the 2001 IDRS (46%), but much lower than in 2000 (54%). However, the difference was not quite statistically significant (χ^2_1=3.2, p=0.07). In 2002, 42.4% (n=14) of those who had ever overdosed had done so once, and 21.2% (n=7) had done so twice. This was comparable with the percentage of IDU overdosing once or twice in the 2001 and 2000 surveys (60% and 56.5%, respectively). The remaining IDU who had overdosed on heroin had done so three or four times (n=4, 12.1%), or five times or more (n=8, 24.2%). The median amount of time between the interview and the last overdose was 48 months (range: 6-240 months). For the 17 IDU who had been administered the opioid antagonist naloxone (Narcan) after an overdose, the median amount of time between interview and the last administration was 48 months (range: 16-180 months). Only four IDU (12.1%) reported that they had overdosed on heroin within the previous 12 months, and only one had experienced an overdose within the previous six months. This is much lower than that reported in the 2001 IDRS, where 40% of those who had overdosed had done so in the previous 12 months, and 17.5% in the previous six months. This difference was statistically significant (Fisher's Exact Test $p<0.01$).

Only four IDU (4%) reported having overdosed on morphine. Two of these had overdosed within the previous 12 months. The amount of time between the interview and last overdose ranged from 6 to 300 months.

Of the IDU interviewed, 68 (68%) had been present at another user's overdose (range: 1 to 200 times). This is very similar to the percentage in the 2001 IDRS (69%). In 23.5% of cases this overdose had occurred in the previous six months, which was also very similar to the percentage in the 2001 survey (20%). The median number of times that IDU had been present when someone else overdosed was four (1-4 times, n=35, 51.5%; 5-10 times, n=17, 25%; more than 10 times, n=16, 23.5%). The length of time between the interview and last

presence at an overdose ranged between three weeks and 240 months (median 18 months). Of the 68 who had observed an overdose, 66 (97.1%) had been present at one or more non-fatal overdoses (two of these were for methamphetamine), and seven (10.3%) had been present at one or more fatal overdoses (one of these was for methamphetamine). The percentage that had been at a fatal overdose was significantly lower than in the 2001 survey (34.8%; Fisher's Exact Test $p<0.001$).

Between 1988 and 1999 there was an increase in the number of opioid-related fatalities in South Australia, and in Australia as a whole. Figure 11 shows the number of deaths per year between 1988 and 2001. There were 52 deaths in South Australia in 1999, and 958 deaths Australia-wide. There was a decrease in 2000, with 40 deaths in South Australia and 725 Australia-wide. There was a marked decrease in 2001, with 15 deaths in South Australia and 306 Australia-wide (see figure 12). This is a decrease of 58% in the rate of opioid overdose in Australia between 2000 and 2001 (84.8 per million persons in 2000 compared with 35.9 per million persons in 2001), and a decrease of 63% in South Australia (62.6 per million persons in 2000 compared with 23.5 per million persons in 2001). Overall, this represents a 71% decrease in the number of opioid-related fatalities in South Australia between 1999 and 2001. Although the data from 2002 are still unconfirmed and consequently not available for inclusion in this report, there has been no evidence of an increase in opioid-related fatalities in South Australia; in fact, the numbers seem to have decreased further compared with 2001.

Figure 11: Opioid-related fatalities between 1988 and 2001 in South Australia and Australia among those aged 15-44 years

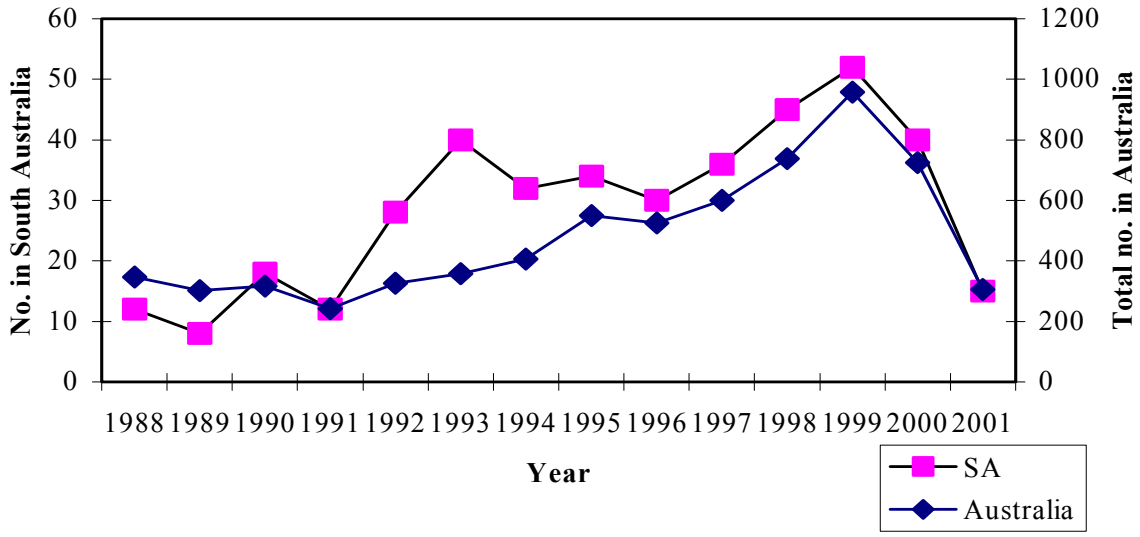
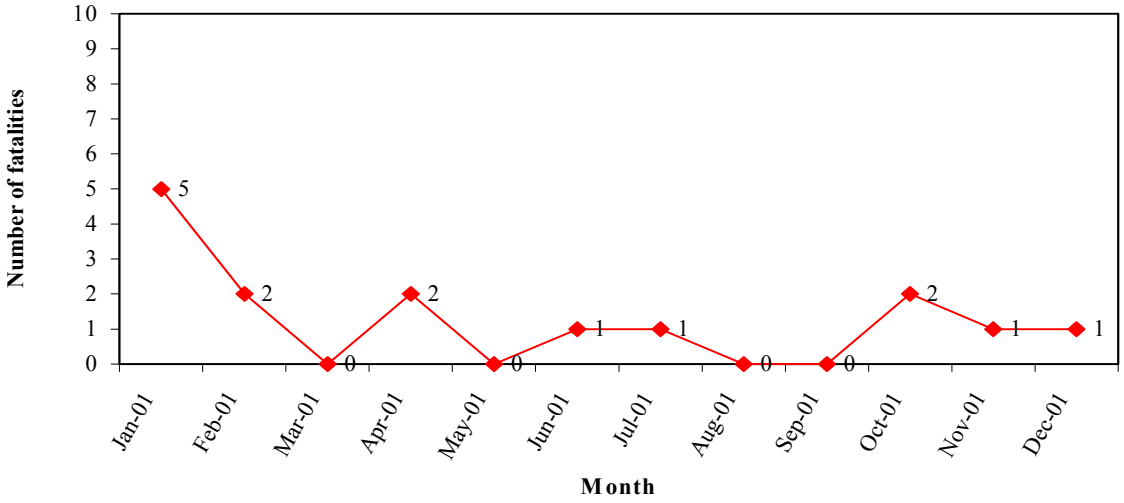


Figure 12: Opioid-related fatalities in South Australia for 2001



Another valuable source of indicator data is the number of ambulance attendances in South Australia obtained from the South Australian Ambulance Service (SAAS). In the 2002 IDRS, information was provided on the number of callouts to ambulance services in the metropolitan area of Adelaide from July 1996 to June 2002. The results are presented in Figure 13 in six-month periods, divided into attendances, where ambulance officers attended the scene but did not transport the person to hospital, and carries, where the person was taken to hospital. Figure 14 plots the number by month for the 2001/02 financial year. However, these data do not identify the reason for the call-out; whether it was drug-related or because of reasons such as cardiac arrest or vehicular trauma. Although

there was a decrease between the 2000/01 financial year compared with previous years, there was a marked increase from July 2001, predominantly due to an increase in the number of people taken to hospital, while the number of people attended has remained fairly stable. Comparing the 2000/01 financial year with 2001/02, there was a 41% increase in the total number of callouts to drug overdoses. In the 2000/01 financial year the total number was 1480 (758 attendances, 722 carries) and in the 2001/02 financial year the total number was 2500 (696 attendances, 1804 carries). However, it is important to note that there was a change in the coding methodology for cases that were carried in September 2001, which may explain the increase in numbers recorded at that time. In order to accurately document trends over time, data pre-September 2001 may not be comparable with data post-September 2001. In fact, when looking only at the 2001/02 financial year (figure 14), the number of carries remained fairly consistent over the time period, after the initial increase in September.

Figure 13: South Australian Ambulance Service callouts from July 1996 to June 2002

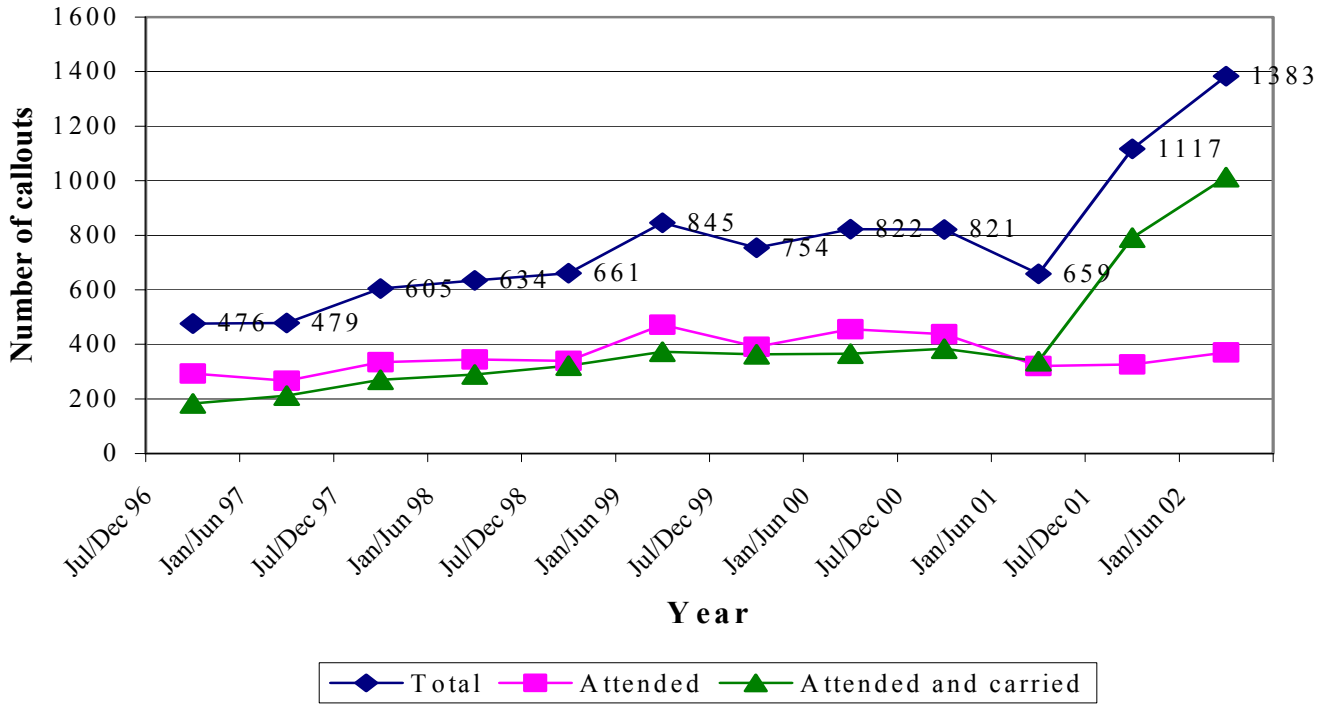
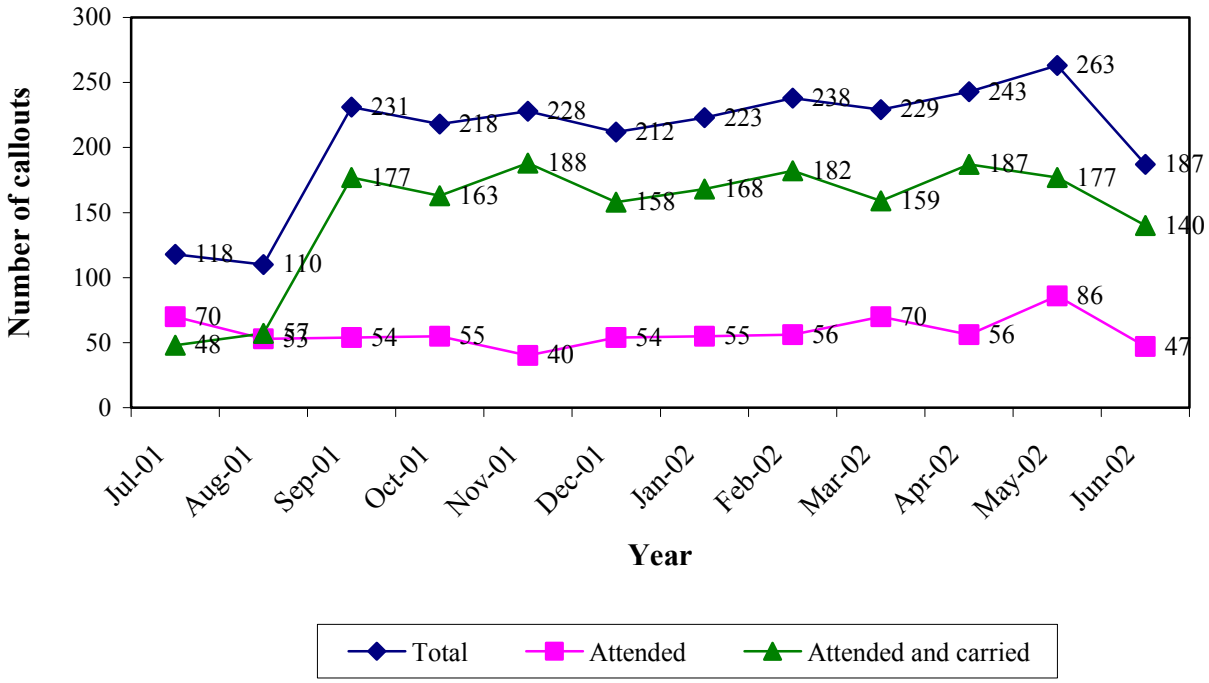


Figure 14: South Australian Ambulance Service callouts from July 2001 to June 2002



Information was also obtained on the number of drug-related presentations to the Emergency Department of the Royal Adelaide Hospital. Table 16 shows that the numbers have remained relatively stable for cannabis and cocaine, although there has been a gradual increase for alcohol, paracetamol and anti-depressants since 1999/00. The relatively large increase for benzodiazepines observed between 1999/00 and 2000/01 was not sustained in 2001/02, with a slight decrease in attendances. There has also been a further decrease in attendances for amphetamines. The most striking result is the marked decrease in heroin-related attendances (reflecting an 86% decrease between 1999/00 and 2001/02, and a 75% decrease between 2000/01 and 2001/02). The 2001/02 drug-related attendances also indicated that 48 individuals presented at the Emergency Department for GHB, which has not occurred in previous years.

Table 16: Number of drug-related attendances at Royal Adelaide Hospital Emergency Department during the 1999/00, 2000/01 and 2001/02 financial years, by drug type

Drug	1999/00	2000/01	2001/02
Alcohol	1236	1261	1333
Heroin	221	121	30
Benzodiazepines	143	201	170
Amphetamines	103	88	64
Paracetamol	92	103	110
Anti-depressants	88	117	104
Cannabis	18	12	12
Opium	3	7	4
LSD	2	1	2
Cocaine	1	2	2
GHB ('fantasy')	-	-	48
Others*	497	544	425
Total	**2404**	**2457**	**2304**

**Poisons, toxins, phenothiazines and anticholinergics*

9.4 CRIMINAL AND POLICE ACTIVITY

The IDU were asked about criminal behaviour related to their drug use. Three IDU refused to provide information, and the results are based on the remaining 97 subjects. Thirty-four percent of these said they had committed at least one criminal act in the previous month. This is lower than the percentage in the 2001 IDRS, which was 40%. However, this difference was not statistically significant. Dealing and property crime were the most common crimes committed, and the frequency of criminal activity by crime type over the previous month is shown in Table 17.

Table 17: Frequency of criminal activity in the previous month among the IDU, by crime type

Crime Type - Percentage	Property%	Dealing%	Fraud%	Violent%
No crime	82	64	92	91
Less than once a week	9	8	4	3
Once a week	2	11	0	2
More than once a week	3	9	0	1
Daily	1	5	1	0
Refused to answer	3	3	3	3

Thirty-nine percent of IDU said they had been arrested in the previous 12 months, and some had been arrested for more than one offence. Of those who had been arrested (*n*=38), property crime was the most common reason given (31.6%), followed by violent crime (31.6%), driving offences (21.1%), possession/use of a prohibited substance (13.2%) and driving offences related to alcohol or drugs (7.9%). One IDU was arrested for dealing/trafficking, one for the manufacture of methamphetamine and one for fraud.

There were six IDU who reported being arrested for another crime, including outstanding warrants (n=4) and firearm offences (n=2). The violent crimes reported by IDU included domestic disputes, armed robbery and assaulting a police officer. The property crimes included break and enter, illegal trespass, larceny and car theft. The number of people arrested for violent crimes was similar to the 2001 survey: of those who had been arrested, 31.6% had committed a violent crime (12.4% of total IDU) compared with 31.4% in 2001. However, this is much higher than that reported in the 2000 survey (9%; 2.8% of total IDU). This difference was statistically significant (Fisher's Exact Test p<0.05).

IDU were also asked how much they had spent on illicit drugs on the day prior to the interview, as a reflection of whether or not it may have been necessary to commit a crime to raise money for drugs. Fifty-eight percent said they had spent some money on drugs during the previous day. This is similar to the 2001 IDRS where 56% of users had spent money on drugs in the previous day, but much lower than in the 2000 survey (75%). There were 17% who reported spending less than $50 on drugs, 17% reported spending between $50 and $99, 11% between $100 and $199, and 13% spent $200 or more. The mean amount of money spent by IDU was $110, and the median was $50.

As in past years of the IDRS, key informants familiar with methamphetamine and heroin users were more likely to report crime among these groups of users than those familiar with cannabis users. For cocaine users, key informants were unable to provide information on the frequency and types of crime. They observed that these users don't come to the attention of police due to the secretive and hidden aspect of the cocaine scene, although it is becoming more mainstream and open. A police officer working in the Drugs and Organised Crime division reported that heroin is often traded for cocaine by high-level suppliers and distributors, mainly in the South-East Asian community. The upper echelons of the drug trade have realised that there is money to be made with drugs such as cocaine and methamphetamine as the heroin market is flat at the moment. However, this key informant did not know about the street-level activity associated with cocaine due to the closed nature of the scene.

The key informants who were able to provide information on heroin agreed that it is mainly the Vietnamese who control the heroin market. They tend to have the best quality heroin, and were still able to access it during the peak of the shortage. Two said that there has been an increase in user-dealers at a street level, who sell primarily to support their own use. They also noted that these user-dealers are very young. With regards to crime among heroin users, two key informants noted an increase, particularly in property crimes (break and enter, larceny). One KI attributed this to the increase in price of heroin and the decrease in purity; users need to spend more money to maintain their use. Two had not noticed an increase, but observed that crimes are committed by this group, usually to fund their drug use.

The key informants who provided information on methamphetamine reported an increase in local methamphetamine production, in particular of the base/paste forms. This is consistent with the methamphetamine-using IDU who nominated these as the forms most commonly used in the previous six months. Several emphasised that manufacturers are not necessarily part of big syndicates; that the chemicals are relatively easy to obtain and thus there are a lot of small-time cooks producing methamphetamine. However, the consequence of this is that there are many inexperienced manufacturers whose products contain many impurities that are in themselves causing physical and psychological problems among users due to the unpredictability of their effects. In contrast, a police

officer stated that crystal meth seems to be produced by professionals, and may be imported from overseas. This key informant, as well as another police officer, both of which operate at a street level, noted an increase in arrests for methamphetamine. In addition, a police officer that works in the Drugs and Organised Crime Division stated that heroin is often traded for methamphetamime by high-level suppliers/distributors in the South-East Asian drug-using community. This information was based on reports from police informants that this group has diversified from heroin to include methamphetamine and cocaine. They are supplying heroin to other organised groups (eg bikies) in exchange for these drugs, realising that there is more money to be made. This KI has also heard reports of "ice" in Adelaide, but there have as yet been no seizures of this form of methamphetamine.

Most key informants also commented on the selling or dealing of methamphetamine. There were consistent reports that many methamphetamine users also sell the drug, but that this tends to be on a small scale and is primarily to support their own use. One KI noted an increasing trend for mobile dealers, that transactions are pre-organised by telephone so that people are not walking around the streets with drugs. A police officer also commented that a distribution network for methamphetamine has been firmly established, much like that for cannabis.

Many key informants were not able to comment on crime rates among methamphetamine users, as they are not usually given this information. Several reported increases in property crimes such as larceny and break and enter, and some also reported an increase in violent crimes such as assault and armed robbery. In addition, three key informants emphasised the distinction between committing the crime to obtain money for drugs, and committing the crime while under the influence of the drug. They observed that crimes committed by some methamphetamine users seem to be more aggressive and violent in response to the effects of the drug, in contrast to heroin users who tend to commit crimes in order to obtain money for drugs. However, other key informants said that although many clients speak about having to pawn goods or that they have trouble paying their bills, they don't necessarily resort to criminal behaviour. A clean needle program worker commented that methamphetamine is cheap enough so that users don't need to commit crimes to buy the drug.

Key informants who provided information on cannabis users consistently reported low levels of crime among this group. There were some reports of crimes such as break and enter (often to steal cannabis plants), car stealing and larceny, predominantly among the younger users. However, there were no reports of violent crimes, unless they are heroin or methamphetamine users who also use cannabis, and who are committing crimes to finance their use of these drugs. Three KI noted a high degree of dealing among users, but that it does not tend to be for profit. The majority will either grow it and share with friends, or obtain it through social networks and pass it on to friends, but it is not for profit. Rather, they will sell cannabis to their friends to finance their own use, and very few are involved in big syndicates. A key informant who works as a representative for the cannabis-using community noted a decrease in the dealing of cannabis on the street. People either have well-established social networks or they grow their own, and thus do not need to seek it externally. The informant observed that cannabis may actually be harder to get on the street. It is also available all year round due to hydroponic set-ups. One police officer noted an increase in the number of arrests for selling cannabis as well as an increase in the number of seizures. Several key informants also spoke about changes in the manufacture of

cannabis. All noted an increase in the growing of cannabis, both hydroponic and outdoor, and observed that cannabis is grown in South Australia and exported to the other states.

For ecstasy and other party drugs, information on crime rates and police activity can be obtained from Longo *et al.* (2001; 2002; 2003).

The IDU were asked if they had observed any recent changes in police activity. Eleven percent of IDU were unsure. Just over half (51%) reported that police had become more active recently, 36% said activity had remained stable, and only 2% said it had decreased. Reports of an increase in police activity were much higher than in prior IDRS surveys. In 2001, 39% said that police activity had increased, and 33.6% reported this in 2000. However, only 17% said that police activity had made it more difficult for them to score drugs, and the majority (74%) said that the number of friends who had recently been apprehended had remained stable. It thus seems that while IDU in 2002 noticed an increase in police activity, it has not affected their ability to obtain drugs, or increased the number of apprehensions or arrests among their friends.

There were 53 IDU who commented on changes in police activity over the previous six months. In all but two cases, they reported an increase in activity. The types of activities included police surveillance, in particular targeting known users and dealers, as well as areas associated with drug use. There was also reported to be an increase in visible police presence, both on foot and in cars. Several IDU also noted an increase in undercover police, who are focusing on the high-level dealers and methamphetamine laboratories. In addition, they observed a shift from targeting methamphetamine users to the manufacturers and dealers.

Overall, most key informants were not able to provide information on reported changes in police activity. This is primarily because the drug users with whom they have contact do not mention this, focusing more on their own patterns of use and drug-related problems. However, those that did comment, predominantly police officers, gave information that was consistent with IDU reports.

For methamphetamine, most key informants were able to comment on police activity, with all reporting an increase. The KI included police officers, community drug and alcohol workers and clean needle program/outreach workers. Consistent with the IDU, the type of increase was reported as a higher police presence, specifically targeting geographical areas and people known to be associated with the methamphetamine scene. The police officers noted an increase in the discovery of methamphetamine laboratories, and that the focus has shifted from heroin to methamphetamine, particularly among those officers who concentrate on street-level dealing. However, one KI noted that it is difficult to catch dealers, as most of the activity does not take place on the street; rather people will meet at pre-organised locations or at someone's home.

The key informants who gave information about cocaine had not heard of any changes in police activity, but emphasised that this group does not come to the attention of police, and that the police do not come across cocaine very often. For cannabis, three key informants had not observed any changes and two noted an increase. This included an increase in police on the streets, specifically targeting groups of young people. However, they noted that with cannabis it is not necessary to score on the streets. People use their social networks, with everyone knowing someone who grows or sells cannabis.

In the 2001/02 financial year there were a total of 4247 reported offences to South Australian police associated with either drug use/possession (*n*=871, 20.5%), provision of drugs including the import/export of drugs, sell/trade of drugs and production/manufacture of drugs (*n*=2802, 66%), or other drug related offences, including forging of scripts, possession of implements and miscellaneous drug offences (*n*=574, 13.5%). Table 18 shows a breakdown of arrests for possession and provision by drug type in South Australia for both 2000/01 and 2001/02. Overall, there was an 11% *decrease* in the total number of reports between 2000/01 and 2001/02 (3864 compared with 3673). Looking at the two categories separately, there was a decrease in the number of offences related to possession, particularly for opiates, amphetamines and cannabis. There was also a reduction in the number of offences relating to drug provision for opiates and cocaine, but an increase for cannabis. The number of reports for amphetamines was relatively stable.

Table 18: Number of drug-related arrests by SAPOL in South Australia during 2000/01 and 2001/02

Drug type	Possession		Provision		Total reports	
	00/01	**01/02**	**00/01**	**01/02**	**00/01**	**01/02**
Cannabis*	890	528	1770	2416	2660	2944
Amphetamines	538	280	274	269	812	549
Heroin/other opiates	141	23	114	53	255	76
Cocaine	11	4	24	8	35	12
Hallucinogens	16	5	9	7	25	12
Other/unknown	28	31	49	49	77	80
Total	**1624**	**871**	**2240**	**2802**	**3864**	**3673**

**Cannabis reports do not include cannabis expiation notices.*

9.5 SUMMARY OF DRUG-RELATED ISSUES

Other drug-related problems and issues found in the 2002 IDRS are summarised in Table 19. Injection-related problems were prevalent among the IDU, particularly among injectors of morphine and benzodiazepines. Only 7% of IDU reported using a needle after someone else in the previous month, which is similar to the 2001 IDRS (10%), but much lower than in 2000 (24%). Similarly, only 5% reported lending their needle to someone else, and only 28% reported sharing injecting equipment, which was significantly lower than in the 2001 IDRS (59%). Thirty-nine percent of IDU who had ever used heroin had experienced at least one overdose, and 68% had viewed an overdose. The number of drug-related presentations to the Emergency Department of the Royal Adelaide Hospital remained relatively stable for alcohol, cannabis and cocaine. However, there was a slight decrease in attendances related to the amphetamines, and a large decrease in those related to heroin, continuing the trend observed in the 2001 IDRS. There was also a marked decrease in the number of opioid-related fatalities in South Australia in 2001.

Thirty-four percent of IDU had committed a crime in the previous month (compared with 40% in 2001) and 39% had been arrested in the previous 12 months, mainly for violent crimes and property crimes. There was an increase in police activity according to IDU, although it did not affect the ability of IDU to obtain their drugs.

Table 19: Summary of trends in drug-related issues

General Health	• 55% percent of IDU had experienced at least one injection-related problem in the previous month (compared with 63% in 2001 IDRS) • Morphine injectors were more likely to experience difficulty injecting than those who had not injected morphine • Benzodiazepine injectors were more likely to experience difficulty injecting and thrombosis than those who had not injected these drugs • 30% of IDU reported seeing a professional for a mental health problem, in most cases for depression • Decrease in heroin nominated as primary drug of concern among clients presenting to DASC treatment services; increase in amphetamines, other opioids and cannabis
Needle sharing	• 7% of IDU had used a needle after someone else at least once in the previous month (10% in 2001 IDRS, 24% in 2000) • 5% of IDU had lent a needle to someone else at least once in the previous month (14% in 2001 IDRS, 22% in 2000) • 28% of IDU had shared equipment (59% in 2001 IDRS, 50% in 2000)
Overdose	• 39% of heroin-using IDU had overdosed on heroin (46% in the 2001 IDRS) and 68% had been present at an overdose (69% in 2001) • Marked decrease in number of opioid-related fatalities in South Australia in 2001 (*n*=15 compared with 40 in 2000 and 52 in 1999) • Decrease (75%) in drug-related presentations to the Emergency Department for heroin compared with the previous year
Police activity	• 51% of IDU reported an increase in police activity. This was higher than in the 2001 IDRS (39%) • Type of increase included more uniform and undercover police, questioning and searching of people and vehicles and targeting of areas and people associated with drug use and dealing • Does not appear to have affected ability of IDU to obtain drugs, or the number of friends apprehended by police • Decrease in reported offences by SAPOL for possession of opiates, cann cocaine and amphetamines, but increase in offences for provision of cannabis
Crime	• 34% of IDU had committed at least one crime in the previous month and 39% were arrested within the previous 12 months • Arrests were predominantly for violent crimes or property crimes • Key informants reported that crime is associated more with heroin and methamphetamine use than with cannabis use

10 COMPARISON OF DATA FROM DIFFERENT SOURCES

Tables 20-25 summarise the key findings and the triangulation of the data from the three sources: Injecting Drug Users (IDU), Key Informants (KI) and Indicator Data (OTHER). Data are presented separately for each of the four main drug classes, other drugs, and drug-related indicators. A tick (✓) indicates that there was congruency between two or three sources of information and a cross (✘) indicates that one or more sources were incongruent. The tables indicate that most findings were confirmed by at least two of the sources. The lower number of trends supported by the indicator data is a reflection of the limited availability of these data.

Table 20: Trends in heroin indicated (✓) or not indicated (✘) by Injecting Drug Users (IDU), Key Informants (KI) and indicator data (OTHER)

Heroin Trends	IDU	KI	OTHER
Price ($450/gm, $50/cap), stable to increasing	✓	✓	✓
Very easy/easy to obtain Availability has increased over the last 6-12 months	✓	✓	
Purity medium to low (22.4% based on analysis of SAPOL seizures) Has increased recently, but has not returned to the levels experienced prior to the heroin shortage	✓	✓	✓
Decrease in frequency of use: attributed to decrease in availability and purity of heroin	✓	✓	NA*
Increased availability and use of rock heroin	✓	✓	NA*
Continuing trend for switch to the use of other drugs due to low purity and reduced availability of heroin Many users have not returned to using heroin after the heroin shortage	✓	✓	NA*
Heroin was nominated by 30% of IDU as their favourite or preferred drug	✓	NA*	NA*
Heroin was nominated by 25% of IDU as the drug last injected, and by 22% as the drug most often injected in the previous month	✓	NA*	NA*

* No information available to either support or refute the trend

Table 21: Trends in methamphetamine indicated (✓) or not indicated (✘) by Injecting Drug Users (IDU), Key Informants (KI) and indicator data (OTHER)

Methamphetamine Trends	IDU	KI	OTHER
Price $50/gm for powder, stable Price $25/point, $200/gm for base/crystal, stable	✓	✓	✓
Very easy/easy to obtain Availability stable to easier for non-powder forms Availability stable for powder form	✓	✓	NA*
Purity medium to high for all forms	✓	✓	NA*
Purity 14.6% based on analysis of SAPOL seizures	NA*	NA*	✓
Reports of increase in use due to heroin shortage	✓	✓	NA*
Increase in use of stronger forms of methamphetamine (crystal/ice and base/paste)	✓	✓	NA*
Increase in younger users	✓	✓	NA*
Over half of IDU (52%) nominated methamphetamine As their favourite or preferred drug	✓	NA*	NA*
Methamphetamine was nominated by majority of IDU as drug last injected (60%) and the drug most often injected (57%) in the previous month	✓	NA*	NA*

* No information available to either support or refute the trend

Table 22: Trends in cocaine indicated (✓) or not indicated (✘) by Injecting Drug Users (IDU), Key Informants (KI) and indicator data (OTHER)

Cocaine Trends	IDU	KI	OTHE
Price ($250/gm), stable	✓	✓	✓
No clear trend in availability: half reported it was very easy or easy to obtain, and half that it was difficult to obtain	✓	✓	NA*
Purity medium to high and stable to increasing	✓	✓	NA*
No analysis of cocaine seized in South Australia by either SAP or AFP in 2001/02 financial year	NA*	NA*	NA*
Use is small in South Australia compared with other drugs, but IDU and KI report that there is a strong cocaine scene in Adelaide	✓	✓	NA*

* No information available to either support or refute the trend

Table 23: Trends in cannabis indicated (✓) or not indicated (✘) by Injecting Drug Users (IDU), Key Informants (KI) and indicator data (OTHER)

Cannabis Trends	IDU	KI	OTHE
Price ($25/bag, $180/ounce), stable	✓	✓	✓
Very easy to obtain Availability is stable	✓	✓	NA*
Potency is high and stable (based on IDU and KI reports)	✓	✓	NA*
Use of cannabis is ubiquitous among IDU	✓	✓	NA*
Frequency of use is predominantly daily use	✓	✓	NA*
Most cannabis is sold as 'hydroponic' and form is nearly always 'head'	✓	✓	✓

* No information available to either support or refute the trend

Table 24: Trends in the use of other drugs indicated (✓) or not indicated (✘) by Injecting Drug Users (IDU), Key Informants (KI) and indicator data (OTHER)

Other Drug Trends	IDU	KI	OTHE
Benzodiazepine use remains prevalent among the IDU (57% recent use), diazepam most popular	✓	✓	NA*
Small increase in injecting of benzodiazepines among IDU (13% compared with 9% in 2001 IDRS)	✓	✓	NA*
Antidepressant use predominantly therapeutic; prevalence of use is stable	✓	✓	NA*
Ecstasy use small among IDU	✓	✓	NA*
Ecstasy price $25-40, decreased; purity 30% (ACC)	NA*	NA*	✓
Small increase in use of party drugs (fantasy, ketamine)	✓	✓	NA*
Morphine use is still high compared with previous years (46%), and 96% of users (44% of total IDU) had injected it Use mainly illicit; 14% of IDU reported morphine as the drug last injected; 22% used on a daily basis	✓	✓	✓
Low prevalence of hallucinogen and inhalant use among IDU. Associated with younger users; use is recreational	✓	✓	NA*

- No information available to either support or refute the trend

Table 25: Trends in drug-related issues indicated (✓) or not indicated (✘) by Injecting Drug Users (IDU), Key Informants (KI) and indicator data (OTHER)

Drug related issues	IDU	KI	OTHE
Injection-related problems remain prevalent among IDU, although lower than in 2001 IDRS (55% reported problems in previous month compared with 63% in 2001)	✓	✓	NA*
Low rates of needle-sharing: 7% used needle after someone else, and 5% lent a needle to someone else at least once in the previous month	✓	✓	✓
Decrease in number of heroin-related overdoses	✓	✓	✓
Decrease in drug-related presentations to the Emergency Department for heroin compared with previous year	NA*	NA*	✓
Decrease in heroin nominated as primary drug of concern among clients presenting to DASC treatment services; increase in amphetamines, other opioids and cannabis	NA*	NA*	✓
Increase in number of ambulance call-outs, but no information on specific drug involved	NA*	NA*	✓
Increase in methamphetamine-related health problems, such as depression, anxiety and psychosis	✓	✓	NA*
34% of IDU committed at least one crime in previous month; 39% arrested in the previous month	✓	NA*	NA*
Arrests predominantly for violent and property crimes	✓	✓	✓
Increase in local manufacturing of methamphetamine and in cannabis hydroponic set-ups	✓	✓	NA*
Increase in police activity	✓	✓	✓
Decrease in reported offences by SAPOL for possession of opi cannabis, cocaine and amphetamines, but increase in offences f provision of cannabis	NA*	NA*	✓

* No information available to either support or refute the trend

11 DISCUSSION

The 2002 IDRS identified many trends in drug use that were first apparent in the 2001 IDRS. Since late 2000, anecdotal reports from drug users and health professionals have suggested that there was a reduction in the supply of heroin in Adelaide in the first half of 2001. The 2001 IDRS found consistent reports by users of an increase in the price of heroin, together with decreases in purity and availability. These factors resulted in a decrease in the frequency of self-reported heroin use among those surveyed in 2001, and a concomitant increase in the use of other drugs, in particular methamphetamine and morphine. The heroin shortage also appeared to have a substantial impact on several indices of drug-related harm, as discussed below. These changing patterns of drug use were also reported in other Australian jurisdictions in the 2001 IDRS (Miller *et al.,* 2001; Topp *et al.,* 2002).

Information obtained from injecting drug users and key informants in the 2002 IDRS consistently reported that the heroin shortage was believed to have ended around June-July 2001. As the IDRS monitors patterns and trends in drug use from the middle of one year to the middle of the following year, we are in a unique position to investigate the possible effects of the end of the shortage in the 2002 report on patterns of drug use.

There was a further decrease in the prevalence of heroin use among the IDU in 2002, with only 48% reporting having used in the previous six months. This is significantly lower than in 2001, where 65% reported recent use, and reflects a continuing trend in the reduction of heroin use among the IDU surveyed. However, despite this decrease in *recent* use, the percentage of IDU in 2002 that reported ever having used heroin was similar to past years (84% compared with 87% in the 2001 survey). Reports by IDU and key informants on the price, purity and availability of heroin also highlighted the continued impact of the shortage on the heroin market. Heroin was reported as very easy or easy to obtain by most IDU, and availability was perceived to have increased over the previous 12 months. Although the purity also increased according to IDU, it does not seem to have returned to the levels observed before the heroin shortage, and was still regarded as low to medium by most. Purity data on heroin seizures provided by the ACC also indicated that the purity was low, and in fact was the lowest recorded in all six years of the IDRS. The price of heroin reported by IDU increased compared with the 2001 IDRS, from $350 per gram to $450. It thus appears that although heroin has become more available, the purity is still low, and together with the increase in price, may explain why the prevalence of use has decreased further.

The ongoing impact of the heroin shortage on drug use patterns in Adelaide was also supported by state indicator data presented in this report. There has been a continuing decrease in opioid-related fatalities in South Australia, as well as reductions in heroin-related presentations to the RAH Emergency Department. Treatment services provided by the Drug and Alcohol Services Council showed a decrease in inpatient admissions for heroin to the detoxification unit, and a decrease in heroin being nominated as the primary drug of concern by clients. In contrast, 55% of admissions to DASC inpatient services in 2001/02 were for amphetamines, and there was an increase in amphetamines being nominated as the primary drug of concern. The Alcohol and Drug Information Service run by DASC also reported a decrease in the number of calls for heroin.

In the 2001 IDRS, the reduction in heroin use resulted in a significant increase in the use of other drugs by IDU, in particular methamphetamine and morphine. This trend was also

evident in 2002, and was primarily attributed by IDU to the continuing reduced availability and low purity of heroin. Although many IDU stated that the purity of heroin has improved since the heroin shortage, it has not returned to the levels seen in previous years. Subjects reported needing to use larger amounts to get the same effect, which consequently makes heroin more expensive to purchase. An interesting development in 2002 reported by both injecting drug users and key informants was that there is no longer a clear distinction between people who use depressant drugs and those who use stimulant drugs. Although not all heroin users affected by the shortage switched to methamphetamine, choosing instead to use other opiate-based drugs, many heroin users who made this change have continued using methamphetamine. Some now use both drugs, depending on the price, purity and availability at the time. However, there is also a group that has stopped using methamphetamine and returned to heroin.

The data obtained on patterns of methamphetamine use in the 2002 IDRS support these reports that many heroin users have remained with methamphetamine. There was a substantial increase in use among the IDU in 2001, with 81% reporting recent use. In 2002 this increased further to 85%. Methamphetamine was reported as readily available, with the more potent forms ('crystal', 'base') easier to obtain than the powder form ('speed'). It was also reported to be high in purity and the price for the stronger forms was lower than in the 2001 IDRS. The price for a gram of powder was reported by IDU as $50 in both 2001 and 2002, and the price of a point of the stronger forms was $25 ($30 in 2001). These stronger forms seem to have increased in use and availability since the 1999 IDRS. However, there was a significant decrease in frequency of use. This may be due to the increase in purity, whereby users do not need to use daily. It is also important to note that in 2002 a distinction was made between the use of the various forms of methamphetamine, and it is therefore difficult to accurately compare use with previous years.

In the 2002 IDRS, methamphetamine was consistently reported by IDU as the drug most often injected in the previous six months and the drug last injected, while the percentage that reported heroin was significantly lower. Methamphetamine was also the preferred drug by 52% of IDU, with heroin nominated by only 30%. This result confirms the trend that emerged in the 2001 survey, while prior to 2001 heroin was the predominant drug nominated. Although it is possible that these results reflect over-sampling of methamphetamine users, it is also consistent with reports by key informants, as well as indicator data such as the NSP survey, which reported an increase in amphetamines being nominated as the drug last injected by respondents.

The key informants also noted the emergence of two groups of regular intravenous methamphetamine users. The first consists of users for whom methamphetamine was always their drug of choice, and this group are very unlikely to also use heroin, or in fact to have ever used heroin. The second group consists of those who had previously used heroin, but who switched to methamphetamine during the heroin shortage and have not returned to using heroin. Alternatively, some users in this second group now use both heroin and methamphetamine, depending on their financial situation and the availability and purity of these drugs. Several KI observed that in this situation, users take heroin or other opiates to help with the 'come-down' or 'crash' after using methamphetamine.
The use of high purity methamphetamine is associated with serious mental health disorders and social problems, including violent behaviour. This trend towards the use of more potent forms began to emerge in the 2000 IDRS, and suggests that there may be increased numbers of persons requiring and accessing mental health, drug treatment and social health services, or coming to the attention of law enforcement agencies. Both IDU and KI in the

2001 IDRS observed an increase in violence, aggression and paranoia as a result of using these purer forms of methamphetamine. Indicator data support these reports, with an increase in admissions to the DASC inpatient detoxification unit and an increase in drug-related offences for amphetamines recorded by SAPOL. This trend continued in 2002, with key informants reporting an increase in mental health problems among users, including depression, anxiety, paranoia and aggression, as well as incidences of drug-induced psychosis. There were also reports of physical problems such as weight loss, fatigue and malnutrition. In some cases this was attributed to the switch to methamphetamine among heroin users; that heroin users are not accustomed to methamphetamine and are unaware of the opposing pharmacological effects, which manifest themselves in unexpected and often unpredictable physical and psychological problems. In contrast, several KI noted that while they had observed an increase in psychosis among their clients in mid-to-late 2001, it seemed to have stabilised in the first half of 2002. They attributed this to the increase in use and availability of strong forms of methamphetamine that occurred around the time of the heroin shortage in early 2001, and that after the initial adjustment period, users might have become accustomed to this increased strength, or more able to control their use. Indicator data also suggests that mental health issues are still a problem among methamphetamine users, and that users are seeking to access treatment services. There was a 31% increase in amphetamines being nominated as the primary drug of concern for clients presenting to drug and alcohol services provided by DASC, and the majority of admissions to DASC inpatient services in 2001/02 were for amphetamines.

As in previous years, the use of cocaine in this sample is low. Although some IDU and key informants reported that the use of cocaine is increasing in South Australia, there was no evidence of this, with recent use slightly lower than in the 2001 IDRS. The reported availability of cocaine was inconsistent, with half of IDU stating it was easy or very easy to obtain, and half reporting that cocaine was difficult or very difficult to obtain. The price of cocaine ($250 per gram) was higher compared with the 2001 IDRS ($200), and purity was reported by IDU as medium to high. There was no analysis of seizures by either SAPOL or AFP in the 2001/02 financial year, but data from cocaine seized in other jurisdictions suggest that purity is relatively high. In conclusion, the cocaine market appears to be stable in South Australia, and cocaine still seems to be a drug that is primarily accessed by a small and well-connected group of users.

Similarly, the use of cannabis among the IDU appears to be relatively stable in South Australia, with little change over the six years of the IDRS. Cannabis was reported as readily available, and the prices were identical or slightly lower to those in the 2001 IDRS. The reported price was $180 for an ounce ($200 in 2001) and $25 for a 'bag'. These prices have remained relatively stable in South Australia for all the years of the IDRS. The purity is high according to IDU, and the majority of cannabis in South Australia is reported to be hydroponically grown, with the form almost always head. Given that the subjects surveyed in the IDRS are primarily intravenous drug users, more accurate information on changes in the cannabis market may be obtained by targeting people who do not inject drugs, and for whom cannabis is their primary drug of choice. Further investigation should therefore be made into patterns and trends in cannabis use among non-injecting drug users.

The trend observed in the 2001 IDRS of a significant increase in the use and injecting of morphine also continued in the 2002 survey. Recent use was reported by 46% of IDU, and 44% had recently injected morphine. Frequency of use also increased compared with the 2001 survey, from three days in the previous six months, to 12 days in 2002. Use of

morphine was reported as mainly illicit, and it was nominated as the drug most often injected in the previous month by 17% of IDU.

Overall, the findings of the 2002 IDRS reflect a continuation of the marked changes that occurred in the illicit drug market in late 2000-early 2001. These changes appear to have been precipitated by the heroin shortage, and have led to a clear shift in the drug market in Adelaide. The IDRS shows that the market for illicit drugs is a dynamic one, and injecting drug users appear to change their patterns of use according to changes in the price and availability of drugs. While heroin may have become hard to obtain for a while in 2000/01, methamphetamine was readily available, and seemed to gain popularity. Despite reports that heroin availability and purity have increased, it seems that many users have stayed with methamphetamine, possibly due to the high purity and reduction in price. The use of methamphetamine, particularly the more potent forms, is a cause for concern. It is associated with a different set of problems for users and for the community at large, particularly relating to violent behaviour and psychosis among heavy users.

Study limitations

It is worth noting that while attempts were made to substantiate the reports made by key informants, they are still a subjective assessment of drug use and drug users. For cocaine, information was provided by a small number of key informants, and should therefore be interpreted with some caution. However, overall key informant reports play an important role in providing depth and detail to the more objective data provided by the IDU survey and other indicators of drug use. The combination of the three methods provides an efficient and complementary way to monitor drug trends in illicit drug use over time.

The IDRS is also limited by the type of indicator data available, in particular that some of the data sets used for the IDRS were not available for all of 2001/02. For example, the South Australian Schoolchildren's Survey was based on 1999 findings, with the 2002 results not yet available. Similarly the 1998 and 2001 National Drug Strategy Household Surveys refer to population demographics during those time periods. Finally, it would be beneficial to obtain data sets other than the ones used for the 2002 IDRS to further strengthen the findings. For the first time, an additional component was added to the 2002 IDRS that sought to clarify the weight of cannabis bags sold in South Australia, and to identify factors that may affect the weight. However it would also be useful to obtain objective data on the potency of cannabis, which would allow confirmation of subjective reports of cannabis potency. The IDRS could be further enhanced by data sets from other targeted studies of illicit drug users, and prevalence of drug use among specific populations (eg. Vietnamese community, Aboriginal community, prisoners). Although some key informants were carefully selected due to their contact with these specific populations, the data are limited and it would thus be useful to obtain information from IDU who identified with these groups to confirm and validate the reports from key informants.

It is important to note that there was a change in the methods used to recruit subjects for the 2001 IDRS in South Australia. In previous years peer interviewers have been used to collect interview data. While this has been successful, from 2001 it was decided to use trained research interviewers to be consistent with the IDRS data collection procedures in other jurisdictions. Subjects were recruited from sites around Adelaide associated with the Clean Needle Program, and by word of mouth. It is therefore possible that some trends observed in 2001 may be, due in part, to the change in sampling methods. However, a

comparison of the demographic characteristics of the IDU in 2000 and 2001 found that there were no statistically significant differences between the two samples on most variables. There did appear to be a change in the geographical distribution of heroin and methamphetamine use, which may have been partly due to the change in recruitment procedures. However, this may equally be due to normal sampling variation as to the change in recruitment methods.

Implications for policy change and research

The findings of the 2002 IDRS in South Australia show that some trends observed over recent years appear to have continued in 2002. These observations highlight the need to deal with emerging drug trends and the potential impacts they may have on the community, the public health system and the law enforcement sector. Some of the issues outlined below are currently under investigation.

- The continued increase in the popularity and use of methamphetamine highlights the need for ongoing efforts aimed at reducing the potential harms associated with use, including risks associated with injecting, the risk of dependence, and the risks of severe behavioural disturbances, including psychosis;
- There is a need for further investigation into the increasing burden that methamphetamine-related psychosis is placing upon the state's acute care public health services, as well as appropriate ways of treating the problem;
- The continuation of effects from the recent heroin shortage suggests the need to explore in greater detail impacts of the shortage on patterns of drug use, and related harms;
- The increased use of illicit morphine may warrant further investigation, in order to identify sources of the drug, and harms that may be associated with its use;
- Further investigation should be made into patterns and trends in cannabis use among non-injecting drug users.

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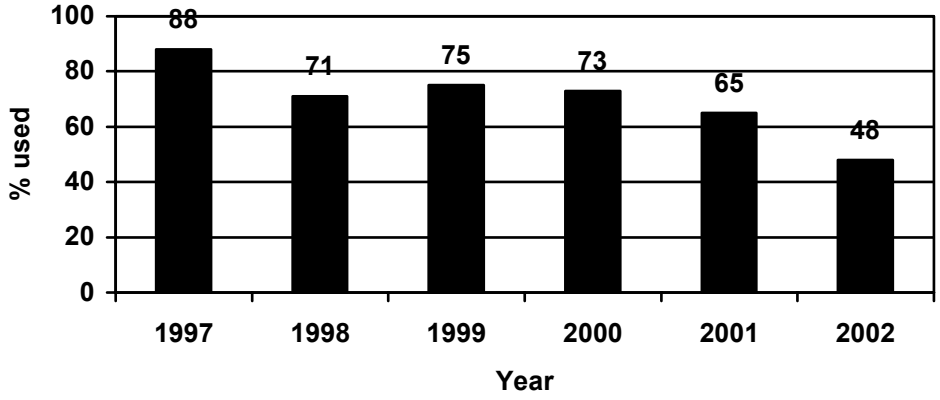
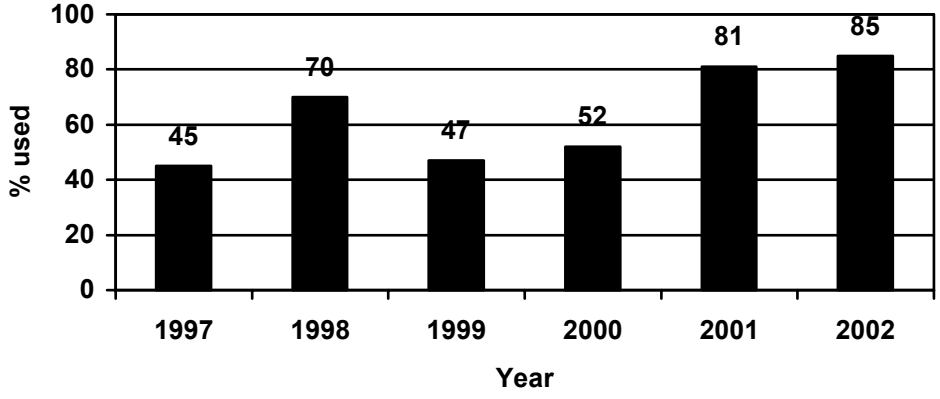
APPENDIX A: PATTERNS OVER TIME

A. PREVALENCE OF USE[2]

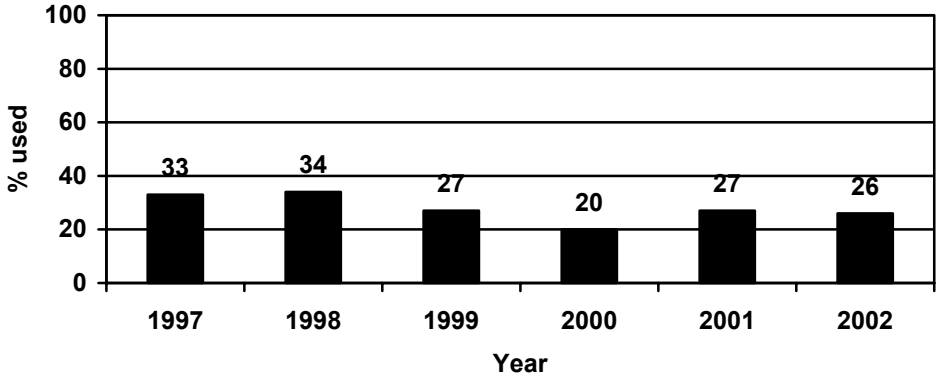
1. RECENT HEROIN USE 1997-2002



2. RECENT SPEED USE 1997-2002

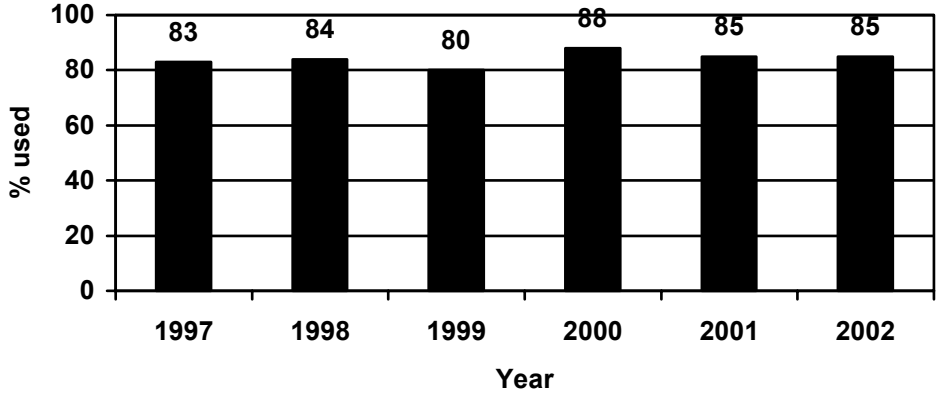


3. RECENT COCAINE USE 1997-2002

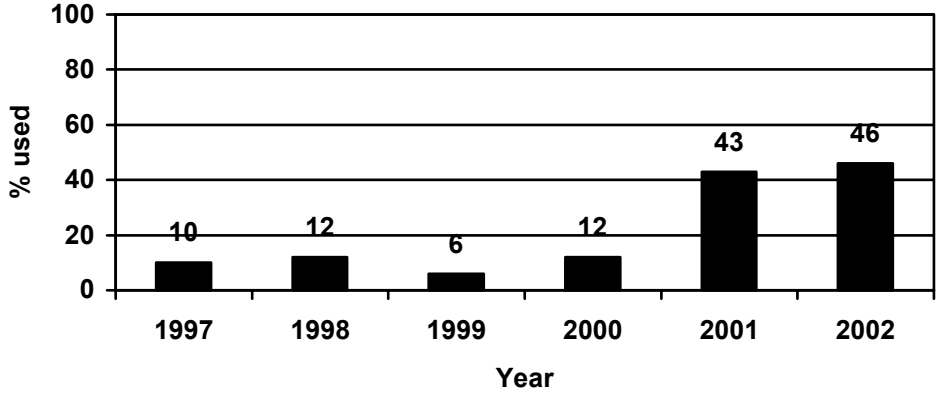


[2] Reported use by IDU in the previous six months

4. RECENT CANNABIS USE 1997-2002

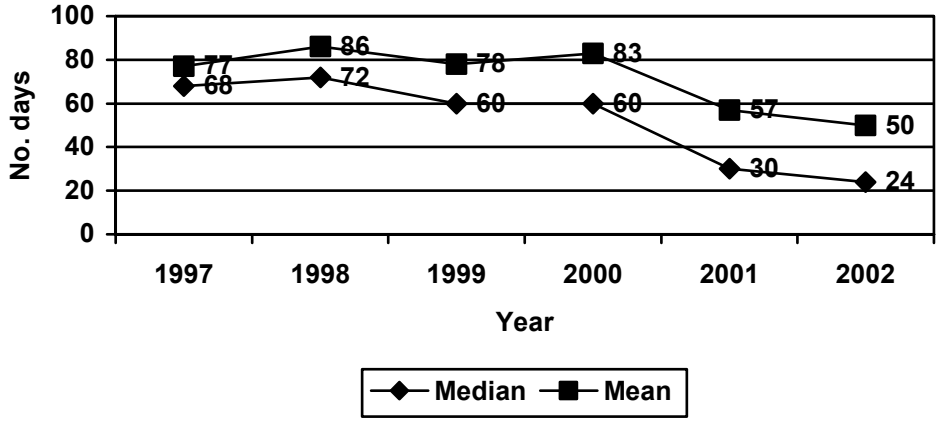


5. RECENT MORPHINE USE 1997-2002



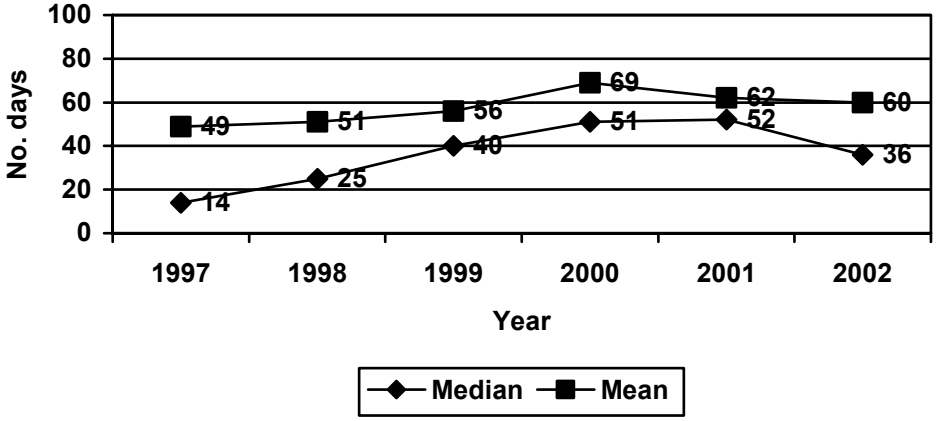
B. FREQUENCY OF USE[3]

1. DAYS USED HEROIN 1997-2002

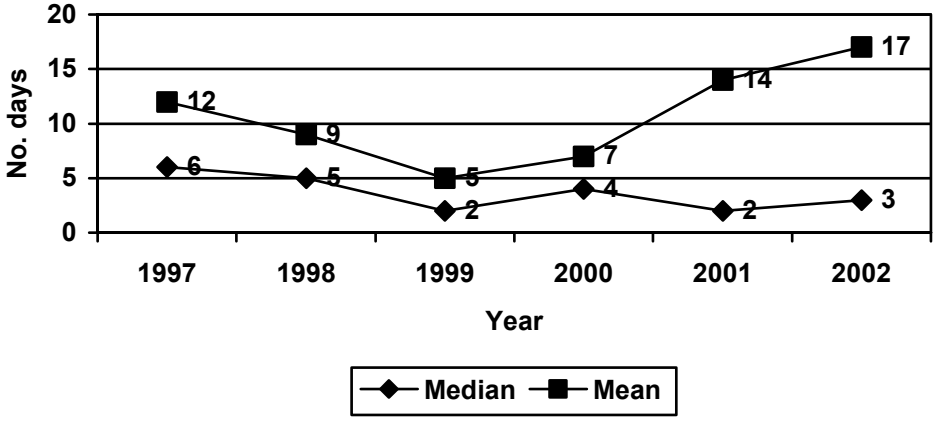


[3] Number of days among the IDU who reported use in the previous six months

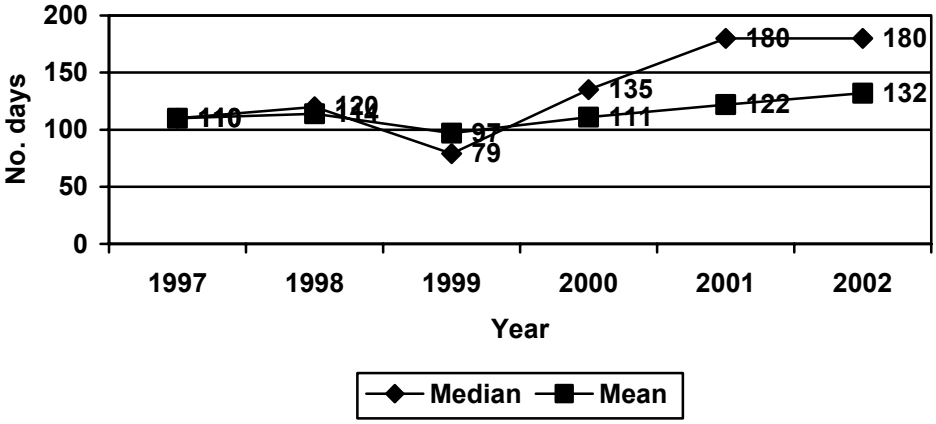
2. DAYS USED SPEED 1997-2002



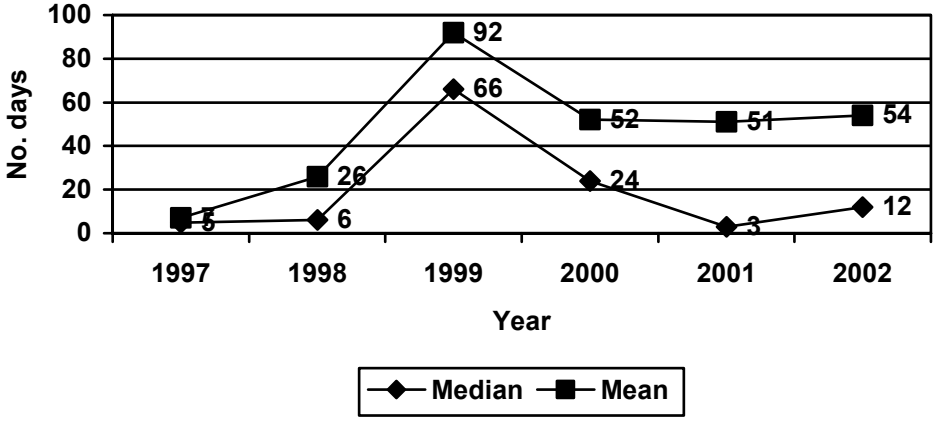
3. DAYS USED COCAINE 1997-2002



4. DAYS USED CANNABIS 1997-2002

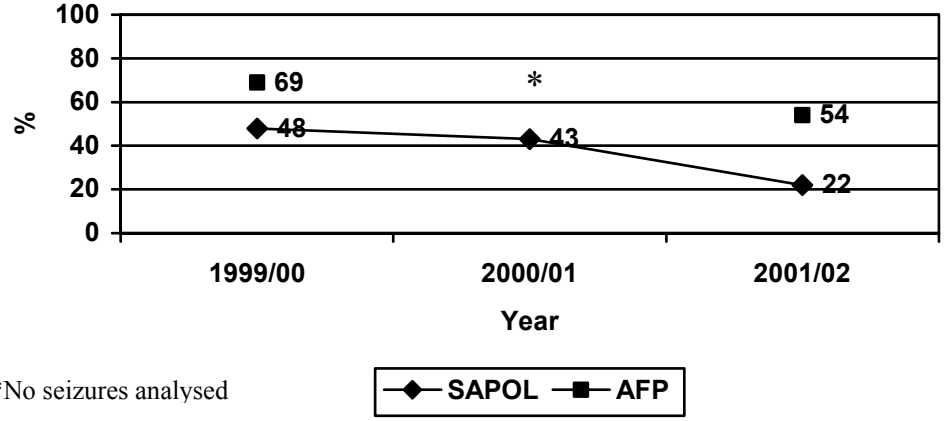


5. DAYS USED MORPHINE 1997-2002



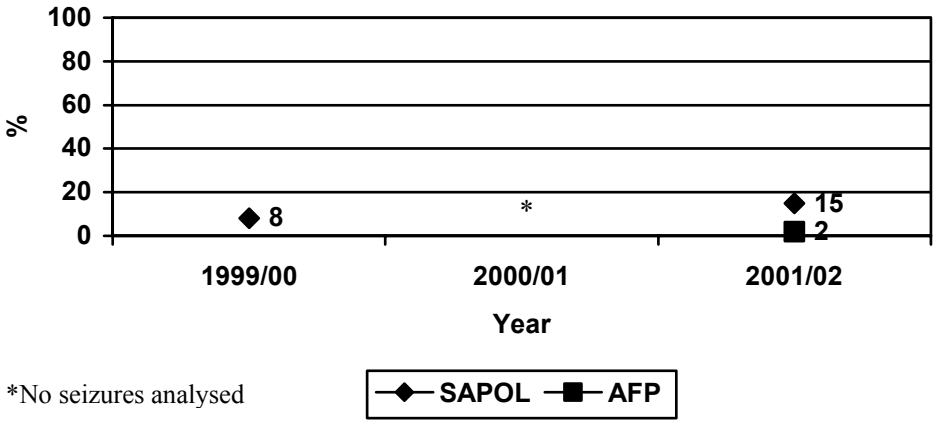
C. DRUG PURITY[4]

1. HEROIN PURITY 1999/00-2001/02



*No seizures analysed

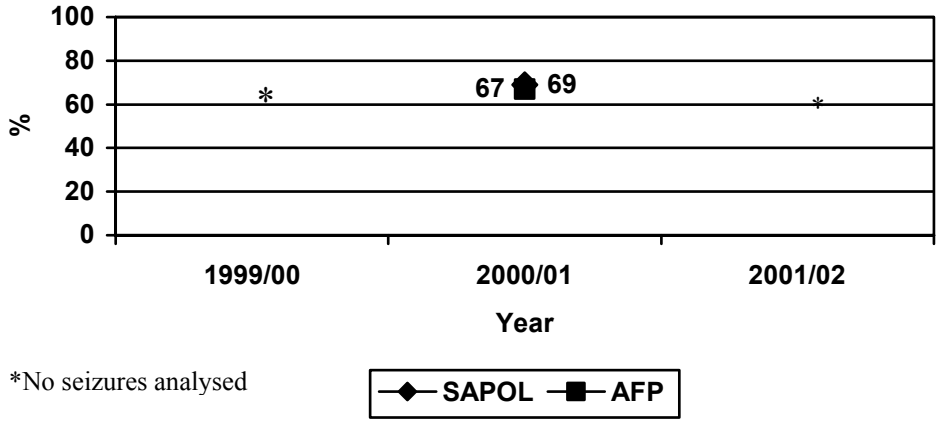
2. METHAMPHETAMINE PURITY 1999/00-2001/02



*No seizures analysed

[4] Median purity from analysis of seizures by SAPOL and AFP; information not available prior to 1999/00

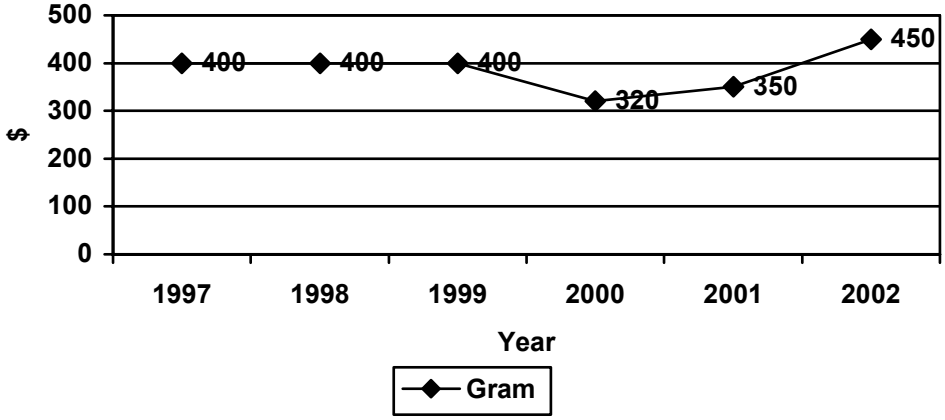
3. COCAINE PURITY 1999/00-2001/02



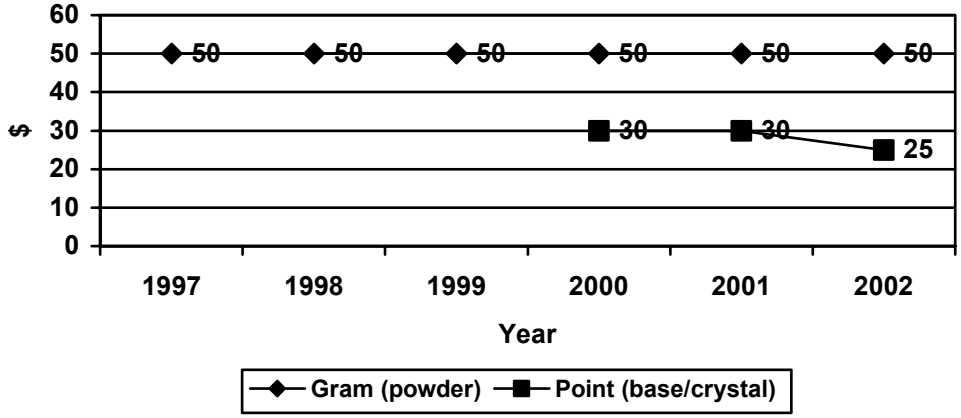
*No seizures analysed

D. DRUG PRICE[5]

1. HEROIN PRICE 1997-2002

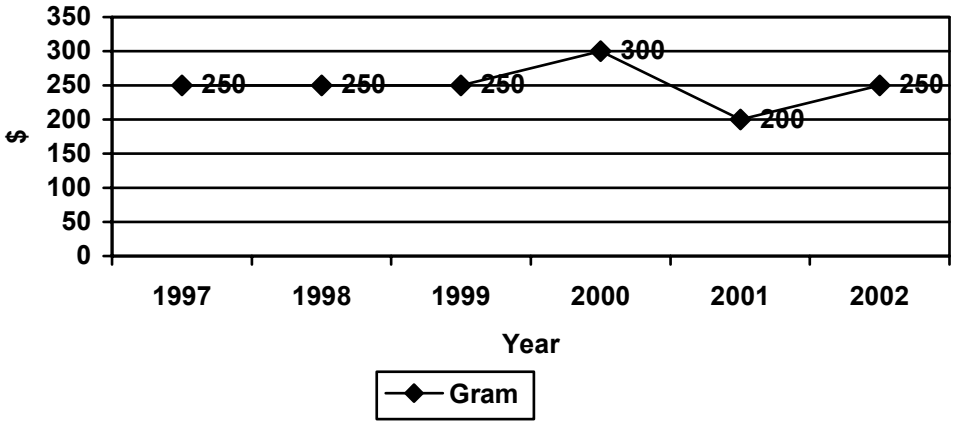


2. SPEED PRICE 1997-2002

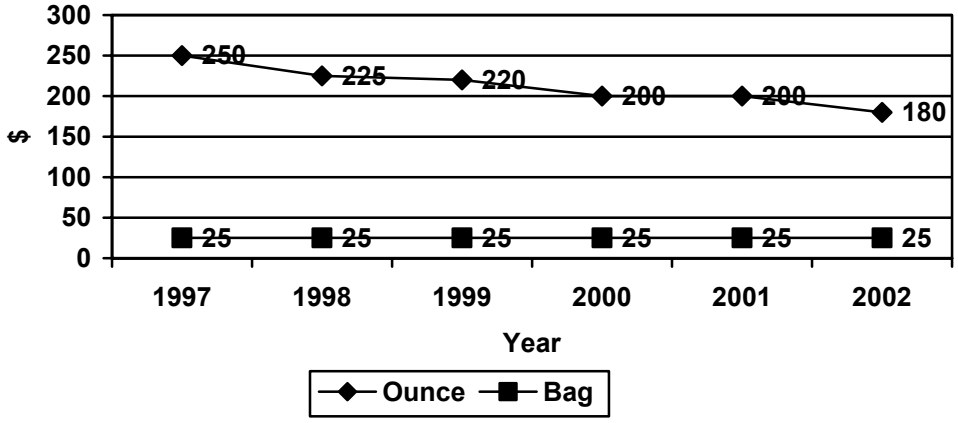


[5] Prices are based on IDU reports

3. COCAINE PRICE 1997-2002

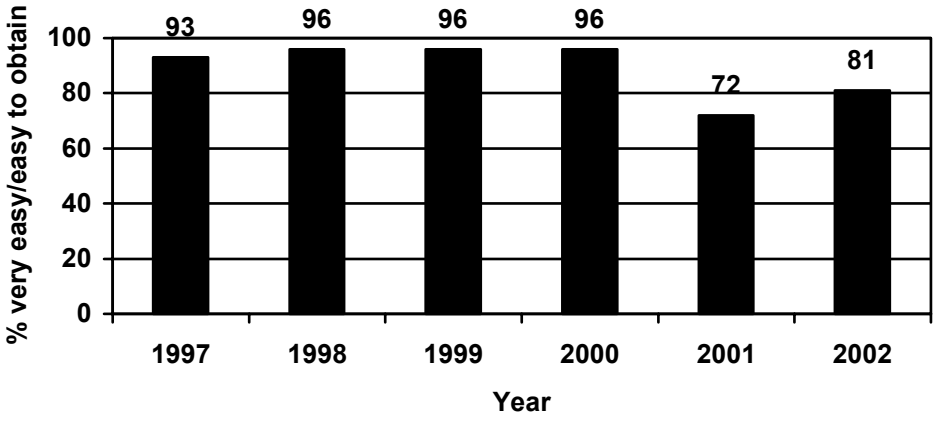


4. CANNABIS PRICE 1997-2002



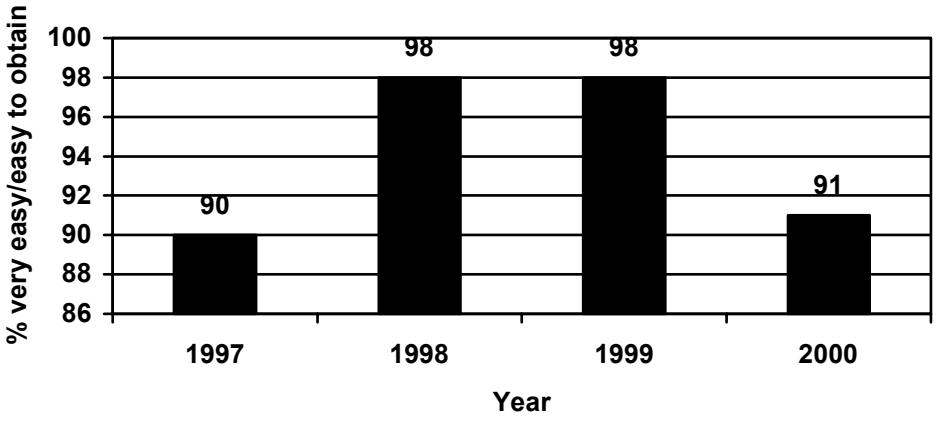
E. DRUG AVAILABILITY[6]

1. HEROIN AVAILABILITY 1997-2002

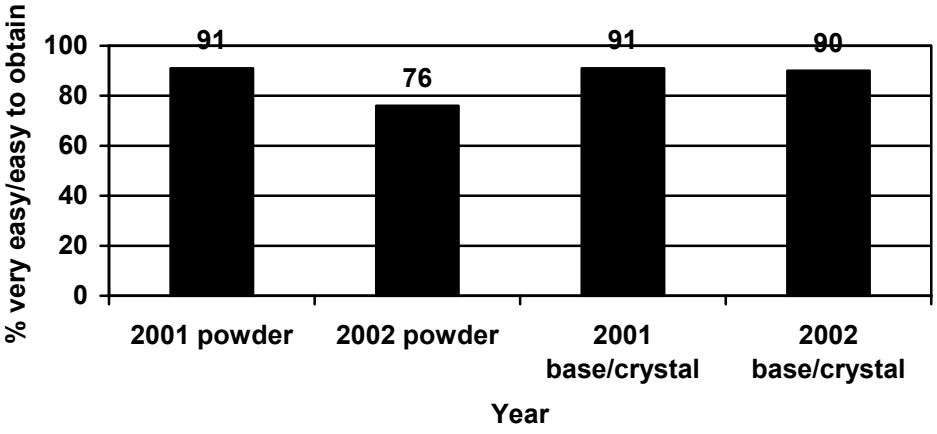


[6] Availability is based on IDU reports

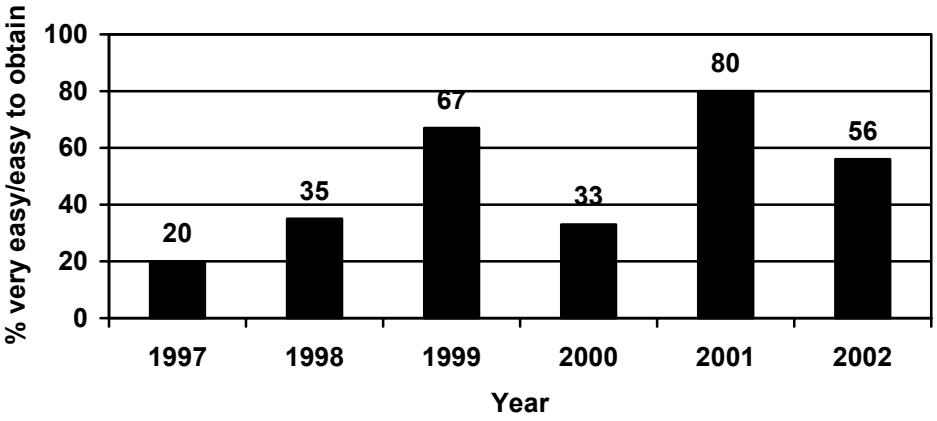
2. SPEED AVAILABILITY 1997-2000



3. SPEED AVAILABILITY 2001-2002



4. COCAINE AVAILABILITY 1997-2002



5. CANNABIS AVAILABILITY 1997-2002