SOUTH AUSTRALIAN DRUG TRENDS 2001
Findings from the Illicit Drug Reporting System (IDRS)

Marie Longo, Rachel Humeniuk, Paul Christie & Robert Ali

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LIST OF ABBREVIATIONS

ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ADIS	Alcohol and Drug Information Service
AFDL	Australian Forensic Drug Laboratories
AFP	Australian Federal Police
AIC	Australian Institute of Criminology
ATSI	Aboriginal and Torres Strait Islander
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
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 2001 Illicit Drug Reporting System (IDRS) detected several drug trends during the 12 months between mid-2000 and mid-2001, based on analyses of the injecting drug user (IDU) survey, the key informant (KI) survey and other secondary indicators of drug use. Table 1 contains a summary of information on the price, purity, availability and use of each of the four main drug types monitored by the IDRS.

HEROIN

Heroin appears to be readily available as of mid-2001. It was very difficult to obtain over the previous 12 months, possibly due to a heroin 'drought' that occurred in late 2001. The price of heroin has increased since the 2000 IDRS, and the purity decreased. The use of heroin overall appears to have decreased compared with the previous IDRS survey. The use and availability of rock heroin also decreased. There has been an increase in the use of other drugs, possibly due to the decrease in availability and purity of heroin.

METHAMPHETAMINE

Methamphetamine appears to be highly available, and the price of one gram of the powder form was identical to the 2000 IDRS. The stronger forms of methamphetamine (paste, wax, ice, crystal meth) have increased in use and availability since 1999 and are usually sold in 'point' form (0.1 gram). The median price of one point was also the same as the 2000 IDRS. The use of methamphetamine appears to have increased among the general population, in particular among younger people.

CANNABIS

Cannabis also appears to be readily available, and the price was identical to that reported in the 2000 IDRS. The purity is high according to both IDU and key informants, and users report that the majority of cannabis purchased in South Australia is sold as 'hydroponic'. The prevalence of cannabis use appears to be relatively stable.

COCAINE

According to the IDU, cocaine is very easy or easy to obtain and this level of availability has remained stable. The price of cocaine was lower in the 2001 IDRS compared with previous years, although the relatively small number of users in South Australia makes comparisons somewhat uncertain. The purity was reported as medium to high by IDU, and the purity of cocaine seizures by SAPOL and AFP was 61%, which was higher than that reported in all other jurisdictions with the exception of Victoria. The use of cocaine appears small in South Australia compared with other drugs, but key informant reports suggest that use is increasing.

Table 1: Price, availability, purity and use of heroin, methamphetamine, cocaine and cannabis

	Heroin	Methamphetamine	Cannabis	Cocaine
Price				
Cap	$50	NA	$25 ('bag'/'deal')	$50
Gram	$350	$50 (street/powder)	$200 (ounce)	$200
Point	NA	$30 (crystal/paste)	NA	NA
Change	Stable to increasing	Stable	Stable	Stable
Availability	Very easy/easy	Very easy/easy	Very easy/easy	Very easy/easy
Change	Difficult to obtain in first six months of 2001, has become more readily available as of mid-2001	Stable for point Stable to difficult for powder	Stable	Stable
Purity	45.4%[a] Low[b]	14.6%[a] Point form is medium to high[b] Powder form is medium to low[b]	High[b]	61%[c] Medium to high[b]
Change	Stable to decreasing	No consistency in reports on changes	Stable	Fluctuating
Use	Use is more widespread, but frequency of use has decreased Decrease in rock form of heroin Increase in use of other drugs	Increase in general use, and an increase in younger users Increase in use and availability of crystal meth and wax/paste forms of the drug	Use is stable and widespread Most cannabis in SA is sold as 'hydroponic' Form is nearly always 'head'	Use is small in SA compared with other drugs, but is increasing

[a]Based on the mean purity of SAPOL seizures from July to December 2000, no AFP seizures analysed during this period. [b]Based on IDU and Key informant estimates. [c]Based on the mean purity of SAPOL and AFP seizures analysed from July to December 2000.

OTHER DRUG USE

Methadone use has remained stable, although the incidence of diverted methadone seems to have increased. Benzodiazepine use is widespread but stable among IDU. Diazepam is the most popular, used by 60% of those who reported taking benzodiazepines. The price of ecstasy has increased. Use of ecstasy is low in this population, although there is some evidence that it is increasing. The use of anti-depressants, hallucinogens and inhalants is stable and low. Other opiate use is also stable, with codeine phosphate and panadeine forte the most popular types. Morphine use has increased markedly compared with the 2000 IDRS survey. Illicit use is high, and a large percentage of morphine users are injecting. Steroid use was not investigated. Table 2 shows a summary of trends in the use of other illicit drugs.

Table 2: Summary of trends in other illicit drug use

Methadone	• 40% of IDU who had used methadone in the previous six months were not in treatment, compared with one-third in the 2000 IDRS • Injecting of methadone (16% in the previous six months) was lower than 2000 IDRS, and comparable with 1999/1998 IDRS • Methadone predominantly used licitly, in syrup form
Benzodiazepines (BZD)	• Use remains widespread among IDU but stable • Nearly half used BZD at least twice per week • Diazepam was used by 60% of IDU who used BZD • Trend for use of multiple BZD, but no use of flunitrazepam • Nearly 58% reported the use of BZD obtained illicitly • Increase in injecting of BZD: 9% had injected in the previous six months compared with 4.7% in the 2000 IDRS
Antidepressants	• Prevalence of use is stable • Predominantly used for therapeutic purposes • SSRIs or tricyclic anti-depressants used
Ecstasy	• Price has increased: currently ranges from $35 to $80 (ABCI) • Mean purity 37% and stable (ABCI) • Not widely used among IDU, but may be increasing, especially among younger users • Increase in the use of other designer drugs (fantasy, ketamine)
Other Opiates	• 23% of IDU using (stable) • The majority (87%) were using less than once a week • Codeine phosphate and panadeine forte were the most popular
Morphine	• Use has increased: 43% of the total sample had used in the previous six months compared with 7.5% in the 2000 IDRS • 79% of those who used morphine in the previous six months had injected it, and mainly obtained it illicitly • Nearly ¼ of those who had used morphine in the previous six months used on a daily basis

Hallucinogens	• Low prevalence of regular use among IDU • Associated with younger users, and use is recreational
Inhalants	• Low prevalence of regular use among IDU • Associated with younger users, and use is recreational
Anabolic steroids	• Not monitored in 2001

OTHER DRUG-RELATED ISSUES

Other drug-related problems and issues found in the 2001 IDRS are summarised in Table 3. Injection related problems were prevalent among the IDU, particularly among injectors of methadone syrup. Reports from IDU and KI indicate there has been an increase in methamphetamine-related health problems, including depression, paranoia, psychosis, aggressive behaviour and poor nutrition. These effects may be a result of the use of stronger forms of the drug, and are appearing with more rapid onset. IDU and KI also reported adverse effects associated with cannabis use, including depression, lack of motivation, and some paranoia and aggression.

Ninety percent of IDU had not shared needles in the previous month, which is much higher than in the 2000 IDRS (75.7%), although a higher percentage had shared equipment (59% compared with 50% in 2000). Forty-six percent of IDU who had ever used heroin had experienced at least one overdose at sometime in their life, and 69% had been present at an overdose.

The number of drug-related presentations to the Accident and Emergency Unit of the Royal Adelaide Hospital has remained relatively stable for alcohol, cannabis and cocaine. However, there has been a slight decrease in attendances related to the amphetamines, and a marked decrease in those related to heroin. In contrast, there has been a relatively large increase in attendances for benzodiazepines. There has also been a marked decrease in the number of opioid-related fatalities in South Australia in 2001, as well as a decrease in the number of drug-related ambulance callouts.

Forty percent of IDU in the 2001 survey had committed a crime in the previous month (48.9% in 2000) and 35% had been arrested in the previous 12 months. There has been an increase in identification of local methamphetamine manufacturing laboratories, and in cannabis hydroponic set-ups. There has also been an increase in police activity, including a more visible police presence and targeting of areas associated with drug use. However, this does not appear to have affected the ability of IDU to obtain their drugs.

Table 3: Summary of trends in drug-related indicators

General Health	• Sixty-three percent of IDU had experienced at least one injection-related problem in the previous month • Methadone injectors more likely to experience bruising/scarring and difficulty injecting • Increase in methamphetamine-related mental health problems including psychosis, depression, anxiety and violent behaviour • Increase in adverse effects among cannabis users including depression, low self-esteem, feelings of isolation and withdrawal • Also reports of an increase in paranoia, aggression and violence among cannabis users
Needle sharing	• 10% of IDU had used needle after someone else at least once in the previous month (24.3% in the 2000 IDRS) • 14% of IDU had lent needle to someone else at least once in the previous month (21.5% in the 2000 IDRS) • Key informants reported increased awareness of risks of sharing • 59% of IDU shared equipment (50% in the 2000 IDRS)
Overdose	• Forty-six percent of heroin-using IDU had ever experienced a heroin overdose (54% in the 2000 IDRS) and sixty-nine percent had been present at an overdose (63.5% in the 2000 IDRS) • Reduction in the percentage of heroin overdoses within the previous six months: 17.5% compared with 26% in the 2000 IDRS • Marked decrease in number of opioid-related fatalities in South Australia in 2001 • Decrease in the number of drug-related ambulance callouts over the previous year by 16%
Crime	• Forty percent of IDU committed at least one crime in the previous month and 35% were arrested within the previous 12 months • Arrests were predominantly for violent crimes or property crimes • KI also reported an increase in violent crimes and property crimes among heroin and methamphetamine users • Increase in local methamphetamine manufacturing laboratories • Increase in cannabis hydroponic set-ups
Police activity	• Thirty-nine percent of IDU reported an increase in police activity • Type of increase included more uniform and undercover police, questioning and searching of people and vehicles, raids on homes and targeting of areas associated with drug use and dealing • Does not appear to have affected ability of IDU to score drugs, or the number of friends apprehended by police

RESEARCH AND POLICY IMPLICATIONS

The results of the 2001 IDRS suggest a number of implications for research and policy, as outlined below. Some of these issues are already the subject of further research or consideration.

- Research into the effects of the heroin 'drought' on factors such as general health, overdoses, needle sharing and crime rates;
- Need for mental health, drug treatment, social health and law enforcement agencies to be able to deal with an increase in methamphetamine related problems;
- Health promotion and education in the community concerning the adverse effects of methamphetamine use;
- Development of improved treatment protocols for methamphetamine abuse and dependence;
- Supply reduction activities aimed at reducing methamphetamine production and distribution in South Australia;
- Development of interventions to address the injection of non-injectable drugs such as methadone and benzodiazepines;
- Investigation of factors relating to the increased use of morphine, including sources of supply, frequency and quantity of use and related health effects;
- Research into changes in the availability of cocaine, including factors that affect this market in South Australia;
- Research into cannabis markets in South Australia, and the relationships between the market for cannabis and those of other illicit drugs;
- Potency testing of cannabis samples and cultivars by the AFDL or other laboratories;
- Development of a primary health care screening instrument for harmful and hazardous use of illicit drugs (in progress).

1.0 INTRODUCTION

The National 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 national 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 qualitative 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, 1999 and 2000 in the same three jurisdictions. In 1999 these jurisdictions were joined by Western Australia, Northern Territory, Australian Capital Territory, Queensland and Tasmania (see Topp *et al.*, 2001 for a national comparison of 2000 findings, and Humeniuk *et al.*, 2001 for the South Australian perspective). The year 2001 is the fifth year that the IDRS has been conducted nationally, including all states and territories.

The IDRS provides a coordinated and ongoing monitoring system predominantly focusing on heroin, the amphetamines, 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 nation-wide 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 may need to be made in terms of education, health promotion, treatment services and policy.

The 2001 South Australian Drug Trends Report summarises information collected by the South Australian component of the national IDRS using the three methods briefly mentioned above: 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 indicators relating to drugs and drug use. The three sources complement and supplement 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 2001 DRS was to provide information on illicit drug trends in South Australia, particularly focusing on the 12 months between mid-2000 and mid-2001.

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 qualitative 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 during July and August 2001. 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 clients attending 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, this year 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 word of mouth approach.

There were three 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 to the above parameters over the previous six to 12 months (mid-2000 to mid-2001). Descriptive and inferential statistics were generated using SPSS for Windows, Version 10.1.0.

2.2 KEY INFORMANT SURVEY (KI)

Key informants were interviewed during August and September 2001. 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 a small number of key informants were interviewed face-to-face.

In total, 32 key informants were interviewed (15 females and 17 males). Key informants comprised a range of persons from varied professions including: eight 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), seven user representatives (peer educators and clean needle program workers), one worker from corrections (a medical officer) and nine 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 24 who spoke about one drug only, nine identified heroin (37.5%), 10 identified methamphetamine (42%), three identified cannabis (12.5%) and two identified cocaine (8%). There were seven key informants who gave information on more than one drug. In three cases this was methamphetamine/cannabis, in one case methamphetamine/cocaine, in two cases heroin/methamphetamine and in one case heroin/cannabis. Again, 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 open ended questions were transcribed following interview and qualitatively analysed for content and trends using a word processor. Quantitative responses were analysed using SPSS for Windows, Version 10.1.0.

Key informants were asked at the conclusion of the interview to rate the certainty of the knowledge they had provided. Of the 12 who spoke about heroin, 10 were very certain and two were moderately certain. Of the 16 key informants who gave information about methamphetamine, 11 were very certain, four were moderately certain and one was a little unsure. All key informants who spoke about cannabis were either very certain (n=6) or moderately certain (n=7). Finally, the three key informants who spoke about cocaine stated that they did not have much contact with cocaine users, although they were fairly certain about the accuracy of the information they did provide.

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 survey, 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 data on prevalence of drug use in the community;
- Schoolchildren's Survey of drug use data 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;
- Australian Needle and Syringe Program (NSP) Survey data;
- Purity of drug seizures made by the Australian Federal Police (AFP) provided by the Australian Forensic Drug Laboratory (AFDL) and the Australian Bureau of Criminal Intelligence (ABCI);
- Price of illicit drugs information provided by the ABCI;
- Census data from the Clients of Treatment Services Agencies project (COTSA);
- Treatment data from the Drug and Alcohol Services Council (DASC);
- Statewide rates of opioid-related fatalities provided by the Australian Bureau of Statistics (ABS);
- Rates of ambulance attendances to drug overdoses provided by the South Australian Ambulance Service (SAAS);
- Drug-related presentations to the Royal Adelaide Hospital (RAH) Accident and Emergency Department provided by the RAH;
- Statewide rates of drug-related arrests and crime rates provided by South Australian Police (SAPOL);
- Police contact survey on injecting drug users provided by the Australian Institute of Criminology (AIC).

In previous years, DASC statistics on Needle and Syringe exchange services (excluding pharmacies) in South Australia were also provided. This included information the number of syringes dispensed from these services, as well as the number of used syringes that were returned. However, only limited data were available this year, and they may not be representative or accurate indicators of distribution and return rates. Consequently, these data have not been included in the 2001 report.

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 3.1.

Table 3.1 Demographic characteristics of the IDU sample (*n*=100)

Demographic	**% of IDU**
Gender	
Male	61
Female	39
Area	
Central/Eastern	26
Western	35
Southern	16
Northern	19
No fixed address	4
Ethnicity	
ESB	80
NESB	-
ATSI	20
Employment	
Not employed	77
Full time	3
Part time/Casual	10
Student	4
Home duties	3
Sex industry worker	3
Tertiary Education	
None	47
Trade/technical	49
University/college	4
Currently in treatment	34
Age (median in years)	32.5
School Education (median in years)	10

There was a similar percentage of males (61%) in the 2001 IDU sample compared with previous IDRS surveys. The median age of subjects was 32.5 years (range 16-52 years), which was also similar to past years. There was no significant difference between males and females in mean age (33 versus 30 years, $p>0.05$). There were only three IDU who spoke a language other than English at home, and in all cases this was an Aboriginal dialect. Furthermore, 20% of IDU identified as Aboriginal or Torres Strait Islander (ATSI). This is significantly higher than past IDRS 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 six to 12 years, and 73% of subjects had completed at least year 10. Just over half the sample had completed courses after school, in most cases receiving trade or technical qualifications. The majority of the sample (77%) were currently unemployed. This also indicates a significant change from the 2000 IDRS, where only 47% of the sample were unemployed ($\chi^2_1=18.7$, $p<0.001$). Finally, exactly half of the sample reported that they had spent time in prison, which was similar to the 2000 IDRS (44%).

Although in general the demographic characteristics of IDU were similar in the 2001 and 2000 IDRS surveys, in 2001 there was a significantly higher percentage of ATSI, and a significantly higher percentage of IDU who were unemployed. These findings may, in part, be due to a change in the methods used to recruit subjects in the 2001 IDRS. 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 has been successful, this year it was decided to use trained research interviewers to be consistent with the IDRS data collection procedures in other jurisdictions.

Just over one-third of the IDU were currently in some form of drug treatment. The most common form was opioid maintenance pharmacotherapy. That is, 26% of IDU received methadone, 2% received buprenorphine and 4% of IDU subjects received other therapies (kapanol, LAAM, or morphine). For those who were in drug treatment, the median length of time they had been receiving this treatment was 12 months.

3.1.2 DRUG USE HISTORY OF THE IDU SAMPLE

The median age of first injection among the IDU was 18 years (mean 19.3 years, range 12-34 years). There was a significant difference in the mean age of first injection between males and females, with males first injecting at a younger age (18.4 versus 20.7 years, $t_{98}=2.2$, $p<0.05$). However, there was no significant difference in the mean age that subjects first injected according to area (central/eastern 19.1 years, southern 18.9 years, western 20.2 years, northern 18.5 years).

The favourite or preferred drug was heroin for 43% of the IDU sample, closely followed by methamphetamine (37%). Smaller percentages nominated cocaine (6%), other opiates (5%), cannabis (3%), ecstasy (2%) or alcohol (1%) as their drug of choice. The remaining 3% were unable to choose between heroin, cocaine or methamphetamine. 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. The results from the 2001 sample suggest that the popularity of methamphetamine is increasing, while that of heroin is decreasing.

In contrast to their nominated drug of choice, 50% of the IDU reported that methamphetamine was the last drug they had injected, followed by 32% reporting heroin. The remaining IDU reported that the last drug they had injected was morphine (11%) or methadone (4%). Two subjects had last injected cocaine, and one had injected benzodiazepines. Accordingly, methamphetamine was the drug that had been injected most often by IDU in the previous month (43%), followed by heroin (38%), morphine (11%), methadone (2%) and cocaine (2%). This result also reflects a 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 was most often methamphetamine (61%) followed by heroin (33%). The remaining IDU first injected a 'speedball' (a mixture of heroin and cocaine: 2%), morphine (2%), other opiates (1%) or ecstasy (1%).

Overall, 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). A very similar percentage of subjects in the 2001 sample made the transition from heroin to methamphetamine: 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 samples, 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, there appears to be some overlap in the use of methamphetamine and heroin. There were 33 subjects (33%) who had first injected heroin. Of these, 64% also nominated heroin as their drug of choice, and 55% had injected heroin most often in the previous month. However, 27% nominated methamphetamine as their drug of choice,. There were 61 subjects (61%) who had first injected methamphetamine. Of these, 46% also nominated methamphetamine as their drug of choice, and 56% had injected methamphetamine most often in the previous month.

Table 3.2 summarises the drug use history of the IDU sample. 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 10 (range: 4-14), while the median number of drugs that had been used in the previous six months was six (range: 1-11). Tobacco was the most regularly used drug in the previous six months by 88% of the IDU sample, followed by cannabis (85%), methamphetamine (81%), alcohol (69%), heroin (65%), benzodiazepines (57%), methadone (43%), morphine (43%), cocaine (27%), other opiates (25%), ecstasy (24%), hallucinogens (19%), antidepressants (15%) and inhalants (6%).

There were no significant differences between males and females in the median number of drugs used, either ever (11 vs. 9; U=941; p>0.05) or in the previous six months (7 vs. 6; U=942, p>0.05). However, there was a significant difference according to age. Subjects aged 30 years or less had used a median of nine drugs ever, compared with 11

drugs for subjects aged over 30 years (U=876; 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 six drugs compared with seven drugs for subjects over 30 years (U=1105; p>0.05).

The majority of IDU were in a private home the previous time they had injected a drug (82%). The remainder last injected while they were in a car (9%), a public toilet (6%), or a street, park or beach (3%). Nearly three-quarters of subjects (73%) had injected at least twice per week in the previous month. There were 14% who injected once per day, 18% who injected 2 to 3 times per day, and 3% who injected more than three times a day in the previous month. The remaining 23% had injected once a week or less, and 4% had not injected in the previous month.

3.2 HEROIN

Trends in heroin use were obtained from reports given by twelve key informants (KI) and sixty-five (65%) of the 100 IDU who felt confident to give 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 to those 65 only. This number of IDU is slightly lower than the number of IDU who gave information on heroin in the 2000 and 1999 IDRS surveys (70% and 74% of the total sample, respectively). The key informants who gave information about heroin consisted of four user representatives (peer educators/clean needle program workers), four medical officers, three police officers and one community drug and alcohol worker.

Key informants were familiar with heroin users from all of the four main residential areas, and some of them gave information about use in more than one area. It is worth noting that the key informants rarely pinpointed specific suburbs where heroin-using IDU reside, but rather noted that use was widespread within the particular areas in which they worked. The 2001 IDRS had a predominance of heroin users from the western suburbs (41.5%) followed by the inner city and central eastern suburbs (29.2%). There were 15.4% who resided in the southern suburbs, and 10.8% in the northern suburbs. One subject had no fixed address. This indicates a change from the 2000 IDRS, where heroin use was thought to be markedly higher in the southern suburbs (52%), while in 1999 no southern suburbs were included as being popular areas for heroin-using IDU to reside. However, as previously mentioned, this change may reflect differences in sampling methods in the 2001 IDRS.

All key informants stated that heroin use is widespread across the Adelaide metropolitan area, although five stated that concentrated use occurs in specific areas. These areas include the inner west (the Parks area comprising Angle Park, Mansfield Park, Croydon Park and Ferryden Park), the Port Adelaide area and the outer north (Elizabeth and Salisbury).

Table 3.2 Drug use history of IDU subjects
(% 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	N° days used last 6 months
1. Heroin	87	65	84	63	40	4	23	2	20	6	30
2. Methadone	68	43	35	16					67	40	177
3. Morphine	68	43	65	34	2	0	1	0	42	25	3
4. Other opiates	53	23	34	6	8	1	2	0	37	17	5
5. Methamphetamine	97	81	95	81	21	8	69	10	57	22	52
6. Cocaine	66	27	52	23	12	3	39	6	13	3	2
7. Hallucinogens	84	19	31	6	8	2	1	0	79	16	3
8. Ecstasy	55	24	26	12	2	2	3	3	47	22	1
9. Benzodiazepines	80	57	26	9	0	0	1	0	77	54	26
10. Alcohol	94	69	8	1					89	68	13
11. Cannabis	97	85									180
12. Anti-depressants	34	15									90
13. Inhalants	40	6									3
14. Tobacco	93	88									180

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

3.2.1 PRICE

The median price of one gram, or weight, of heroin reported by 18 of the 65 IDU (27.7%) who had used heroin in the previous six months was $375 (range $120 to $600). This was less than the median price reported in the 1999 and 1998 surveys ($400) but more than that reported in 2000 ($310). The median price of one gram of heroin *most recently purchased* by 13 IDU was $350, and ranged in price from $150 to $500. The range of prices reported for a gram of heroin by key informants (*n*=3) was also varied, but was consistent with IDU reports.

Just over one-third of IDU (*n*=22, 33.8%) also reported buying heroin in half-gram weights with a median price of $200 (range: $120-$300). While this was slightly more than the median price reported in the 2000 survey ($180), it was less than that in 1999 ($237.50). Only one key informant provided an estimate of $300 for the price of a half-weight. Other amounts of heroin were also purchased by some of the IDU including a quarter of a gram of heroin (*n*=18, median = $100, range: $100-$150), a 'rock' of heroin (*n*=12, median = $50, range: $40-$500), an eighth of a gram of heroin (*n*=3, median = $100, range: $100-$120), 3.5 grams of heroin (*n*=1, price = $1000), 5 grams of heroin (*n*=1, $1800) and 1 ounce of heroin (~ 28 gm, *n*=1, price = $15000).

Just over half of the heroin-using IDU (*n*=33, 50.8%) reported buying heroin in caps (ranging from 0.1 to 0.3 grams). The mean price for a cap of heroin was $50, ranging in price from $25 to $100. The mean lower range of prices reported was $40, and the mean upper range was $70. However, it is worth noting that, according to IDU, it is possible to buy caps for either $50 or $100, with the $100 cap being approximately twice the size of a $50 cap. In addition, one subject reported purchasing five caps for $200. Eight key informants gave information on the price of a cap of heroin, stating it fell between $50 and $100, although $50 was the most commonly reported price. The prices reported for a cap of heroin are comparable to those reported in both the 2000 and 1999 surveys.

These prices are also comparable with the prices provided by the Australian Bureau of Criminal Intelligence for the period April to June 2001. The price for one cap of heroin was $50 and the cost of one gram was $350. The ABCI also gave the price of one ounce of heroin as between $6500 and $8000, which was much lower than the price reported by one IDU. It is important to note that the price information from ABCI was from a slightly earlier time period to the information obtained from IDU and KI (which was between July and August 2001).

The majority of the IDU (*n*=54, 83.1%) who had used heroin in the previous six months gave information about the current price of heroin and whether there had been any changes during this time, with the remaining 16.9% stating they did not feel confident enough to answer accurately. Of those who answered, just over half reported that in the previous six months the price of heroin had been stable (52.8%). There were 39.6% who thought that the price of heroin had increased, 5.7% thought it had fluctuated and only one subject (1.9%) though it had decreased. Five of the key informants who gave information concerning heroin also thought that the price had remained stable (41.7%). A further five (41.7%) thought it had increased, one thought it had fluctuated and one was unsure. This is consistent with the heroin prices reported by both IDU and KI, which were either very similar to or slightly higher than those reported in the 2000 IDRS.

3.2.2 AVAILABILITY

Heroin was considered easy or very easy to obtain by nearly three-quarters of the 54 IDU who felt confident to answer (*n*=39, 72.2%). The remainder thought that it was either difficult (20.4%) or very difficult (7.4%). The IDU were also asked if they thought the availability of heroin had changed over the previous six months, and 37.7% thought it had become more difficult to obtain. The remaining IDU thought the availability had remained stable (32.1%), with only 11.3% finding it was easier to obtain. A further 18.9% reported that the availability had fluctuated over the previous six months.

The majority of key informants believed that heroin was difficult or very difficult to obtain (75%). One KI did not know, and the remaining two believed that heroin was easy to obtain. These two KI were both doctors involved in prescribing alternative pharmacotherapies for heroin dependence, such as methadone or buprenorphine. One-third of key informants believed that the availability of heroin had decreased over the previous six months (i.e. had become harder to obtain), 16.7% believed it was stable, and 16.7% reported that the availability fluctuated. However, 25% of KI believed that availability had increased, although they emphasised that this had been a gradual change, and while it was currently easier to get heroin compared with six months ago, it was still much harder than it has been in the past.

These results differ from those reported in the previous year. Compared with the 2000 results, heroin appears to be much more difficult to obtain, and this availability had decreased over the previous six months. This finding is consistent with users' reports of a recent decrease in availability of heroin, referred to as a heroin 'drought'. This decrease was also reported by several key informants (see section 4.5 for more information).

Of the IDU who gave information about where they usually scored their heroin, the majority reported purchasing from a mobile dealer (56.1%), which involved ringing the dealer on their (mobile) telephone, and arranging a place to meet. The remainder purchased heroin from friends (24.6%), the dealer's home (12.3%) or a street dealer (7%).

3.2.3 PURITY

The current purity of heroin was considered low by nearly three-quarters of the 54 IDU who felt confident to answer (*n*=40, 74.1%). Only 7.4% reported that it was medium, and 11.1% that it was high. The remaining 7.4% reported that the current purity fluctuated. Similarly, the majority of the key informants (75%) believed that the purity of heroin was low. One key informant thought that the current purity of heroin fluctuated (8.3%), and the remainder were unsure (16.7%). When asked about changes in purity of heroin over the previous six months, the majority of IDU believed it had decreased (61.5%) or was fluctuating (21.2%). A further 13.4% believed the purity was stable, and only 3.8% thought that heroin purity had increased over the previous six months. Key informants were inconsistent in their beliefs about changes in heroin purity over the previous six months. Four reported that heroin purity had decreased (33.3%), three that it had remained stable (25%), three that purity had fluctuated (25%), and two

were unsure (16.7%). One KI said that there had been some good batches recently, although overall the purity was much lower compared with six months previously.

Again, these results differ from those in the 2000 IDRS. A much higher percentage of IDU and KI in 2000 reported that the current purity of heroin was high, whereas in the present sample the current purity was generally reported as low. Furthermore, a much higher percentage of the present sample reported that the purity of heroin had decreased over the previous six months.

The ABCI provided quarterly purity data on heroin seized in South Australia during the 2000/2001 financial year. Information was only available for the periods July-September 2000 and October-December 2000. Thus, purity data were not available for the six-month period from January to June 2001. Moreover, purity levels were based on local SAPOL seizures only. The Australian Customs Service recorded two heroin seizures by the AFP in 2000/2001 with a combined weight of 0.48 kg. However, information on the purity of these seizures was not available. Therefore, the mean purity based on SAPOL seizures was 45.4% (range: 26%-74%, number of samples analysed = 253). While the ABCI provides data on two seizure quantities (≤ 2 grams and > 2 grams), the above mean purity value is based on the combination of the two seizure weights, given that their average purity values were similar (45.9% for seizures ≤ 2 grams and 40.5% for seizures > 2 grams). This was slightly lower than the average purity of heroin in 1999/2000 (47.7%), and much lower than that recorded in 1998/1999 (61%) and 1997/1998 (59%).

The purity data from the ABCI are different from the estimates provided by IDU and key informants, which gave the current heroin purity as 'low'. However, ABCI purity data were not available for January-June 2001, the period in which a heroin 'drought' is reported to have begun. It is thus possible that an analysis of heroin seized during this time may have found lower purity levels. Purity data from other jurisdictions yielded similar results (for example, 51% in NSW, 49% in WA and 46% in VIC). These results were also based on purity data from the entire 2000/2001 financial year.

There were three KI who were police officers in Operation Mantle, which involves the policing of illicit drugs at a street level. Only one of these noted a marked increase in the number of people arrested for selling and distributing heroin, and in the number of heroin seizures. Interestingly, this police officer worked in the city, which is consistent with the finding of an increase in heroin-using IDU residing in the inner city and central eastern suburbs compared with previous years. However, the amounts seized were quite small, and generally were obtained from searching cars or the person themselves as opposed to raids on domestic premises. One of the other police officers reported an increase in the amount of heroin seized, although the number of seizures has remained stable. These seizures mainly occurred at a transportation level, before the drug reached the streets.

3.2.4 USE

Prevalence of use among the general population

The 1998 National Drug Strategy National Household Survey revealed that among 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 the Australian population who had ever injected an illicit drug increased from 1.3% in 1995, to 2.1% in 1998. While other drugs besides heroin were more prevalent among the general population, heroin was most frequently quoted as being the "last drug injected" among South Australian IDU in the 2000 Australian Needle and Syringe Program Survey (56%), followed by some form of amphetamines (30%). 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 tried 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.

Current patterns and trends in heroin use

The characteristics of heroin users in the 2001 IDRS were obtained from IDU who reported using heroin in the last six months (*n*=65; 65%). Most heroin users were in their early thirties, with a median age of 33 years. This is consistent with information obtained from key informants, who all reported that heroin users were predominantly aged between 20 and 35 years, with an overall age range of 18 to 50 years. Two KI observed that it is rare to see users aged below 20 years.

Sixty-five percent of heroin users in the 2001 sample were male. This is generally consistent with the reports from key informants. Six reported that heroin use was divided fairly evenly between males and females, and four stated that slightly more males used heroin: 60% compared with 40% who were female. The remaining two key informants reported that heroin users were predominantly male (90%), but this was probably a reflection of the specific group of users they had contact with, who were from the prison population.

Heroin users in this sample of IDU were predominantly of English-speaking background, although a substantial minority (23.1%) were Aboriginal. The key informant reports on ethnicity were varied. Six observed that heroin users are mainly Caucasian, with percentages ranging from 60% to 80%. On average, between 10% and 15% are Vietnamese, and a further 10% to 20% are Aboriginal, although one key informant noted an increasing number of Aboriginal persons in this group. It is important to note that these observations may be dependent on the area in which the key informants worked.

Nearly 77% of heroin-using IDU reported being unemployed. There were 3% of heroin users who were employed full time, with a further 9.2% employed on a part time or casual basis. The remainder (10.8%) were either students, sex workers, 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 53.8% had a previous prison history. These results were also in line with key informant reports.

Both powder (92.3%) and rock (72.3%) were reported as being used in the previous six months by heroin-using IDU. The use of rock heroin appears to have decreased compared with the 2000 IDRS where 85.9% of IDU reported using this form. Furthermore, heroin powder was reported as the most frequently used form in the previous six months by 67.7% of the sample. Similarly, the 10 key informants who were able to provide information reported the use of powder or block heroin (compressed powder). In addition, five of these stated 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 96.9% of heroin users who had used heroin in the previous six months (n=63) had also injected it in the previous six months. Similarly, key informants reported predominantly intravenous use, although several key informants reported that smoking is highly prevalent among Asian communities. In addition, one key informant said that casual heroin users are more likely to smoke the drug as there is an association between injecting and being a "hard-core" user.

Key informants reported varied frequency of heroin use. A significant proportion were believed to use heroin on a daily basis, between 1 and 3 times, although the most frequently reported was twice per day. There were also reports of weekly and fortnightly use, or using once every few months. The frequency of use was believed to be dependent on the availability of heroin, as well as finances. Two key informants 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. IDU also reported a wide variation in heroin use, with an average of 57 days of use in the previous six months (SD 63 days, range 1-180), and a median of 30 days. This represents a significant decrease compared with the 2000 data, where IDU reported an average of 83 days of use and a median of 60 days (t_{141}=2.4, p<0.05). However, the percentage who reported using heroin in the previous six months was not significantly different between 2001 and 2000 (65% compared with 73%, $\div^2_1$=1.2, p>0.05). A large percentage (41.5%) 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. Of the IDU who had mostly injected heroin over any other drug in the previous month (n=38), 34.2% said they injected heroin weekly or less than weekly. A further 34.2% said they injected more than once a week but not daily, 13.2% said they injected once a day, 15.8% said they injected 2 to 3 times per day, and 2.6% reported injecting heroin more than three times a day in the previous month.

The majority of heroin users in the 2001 sample resided in the western suburbs and the inner city and eastern suburbs, with much lower percentages in southern and northern suburbs. While this distribution differs from that of previous years, it is more likely due to sampling variation. The findings from the 2001 survey indicate that heroin use is geographically widespread in Adelaide.

All KI and 43 (66.2%) of the heroin-using IDU commented on new trends relating to heroin use over the previous 12 months. There has been an increase in the use of certain

drugs, especially methamphetamine. This appears to be a response to both the reduced availability and reduced purity of heroin. The increased availability of stronger forms of methamphetamine appear to have made it a popular choice as an alternative to heroin. One key informant noted that this apparent shift to methamphetamine is unusual, as they used to be two distinct groups of users who either used one or the other. Other drugs used by the heroin-using IDU include benzodiazepines, methadone and morphine. These drugs are more likely to be injected to get the best effects, and much is obtained illegally. Some people obtain morphine legally in pill form, then inject it to get a better effect. Three KI also noted an increase in alcohol use, and that it is sometimes mixed with methadone to increase the effects, and one key informant mentioned the use of ketamine as an alternative to heroin. Therefore, there were consistent reports that many heroin users are finding substitutes/alternatives to heroin, or supplementing their heroin use with other drugs. They also reported many implications as a result of the increase in use of other drugs, such as health problems and an increase in crime, which will be discussed further in section 4.0. Many IDU also noted this shift from heroin to methamphetamine use, and attributed this to the reduced availability and purity of heroin. They also noted an increase in people injecting benzodiazepines and morphine.

Key informants also reported changes in the methods of drug use. There has been an increase in the intravenous use of other drugs such as benzodiazepines and methadone. There has also been an increase in the reported frequency and quantity of heroin use to achieve the same effects; one KI estimated that a three to four fold increase is needed. Due to the reduced availability of heroin there has been some decrease in overall use, but this is not necessarily by choice. Four KI reported that this decrease in use does not mean that less people are using drugs, but that they are finding alternatives to heroin. There seems to have been an increase in availability and use of powder forms of heroin, especially compressed powder that is marketed as rock heroin. However, there was inconsistency in IDU reports of the frequency and quantity of heroin use. Some said there had been an increase in the number of people using heroin, while others found the reverse. The decrease in heroin use was again attributed to the reduced availability and purity. There were also many who said that there had been an increase in frequency and quantity of use as a result of the decrease in availability and purity, with people needing to take larger amounts more often to achieve the same effects. The IDU also consistently reported that heroin users are starting at a younger age.

Three KI (25%) and seven IDU (16.3%) reported an increase in the number of heroin users going into treatment programs (e.g. methadone, buprenorphine) to cope with the fluctuating and inconsistent availability and strength of heroin. However, they also noted that for many, as soon as heroin was available, they dropped out of the programs and resumed heroin use.

3.2.5 SUMMARY OF HEROIN TRENDS

Table 3.3 contains a summary of trends in the price, purity and availability and use of heroin in the previous 12 months, between mid-2000 and mid-2001. Heroin appears to be readily available as of mid-2001, although it has been very difficult to obtain at times over the previous 12 months. The price of heroin has increased compared with the 2000 IDRS, and the purity has decreased. The use of heroin overall appears to have decreased compared with the previous year. Rock heroin also appears to have decreased in use and

availability. There has been an increase in the use of other drugs, possibly due to the decrease in availability and purity of heroin.

Table 3.3 Trends in the price, availability, purity and use of heroin

Price	
Gram	$350 ($150-$500); Stable to increasing
Cap	$50; Stable
Availability	Very easy to easy; Was more difficult to obtain in the first six months of 2001, has become more readily available as of mid-2001
Purity	45.4% (ABCI: July-December 2000) Low (IDU); stable to decreasing
Use	Use is more geographically widespread, but frequency of use has decreased Decrease in use and availability of rock heroin Increase in use of other drugs due to low purity and reduced availability of heroin

3.3 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') that has traditionally been available in Australia, and the more potent forms (referred to as 'non-powder methamphetamine', which includes all the forms mentioned above) that have in recent years become increasingly available and more widely used.

Trends in methamphetamine use were obtained from reports given by 16 key informants and 81 (81%) of the 100 IDU interviewed who felt confident to give information about price, purity and availability of methamphetamine. As with heroin, these were subjects who reported using some form of methamphetamine in the previous six months. The

key informants who gave information about methamphetamine consisted of four user representatives (peer educators/clean needle program workers), four community drug and alcohol/health workers, three police officers, two drug treatment workers, two drug and alcohol nurses, one medical officer and one forensic psychologist. Key informants were familiar with methamphetamine users from all four main residential areas, and some of them gave information about use in more than one area. The 2001 IDRS had a predominance of methamphetamine users from the western suburbs (34.6%) followed by the northern suburbs (22.2%). There were 21% who resided in the inner city and central eastern suburbs, and 17.3% in the southern suburbs. Four subjects had no fixed address. As with the heroin users, the geographical distribution of methamphetamine users was somewhat different from that reported in the 2000 IDRS. Although both reports had a high percentage of users residing in the western suburbs, the 2000 sample also had an equivalent percentage in the southern suburbs whereas only 17.3% of the present sample was from these suburbs. The percentage residing in the central/eastern suburbs was also similar, but a much higher percentage of users in the present sample were from the northern suburbs (22.2% compared with 12.5% in 2000). Again, this change may be due to differences in sampling methods in the 2001 IDRS.

All key informants who were able to provide information stated that methamphetamine use is widespread across the Adelaide metropolitan area. However, they also reported that concentrated use occurs in specific areas. These areas include the inner west (the Parks area comprising Angle Park, Mansfield Park, Croydon Park and Ferryden Park), the outer north (Elizabeth and Salisbury) and the outer south (Noarlunga and Christies Beach). Furthermore, three key informants believed that use is less prevalent in the eastern suburbs, and is more likely to occur in lower socioeconomic areas.

3.3.1 PRICE

The price of methamphetamine was found to be highly variable depending upon the form or quality purchased. As stated earlier, a distinction was drawn between the powder form and the more potent forms (non-powder) seen in recent years. The predominance of these stronger forms was reflected in the IDU reports, with only 23 of the 81 subjects (28.4%) who had used any form of methamphetamine in the previous six months providing some information on the price, purity and availability of the powder. In contrast, 61 subjects (75.3%) 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 21 of the IDU (25.9%), was $50 (range $35-$50). This is comparable with the median price in both 2000 and 1999 surveys. The above price for one gram refers to powder that has been ‘cut’ with other additives to increase the bulk, and decrease the purity of the drug. However, eight key informants and many IDU (*n*=58; 71.6%) also referred to purchasing methamphetamine in non-powder form, which is of higher purity, but lesser volume. This non-powder methamphetamine comes in two main forms. The first is referred to as ‘paste’ or ‘wax’ due to its sticky consistency. One IDU remarked it was similar in consistency to peanut butter, and another likened it to ear wax. The other form is referred to as ‘crystal meth’ or ‘ice’, and as the name suggests, consists of a crystal or rock-like substance. One point is thought to create an effect equivalent to one gram of

the powder form. However, it is important to note that there was some confusion among both 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 wax and crystal forms were two distinct drugs, and many were unaware that they were all forms of methamphetamine. The generic term used by many IDU was simply 'speed', which was used to describe everything from the powder form to the stronger forms. One thing which clearly emerged from this confusion was that the powder form of methamphetamine that has traditionally been available in Australia has made way for the more potent forms.

Of the 81 IDU who had used the stronger forms of methamphetamine in the previous six months, 58 (71.6%) reported that the median price of one point was $50, ranging from $10 to $60. The median lower price was $25 (range: $10 to $50), and the median upper price was $42.50 (range: $25 to $60). Eight key informants also gave information on the price per point, ranging between $25 and $50, although most gave the price at $50. The median price of one point of methamphetamine *most recently purchased* by 54 IDU was $30, and ranged in price from $10 to $100.

Very few IDU and none of the key informants were able to provide information on prices of other amounts of the powder form of methamphetamine, and often appeared to be unsure of the distinction between the powder and other forms. The median cost of one ounce of powder methamphetamine as reported by seven IDU was $800 (range: $400-$1700). This is a huge variation in price, and may again reflect the confusion about the distinction between forms of the drug. Another popular way of buying powder methamphetamine, as reported by 10 of the IDU, was an '8-pack' or '8-ball', which is one eighth of an ounce (~3.5 gm). The median price of an 8-ball was reported by eight IDU to be $150 (range: $95-$150). No subjects were able to provide information on the price of one-eighth of a gram or one-quarter of a gram of powder methamphetamine, and only one subject gave the price for half a gram, which was $25.

Again, a much larger number of IDU (*n*=32; 39.5%) gave information on the prices of other amounts of non-powder methamphetamine. No distinction was made between the paste and crystal forms, with subjects using them interchangeably, and some stating that there was no price difference. The median price of one gram was $200 (range: $100-$500). The median lower price was $150 (range: $150 to $500) and the median upper price was $250 (range: $200 to $600). One key informant also gave a price of $200. There were 23 IDU (28.4%) who gave information on the price of their *most recently purchased* gram of non-powder methamphetamine. The median price was still $200, with a range of $150-$550. There were 28 IDU (34.6%) who gave information on the price of half a gram, with a median price of $100 (range: $50-$125). The median price of an 8-ball as reported by 13 IDU was $400 (range: $150-$550). One key informant also gave a price of $400. This was much higher than the median price reported in the 2000 survey, which was $150. Finally, four IDU gave information on the price of a quarter of a gram. The median price was $50 (range: $30-$100). No IDU or key informants reported the prices of larger amounts of non-powder methamphetamine, such as ounces or pounds.

These prices are comparable with the prices provided by the ABCI for the period April to June 2001. The price of one street deal or point of methamphetamine was reported to

be $50, one ounce (28 gm) was $1000, and one pound (224 gm) was $10000. There was no information available on the price of one gram in South Australia.

Only a small number of the 81 IDU (*n*=23; 28.4%) who reported using any form of methamphetamine in the previous six months were able to give information on whether the price of the powder form had changed in the previous six months. Of these, 78.3% reported that the price had been stable. The remainder reported that the price had increased (8.7%), decreased (8.7%) or had fluctuated (4.3%). A much higher number of these IDU (*n*=64; 79%) provided information on price changes for the non-powder forms of methamphetamine. Of these, 57.8% said the price had remained stable, 17.2% said it had decreased and 15.6% said it had increased. The remainder said the price had fluctuated (9.4%). This inconsistency was also reflected in the key informant reports. Eight (50%) thought the price had remained stable, two (12.5%) said it had decreased and the remaining six (37.5%) did not know.

3.3.2 AVAILABILITY

Only 22 of the 81 IDU (27.2%) who had used some form of methamphetamine in the previous six months were able to provide information on the current availability of the powder form. The majority (90.9%) stated it was easy or very easy to obtain, and the remaining 9.1% considered it was difficult to obtain. Availability of powder methamphetamine over the previous six months was considered stable by 54.5%, more difficult by 31.8% and easier by 13.6%.

Of the IDU who gave information about where they usually scored their powder methamphetamine, the majority reported purchasing from a friend (40.7%), a mobile dealer (33.3%) or a dealer's home (14.8%). There were 7.4% who purchased from a street dealer, while the remaining 3.7% bought from friends who were also dealers.

For the non-powder forms of methamphetamine, 66 IDU (81.5%) were able to provide information on availability. As with the powder form, the majority of IDU (90.9%) stated it was easy or very easy to obtain, and the remaining 9.1% said that it was difficult to obtain. Availability over the previous six months was considered stable by 66.2%, easier by 13.8% and more difficult by 9.2%. The remaining 10.8% said that the availability had fluctuated. The majority of key informants were also able to provide information on the availability, and they all considered it very easy to obtain. The availability over the previous six months was either stable, or had increased. It is important to note that key informants were referring to non-powder methamphetamine, not the powder form of the drug, which many said was rarely seen these days.

Of the IDU who gave information about where they usually scored the non-powder forms of methamphetamine, the majority reported purchasing from a dealer's home (31%), a mobile dealer (31%) or a friend (28.2%). There were 7% who purchased from a street dealer, while the remaining 1.2% bought from friends who were also dealers.

3.3.3 PURITY

Again, only 22 of the 81 IDU (27.2%) who had used some form of methamphetamine in the previous six months were able to provide information on the current purity of the powder form. There was no consistency in the reports, with 36.4% stating that the purity was medium, 31.8% that it was low and 18.2% that it was high. The remainder (13.6%) reported that the purity fluctuated. When asked about changes in purity of powder methamphetamine over the previous six months, there was again no consistency in the reports. There were 42.9% who believed it had decreased, 28.6% said it was stable and 19% said it had increased. The remaining 9.5% said the purity had fluctuated. The key informants did not provide any information on the purity of powder methamphetamine.

For the non-powder forms of methamphetamine, 64 IDU (79%) were able to provide information on the current purity. The majority believed it was high (45.3%) or medium (18.8%). A further 23.4% said the purity fluctuated, and only 12.5% said it was low. Concerning changes in purity over the previous six months, the majority (45.9%) thought it was stable, 26.2% said it had decreased and 16.4% that it fluctuated. The remaining 11.5% said that the purity had increased. Three-quarters of the key informants were able to provide information on purity, and all said that it was high. The majority also believed that the purity had increased over the previous six months, which is inconsistent with the IDU reports.

The ABCI provided quarterly purity data on amphetamine and methamphetamine seized in South Australia during the 2000/2001 financial year. As with heroin, data were only available for the periods July-September 2000 and October-December 2000. Data from the Australian Customs Service indicate that there were no AFP seizures of methamphetamine in this period, and only two seizures of amphetamine. However, purity data were based on SAPOL seizures of amphetamine only. The mean purity was 14.6% (range: 0%-78.6%, number of samples analysed = 197). This is similar to that reported in 1999/2000 (16.9%), and is markedly higher than the levels in previous years: 6% during 1998/1999 and 1997/1998, and 4% in 1996/1997. The majority of samples analysed (n=149) were ≤ 2 grams, with 49 samples greater than 2 grams.

The ABCI purity statistics appear to be inconsistent with the estimates provided by IDU, the majority of whom reported methamphetamine purity as medium or high. However, there were no AFP seizures of methamphetamine in South Australia, and purity data were not available between January and June 2001. It is therefore possible that the purity statistics reported here do not reflect the purity of the methamphetamine that is currently being used. It is clear that purity has increased over the last few years of the IDRS, and a distinction is made between the powder and non-powder forms of the drug, which vary considerably in purity.

3.3.4 USE

Prevalence of use among different populations

The following data sources do not distinguish between the various forms of amphetamines. The 1998 National Drug Strategy National Household Survey found that among 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. According to the 2000 Australian Needle and Syringe Program Survey, 30% of South Australian IDU reported that they had last injected some form of amphetamine (compared with 56% reporting heroin). After Queensland, South Australia has the highest rate of injection of the amphetamines compared with other jursidictions. The use of amphetamines among schoolchildren was generally equivalent to the general population according to the 1999 South Australian Schoolchildren's survey. Eight percent of schoolchildren aged 12 to 17 years had ever tried amphetamines, while 1.8% reported using amphetamines in the previous week.

Current patterns and trends in methamphetamine use

Among the IDU sample for the 2001 IDRS, 81% (*n*=81) had used at least one form of the drug (powder, crystal, paste) in the previous six months. The median age of this group was 31 years, and 61.7% were male. This is consistent with key informant reports, which indicated that the majority of users are aged between 20 and 35 years. KI believed the distribution of males and females to range from 50% male to 90% male, with nearly two-thirds stating that between 60% and 75% of users are male. The IDU had a median of 10 years of education, and 77.8% were from an English-speaking background. This is also consistent with key informants, who reported that users are predominantly Caucasian, and that the majority have completed up to Year 10. Just over 80% of the methamphetamine-using group were unemployed, 8.6% were part time/casually employed and 4.9% were studying. The remaining were either sex industry workers (3.7%) or involved in home duties (2.5%). Key informants also reported that a large number of methamphetamine users are unemployed, with estimates ranging from 50% to 100%. Those who are employed are usually tradespeople, labourers or factory workers, and are often employed on a part-time or casual basis. One key informant observed that many collect unemployment benefits while also working cash-in-hand, and that many of these are sex industry workers.

Several forms of methamphetamine were reported as being used in the previous six months by methamphetamine-using IDU. The most commonly used forms were wax or paste (72.8%), followed by crystal meth or ice or shabu (71.6%) and the powder form (58%). Methamphetamine in liquid form was used by 22.2%, prescription amphetamine by 3.7% and prescription amphetamine obtained illicitly by 11.1%. When the IDU were asked which form they used most often in the previous six months, the majority said either crystal meth (44.4%) or wax/paste (38.3%). A much lower percentage reported that powder was the form most often used in the previous six months (12.3%), followed by the liquid (4.9%). There were no subjects who reported using prescription amphetamine obtained either licitly or illicitly. There has been a marked increase in the use of ice/shabu/crystal meth in 2001 compared with previous years. In 2000 only 21.4% of IDU reported its use in the previous six months, and in 1999 the percentage was 12.1%. 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. The use of other forms (crystal, paste) was also higher than that reported in previous years, while use of the powder form decreased dramatically from 96.4% in 2000 to 58% in 2001.

All but one of the key informants (*n*=15) commented on the most frequently used form of methamphetamine, and their reports were consistent with the IDU. They all agreed that crystal meth is the most commonly used form, and four observed that the powder form is not very prevalent anymore. Four also reported the use of the wax/paste form of the drug. One key informant (a police officer) spoke about 'blue ice', which is an extremely strong type of crystal meth that is popular at the moment. One IDU also described several colours of the methamphetamine paste, including beige, yellow and pink.

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 IDU that had used methamphetamine in the previous six months were swallowing (27.2%), snorting (12.3%) and smoking (9.9%). This was consistent with key informants, all of whom reported that methamphetamine is predominantly injected. Two also stated that females are more likely to mix it in a drink and swallow it.

Key informants reported variation in frequency of use, falling into three categories: daily users, who use 1-2 grams of the powder or 3-4 points of the crystal/wax per day; recreational users who only use at parties or on weekends; and a third group who 'binge', using for several days at a time (usually Friday, Saturday, Sunday) and then 'crashing'. IDU reported using on an average of 62.2 days in the previous six months (range 1-180 days), with a median use of 52 days. The frequency of use was similar to that reported in 2000, although there has been a significant increase in the overall number of users (81% reported using methamphetamine in the previous six months compared with 52% in 2000: $\div^2_1$=17.7, p<0.001). In the previous month, 19.8% reported injecting weekly or less, 43.2% injected weekly but not daily, and the remaining one-third injected daily (13.6% injected once per day, 16% 2-3 times per day and 3.7% more than three times per day).

Only 27% of methamphetamine-using IDU were currently in some form of drug treatment. This percentage is lower than the heroin-using IDU, of which 41.5% were in treatment. There were 18.5% in methadone programs, 4.9% in other opioid programs (e.g. buprenorphine) and 3.7% in drug counselling. This finding is consistent with the reports from many key informants who highlighted the lack of adequate treatment services and programs for methamphetamine users. They noted that some are in methadone programs, but these may be heroin users that have switched to using methamphetamine. A key informant who works as a medical officer at a detoxification unit noted a marked increase in methamphetamine users presenting for detoxification.

There were several trends identified by 36 (44.4%) of the IDU who reported using methamphetamine in the previous six months. There was agreement that the frequency and quantity of use has increased, especially with the stronger forms that are now available. People do not generally use the powder form, as the quality of other forms such as crystal meth is so much better. Several IDU also commented that many heroin users are now switching to methamphetamine due to the decrease in strength and availability of heroin. More people from the wider community are using methamphetamine, and nine IDU reported an increase in younger users. Methamphetamine use has become more socially acceptable, and three IDU said that many users are people you would "least expect to take drugs", and are "everyday people

who don't look like drug users". Several IDU reported an increase in violence, aggression and paranoia as a result of use of the purer forms of methamphetamine.

Key informants also identified several trends or main themes emerging from their contact with methamphetamine users. This group tends to be poly-drug users who experiment with a range of drugs. Key informants consistently reported that they all use cannabis daily, and alcohol on a regular basis. Several commented that all three drugs are often used together. One key informant highlighted a problem associated with the combined use of methamphetamine and alcohol. Users can drink large amounts of alcohol without feeling intoxicated, which can lead to the development of alcohol dependency without their realising. Seven KI reported that designer drugs are often used by this group (e.g. fantasy, ketamine, ecstasy), although this is associated more with those who use methamphetamine recreationally, often as part of the club and rave scene. Ten KI also reported that benzodiazepines are often used to help with the come-down or crash, as well as alcohol and cannabis. Three KI stated that a minority use heroin to come-down, although this is rare, as methamphetamine and heroin users tend to be two distinct groups. These key informants noted that the recent heroin drought has led to many heroin users switching to methamphetamine. A KI who is a clean needle program worker observed a shift in the proportion of people presenting to the service. It used to be 60% heroin users, 40% methamphetamine users, and the percentages have now reversed. Two KI mentioned some cocaine use among this group, but the high cost often precludes its use. There is a trend to mix cocaine and methamphetamine as methamphetamine prolongs and enhances the effects of cocaine. Finally, one KI noted an increase in users taking anti-depressants and anti-psychotics.

The key informants also commented on changes in the methods of methamphetamine use over the previous six to 12 months, and in the number and types of people using. Six (37.5%) noted a marked increase in the frequency and quantity of use. Furthermore, 10 (62.5%) observed an increase in the use of the stronger, purer forms of the drug, in particular crystal meth. One key informant noted that many people who are starting to use methamphetamine are using the stronger forms straight away. These users are more likely to swallow the drug as they do not need to inject to achieve the effects. Thus, many people who would not consider injecting can take the drug another way and still experience the high.

Eleven key informants (68.8%) observed an increase in the number of people using methamphetamine, and that the users are starting to use at a younger age. Three KI also noted an increase in use within the Aboriginal and Asian communities. These key informants were a community drug and alcohol worker and a police officer both working in the northern suburbs, and a clean needle worker in the western suburbs.

3.3.5 SUMMARY OF METHAMPHETAMINE TRENDS

Table 3.4 contains a summary of trends in the price, purity, availability and use of methamphetamine in the previous 12 months, between mid-2000 and mid-2001. Methamphetamine appears to be highly available, and the price was comparable with the 2000 IDRS. The stronger forms of methamphetamine (paste, wax, ice, crystal meth) have increased in use and availability since 1999. The use of methamphetamine appears to have increased among the general population, in particular among younger people.

Table 3.4 Trends in the price, availability, purity and use of methamphetamine

Price	
One gram (street/powder)	$50 ($35-$50) Stable
One point (crystal/paste)	$30 ($10-$100) Stable
Availability	Very easy to easy Stable for non-powder form, stable to more difficult for powder form
Purity	14.6% (ABCI: July-December 2000) Medium to low for powder form Medium to high for non-powder form No consistency in reports on changes in availability
Use	Increase in general use in the community Increase in younger users Increase in availability and use of stronger forms of methamphetamine

3.4 CANNABIS

Information on trends in cannabis use was obtained from reports given by seven key informants and 85 IDU (85%). These were subjects who reported having used cannabis in the previous six months. Heroin and methamphetamine were the predominant drugs of choice among the IDU, with only 3% nominating cannabis as their first drug of choice. However, cannabis use was highly prevalent among the IDU population. Nearly all IDU (97%) had tried cannabis, and 85% had used it in the previous six months. The key informants who gave information about cannabis consisted of three police officers, two drug treatment workers, one community drug and alcohol worker, and a 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, and use was fairly evenly distributed in these areas.

3.4.1 PRICE

The median for one ounce of cannabis (~28 gm) as provided by 27 of the 85 IDU (31.8%) who had used cannabis in the previous six months was $200 (range: $140-$550). The median price was identical to that reported in the 2000 IDRS, and only slightly lower than that in 1999 ($220). Only one key informant reported the cost of one ounce (between $250 and $350), with the others reporting the price per bag.

The most popular way to buy cannabis as reported by 76 of the IDU was in a 'bag' (sometimes called a money bag or a stick). The median price was $25 (range: $20-$30). This price was identical to the 2000 and 1999 IDRS, and has been a standard price for cannabis in South Australia for several years. All key informants who commented on cannabis price also quoted $25 per bag as the standard price. Previous anecdotal information from South Australia suggests that bag sizes can vary from 1 to 3 grams (Humeniuk, 2000). Further research is needed, preferably using a sample of users for whom cannabis is the drug most often used, to clarify the average size and weight of bags sold in South Australia. IDU and key informants report that the majority of cannabis available in South Australia is 'head'. In addition, they believe that most cannabis available is hydroponically grown.

Cannabis was also sold in other amounts. Buying cannabis in half ounces (~14 grams) was also commonly reported (*n*=15, median = $100, range: $100-$250) and quarter ounces (~7 grams, *n*=10, median = $50, range: $50-$100). Larger amounts included 1.5 - 2 ounces (*n*=3, price = $300) and one pound (~ 448 gm, *n*=6, median = $2300, range: $2200-$2800). A small number of IDU reported buying varying amounts of hash (cannabis resin). This included one gram of hash (*n*=4, median = $37.50, range: $20-$50), one cap of hash oil (*n*=3, median = $50, range: $20-$50) and a block of hash (*n*=2, median = $22.50, range: $20-$25).

The prices provided by IDU are lower than the prices reported by the ABCI for the period April to June 2001. The prices for cannabis were divided into four groups: leaf, head, hydroponic and skunk. However, there were no prices given for leaf in South Australia. This is consistent with reports from IDU and key informants, who stated that leaf is very rarely used in South Australia. Thus, only prices for cannabis head will be reported. Moreover, the prices for the various amounts were identical for head, hydroponic and skunk. The price of a bag ranged between $25-$50 (slightly higher for skunk: $50-$75), although the size of the deal was reported by the ABCI to be one gram only. As mentioned previously, anecdotal reports from IDU and KI indicate that a standard 'deal' or 'bag' of cannabis in South Australia can range from 1-3 grams. Other prices given by the ABCI include ¼ ounce (~ 7 grams) for $150, ½ ounce (~ 14 grams) for $200 and one ounce (~ 28 grams) for $300-$500. One pound of cannabis was priced between $2200 and $3500 and one mature plant could be purchased for $3500. One 'deal' of hash was priced between $30 and $60, which was consistent with IDU reports. The prices at which cannabis may be purchased by IDU are somewhat cheaper than those provided by the ABCI, presumably because of the nature of the relationship between the buyer and the person selling (ABCI prices are obtained through 'buys' made by plain clothes police officers).

Nearly 71% of the IDU who gave information about cannabis reported that in the previous six months the price of cannabis had been stable. The remainder reported the price had decreased (11.8%) or fluctuated (4.7%), and only 3.5% reported an increase. The remaining 9.4% did not feel confident enough to answer. Those key informants who gave information concerning cannabis price, purity and availability also thought that the price had remained stable, although one reported it had decreased in price.

3.4.2 AVAILABILITY

There were 79 IDU (92.9%) who gave information on the availability of cannabis. Cannabis was considered easy or very easy to obtain by most IDU (91.1%), and the availability of cannabis over the previous six months was considered to be stable (85.9%), although 10.3% thought it had become more difficult. 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 (55.3%) or had received it as a gift from a friend (21.2%). Around ten percent (9.4%) reported growing their own cannabis, and a further 9.4% scored cannabis from a dealer's home. The remainder reported scoring from a street dealer (2.4%) or mobile dealer (2.4%).

3.4.3 PURITY

There were 77 IDU (90.6%) who gave information on the current potency of cannabis. The majority (81.8%) reported that it was high. The remainder reported it as medium (10.4%), low (3.9%) or fluctuating (3.9%). This is comparable with the reports of cannabis potency in the 2000 and 1999 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 (77.9%) believed it was stable, and 11.7% believed potency had increased. The remaining IDU thought it had either decreased (5.2%), or fluctuated (5.2%). 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 are no data available on actual % THC content of cannabis seizures. Forensic laboratories only provide identification as to whether the substance is cannabis or some other plant. Data from the Australian Customs Service reported that there were 33 cannabis seizures by the AFP in South Australia in the 2000/2001 financial year. This is much lower than in most other jurisdictions (for example, there were 385 seizures in NSW, 195 in QLD and 191 in VIC). However, no information was available on SAPOL seizures of cannabis.

3.4.4 USE

Prevalence of use among different populations

The 1998 National Drug Strategy Household Survey revealed that, among 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. While South Australia has the Cannabis Expiation Notice system for dealing with minor cannabis offences, use is not increased in comparison with other states and territories. For example, in the Northern Territory in 2000, cannabis costs $300 for one ounce, yet 58% had ever used cannabis and 35% had used in the previous 12 months.

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 tried cannabis, while 10.9% reported using cannabis in the previous week.

Among IDU interviewed in this sample, poly-drug use among cannabis users was high, and a significant percentage of people using cannabis had also used heroin and/or methamphetamine in the previous six months (65% and 85%, 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 in the previous month, and 15% had used cocaine in the previous month. However, in the current IDU population, cannabis appeared to be used secondary to other drugs. Only 3.5% of current cannabis users nominated cannabis as their drug of choice, with 37% nominating methamphetamine and 43% nominating heroin.

Key informants also provided information on the patterns of drug use among cannabis users. The most common combination of drugs is cannabis and alcohol. Many also use some form of methamphetamine, and will then use cannabis during the come-down or crash.

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 32 years), had 10 or 11 years of education, and just under 50% had a previous prison history. The majority of cannabis users were of an English speaking background. There was a relatively even distribution of males to females (males: 58.8%). Among IDU who had used cannabis, 76.5% were unemployed, 2.4% were full-time employed, 10.6% were part-time/casually employed, and the remaining 9.4%were involved in home duties, study or sex industry work.

The demographic characteristics of the IDU sample were supported by the information obtained from key informants. All reported a broad age range for cannabis users, with most aged between 18 and 40 years. The gender distribution was thought to range from 50% male to 75% male, with most agreeing that males are slightly more likely to use cannabis, especially among the younger age groups. Key informants also reported similar levels of unemployment and education, adding that some users may still be in high school. There was also agreement that a high percentage of cannabis users have been in trouble with the police or judicial system, although this does not necessarily include a prison sentence.

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 the users themselves, and from two key informants who were police officers and who reported that cannabis seizures are all from hydroponic set-ups. Thus, the 2001 survey distinguishes between hydroponic

cannabis (also called 'indoor' or 'skunk') and 'outdoor' or 'bush' cannabis. Hydroponic cannabis was reportedly used by nearly all of the sample (94.1%), followed by outdoor cannabis (83.5%). Only 42.4% reported using hash in the previous six months, and 32.9% 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 of cannabis used (80%), followed by outdoor or bush cannabis (16.5%). Much smaller percentages nominated hash or hash oil as the predominant forms used in the previous six months (2.3% and 1.2%, respectively). This is consistent with the key informant reports. All stated that cannabis head is used, and that it is predominantly produced hydroponically. Two-thirds also noted the use of non-hydroponic (outdoor) cannabis, but this tends to be seasonal and is much less prevalent than hydroponic forms. Only one key informant mentioned the use of hash.

It should be noted that the conclusion that most of the cannabis bought by users in the IDU sample was hydroponically grown is based on the users' beliefs about what they had been sold. It is beyond the scope of the IDRS to provide definitive information on what proportion of cannabis sold in South Australia is actually hydroponic. It is possible that dealers are marketing cannabis as hydroponically grown when it has been grown outdoors by traditional methods. There appears to be a perception among users that hydroponic cannabis is the most potent, and dealers may be taking advantage of this view.

According to key informants, inhalation was the most common route of administration, with pipes and bongs more popular than joints. Oral consumption of cannabis is rare, and was only mentioned by one key informant who said it tended to occur in a party atmosphere, where cookies or cakes containing cannabis are prepared.

All key informants reported that cannabis is used daily, and often multiple times per day. This is consistent with the data obtained from the IDU, where the median number of days used in the previous six months was 180, which reflects daily use (mean 122 days). Occasional users were the smallest group in this sample, using once a fortnight or on special occasions (14.1%). Another group (10.6%) tended to use on a weekly basis. There were 21.2% who used more than once a week, but not daily. The largest group were daily users (54.1%). Key informants reported a range of quantities being used daily, from one cone up to 20 cones (which, according to users, is approximately equivalent to one 'bag').

3.4.5 SUMMARY OF CANNABIS TRENDS

Table 3.5 contains a summary of trends in the price, purity, availability and use of cannabis in the previous 12 months, between mid-2000 and mid-2001. Cannabis appears to be highly available, and the prices were identical to those reported in the 2000 IDRS. The purity is high according to both IDU and key informants, and the majority of cannabis in South Australia is sold as 'hydroponic'. The use of cannabis appears to be relatively stable.

Table 3.5 Trends in the price, availability, purity and use of cannabis

Price	
Ounce	$200 ($140 - 550); Stable
Bag/deal	$25 ($20 - $30); 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'

3.5 COCAINE

While 27 IDU (27%) said they had used cocaine in the previous six months, only 10 (10%) of the total sample were able to provide some information on price, purity and availability. This was higher than the number who gave information on cocaine in both the 2000 and 1999 surveys (5.6% and 6%, respectively), but is much lower than the number who gave information on the other drugs investigated in this report. Similarly, only three key informants gave information about cocaine, although it was not the major drug with whom the drug users they had most contact with had been using. These key informants included a community drug and alcohol worker and two police officers. The key informants reported that there were no particular suburbs where cocaine was used more frequently. However, one observed that while cocaine used to be associated with users that were highly educated and from a high socioeconomic group, it has now moved into the lower socioeconomic areas. In the current sample, the IDU who reported using cocaine in the previous six months were more likely to live in the western suburbs (37%) or the central/eastern suburbs (29.6%). A further 14.8% lived in the southern suburbs, 14.8% in the northern suburbs and the remaining 3.7% had no fixed address.

3.5.1 PRICE

The median price given by six IDU for one gram of cocaine was $225 (range: $150-$250). In addition, three IDU gave both a lower and upper price range. The median lower price was $200 (range: $200-$350) and the median upper price was $400 (range: $250-$500). This median price was lower than that reported in both 2000 and 1999 surveys, which was $300 and $250, respectively. Five IDU also provided the price of the *most recently purchased* gram of cocaine. The median price was $200 (range: $100-$250). Two IDU reported that the median price for a cap of cocaine was $50. These two IDU also gave the same price for the last cap of cocaine they had purchased. Five IDU reported purchasing half a gram of cocaine with a median price of $150 (range: $100-$200), and one IDU purchased a quarter gram for $60. One IDU reported buying

an 8-ball for $800, and another reported buying one quarter of a gram of cocaine for $75.

Only one key informant gave information on the price of cocaine. This price was much lower than that reported by the IDU, and ranged from $20 to $100 depending on who is buying it. Dealers and sex workers are often given cocaine for free. According to the key informant, the price of cocaine has decreased over the previous six months. However, there was no consistency in IDU reports of price changes over the previous six months. Of the 10 who were able to provide information, five thought that the price of cocaine had remained stable over the previous six months, two reported an increase, two that the price had fluctuated and one IDU thought the price had decreased.

These prices are comparable with the prices provided by the ABCI for the period April to June 2001. The price for one gram of cocaine was between $200 and $400, and the price for one ounce was $5500. Prices for cocaine were not available from the ABCI for the 1999/2000 financial year, presumably because there were no seizures in South Australia.

3.5.2 AVAILABILITY

While 27% of IDU said they had used cocaine in the previous six months, only 10 were able to provide information on availability. Cocaine was considered very easy or easy to obtain by eight of these (80%), and difficult to obtain by the remaining two. The majority of these also stated that the availability of cocaine over the previous six months was stable. One key informant reported that cocaine is very easy to obtain, and has become easier over the previous six months. The two key informants who were police officers concurred with this. Cocaine is believed to be readily available in Adelaide, reflected by the amount and number of seizures carried out by police recently, although there are fewer seizures compared with other drugs. The police officers stated that they tend to arrest more dealers than users, and that cocaine users do not seem to be a group that come to the attention of the police. The seizures tend to occur at the importation level, not at the street level, and cocaine is not specifically policed at this street level.

Of the 27 IDU who reported using cocaine in the previous six months, 19 (70.4%) provided information on where they usually scored cocaine. The majority reported purchasing from a friend (47.4%), a mobile dealer (31.6%), a dealer's home (15.8%) or a street dealer (5.3%).

3.5.3 PURITY

All but one of the IDU who gave information on cocaine purity reported that it was medium to high, and one said it was fluctuating. There was a varied response by IDU in regard to change in cocaine purity over the previous six months, with half saying it was stable and the other half that it was fluctuating. One key informant stated that the purity of cocaine was high, and had increased over the previous six months. One of the police officers reported that there had been several cocaine seizures by SAPOL in Adelaide since November 2000, which were all obtained through dealers, not users. Three reasonably large seizures that occurred recently (between ½ and one kilo of cocaine)

were also found with large amounts of ecstasy, ranging from 500 to 3000 tablets. Purity analyses were carried out on three of the seizures, yielding percentages of 80%, 78% and 50%.

Purity statistics from the ABCI for cocaine were available in South Australia for the periods July-September 2000 and October-December 2000. These were based on both AFP and SAPOL seizures. The overall mean purity was 61% (range: 3.6% to 82.8%, number of samples analysed = 115). However, purity levels from SAPOL seizures were somewhat lower than AFP: 53.3% compared with 62.1%. Data fom the Australian Customs Service on AFP seizures recorded three seizures in South Australia during the 2000/2001 financial year. The total weight was 317 kg, which was markedly higher than the other jurisdictions (for example, 93.7 kg in QLD and 15.7 kg in NSW). Purity data were not available in the 1999/2000 financial year as no seizures were made either by AFP or SAPOL. However, the purity of cocaine according to ABCI data in 1998/1999 in South Australia was 53%. The purity of cocaine in other jurisdictions in 2000/2001 was similar. That is, Victoria reported a purity of 65%, Queensland 59% and NSW 49%. These results suggest that the purity of cocaine in South Australia has increased compared with previous years.

3.5.4 USE

Prevalence of use among different populations

The 1998 National Drug Strategy Household Survey found that among the general population in South Australia,2.3% had ever used cocaine, and 0.6% had used in the previous 12 months. Cocaine use among schoolchildren appeared to be comparative with the general population according to the 1999 South Australian Schoolchildren's survey. Of schoolchildren aged 12 to 17 years, 3.9% had ever tried cocaine while 1% reported using cocaine in the previous week. These percentages are somewhat higher than those reported in the 1996 Schoolchildren's survey (2.4% and 0.4%, respectively). Cocaine was injected far less frequently than heroin and the amphetamines according to the 2000 Australian Needle and Syringe Program Survey, with only 1% of South Australian IDU reporting cocaine as being the last drug to be injected.

Current patterns and new trends in cocaine use

In the 2001 IDU sample, 27 subjects (27%) reported using cocaine in the previous six months. Cocaine users had a median age of 34 years. The gender distribution was similar to the overall sample, and 59.3% were male. They had an average of 10 years of education, and 51.9% had a previous prison history. The majority of cocaine users (85.2%) were of English speaking background. Two-thirds of those that used cocaine in the previous six months were unemployed, with the remainder working full-time or part-time/casually (18.5%). Two IDU were students, one was a sex worker and one was involved in home duties. The key informant reports indicated that cocaine users are predominantly male, although use is prevalent among women who work in the sex industry. The age of cocaine users was believed to range from 16 to 50 years, with most aged between 30 and 35 years. However, one key informant noted an increase in younger users, as well as an increase in intravenous use of cocaine. Key informants

stated that many users did not complete high school and are currently unemployed. The majority of users are from English-speaking backgrounds, although one key informant noted an increase in use in the South-East Asian community.

Of the 27 IDU that had used cocaine in the previous six months, 74.1% reported using cocaine powder, 51.9% cocaine rock and 18.5% crack cocaine. Cocaine in powder form was the most commonly used (48.2%), closely followed by cocaine rock (40.7%), with a much smaller percentage nominating crack cocaine as the most frequently used form (11.1%). The key informants said that cocaine was mainly used in powder form, with some rock cocaine and very few reports of crack cocaine being used. The police officers who spoke of the recent cocaine seizures in Adelaide found mainly cocaine powder, and occasionally some rock. Intravenous use was the most commonly reported route of administration in the previous six months (*n*=22, 81.5%) followed by snorting (*n*=6, 22.2%), smoking (*n*=3, 11.1%) and swallowing (*n*=3, 11.1%). The mean number of days that cocaine was used in the previous six months was 13.8 (range:1-180), but this value is highly skewed as the median number of days was only two. The majority of IDU used cocaine monthly or less (*n*=24, 88.9%), two reported using more than once a week (7.4%) and only one (3.7%) reported using on a daily basis. Although a higher percentage of IDU in 2001 reported using cocaine in the previous six months (27% compared with 19.6% in 2000), this difference was not statistically significant ($\div^2_1$=1.2, p>0.05). The key informant reports are inconsistent with IDU reports, but this may reflect that they spoke mainly about recreational drug users. The IDU in this sample are more likely to be daily, intravenous drug users, and thus more likely to also inject cocaine. Among these recreational users, key informants stated that snorting is the most common route of administration, although some smoke it together with cannabis. One key informant distinguished between two groups of cocaine users: those who use it on weekends or special occasions, and those who use it (and other drugs) intravenously on a more regular basis. The recreational users tend to also take other party drugs, such as ecstasy, fantasy and ketamine. However, both groups tend to use cannabis and alcohol regularly.

These findings suggest that the cocaine users in this sample were predominantly users of other drugs who also occasionally used cocaine. This is substantiated by the fact that only 18.5% of IDU who reported using cocaine in the previous six months also nominated cocaine as their main drug of choice or favourite drug, with 44.4% nominating heroin and 22.2% methamphetamine. Furthermore, when asked what drug they had injected most in the previous month, only 7.4% said cocaine. Nearly 41% said heroin, 33.3% said methamphetamine and 11.1% said morphine. Finally, when asked for the first drug injected, 55.6% said methamphetamine, 29.6% said heroin, and no IDU said cocaine, although two had first injected a 'speedball' (a mixture of heroin and cocaine).

3.5.5 SUMMARY OF COCAINE TRENDS

Table 3.6 contains a summary of trends in the price, purity, availability and use of cocaine in the previous twelve months, between mid-2000 and mid-2001. According to IDU, cocaine is very easy or easy to obtain and this availability has remained stable. The price of cocaine was lower compared with previous years, but it is difficult to make any meaningful comparisons with such small sample sizes. The purity was reported as medium to high, and this was confirmed by ABCI data on the purity of cocaine seizures in South Australia in 2000/2001. The use of cocaine appears small in South Australia compared with other drugs, but key informant reports suggest that use is increasing.

Table 3.6 Trends in the price, availability, purity and use of cocaine

Price	$200 ($100-$250); Stable
One gram	$50; Stable
One cap	
	Very easy or easy; Stable
Availability	
	Medium to high
Purity	No consistency in reports on changes in purity
	61% (ABCI: July-December 2000)
	Small in SA compared with other drugs, although
Use	use may be increasing
	Large police seizures of cocaine in Adelaide from November 2000

3.6 OTHER DRUGS

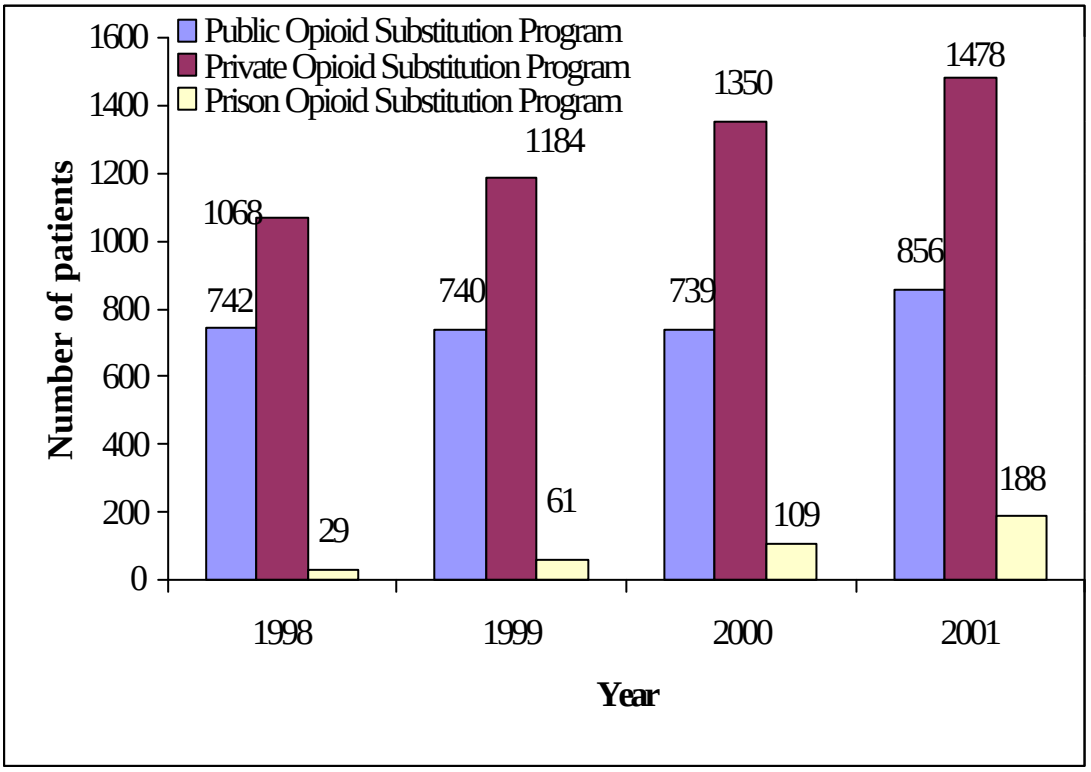
3.6.1 METHADONE

There were 68 IDU (68%) who reported ever using methadone and 43 (43%) who had used methadone in the previous six months. Of the 43 who reported recent use, the majority (72.1%) used it licitly in syrup form, and a further 32.6% used it illicitly. Physeptone tablets were predominantly used illicitly, with 25.6% reporting use in the previous six months. Licit use of physeptone tablets was reported by only 7%. A new form of methadone called Biodone, which is available in solution form, was used licitly by 25.6%, and illicitly by 9.3%. The mean number of days that methadone was used in the previous six months was 112 days (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: methadone syrup was used by 53.5%, and biodone solution by 20.9%. Methadone syrup used illicitly was most often used by 14%, and physeptone tablets used illicitly by 11.6%.

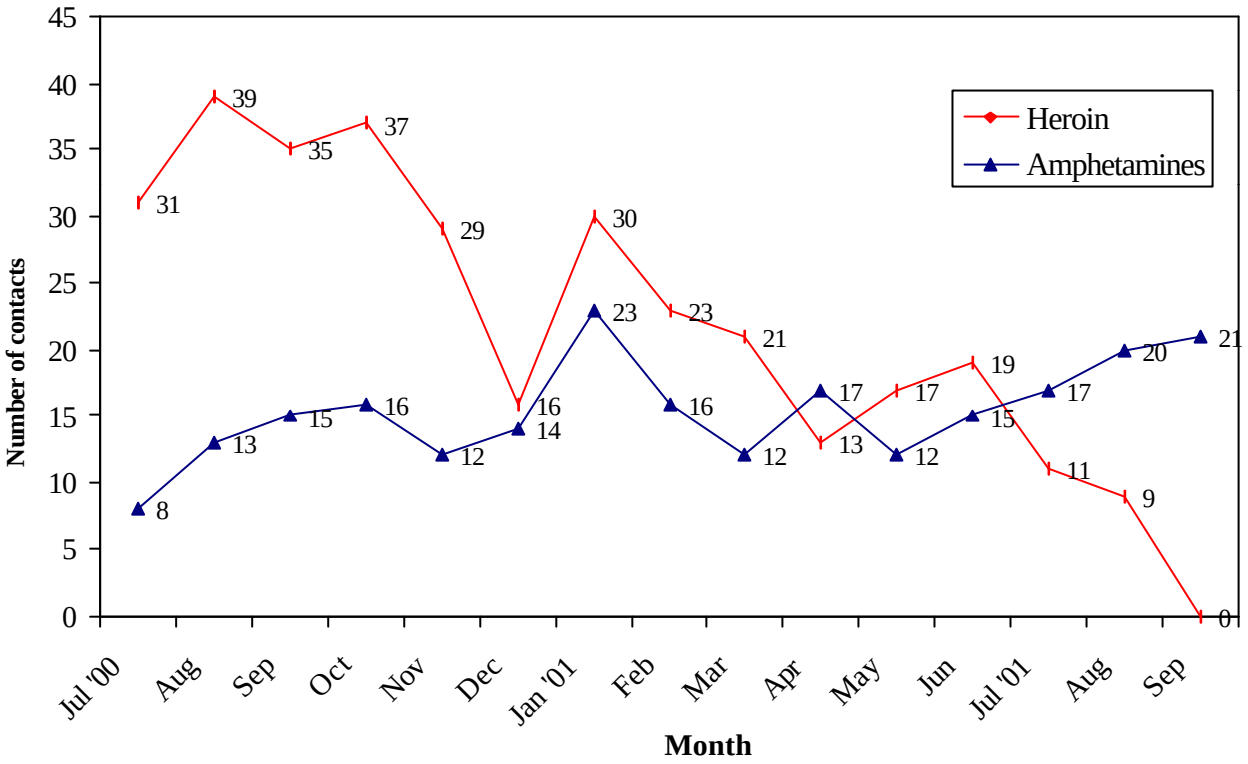
Methadone use was markedly less prevalent in the general population, with results from the 1998 National Drug Strategy Household Survey showing that 0.1% of persons had ever used methadone, and 0% had used in the previous 12 months. Statistics provided by public and private methadone prescribers indicate that as at the 2nd May 2001, there were a total of 2434 clients maintained on methadone in South Australia (838 public clients, 1418 private clients and 178 in the prison program). This does not include clients who have dropped out of treatment or who were only treated for part of the year. This figure is slightly higher than that reported in the 2000 IDRS, which was 1985. Similarly, data provided by the Drug and Alcohol Services Council indicate that as at the 30th June, 2001, 879 individuals were registered to the Maintenance Pharmacotherapies Unit. This represents an increase of 11.3% in the total reported at the same time the previous year. The majority of clients (91%) collected their methadone dose from community pharmacies, and the remaining 9% from the clinics. Although 55% of clients were male, there has been an increase in the number of female clients in the 15-24 and 30-34 year age ranges. There has also been an increase in the number of clients in the 15-19 year age range. Data from the Drugs of Dependence Unit (Department of Human Services) as at 30th June, 2001 also indicate an increase in the number of patients in opioid substitution programs, including public, private and prison programs (see Figure 3.1).

Figure 3.1 Number of Patients in Opioid Substitution Programs



Treatment data were obtained from the Drug and Alcohol Services Council on the number of admissions to the inpatient detoxification unit since July 2000. There has been a decrease in the number of heroin-related admissions, and an increase in the number of admissions for the amphetamines (see Figure 3.2).

Figure 3.2 Inpatient Contacts for the Drug and Alcohol Services Council from July 2000 to September 2001



Twenty-six percent of the total sample of IDU had received methadone maintenance treatment in the six months preceding the survey. The IDU who received methadone treatment accounted for 60.5% of IDU who had used any methadone in the previous six months. The remaining 39.5% of IDU had used methadone outside the realm of methadone maintenance treatment. This is slightly higher than in the 2000 IDRS (33.3%), but was not statistically significant. The IDU who were in methadone maintenance treatment used between 23 and 180 days during the previous six months (median 180 days, mean 154 days). Only one IDU (3.8%) used methadone weekly or less, 26.9% used weekly and 69.2% used daily. It may be that those who were using methadone less than daily had been in methadone maintenance for only a portion of the six month period, or were diverting their methadone. All of these (*n*=8) reported using licit forms of methadone. Key informant estimates of the proportion of users in methadone treatment averaged between 25% and 65%. Two of these also noted an increase in the number of users presenting for treatment as a result of the recent decrease in heroin purity and availability. This was seen as a strategy for many users to cope with their forced withdrawal from heroin.

Thirty-five percent of all IDU had ever injected methadone and 16% had injected in the previous six months. This is lower than that reported in the 2000 IDRS (21.5%), but comparable with the percentages reported in previous surveys (17% in both 1999 and 1998). Methadone was the fourth most likely last drug to be injected (4% of IDU). This statistic is comparable with the findings of the 2000 South Australian Needle and Syringe Program Survey in which methadone was also the fourth most likely last drug to be injected, by 2% of the sample (preceded by heroin, the amphetamines and morphine).

3.6.2 BENZODIAZEPINES

The majority of IDU reported using benzodiazepines (80%), with 57% (*n*=57) using in the previous six months. All but one of those who had used benzodiazepines in the previous six months had used orally (98.2%), and 15.8% had injected benzodiazepines in the previous six months (9% of total IDU). This is higher than the total percentage of IDU who had recently injected benzodiazepines in the 2000 IDRS, which was 4.7%, although the difference was not statistically significant. Only one IDU had snorted benzodiazepines. The median number of days used in the previous six months was 26 and the mean was 70. That is, half of IDU who had used benzodiazepines in the previous six months had used at least once every week. However, there was wide variation in frequency of use ranging from 1 to 180 days. Just over half (52.6%) used weekly or less, 22.8% used weekly but not daily, and 24.6% used on a daily basis.

Almost all key informants interviewed concerning heroin and methamphetamine commented that benzodiazepines were widely used among the drug users with whom they had contact. Prevalence of use varied from daily, to using only during the come-down or crash, and was more likely to be mentioned in association with heroin users than methamphetamine users. Key informants who predominantly described methamphetamine use reported that benzodiazepines were predominantly taken to help speed users with the crash following binges. Key informants who predominantly described heroin use said that benzodiazepines were generally used together with heroin to enhance the effects of heroin, or were used when heroin was not available to cope with withdrawal or when the effects of heroin subside. The number of heroin users also using benzodiazepines regularly was believed to range between 30% and 80%. The reported decrease in the purity and availability of heroin by both key informants and IDU has apparently led to an increase in benzodiazepine use, particularly in the injecting of temazepam gel caps.

By far the most popular benzodiazepine used in the previous six months was diazepam (59.6%), followed by temazepam (26.3%). Oxazepam was used by 17.5%, nitrazepam by 5.3% and alprazolam by 5.3%. Preference for diazepam was also observed in the 2000 and 1999 surveys (55.9% and 52.5%, respectively). The prevalence of the main type of benzodiazepine used by IDU is shown in Table 3.7. It is worth noting that no IDU reported using flunitrazepam. In contrast, it was the most frequently used benzodiazepine in the 2000 IDRS after diazepam, reported by 13.2% of IDU. There has also been an increase in the percentage of IDU using temazepam (26.3% compared with 11.7%), which is consistent with KI reports.

Two-thirds of the IDU who had used benzodiazepines in the previous six months used them licitly, and only a slightly lower percentage (57.9%) reported illicit use. However, the majority (61.4%) stated that the *main* form they had used over the previous six months was obtained licitly, with the remaining 38.6% mainly obtaining their benzodiazepines illicitly (which usually meant using a friend or partner's prescription).

Table 3.7 Main type of benzodiazepine used by IDU in the previous six months*

Benzodiazepine	Frequency	Percentage
DIAZEPAM (eg. Valium, Antenex)	34	59.6%
TEMAZEPAM (eg. Normison, Euhypnos)	15	26.3%
OXAZEPAM (eg. Serepax)	10	17.5%
NITRAZEPAM (eg. Mogadon)	3	5.3%
ALPRAZOLAM (eg. Xanax)	3	5.3%
LORAZEPAM (eg Ativan)	1	1.8%
FLUNITRAZEPAM (eg. Rohypnol)	0	0.0%

** Total does not add up to 100% as some IDU reported regular use of more than one benzodiazepine*

3.6.3 ANTIDEPRESSANTS

Antidepressants had been used by 34% (*n*=34) of the IDU sample, and 15% reported use in the previous six months for a median of 90 days (range 10-180 days). Prevalence of use was slightly lower in the 2000 IDRS (11.2%). Seven of the 15 used anti-depressants on a daily or near daily basis (46.7%), and all 15 reported that their use was licit. It is not clear why the remainder were not using on a daily basis, 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 designer drugs suggest that antidepressants are sometimes used in conjunction with ecstasy and other designer drugs to enhance the effect, or to assist with the anxiety and depression sometimes experienced during the come-down from these drugs.

Three IDU who had used anti-depressants in the previous six months could not remember the proprietary name of the anti-depressant they were using. Of the 12 who provided this information, there were seven IDU (58.3%) who were using the newer anti-depressants. These were all SSRIs (Selective Serotonin Reuptake Inhibitors), including sertraline (*n*=3), citalopram (*n*=2), fluoxetine (*n*=1) and mirtazapine (*n*=1). The remaining five reported using tricyclic anti-depressants, including doxepin (*n*=3), dothiepin (*n*=1) and amitryptiline.

Two key informants made specific comments regarding the use of anti-depressants among the methamphetamine users with whom they had contact. They noted that there are very few treatment programs available for these drug users, which mainly consist of counselling or the prescribing of anti-depressants. One key informant said there has been an increase in the use of anti-depressants and anti-psychotics, possibly as a result of the increased strength of methamphetamine leading to psychosis among users.

Another key informant noted daily use of anti-depressants among heavy cannabis users to cope with anxiety and depression.

3.6.4 ECSTASY (MDMA) AND DESIGNER DRUGS

Among IDU interviewed, 55 (55%) had tried ecstasy, and 24 (24%) reported using ecstasy in the previous six months. Recent use was slightly higher in this survey than in the 2000 IDRS (15.8%). Two IDU (2%) said that ecstasy was their drug of choice. Just over one-quarter (26%) reported ever having injected ecstasy, and 12% had injected ecstasy in the previous six months. Of the 24 IDU who had used ecstasy in the previous six months, the most common route of administration was swallowing, reported by 87.5%. There were 50% who had injected, 12.5% who had snorted and 8.3% who had smoked ecstasy. The median number of days used in the previous six months was 1 (mean=5.7) and the range of use was 1 to 30 days.

Ecstasy use among IDU was greater than among the general population. 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. Ecstasy use among schoolchildren was similar to the general population. The 1999 Schoolchildren's Survey reported that 3.1% of schoolchildren had ever tried ecstasy, and 1% had used in the previous week. The use of fantasy in the previous six months was also reported by 13 IDU (13%), and ketamine by six IDU (6%). Four IDU commented on the increase in the use of these drugs in the dance party/clubbing scene.

The price of one ecstasy tablet (ABCI data) was between $35 and $80 for the period April to June 2001. Moreover, the price decreased to between $25 and $35 for purchases of more than 25 tablets. The price seems to have increased in 2001, given that the price for one ecstasy tablet in 2000 ranged between $25 and $50.

The ABCI reported that the mean purity of seizures of ecstasy (which includes MDMA, MDEA, MDA and PMA) for the periods July-September 2000 and October-December 2000 was 36.6% (range: 8.9%-58.7%) for the SAPOL seizures and 20% (range: 14%-33.8%) for those from the AFP. The purity when including both sources of data ranged from 8.9% to 55.7%, based on analysis of 44 samples. This is comparable with 37% purity in 1999/2000 and 32% purity in 1998/1999. The Australian Customs Service recorded a total of 12 AFP seizures of ecstasy in South Australia in the 2000/20001 financial year. The weight of these was 1.55 kg. However, not all of these were analysed by the AFDL. Given the small number of AFP seizures that were analysed, the SAPOL average should be considered reasonably representative of all seizures in South Australia.

The key informants most likely to report on the use of ecstasy and other designer drugs were those who were familiar with methamphetamine users (nine of 16 key informants). They noted an increase in the use of these drugs (ecstasy, fantasy and ketamine), especially among younger users. One KI said that it was common for users to take ecstasy and methamphetamine in combination. Frequency of use varied between occasional to weekly use, mostly for dance parties or clubbing or on weekends. Use was predominantly reported as being oral. Two key informants who gave information on cocaine users also noted an increase in the use of these drugs. They are more likely to be

taken by recreational cocaine users, and those who are younger. One key informant who was a police officer reported that large amounts of ecstasy tablets were also found in three large and recent seizures of cocaine in Adelaide. Eight of the 12 key informants who spoke about heroin mentioned that these drugs are rarely used among heroin users, and three key informants said that those who do take them tend to be younger. This is consistent with the demographic characteristics of the 24 IDU who reported using ecstasy in the previous six months. The distribution of males to females was fairly even (54.5% male), but they were younger than the overall IDU sample (median age=28 years, mode=19, range 16-40).

For more information about patterns and trends in the use of ecstasy and other designer drugs in Adelaide, see the reports by Longo *et al.* (2001, 2002).

3.6.5 OTHER OPIATES

Fifty-three percent of IDU reported ever using 'other opiates', and 23% reported use in the previous six months. This is comparable with previous years, with 22.4% reporting recent use in the 2000 IDRS and 27% in 1999. However, the previous data did not have morphine as a separate category. Excluding morphine, 15% of IDU in the 2000 survey reported using other opiates in the previous six months. There has therefore been an increase in the use of other opiates in the 2001 sample, although the difference was not statistically significant. These data cannot be compared with the 1998 National Drug Strategy Household Survey, which defines '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 these drugs orally (74%), but 26% said they had injected other opiates in the last six months. This is much higher than in the 2000 IDRS, where only 11.2% reporting recently injecting other opiates. Only one IDU had recently smoked other opiates, and none reporting snorting. The median number of days used in the previous six months was five days (mean=20.7, range 1-180 days). Only one IDU reported using other opiates daily (4.3%). The remainder used less than once per week (87%) or at least once per week (8.7%). Other opiates were used licitly by 70% of IDU who had used them in the previous six months, and illicitly by 39%. The majority (65%) reported that they had *mainly* used other opiates licitly in the previous six months.

Table 3.8 shows the main type of other opiate (excluding morphine) used by IDU in the previous six months. Codeine and panadeine forte were the most frequently used, followed by pethedine and buprenorphine.

Table 3.8 Main type of other opiate used in the previous six months by IDU

Opiate	Frequency	Percentage
Codeine phosphate	9	39.1%
Panadeine forte	7	30.4%
Pethedine	3	13.0%
Buprenorphine	2	8.7%
Opium	1	4.3%
Unknown	1	4.3%
Total	**23**	**100%**

Morphine was a separate category in this year's sample, whereas in previous years it was included in the 'other opiate' category. There were 68 IDU (68%) who reported ever having used morphine, and 43 (43%) reported use in the previous six months. This is significantly higher than in the 2000 IDRS, where only 7.5% of the total sample had recently used morphine (Fisher's Exact Test $p<0.001$). The majority of IDU in the 2001 survey who had used morphine in the previous six months had injected it (79%; 34% of total IDU), and 58% had swallowed it (25% of total IDU). No IDU reported either smoking or snorting morphine. Morphine was also the last drug injected by 11% of the total sample (and by 26% of those who had used in the previous six months), preceded only by heroin and methamphetamine. This statistic is consistent with the findings of the 2000 South Australian Needle and Syringe Program Survey in which morphine was also the third most likely last drug to be injected, although by only 3% of the sample. In comparison, only 2.8% of IDU in the 2000 IDRS had last injected other opiates, and this was preceded by heroin, the amphetamines and methadone. This difference was statistically significant (Fisher's Exact Test $p<0.05$).

The median number of days morphine was used in the previous six months was three days (mean=50.5, range 1-180 days). Ten IDU (23.3%) reported using morphine daily. The remainder used less than once per week (67.4%) or at least once per week (9.3%). Morphine was used licitly by 32.6% of IDU, and illicitly by 86%. In contrast to the other opiates, the majority of IDU (79.1%) reported that they had *mainly* used morphine illicitly in the previous six months.

Key informants were most likely to report the use of other opiates in heroin users only. Five of the twelve key informants who gave information about heroin mentioned the use of other opiates. Morphine was the most frequently mentioned. They reported that the use of morphine is increasing, and is predominantly used intravenously. Many heroin users are taking morphine to compensate for the reduced availability and purity of heroin. The key informants also noted that the availability of illicit morphine has increased. Morphine is often bought in pill form, then sold to heroin users who inject it as a substitute for heroin.

3.6.6 HALLUCINOGENS

A high percentage of IDU (84%) reported ever having used hallucinogens, although only 19% reported using in the previous six months. This result is similar to that found in the 2000 IDRS. Hallucinogens include 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 the general population in South Australia had ever used LSD, and 3.1% had used in the previous 12 months. Use among schoolchildren was similar, with 9.2% reporting they had ever used hallucinogens, and 1.9% saying they had used in the previous week (1999 Schoolchildren's Survey). In the total IDU sample, 15% reported ever using LSD, while 14% reported using magic mushrooms. For those who had used in the previous six months, 57.9% nominated LSD as the *main* form they had used, and 42.1% said magic mushrooms.

Swallowing hallucinogens was the most common route of administration for the 19 IDU who had used them in the previous six months (84.2%), while 31.6% reported injecting hallucinogens. There were 10.5% who had smoked hallucinogens in the previous six months, and no IDU reported snorting. The median number of days used in the previous six months was three (mean=9.3, range 1-52 days). The majority (68.4%) had used hallucinogens monthly or less, and only three (15.8%) had used at least once per week.

Key informants who were familiar with methamphetamine and heroin users were the most likely to provide information on hallucinogen use. Among methamphetamine users, two of the 16 key informants spoke about the use of LSD. Overall, use appears to be quite small in this population. LSD is predominantly taken by the younger users, and it tends to be recreational only, on weekends, at parties or at dance clubs. Six of the 12 heroin key informants spoke about hallucinogens, reporting the low prevalence of use among the heroin users. Two said that any use was again predominantly within the younger population. One key informant who provided some information on cocaine users said that hallucinogens are popular among the recreational cocaine users, who tend to take many of the so-called 'party drugs' on weekends and special occasions, usually at parties or dance clubs.

The price of LSD, as provided by the ABCI in the period January to June 1999, was $20 to $25 for one tab of acid, and $10 for more than 25 tabs of acid. More recent information on the price of LSD was not available.

3.6.7 INHALANTS

There were 40 IDU (40%) who reported ever having used inhalants, with only six (6%) having used in the previous six months. The 1998 National Drug Strategy Household Survey results for South Australia reported that 4.2% of the general population had ever used inhalants, and 0.7% had used in the previous 12 months. Indeed, persons of school age appear to have a much higher prevalence of inhalant use than the general population, with 20% reporting they had ever used inhalants, and 4.5% had used in the previous week (1999 Schoolchildren's Survey).

The six IDU who had used inhalants in the previous six months all nominated 'nitrous oxide' as the main one they had used, with a median of three days use (range: 1-14). Five of the IDU had used inhalants between one and five times in the previous six months, and one reported using once a fortnight. Inhalant use was evenly distributed between males and females, and the median age was 24.5 years (range 19-35). This is much younger than the median age of the whole sample (32.5 years).

Very few key informants mentioned the use of inhalants. Consistent with the IDU results, the key informants observed that the use of these drugs is predominantly associated with 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.

3.6.8 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.

3.6.9 SUMMARY OF OTHER DRUG TRENDS

A summary of other drug trends can be found in Table 3.9. Methadone use has remained stable, although the incidence of diverted methadone seems to have increased. Benzodiazepine use is widespread but stable among IDU. Diazepam is the most popular, used by 60% of those who reported taking benzodiazepines. The price of ecstasy has increased. Use of ecstasy is low in this population, although there is some evidence that it is increasing. The use of anti-depressants, hallucinogens and inhalants is stable and low. Other opiate use is also stable, with codeine phosphate and panadeine forte the most popular types. Morphine use has increased markedly compared with the 2000 IDRS survey. Illicit use is high, and a large percentage of morphine users are injecting. Steroid use was not investigated.

Table 3.9 Summary of trends in other illicit drug use

Methadone	• 40% of IDU who had used methadone in the previous six months were not in treatment, compared with one-third in the 2000 IDRS • Injecting of methadone (16% in the previous six months) was lower than 2000 IDRS, and comparable with 1999/1998 IDRS • Methadone predominantly used licitly, in syrup form
Benzodiazepines (BZD)	• Use remains widespread among IDU but stable • Nearly half used BZD at least twice per week • Diazepam was used by 60% of IDU who used BZD • Trend for use of multiple BZD, but no use of flunitrazepam • Nearly 58% reported the use of BZD obtained illicitly • Increase in injecting of BZD: 9% had injected in the previous six months compared with 4.7% in the 2000 IDRS
Antidepressants	• Prevalence of use is stable • Predominantly used for therapeutic purposes • SSRIs or tricyclic anti-depressants used
Ecstasy	• Price has increased: currently ranges from $35 to $80 (ABCI) • Mean purity 37% and stable (ABCI) • Not widely used among IDU, but may be increasing, especially among younger users • Increase in the use of other designer drugs (fantasy, ketamine)
Other Opiates	• 23% of IDU using (stable) • The majority (87%) were using less than once a week • Codeine phosphate and panadeine forte were the most popular
Morphine	• Use has increased: 43% of the total sample had used in the previous six months compared with 7.5% in the 2000 IDRS • 79% of those who used morphine in the previous six months had injected it, and mainly obtained it illicitly • Nearly ¼ of those who had used morphine in the previous six months used on a daily basis
Hallucinogens	• Low prevalence of regular use among IDU • Associated with younger users, and use is recreational
Inhalants	• Low prevalence of regular use among IDU • Associated with younger users, and use is recreational
Anabolic steroids	• Not monitored in 2001

4.0 OTHER DRUG-RELATED ISSUES

4.1 GENERAL HEALTH

Sixty-three percent of IDU (n=63) reported experiencing at least one injection-related health problem in the previous month, with a median of two problems (range: 1-5). Of these, most reported experiencing either one (49.2%) or two (27%) problems. The remainder had experienced three (11.1%), four (11.1%) or five (1.6%) problems.

The two most commonly reported injection-related health problems were scarring/bruising (65.1%) and difficulty injecting (52.4%). One-third reported thrombosis, 27% had experienced a 'dirty hit' (and consequently felt sick) and 9.5% had developed abscesses or infections. Only one IDU (1%) had a non-fatal overdose in the previous month. This is similar to the 2000 IDRS, where three IDU (2.8%) reported a non-fatal overdose.

The IDU who had recently injected methadone were more likely to have experienced scarring or bruising in the previous month compared with those who had not (75% versus 34.5%), and this difference was statistically significant (χ^2_1=7.5, p<0.01). They were also more likely to have experienced difficulty injecting in the previous month (50% versus 29.8%). However, this difference was not statistically significant (χ^2_1=1.7, p>0.05). Similar percentages reported developing abscesses or infections (6.3% versus 6%) and experiencing a dirty hit (18.8% versus 16.7%). There was no significant difference in the mean number of total problems experienced (1.6 compared with 1.1, t_{98}=1.5, p>0.05).

The 12 heroin key informants discussed several heroin-related health issues that had changed over the previous six months. Five (41.7%) noted a decrease in heroin overdoses, possibly attributed to the decrease in the quality and availability of heroin, and consequently the decrease in use. However, this has ultimately led to an increase in other problems. Many heroin users have switched to other drugs (methamphetamine, benzodiazepines) to cope with the lack of heroin. These drugs are predominantly injected to achieve the maximum effects, and five key informants observed that this has had unpredictable effects, both physical (abscesses, bruised veins, chest and skin infections) and psychological (anxiety, depression, psychosis).

The 16 methamphetamine key informants also raised many health issues and implications observed among the methamphetamine users with whom they had contact. More than half spoke of the increasing emergence of mental health problems, including psychosis, depression, anxiety and violent behaviour. These adverse effects may be a result of increased use of much stronger forms of the drug, and they are also manifested at a more rapid rate in users. The drug and alcohol workers noted a high incidence of clients with depression or bipolar disorders, as well as low self-esteem, suicidal impulses and self-destructive behaviour patterns. Many key informants also observed an increase in general health problems, such as poor hygiene, weight loss, malnutrition, skin problems, the development of infections due to an increase in intravenous use, and heart and chest conditions. One KI noted a change in the using procedures that has had health implications. In the past, users mixed the drug in a spoon with approximately 70-mL of water, then transferred the solution into the syringe. Now there is an increasing

trend to use less water, and mix the solution directly in the bag without using a filter. This has led to problems, such as vein damage, infections and skin irritations. Two KI noted an increase in Hepatitis C among this group. One of these said that while users are adamant that they don't share needles, they don't realise they can contract Hepatitis C by sharing other injecting equipment, such as filters and tourniquets.

According to the seven cannabis key informants, very few cannabis users were in treatment, or sought treatment. Consistent with the results reported in the 2000 IDRS, cannabis users did not believe that they required treatment for their cannabis use, and were unaware of the health effects of heavy cannabis use. Perhaps more importantly, two key informants (a psychologist and a community drug and alcohol worker) noted significant emotional and social adverse effects among the cannabis users they came into contact with. These included the inability to find employment, and mental health issues such as depression, low self-esteem and feelings of isolation and withdrawal from society. The two drug treatment telephone counsellors noted the large number of calls from parents concerned about their child's use of cannabis and its impact on the family unit. They reported an increase in paranoia, aggression and violence, as well as a lack of motivation at school. This behaviour was also noted by three other key informants who had regular contact with cannabis users: a community drug and alcohol worker, a police officer, and a drug and alcohol nurse. This behaviour was attributed in part to the increased strength of cannabis reported by users.

One key informant who worked as a community drug and alcohol worker reported several problems observed among cocaine users. These include mental health issues (psychosis), physical issues associated with intravenous use, and legal issues such as property crimes and assault. However, the key informant noted that these users rarely come to the attention of police for using cocaine specifically, and so these crimes are not attributed to their use of the drug.

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

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. A total of 7282 telephone contacts were made during the 2000/2001 financial year, where a record was made of the main drug type for which information was being sought. The callers were predominantly members of the general public wishing to obtain information about specific drugs. Most contact calls were related to alcohol (*n*=2065, 28.4%) followed by cannabis (*n*=1369, 18.8%). There were 791 (10.9%) opiate-related contacts, predominantly for heroin (*n*=441, 6.1%), methadone (*n*=206, 2.8%) or other opioid pharmacotherapies such as naltrexone and buprenorphine (*n*=103, 1.4%). There were 1085 contacts related to the amphetamines (14.9%), 43 cocaine contacts (0.6%), 76 ecstasy contacts (1%) and 174 benzodiazepine-related contacts (2.4%). There were an additional 1039 calls requesting information on more than one drug (14.3%). There has been a decrease in the number of calls for heroin and other opiates compared with the 1999/2000 financial year (11.8% for heroin and 7.5% for other opiates compared with 6.1% and 4.2% in 2000/2001).

Data were also obtained from a national census of clients of treatment service agencies (COTSA). This census was carried out in May 2001 to identify the characteristics of

clients attending drug and alcohol treatment services (Shand & Mattick, 2001). Table 4.1 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 4.1 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)

4.2 NEEDLE SHARING BEHAVIOUR

In the previous month, 90% of IDU reported that they had not used a needle after someone else. This was 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 generally stated that there was an increased awareness of the risks associated with sharing needles. Of the 10 IDU who did report using needles after someone else, five (50%) had done so once or twice only, two (20%) had done so between three and five times, and the remaining three (30%) had done so more than five times. The majority of these (80%) said they had used a needle after one person only, and it was always their regular sexual partner or a close friend. No IDU reported sharing needles with acquaintances or strangers. Similarly, 86% of IDU in 2001 reported that in the previous month, they had not lent their needle to anyone else after they had used it. This is also higher than that reported in 2000, where 78.5% of IDU had not lent a needle to someone else. However, this difference was not statistically significant. Of the 14 IDU who had lent their needle to someone, 71.4% had lent their used needles once or twice, 14.3% had lent them 3-5 times and 14.3% had lent them more than five times.

More IDU reported sharing injecting equipment than sharing needles. While 41% reported not sharing any equipment in the previous month, 35% had shared spoons, 31% had shared water, 25% had shared filters and 15% had shared tourniquets. One IDU also reported sharing syringe containers to store the needles.

4.3 OVERDOSE

Of the 87 IDU that had ever used heroin, 46% (*n*=40) had experienced overdosing on heroin between 1 and 25 times. This is lower than the percentage in the 2000 IDRS, which was 54%. However, this difference was not statistically significant. In 2001, 40% (*n*=16) of those who had ever overdosed had done so once, and 20% (*n*=8) had done so twice. This was comparable with the percentage of IDU overdosing once or twice in the 2000 and 1999 surveys (56.5% and 65.3%, respectively). In 2001, the remaining IDU who had overdosed on heroin had done so three to four times (*n*=8, 20%) or five times or more (*n*=8, 20%). The median amount of time between interview and the last overdose was 21 months (range: 1-240 months). For the 21 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 18 months (range: 2-108 months). Forty percent reported that they had overdosed on heroin within the previous 12 months, and 17.5% had experienced an overdose within the previous six months. Although the percentage in the 2000 IDRS who had overdosed in the previous 12 months was similar (37%), the percentage in the previous six months was higher compared with the present sample (26% in 2000). This difference was not statistically significant.

Only four of the heroin-using IDU (4.6%) reported having overdosed on morphine. Two of these had overdosed within the previous 12 months. The amount of time between interview and last overdose ranged from 2 to 240 months.

Of the IDU interviewed, 69 (69%) had been present at another user's overdose (range: 1 to 30 times). This is slightly higher than the percentage in the 2000 IDRS, which was 63.5%. Of the 69 IDU who had been present at someone else's overdose, in 20% of cases this overdose had occurred in the previous six months. In comparison, of the 68 IDU in the 2000 survey who had been present at someone else's overdose, in 37% of cases this overdose had occurred in the previous six months. This difference was statistically significant (Fisher's Exact Test $p<0.05$). The median number of times that IDU had been present when someone else had overdosed was three (1-4 times, *n*=38, 55.1%; 5-10 times, *n*=19, 27.5%; 10-30 times, *n*=12, 17.4%). The length of time between interview and last presence at an overdose ranged between one week and 192 months (median 16 months). Of the 69 who had observed an overdose, 60 (87%) had been present at one or more non-fatal overdoses, and 24 (34.8%) had been present at one or more fatal overdoses. The total, or cumulative number of non-fatal overdoses that IDU in this sample had ever seen was 330. The cumulative number of fatal overdoses was 37. From these data it is possible to estimate that the ratio of fatal to non-fatal overdose was approximately 1:9 in this population. This was similar to the ratio reported in the 2000 IDRS, which was 1:10.

There has been an increase in the number of opioid-related fatalities in South Australia, and in Australia as a whole, between 1988 and 1999. Figure 4.1 shows a year-by-year

total number of deaths between the years 1988 and 2000. There were 52 deaths in South Australia in 1999, and 958 deaths Australia-wide. There was evidence of a decrease in 2000, with 40 deaths in South Australia and 725 Australia-wide. This represents a decrease of 25% in the rate of opioid overdose in Australia between 1999 and 2000 (84.8 per million persons in 1999 compared with 112.5 per million persons in 2000), and a decrease of 23% in South Australia. In addition, the most recent coronial data from January 2001 to October 2001 inclusive shows a further decrease in the numbers of opioid-related fatalities in South Australia (see Figure 4.2). In the first ten months of 2001 there were 12 reported opioid-related fatalities. This represents a 77% decrease between 1999 and 2001.

There thus appears to be agreement between the three sources of data (IDU, KI and OTHER) that there has been a decrease in heroin overdoses in the six to 12 months prior to the 2001 IDRS survey. This may be due to the decrease in availability and purity of heroin reported by both IDU and KI, which has been referred to as a heroin 'drought' (see section 4.5 for further information).

Figure 4.1 Opioid-related fatalities between 1988 and 2000 in South Australia and Australia respectively among those aged 15-44 years.

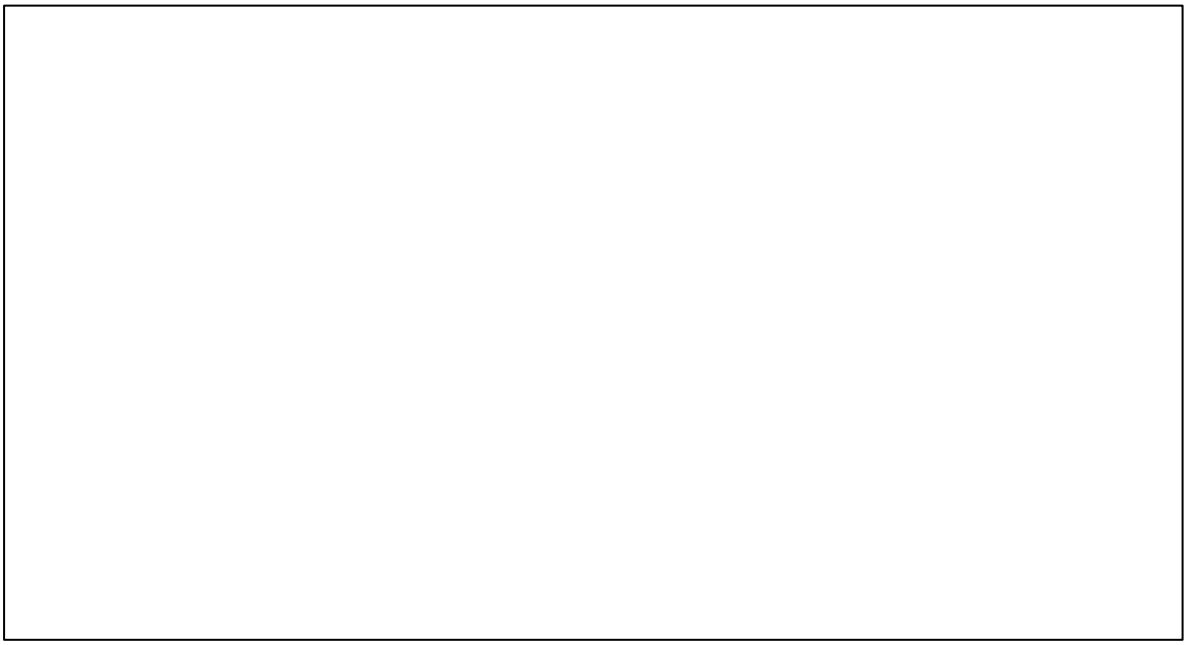
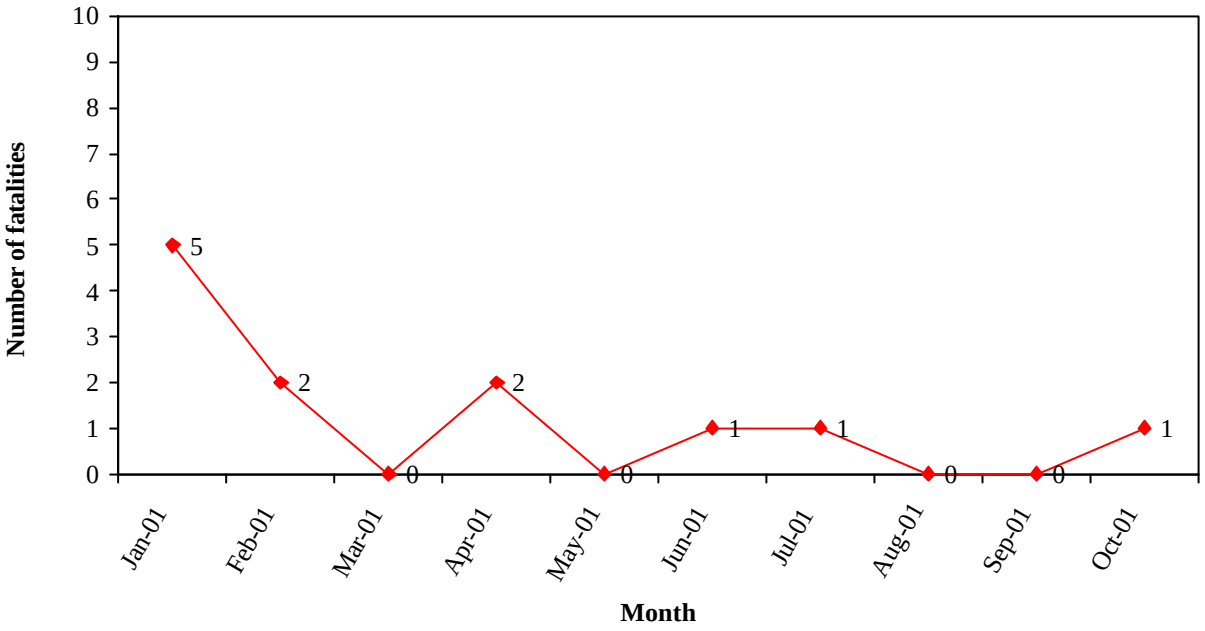


Figure 4.2: Opioid-related fatalities in South Australia (January-October 2001)



Another valuable source of indicator data is the number of drug-related ambulance attendances in South Australia by the South Australian Ambulance Service (SAAS). During the period January 1998 to June 2000, statistics provided by the Australian Institute of Criminology show that the number of callouts to ambulance services related to drug use in the metropolitan area of Adelaide increased by 34.9% (Fig. 4.3). The number of callouts in the six-month period from January to June 1998 was 715 (339 attendances, 376 carries). From January to June 2000 the total number was 965 (447 attendances, 518 carries). However, statistics provided by the South Australian Ambulance Service (SAAS) for the period July to December 2000 and January to July 2001 indicate a *decrease* in the number of drug-related attendances compared with the previous year. From July to December 2000 the total number was 802 (437 attendances, 365 carries) and from January to July 2001 the total number was 647 (320 attendances, 327 carries). This represents a decrease of 16.3% for the total number of callouts between July 1999/June 2000 (*n*=1732) and July 2000/June 2001 (*n*=1449). It is also interesting to compare the number of callouts over the entire 12-month period from July 2000 to June 2001 (Fig. 4.4). There is a clear decrease in both the number of attendances and carries in January 2001 and April 2001. This finding is consistent with the decrease in opioid overdoses, and may also be a consequence of a heroin 'drought' in South Australia (section 4.5).

Figure 4.3 South Australian Ambulance Service drug-related callouts from January 1998 to June 2001

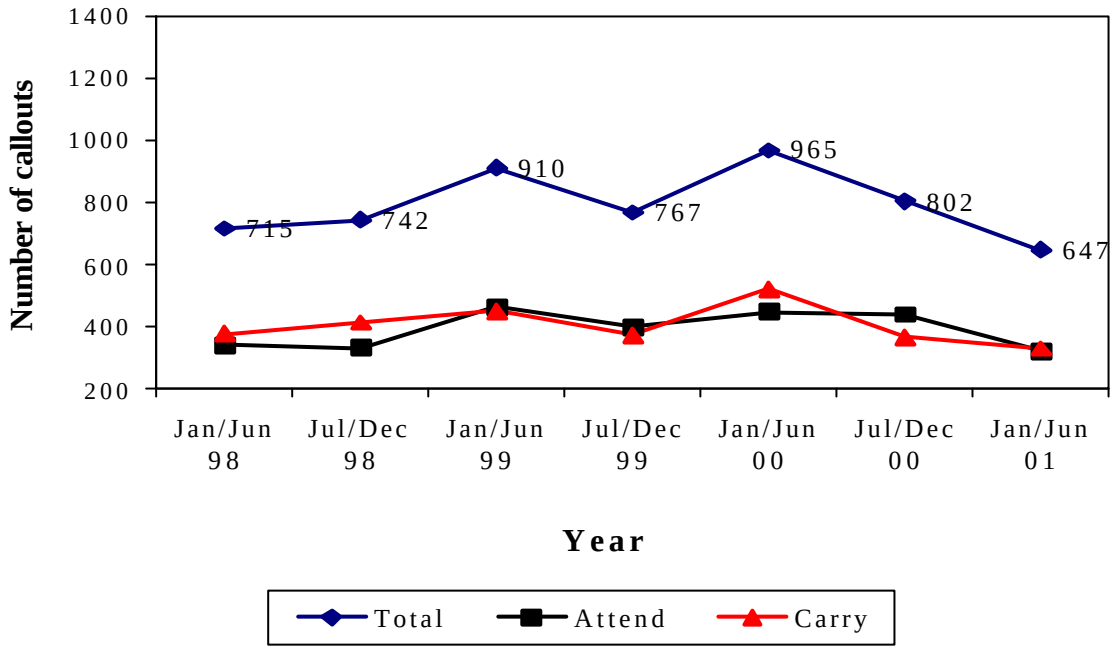
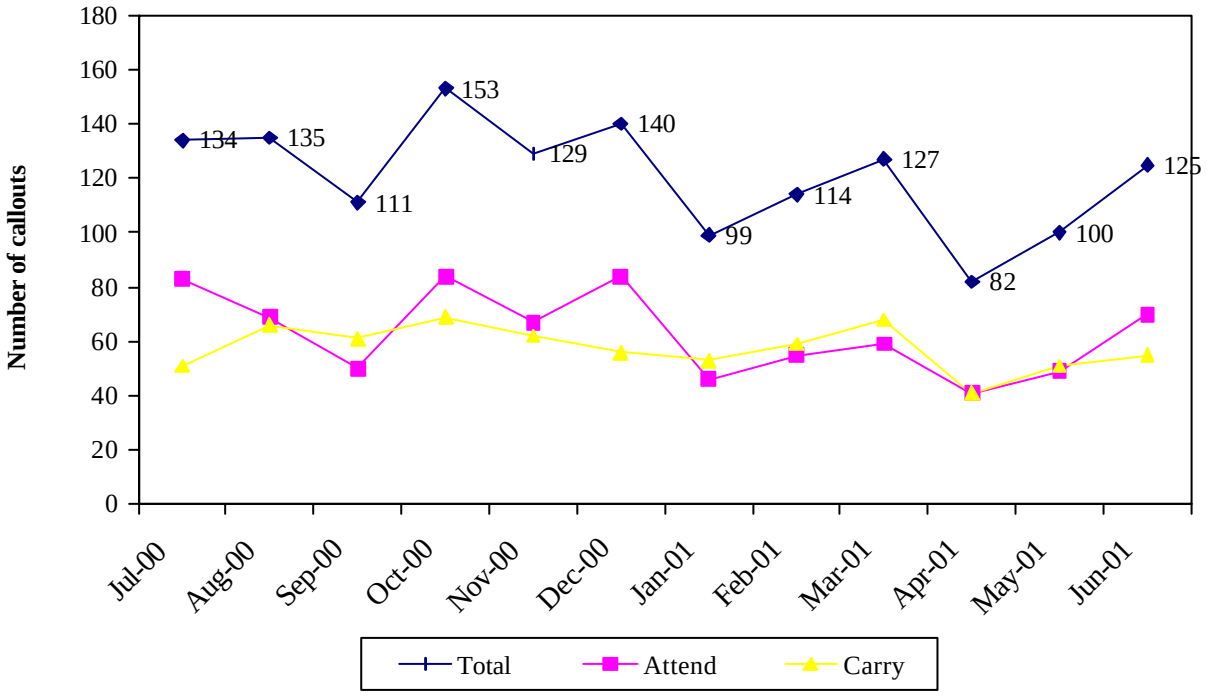


Figure 4.4 South Australian Ambulance Service drug-related callouts from July 2000 to June 2001 by month



The number of drug-related presentations to the Accident and Emergency Unit of the Royal Adelaide Hospital has remained relatively stable for alcohol, cannabis and cocaine. However, Table 4.2 shows that there has been a slight decrease in amphetamine-related attendances, and a marked decrease (45.7%) in heroin-related attendances. In contrast, there has been a relatively large increase (41%) in attendances for benzodiazepines. The results for heroin and benzodiazepines are in keeping with reports from KI and IDU survey data.

Table 4.2 Number of attendances at Royal Adelaide Hospital Accident and Emergency Unit during 1999/2000 and 2000/2001 by drug type

Drug	**1999/2000**	**2000/2001**
Alcohol	1236	1257
Amphetamines	103	88
Heroin	221	120
Cocaine	1	2
Cannabis	18	12
Benzodiazepines	143	201
LSD	2	1
Opiates	-	-
Opium	3	6
Others*	673	764
Total	**2404**	**2451**

**Poisons, toxins, phenothiazines, paracetamol, antidepressants and anticholinergics*

4.4 CRIME AND POLICE ACTIVITY

The IDU were asked about criminal behaviour in regard to their drug use. Forty percent of the sample said they had committed at least one criminal act in the previous month. This is lower than the percentage in the 2000 IDRS, which was 48.9%. However, this difference was not statistically significant. Dealing and property crime were the most common crimes committed in the 2001 sample of IDU, and frequency of criminal activity by crime type over the previous month is shown in Table 4.3.

Table 4.3 Frequency of criminal activity in the previous month among IDU, by crime type

Crime Type - Percentage	**Property%**	**Dealing%**	**Fraud%**	**Violent%**
No crime	86	69	95	90
Less than once a week	7	6	1	8
Once a week	3	7	2	1
More than once a week	1	11	0	0
Daily	2	6	1	0
Refused to answer	1	1	1	1

Thirty-five percent of all 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=35), violent crime was the most common reason given (31.4%), followed by property crime (25.7%), fraud (14.3%), dealing/trafficking (8.6%) and possession/use of a prohibited substance (5.7%). The remainder reported arrest for another crime, including outstanding warrants (17.1%) and unlicenced driving (2.9%). The violent crimes reported by IDU included domestic disputes, armed robbery and assaulting a police officer. The property crimes included break and enter, shoplifting and car theft. There was an increase in the number of people arrested for violent crimes: of those who had been arrested, 31.4% had committed a violent crime (11% of total IDU) compared with 9% in the 2000 survey (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 survey, as a reflection of whether or not it may have been necessary to commit a crime to raise money for drugs. Fifty-six percent said they had spent at least some money on drugs during the previous day. This is much lower than in the 2000 IDRS, where 75% of users had spent money on drugs in the previous day. There were 18% who reported spending less than $50 on drugs, 11% reported spending between $50 and $99, 16% between $100 and $199, and 11% spent $200 or more.

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. The seven cannabis key informants reported that crime among this group was relatively small and stable. Five key informants did note an increase in property crimes, usually 'break and enter' of residences to steal cannabis plants. Two also noted that as many cannabis growers are unemployed, they are collecting money from the government while making a substantial amount of money through selling cannabis. The main observation was an increase in reports of persons growing cannabis hydroponically, and that these hydroponic systems are become more sophisticated. The three police officers said that all the cannabis in South Australia was produced locally, and then exported to other states. Two key informants reported that the cannabis being produced was much stronger, due to an improvement in growing techniques. One of these, a police officer, said that new strains were being produced that increase the levels of THC, which is the main active ingredient in cannabis. The plants are also much larger, and consequently the heads are larger. The three police officers also commented on the number of cannabis-related arrests and seizures in the previous six to 12 months. Two reported an increase in both, attributing this, in part, to the success of "Operation Atlantic", where cannabis growers were "dobbed in" by the public phoning in. There has also been an increase in the amount of cannabis seized, all of which were hydroponic set-ups obtained from domestic premises. They reported that the cannabis seizures were predominantly head, with leaf rarely found. Four key informants also provided information on cannabis dealers. They are usually unemployed, and make their money through the growing and selling of cannabis. These growers/dealers do not have any specific distinguishing characteristics, and can be from any geographical area, although a large number are males aged between 30 and 40 years.

The main observation by methamphetamine key informants was an increase in violent crimes committed by users. This was largely attributed to the increased strength of the drug. Several key informants observed that users report feeling more stimulated, take

more risks, and tend to respond to situations in an aggressive and violent manner. Seven key informants listed specific crimes that seem to have increased among this group. These include home invasions, assaults, domestic violence and armed robberies. One key informant who was a police officer noted that crimes also occur within the drug community itself between users and dealers, many of which are unreported. Five key informants reported an increase in property crime, including theft and break and enter. An additional five noted that although there has been no change in the amount of crime, a high proportion of this group of users do commit such crimes. Similarly, three reported an increase in the number of users who deal/sell methamphetamine, and eight said that although there has been no visible change, a high proportion of users are also dealers at a street level. These key informants covered a broad range of professions and geographical areas, comprising three peer educator/clean needle program workers, two community drug and alcohol workers and two police officers.

Another observation reported by many of the methamphetamine key informants was the increase in local clandestine laboratories. These laboratories tend to be mobile or portable, in order to reduce the possibility of being caught by the police. Two informants spoke of the increased difficulty in producing methamphetamine due to the strict regulation of many of the chemicals required in the production process. The consequence of this is that new chemicals are being used as substitutes, many of which are having unpredictable and toxic effects among users. One also noted that very little powder methamphetamine is being produced, with an increased focus on producing crystal meth. However, the stronger forms of methamphetamine such as 'blue ice' tend to be imported from overseas, and the quality of the drug produced locally is relatively low. Three informants said there were several levels of dealing, with the high-level dealers unlikely to be users themselves. However, the street-level dealers are usually users, and tend to be young. All three also said that these user-dealers tend to be Caucasian, and although they are mostly male, there has been an increase in the number of younger females selling methamphetamine. One key informant who was a police officer reported an increase in arrests of both users and dealers at a street level. However, there were no reports of an increase in seizures of methamphetamine. The key informant said that people tend to walk around with small amounts in case they are stopped and searched by the police.

Many of the key informants who spoke about heroin users also reported an increase in overall crime among this group. This increase was partly attributed to the decrease in strength of heroin. Users need more heroin (and thus more money) to achieve the same effects, and many are using other drugs as well, which leads to an increase in crime to support this use. As with methamphetamine, six key informants listed specific crimes that seem to have increased among this group. These include violent crimes such as home invasions, assaults, domestic violence, armed robberies and bag snatching. There has also been an increase in property crimes such as break and enter, car theft, shoplifting and distributing stolen goods as a trade for heroin. These key informants also covered a broad range of professions and geographical areas, comprising three peer educator/clean needle program workers, two police officers and one medical officer. In addition, five key informants stated that while they have not noticed any change in the amount of crime, a high percentage of this group of users commits crimes to finance their use, especially break and enter and bag-snatching. It is important to note that one key informant identified a small sub-group of heroin users who have stopped using as a

result of the decrease in strength and availability of the drug. Among this group there has been a decrease in crime, and many have found employment.

The three key informants who were able to provide information on the manufacturing and selling of heroin all agreed that heroin is not produced locally. It is generally imported from South-East Asia, then comes into Adelaide via the Eastern states. However, heroin is often cut locally, and the wide variety of agents used leads to a decrease in the quality that is eventually sold at a street level. The high-level heroin dealers are believed to predominantly be Vietnamese or Indo-Chinese, and are unlikely to be users themselves. Conversely, the street-level dealers are often users, and sell heroin to support their use. One police officer spoke of a syndicated selling operation involving juveniles, usually aged 14-16 years. One person will control a group of 5-6 juveniles, who do the selling at a street level.

Very little information was available on cocaine use and crime. The three key informants who provided information on cocaine users consistently reported that they are not a group that come to the attention of police for using cocaine. One police officer observed that they are more likely to catch cocaine dealers than users. These dealers are predominantly male Caucasians, aged between 30 and 35 years, and are usually caught with other drugs as well as cocaine, mainly ecstasy and methamphetamine.

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

The IDU were asked if they had observed any recent changes in police activity. One-fifth of IDU (20%) were unsure. There were 39 (39%) who reported that police had become more active recently, 37% said activity had remained stable, and only 4% said that police activity had decreased. This is slightly higher than in the 2000 IDRS, where 33.6% reported an increase in police activity. Only 14% said that police activity had made it more difficult for them to score drugs, and the majority (72%) said that the number of friends who had recently been apprehended had remained stable or decreased. In the 2000 survey, a higher percentage of IDU (25.5%) reported that it was more difficult to score drugs, although the number of friends that had been apprehended did not change. It thus seems that while IDU in 2001 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 56 IDU (56%) who commented on the changes they had observed in police activity. The majority (n=29) spoke of the increase in a wide range of police activities at a street level. These included increases in patrols, unmarked vehicles and both uniformed and undercover police on the streets. They noted an increase in police stopping people both on the street and in their cars to question and carry out searches. There were also reports of an increase in police surveillance of areas associated with drug use and drug dealing, as well as targeting known drug dealers. Thirteen IDU reported an increase in drug seizures by police, six specifically referring to hydroponic cannabis set-ups, and seven referring to raids on homes focusing on dealers and drug manufacturing laboratories. Only four stated that there had been a decrease in police activity, observing that there were less police on the streets and that the users were being left alone.

The majority of key informants had also noticed an increase in police activity towards drug users based on information from the users they came into contact with. One of the major changes noted by all groups was the increased awareness by police of the psychological and social issues associated with drug use. This includes a greater focus on harm minimisation, and an understanding that drug use is not just a law-enforcement problem, but also a wider public health problem.

Seven of the 16 key informants who spoke about methamphetamine reported an increase in police activity towards this group, while the remaining nine had not heard of any changes in their contact with these users. The main types of changes included an increase in visible police presence on the streets, as well as an increase in people being stopped, questioned and searched by police. There were also reports of an increase in cars being pulled over and searched in targeted areas. The key informants who worked as police officers reported an increase in the number of apprehensions for the manufacture of methamphetamine, and that methamphetamine is being recognised by police as an emerging problem. There is now a focus on methamphetamine at a street level ('Operation Mantle'), which includes targeting areas known for drug-related activities, and also targeting high-profile dealers.

Two-thirds of the key informants who spoke about heroin users reported an increase in police activity, while the remaining one-third said there had been no change. Similar to the reports from methamphetamine key informants, there had been an increase in police presence and activity on the streets. This included people being stopped, questioned and searched by police, as well as car searches. There were reports of police targeting specific areas known to be associated with drug use and drug dealing. The police officers also spoke of the success of 'Operation Mantle' in focusing on low-to-middle level street dealers.

In the 2000/2001 financial year there were a total of 4761 reported offences to South Australian police associated with either drug use/possession (n=1624, 34.1%) or provision of drugs including the import/export of drugs, sell/trade of drugs and production/manufacture of drugs (n=2240, 47.1%). In addition, there were 897 (18.8%) other drug-related offences, including forging of scripts, possession of implements and miscellaneous drug offences (SAPOL Annual Report 2000/2001). The results are similar to the number of reports to SAPOL in 1999/2000 (4780 reports: possession 38.5%, provision 39%, other drug-related offences 22.4%), and overall represent a 0.4% *decrease* in such offences. Table 4.4 shows a breakdown of arrests for possession and provision by drug type in South Australia for both 1999/2000 and 2000/2001. There has been an increase in the total reports for possession and provision between 1999/2000 and 2000/2001 (3707 compared with 3864). Report for possession was more prevalent than report for provision except in the case of cannabis and cocaine. Cannabis was most commonly the drug involved in drug-related reports, followed by amphetamines and opiates. Although there were few reports of cocaine possession/provision during this period, there was an increase in 2000/2001 (5 compared with 35). Similarly, there has been an increase in the possession/provision of amphetamines (812 compared with 760 in 1999/2000), while there has been a decrease in arrests for heroin and other opiates (255 compared with 331 in 1999/2000).

Table 4.4 Number of arrests (possession and provision) by drug type in South Australia during 1999/2000 and 2000/2001

Drug type	Possession		Provision[+]		Total reports	
	99-00	00-01	99-00	00-01	99-00	00-01
Cannabis	962	890	1485	1770	2447	2660
Opiates*	217	141	114	114	331	255
Amphetamines	556	538	204	274	760	812
Cocaine	2	11	3	24	5	35
Hallucinogens	47	16	16	9	63	25
Other/unknown	57	28	44	49	101	77
Total	**1841**	**1624**	**1866**	**2240**	**3707**	**3864**

**Includes heroin; [+]Provision includes import/export, sell/trade and production/manufacture of drugs. Cannabis reports do not include cannabis expiation notices.*

Table 4.5 shows the number of reported crimes in South Australia during 1999/2000 and 2000/2001 for a variety of offences that did not involve the possession or provision of drugs. There was an increase in all types of crime, with the exception of larceny from motor vehicles. This includes a 25% increase in crimes involving robbery, a 20% increase in larceny and a 15% increase in crimes involving assault. Overall, there was a 15.4% increase in offences against the person and a 12.6% increase in property offences between 1999/2000 and 2000/2001.

Table 4.5 Reported crime in South Australia during 1999/2000 and 2000/2001

Offence	1999/2000	2000/2001	% Change
Robbery/firearm	78	105	34.6
Robbery/weapon	430	563	30.9
Robbery/unarmed	1,011	1,227	21.4
Total Robbery	***1,519***	***1,897***	***24.9***
B&E/Dwelling	20,279	20,867	2.9
B&E/Shop	4,143	4,410	6.4
B&E/Other	10,460	12,649	20.9
Break and Enter	***34,882***	***37,925***	***8.7***
Larceny from MV	26,300	23,955	-8.9
Larceny from shop	6,039	7,737	28.1
Other Theft	32,791	46,144	40.7
Total Larceny	***65,130***	***77,806***	***19.5***
Fraud/Forgery/ Misappropriation	***7,267***	***8,525***	***17.3***
Serious Assault	1,884	2,123	12.7
Minor Assault	11,474	13,262	15.6
Assault Police	923	1,019	10.4
Total Assault	***14,281***	***16,404***	***14.9***

Another source of information about drug use, crime and police activity was derived from a police contact survey executed as part of 'Operation Mantle'. Operation Mantle commenced in October 1998 as a SAPOL initiative to disrupt the activity of low and middle-level drug dealers in South Australia. The contact survey involved questioning injecting drug users about their use of illicit drugs, perceptions of recent changes in the price, purity, availability and in the policing of illicit drugs, and experience of and views on drug treatment. A total of 173 respondents were interviewed between October and November 1999. The survey was repeated between October and November 2000 with 180 respondents. Data were collected and analysed by the Australian Institute of Criminology (AIC).

In 1999, 57% of the respondents were male, aged between 18-51 years with a mean age of 32.6 years. Just over one-quarter (28%) of respondents were employed or were students, and 76% were currently undertaking some form of drug treatment. In the 2000 sample, 65% of respondents were male, aged between 19-52 years with a mean age of 33.7 years. Less than one in four (24%) were employed or were students, and 68% were currently undertaking some form of drug treatment. There were no significant differences between the 1999 and 2000 samples in their demographic characteristics.

Respondents also provided information on the price, purity and availability of heroin and amphetamines. In the 1999 sample, 65% had used heroin and 30% had used amphetamines in the previous month. Less than one in ten respondents reported that the price of either heroin (7.1%) or amphetamines (4%) was increasing, and the majority said that these drugs were very easy or easy to obtain (96.4% for heroin and 92.2% for amphetamines). Furthermore, the majority indicated that the availability of these drugs had not changed in the previous month (75% for heroin and 70% for amphetamines). Just over 20% reported that police activity had made it difficult to score drugs recently. Slightly more respondents in the year 2000 sample had recently used heroin (70%) or amphetamines (38%). Less than one in 20 respondents reported that the price of either heroin (2.4%) or amphetamines (4.3%) was increasing, and as in 1999 the majority said that these drugs were very easy or easy to obtain (97.6% for heroin and 82.3% for amphetamines). The majority also indicated that the availability of these drugs had not changed in the previous month (85.7% for heroin and 73.9% for amphetamines). In 2000, 19.1% reported that police activity had made it difficult to score drugs recently. Again, differences between the 1999 and 2000 sample were not statistically significant. These results appear to be inconsistent with the results obtained from injecting drug users in the present study, which reported a decrease in heroin purity and availability and an increase in price compared with the previous year. However, it is important to note that respondents in the police contact survey were interviewed in October and November 2000, which is prior to the heroin 'drought' which has been documented as beginning in late 2000.

4.5 THE HEROIN DROUGHT

There have been many reports of changes in the price, purity and availability of heroin in Australia from late 2000 associated with a heroin 'drought' (Dietze *et al.,* 2001; Steele, 2001). The results of the 2001 IDRS provided several indicators of a heroin drought in Adelaide. The IDU data showed that there has been a shift from heroin use to methamphetamine use in this year's survey. The IDU were asked to nominate their drug

of choice (favourite or preferred drug). While 56% in the 2000 survey nominated heroin and 30% methamphetamine, in 2001 the percentages who nominated each drug were very similar: 43% chose heroin and 37% methamphetamine. Furthermore, 27% of IDU who first injected heroin gave methamphetamine as their drug of choice (compared with 2.8% in the 2000 survey). Similar patterns were found in the IDU reports of the drug they had last injected and the drug they had injected most in the last month. Methamphetamine was the drug last injected by 50% of IDU and the drug most often injected by 43%, followed by heroin (32% and 38%, respectively). This also represents a change compared with the 2000 IDRS, where heroin was the predominant drug injected both last (56%) and most often (59%), with methamphetamine reported at much lower percentages (34% for both measures).

The 2001 IDRS also reported an increase in the use of some other drugs by the IDU. Morphine was nominated as the drug last injected and the drug most often injected by 11% of IDU, compared with only 2.8% in 2000. This difference was statistically significant. These findings are consistent with reports from several key informants, who noted an increase in the use of other drugs by heroin users they had recently had contact with. They mainly attributed this to both the reduced availability and reduced purity of heroin. Other drugs that key informants noted were used by this group include benzodiazepines, methadone and morphine.

There were also reports by both IDU and KI of changes in the price, purity and availability of heroin in 2001 compared with the 2000 IDRS. The price of heroin in 2001 was reported to be higher, while there was a decrease in both purity and availability. The percentage of IDU who reported using heroin in the previous six months in 2001 was lower than in 2000 (65% compared with 73%). Although this difference was not statistically significant, there was a significant reduction in the frequency of use. In 2001, the heroin-using IDU reported a mean of 57 days of use in the previous six months, compared with 83 days in 2000. There was also a significant increase in the percentage of IDU who reported using some form of methamphetamine in the previous six months: 81% compared with 52% in 2000. Consistent with KI reports, there was evidence of an increase in the use of other drugs among the IDU, in particular the use of morphine. In 2001, 43% of IDU reported using morphine in the previous six months compared with 7.5% in 2000. This increase in use was statistically significant. There was also an increase in the use of cocaine and in the injecting of benzodiazepines (27% versus 19.6% and 9% versus 4.7%, respectively), although these increases were not statistically significant. It is also notable that the price of cocaine as reported by IDU has decreased since the 2000 survey, and that there were cocaine seizures by AFP and SAPOL in the 2000/2001 financial year whereas there were none in the previous year. The purity of cocaine seized was also high compared with many other jurisdictions in Australia.

The evidence for a heroin 'drought' reported by IDU and KI is also supported by state indicator data presented in this report. This includes the significant decrease in opioid-related fatalities in South Australia in 2001, as well as reductions in drug-related ambulance callouts and heroin-related presentations to the RAH Accident and Emergency Department. Treatment data from the DASC detoxification unit also report a decrease in inpatient admissions for heroin and an increase in admissions for the amphetamines.

In response to the finding of a heroin 'drought', an additional component was added to the 2001 IDRS survey, which consisted of questions on this issue. There were 57 IDU who reported that heroin had been harder to obtain recently. Of these, 35% believed that this drought began in January 2001. A further 35% noted a decrease in heroin availability *before* this date, between September and December 2000, and 23% noted a decrease *after* this date, between February and May 2001. The majority (74%) believed that the drought had not broken as of mid-2001, and that availability was still reduced although there had been some improvement in availability since the drought began. The IDU were then asked if they had any comments to make on the heroin drought. Several common themes emerged from this. There were 14 IDU who stated that while the availability had either improved or returned to pre-drought levels, the purity of heroin was still low, and a further three maintained that both purity and availability were low in mid-2001. One reported the need to take larger amounts to achieve the same effects due to this low strength. Four IDU noted a trend for heroin users to start taking other drugs, including methamphetamine, benzodiazepines and other opiates. There were 12 IDU who gave a possible reason for the decrease in heroin availability. The main reason was an increase in heroin seizures by police and customs officers both in Adelaide and interstate, and an increase in the number of raids by police on domestic premises. Two IDU observed a 'zero tolerance' attitude being enforced by the government, with police concentrating more on known dealers and targeting areas that are associated with heroin use.

4.6 SUMMARY OF DRUG-RELATED ISSUES

The main drug related issues evident in the 2001 IDRS are summarised in Table 4.6. Injection related problems were prevalent among the IDU, particularly among injectors of methadone syrup. There appears to have been an increase in methamphetamine-related health effects of depression, paranoia, psychosis, aggressive behaviour and poor nutrition. There was also evidence of adverse effects associated with cannabis use, including depression, lack of motivation, and some paranoia and aggression. Ninety percent of IDU had not shared needles in the previous month, which is much higher than in the 2000 IDRS (75.7%), although a higher percentage had shared equipment (59% compared with 50% in 2000). Forty-six percent of IDU who had ever used heroin had experienced at least one overdose at sometime in their life, and 69% had viewed an overdose. The number of drug-related presentations to the Accident and Emergency Unit of the Royal Adelaide Hospital has remained relatively stable for alcohol, cannabis and cocaine. However, there has been a slight decrease in attendances related to the amphetamines, and a marked decrease in those related to heroin. In contrast, there has been a relatively large increase in attendances for benzodiazepines. There has also been a marked decrease in the number of opioid-related fatalities in South Australia in 2001.

Forty percent of IDU had committed a crime in the previous month (48.9% in 2000) and 35% had been arrested in the previous 12 months. There has been an increase in local methamphetamine manufacturing laboratories and in cannabis hydroponic set-ups. There has also been an increase in police activity, including a more visible police presence and targeting of areas associated with drug use, although it does not appear to have affected the ability of IDU to obtain their drugs.

Table 4.6 Summary of trends in drug-related indicators

General Health	• Sixty-three percent of IDU had experienced at least one injection-related problem in the previous month • Methadone injectors more likely to experience bruising/scarring and difficulty injecting • Increase in methamphetamine-related mental health problems including psychosis, depression, anxiety and violent behaviour • Increase in adverse effects among cannabis users including depression, low self-esteem, feelings of isolation and withdrawal • Also reports of an increase in paranoia, aggression and violence amor cannabis users
Needle sharing	• 10% of IDU had used needle after someone else at least once in the previous month (24.3% in the 2000 IDRS) • 14% of IDU had lent needle to someone else at least once in the previous month (21.5% in the 2000 IDRS) • Key informants reported increased awareness of risks of sharing • 59% of IDU shared equipment (50% in the 2000 IDRS)
Overdose	• Forty-six percent of heroin-using IDU had ever experienced a heroin overdose (54% in the 2000 IDRS) and sixty-nine percent had been present at an overdose (63.5% in the 2000 IDRS) • Reduction in the percentage of heroin overdoses within the previous six months: 17.5% compared with 26% in the 2000 IDRS • Marked decrease in number of opioid-related fatalities in South Australia in 2001 • Decrease in the number of drug-related ambulance callouts over the previous year by 16%
Crime	• Forty percent of IDU committed at least one crime in the previous month and 35% were arrested within the previous 12 months • Arrests were predominantly for violent crimes or property crimes • KI also reported an increase in violent crimes and property crimes among heroin and methamphetamine users • Increase in local methamphetamine manufacturing laboratories • Increase in cannabis hydroponic set-ups
Police activity	• Thirty-nine percent of IDU reported an increase in police activity • Type of increase included more uniform and undercover police, questioning and searching of people and vehicles, raids on homes and targeting of areas associated with drug use and dealing • Does not appear to have affected ability of IDU to score drugs, or the number of friends apprehended by police

5.0 COMPARISON OF DATA FROM DIFFERENT SOURCES

Tables 5.1 to 5.6 summarise the key findings and the triangulation of the data from the three sources: Injecting Drug Users (IDU), Key Informants (KI) and Secondary 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. Finally, if the space is blank then there was no information available to either support or refute the trend. The tables indicate that most findings were confirmed by at least two of the sources. The lower number of trends supported by the secondary indicator data is a reflection of the limited availability of these data.

Table 5.1 Trends in heroin indicated (✓) or not indicated (✗) by Injecting Drug Users (IDU), Key Informants (KI) and secondary indicator sources (OTHER)

Heroin Trends	IDU	KI	OTHER
Price ($350/gm, $50/cap), stable to increasing	✓	✓	✓
Availability is very easy/easy. Was more difficult to obtain in the first six months of 2001, has become more readily available as of mid-2001	✓	✓	
Purity low, stable to decreasing	✓	✓	✗
Decrease in frequency of use	✓	✓	
Decreased availability of rock heroin; mostly powder	✓	✓	
Use more geographically widespread	✓	✓	
Increase in use of other drugs due to low purity and reduced availability of heroin	✓	✓	

Table 5.2 Trends in methamphetamine indicated (✓) or not indicated (✗) by Injecting Drug Users (IDU), Key Informants (KI) and secondary indicator sources (OTHER)

Methamphetamine Trends	IDU	KI	OTHER
Price ($50/gm, $30/point), stable	✓	✓	✓
Availability very easy; stable for non-powder form and stable to difficult for powder form	✓	✓	
Purity medium to high for non-powder form and medium to low for powder form	✓	✓	
Purity 15%, similar to 2000 IDRS (17%)			✓
Increased availability and use of stronger forms of methamphetamine (e.g. crystal/ice and paste/wax/base)	✓	✓	
Increase in use by general community	✓	✓	
Increase in younger users	✓	✓	

Table 5.3 Trends in cannabis indicated (✓) or not indicated (✗) by Injecting Drug Users (IDU), Key Informants (KI) and secondary indicator sources (OTHER)

Cannabis Trends	IDU	KI	OTHER
Price ($25/bag, $200/ounce), stable	✓	✓	✓
Availability stable and very easy	✓	✓	
Potency high and stable (unverified by AFDL)	✓	✓	
Number of users widespread and stable	✓	✓	
Frequency of use stable	✓	✓	
Most cannabis is sold as 'hydroponic' and form is nearly always 'head'	✓	✓	✓

Table 5.4 Trends in cocaine indicated (✓) or not indicated (✗) by Injecting Drug Users (IDU), Key Informants (KI) and secondary indicator sources (OTHER)

Cocaine Trends	IDU	KI	OTHER
Price ($200/gm, $50/cap), stable	✓	✓	✓
Availability very easy/easy and stable	✓	✓	
Purity medium to high and fluctuating	✓	✓	✓
Use is small in South Australia compared with other drugs, but use is increasing	✓	✓	
Cocaine seizures made in South Australia by SAPOL and AFP during 2000/2001 financial year, compared with no seizures in the previous year			✓

Table 5.5 Trends in the use of other drugs indicated (✓) or not indicated (✗) by Injecting Drug Users (IDU), Key Informants (KI) and secondary indicator sources (OTHER)

Other Drug Trends	IDU	KI	OTHER
Benzodiazepine use remains prevalent among IDU (57%), diazepam most popular	✓	✓	
Increase in injecting of benzodiazepines among IDU (9%)	✓	✓	
Antidepressant use predominantly therapeutic; prevalence of use is stable	✓		
Ecstasy use small among IDU although may be increasing among younger users	✓	✓	
Ecstasy price $35-80, increased; purity 37% and stable	✓		✓
Increase in use of other designer drugs (fantasy, ketamine)	✓	✓	
Increase in morphine use among IDU (43%); has also been an increase in injecting of morphine (34%) and use reported to be mainly illicit	✓	✓	
Low prevalence of hallucinogen and inhalant use among IDU. Associated with younger users; use is recreational	✓	✓	

Table 5.6 Trends in drug-related indicators indicated (✓) or not indicated (✗) by Injecting Drug Users (IDU), Key Informants (KI) and secondary indicator sources (OTHER)

Drug related issues	IDU	KI	OTHER
Injection related problems remain prevalent among IDU, (63% reported at least one in the previous month)	✓		
Decrease in number of heroin-related overdoses and ambulance callouts	✓	✓	✓
Increase in methamphetamine-related health problems, such as depression, anxiety and psychosis	✓	✓	✓
10% used needle after someone else, and 14% lent a needle to someone else at least once in previous month (compared with 24% and 22%, respectively, in the 2000 IDRS)	✓		
Increased awareness of needle risk problems	✓	✓	
40% of IDU committed at least one crime in previous month; 35% arrested in the previous month	✓		
Arrests predominantly for violent and property crimes	✓	✓	✓
Increase in local manufacturing of methamphetamine and in cannabis hydroponic set-ups	✓	✓	
Increase in police activity	✓	✓	✓

6.0 DISCUSSION

The 2001 IDRS revealed several new drug trends in illicit drug use in South Australia. While IDU reported a relatively stable price for one cap of heroin, the price of one gram of heroin increased in 2001. According to both IDU and KI, there has been a decrease in the purity of heroin, with consistent reports that the current purity is low. Purity data from the ABCI based on AFP and SAPOL seizures of heroin are inconsistent with these reports, suggesting that the mean purity was stable. However, it is important to note that the purity data for the 2001 IDRS are only based on seizures between July and December 2000, and do not include seizures between January and June 2001. There were also reports of a reduction in the availability of the rock form of heroin, with the predominant form being powder. The IDU consistently reported that heroin was easy to obtain as of mid-2001, but that availability was markedly reduced between January and June 2001. The reports on the reduced availability of heroin were supported by data on the frequency of heroin use among the IDU. There was a significant decrease in the number of days that IDU reported using heroin in 2001, and a small decrease in the percentage who reported using heroin in the previous six months. This may indicate that heroin users were still trying to access heroin, but due to reduced availability they were not able to obtain it as often compared with the previous year.

The evidence for a heroin 'drought' reported by IDU and KI is also supported by state indicator data presented in this report. This includes the significant decrease in opioid-related fatalities in South Australia in 2001, as well as reductions in drug-related ambulance callouts and heroin-related presentations to the RAH Accident and Emergency Department. Treatment data from the DASC detoxification unit also show a

decrease in inpatient admissions for heroin and an increase in admissions for the amphetamines.

In contrast to the reduction in heroin use, there appears to have been a significant increase in the use of some other drugs by IDU, in particular methamphetamine. This was largely attributed by subjects to the low purity and reduced availability of heroin. Use has become more widespread, with potent forms of methamphetamine more readily available over the 12 months prior to mid-2001. Compared with all previous IDRS reports in South Australia (1997-2000), methamphetamine has replaced heroin as the drug most often injected in the previous six months by IDU. There was also a marked increase in the percentage of IDU who had first injected heroin, and who now nominated methamphetamine as their drug of choice. This trend is reflected in the patterns of methamphetamine use among IDU. There was a statistically significant increase in the number of IDU who had used methamphetamine in the previous six months (81% compared with 52% in the 2000 IDRS), and both IDU and KI noted an increase in younger users. This increase has also been observed in Victoria and New South Wales in the 2001 IDRS. There were also consistent reports of an increase in the use and availability of more potent forms of methamphetamine referred to as ice, crystal meth, base and paste, with the powder form of the drug less available. The use of the wax/paste/crystal forms by IDU predominated over the use of the powder form in 2001, whereas in the 2000 IDRS, the powder form was predominant.

The price of methamphetamine varied according to the form of the drug. The price of one 'point' (0.1 gram) of the stronger forms was $30, and one gram of the powder form was $50. There was no change in price compared with the 2000 IDRS. The majority of IDU reported that methamphetamine purity was medium to high for the non-powder forms, and medium to low for the powder forms. According to ABCI data, the average purity was low (15%), and similar to the 2000 IDRS (17%). However, prior to 2000, methamphetamine purity was around 5% (1999, 1998 and 1997). This increase in methamphetamine purity was also observed in other jurisdictions of Australia.

The use of high purity methamphetamine is associated with serious mental health disorders and social problems, including violent behaviour. This trend towards 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.

As in previous years, the prevalence and use of cocaine among this sample is low, particularly in comparison with New South Wales. However, the 2001 IDRS found some evidence that cocaine use may be increasing in South Australia, with a decrease in price and an increase in availability reported by IDU. It is important to note that these results are based on a small number of subjects and should be treated with caution. The price of cocaine was lower than that reported in the 2000 IDRS. Cocaine was reported by IDU to be easy to obtain in South Australia, in contrast to the 2000 IDRS where it was considered difficult to obtain. The purity of cocaine was reported by IDU as

medium to high, and purity data from the ABCI based on cocaine seizures indicate it is around 61%. Furthermore, this purity is higher than most other jurisdictions in Australia, perhaps suggesting fewer adulterants being used by dealers, given the smaller market in South Australia. In conclusion, while the use of cocaine is small in South Australia compared with other drugs, the evidence suggests that it may be increasing.

Another emerging trend highlighted in the 2001 IDRS is the increase in morphine use among the IDU. There was a significant increase in resent use of morphine compared with the 2000 IDRS. The majority of IDU in 2001 who had recently used morphine had injected it. Morphine was also the last drug injected by 11% of the total IDU sample, preceded only by heroin and methamphetamine. Furthermore, 79% of IDU who had used morphine in the previous six months had mainly obtained it illicitly.

The 2001 IDRS also found a continuation of drug trends from previous years. Patterns of cannabis use, as well as the price, purity and availability of cannabis were relatively unchanged. The majority of IDU had used cannabis in the previous six months, and it was second only to tobacco in the drug most often used by subjects. The median number of days of use was 180, indicating that most use cannabis daily. One ounce of cannabis costs around $200, and one bag of cannabis costs $25. These prices have remained stable in South Australia for all the years of the IDRS. Cannabis is very easy to obtain, and this availability has remained stable. The potency is reported to be high and has remained stable over the previous year. Most cannabis used by IDU is believed to be hydroponic and the form is almost always 'head'. This was also consistent with key informant reports. Based on information collected in the IDRS, it appears that more in-depth research is required to clarify some of the information relating to the cannabis market in South Australia. This might include interviews with samples of users, dealers and/or growers to explore issues such as average size of cannabis deals purchased, production methods, and links to markets for other drugs. Further research many also be warranted on determining the potency range of cannabis seizures made by police.

There was a continuing trend for the substantial use of benzodiazepines, with 57% having used in the previous six months. Diazepam was the predominant benzodiazepine used. There was also a tendency for the use of multiple benzodiazepines among IDU, as well as illicit use. There was also an increase in injecting of benzodiazepines compared with the 2000 IDRS, which may reflect an emerging trend among IDU.

Less than half (46%) of heroin-using IDU had ever experienced an opioid overdose, which was lower than in the 2000 IDRS (54%). There has also been a significant decrease in opioid-related fatalities since 2000, both in South Australia and nationally. There appears to be agreement between the three sources of data (IDU, KI and OTHER) that there has been a decrease in heroin overdoses in the 12 months preceding mid-2001. There has also been a 16% reduction in the number of drug-related ambulance callouts from mid-2000 to mid-2001.

Injection-related problems remain prevalent among IDU, with 63% of IDU experiencing at least one injection-related health problem over the previous month. However, there has been a significant decrease in the percentage of IDU who reported sharing needles in the 2001 IDRS. This finding is supported by key informant reports of an increased awareness among IDU of the risks associated with sharing needles.

Forty percent of IDU reported committing at least one crime in the previous month, and 35% were arrested in the previous 12 months. Arrests were predominantly for violent crimes or property crimes. It was also observed by key informants that there has been an increase in such crimes. The SAPOL officers also noted that there has been an increase in the number of local methamphetamine manufacturing laboratories, as well as an increase in cannabis hydroponic set-ups in South Australia.

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, much of the information was provided only by key informants, and should therefore be interpreted with some caution. However, overall key informant reports played an important role in providing depth and detail to the more objective data provided by the IDU survey and secondary indicators. The combination of the three methods seems to provide an efficient and complementary way to monitor drug trends in illicit drug use over time.

The IDRS is also limited by the type of secondary indicator data available. While the AFDL provide the range and average drug purity for each of the main drug types, it may be more fitting to observe the data as a frequency distribution, with median and modal statistics also available. Another limitation is the timeliness of the data, and some of the data sets used for the IDRS were not available for all of 2000/2001. For example, the South Australian Schoolchildren's Survey was based on 1999 findings, and really is only an estimate of drug use among schoolchildren in 1999. Similarly the 1998 National Household Survey refers to population demographics during that time period. Finally, it would be beneficial to obtain data sets other than the ones used for the 2001 IDRS to further bolster the findings. In the first instance this could include 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 of from other targeted studies of illicit drug users, and prevalence of drug use among specific populations (eg. Vietnamese community, Aboriginal community, prisoners).

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, and this has largely been 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. The majority of subjects were recruited using clients attending sites around Adelaide associated with the Clean Needle Program, with additional persons recruited by the word of mouth approach. 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 was a significantly higher percentage of IDU who identified as Aboriginal or Torres Strait Islander in the 2001 sample (20% versus 8%; Fisher's Exact Test $p<0.05$) as well as a higher percentage who were unemployed (77% versus 47%, $\chi^2_1=18.7$, $p<0.001$). There also appeared 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 results of the 2001 IDRS suggest a number of implications for research and policy, as outlined below. Some of these issues are already the subject of further research or consideration.

- Research into the effects of the heroin 'drought' on factors such as general health, overdoses, needle sharing and crime rates;
- Need for mental health, drug treatment, social health and law enforcement agencies to be able to deal with an increase in methamphetamine related problems;
- Health promotion and education in the community concerning the adverse effects of methamphetamine use;
- Development of improved treatment protocols for methamphetamine abuse and dependence;
- Supply reduction activities aimed at reducing methamphetamine production and distribution in South Australia;
- Development of interventions to address the injection of non-injectable drugs such as methadone and benzodiazepines;
- Investigation of factors relating to the increased use of morphine, including sources of supply, frequency and quantity of use and related health effects;
- Research into changes in the availability of cocaine, including factors that affect this market in South Australia;
- Research into cannabis markets in South Australia, and the relationships between the market for cannabis and those of other illicit drugs;
- Potency testing of cannabis samples and cultivars by the AFDL or other laboratories;
- Development of a primary health care screening instrument for harmful and hazardous use of illicit drugs (in progress).

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