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SA DRUG TRENDS 2012
Findings from the
Illicit Drug Reporting System (IDRS)

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SOUTH AUSTRALIAN DRUG TRENDS 2012

Findings from the Illicit Drug Reporting System (IDRS)

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ADHD	Attention deficit hyperactivity disorder
AGDH&A	Australian Government Department of Health and Ageing
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AIHW	Australian Institute of Health and Welfare
ANSPS	Australian Needle and Syringe Program Survey
AODTS-NMDS	Alcohol and Other Drug Treatment Services-National Minimum Dataset
A&TSI	Aboriginal and Torres Strait Islander
AUDIT-C	Alcohol Use Disorders Identification Test−Consumption
AVO	Apprehended Violence Order
BBVI	Blood-borne viral infection(s)
BMI	Body Mass Index
CI	Confidence interval(s)
CNP	Clean Needle Program
CRUFAD	Clinical Research Unit for Anxiety and Depression
DASSA	Drug and Alcohol Service South Australia
DPMP	Drug Policy Modelling Program
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders IV
ED	Emergency department
EDRS	Ecstasy and related Drugs Reporting System
GP	General practitioner
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
HSI	Heavy Smoking Index
Hydro	Hydroponically grown cannabis
ICD-9	International Classification of Diseases, 9th Revision
ICD-10	International Classification of Diseases, 10th Revision
IDRS	Illicit Drug Reporting System
IRID	Injection-Related Injuries and Diseases
K10	Kessler Psychological Distress Scale
KE	Key expert(s); see *Method* section for further details
LSD	Lysergic acid diethylamide
MCS	Mental component score
MDMA	3,4-methylenedioxymethamphetamine
N (or n)	Number of participants
NCHECR	National Centre in HIV and Epidemiology Clinical Research
NCIS	National Coronial Information System
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NNDSS	National Notifiable Diseases Surveillance System
NSALD	Non-steroidal anti-inflammatory drug(s)
NSP	Needle and Syringe Program(s)
NSW	New South Wales
OCD	Obsessive compulsive disorder
OST	Opioid substitution treatment
OTC	Over the counter
PCS	Physical component score
PDI	Party Drug Initiative
PO	Pharmaceutical opioids

PTSD	Post traumatic stress disorder
PWI	Personal Wellbeing Index
PWID	Person/people who inject drugs
QLD	Queensland
RAH	Royal Adelaide Hospital
ROA	Route of administration
SA	South Australia
SAPOL	South Australia Police
SCID	Structured Clinical Interview for DSM
SDS	Severity of Dependence Scale
SF-12	Short Form 12 Item Health Survey
SF-36	Short Form 36 Item Health Survey
SPSS	Statistical Package for the Social Sciences
STI	Sexually transmitted disease
WHO	World Health Organization

GLOSSARY OF TERMS

Cap	Small amount, typically enough for one injection.
Daily use	Use occurring on each day in the past six months, based on a maximum of 180 days.
Diverted/Diversion	Selling, trading, giving or sharing of one's medication to another person, including through voluntary, involuntary and accidental means.
Eightball	3.5 grams.
Halfweight	0.5 grams.
Illicit	Illicit obtainment refers to pharmaceuticals obtained from a prescription in someone else's name, e.g. through buying them from a dealer or obtaining them from a friend or partner. The definition does not distinguish between the inappropriate use of licitly obtained pharmaceuticals, such as the injection of methadone syrup or benzodiazepines, and appropriate use.
Licit	Licit obtainment of pharmaceuticals refers to pharmaceuticals (e.g. methadone, buprenorphine, morphine, oxycodone, benzodiazepines, antidepressants) obtained by a prescription in the user's name. This definition does not take account of 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner.
Lifetime injection	Injection (typically intravenous) on at least one occasion in the participant's lifetime.
Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: injecting, smoking, snorting and/or swallowing.
Point	0.1 grams.
Recent injection	Injection (typically intravenous) on at least one occasion in the last six months.
Recent use	Use in the last six months via one or more of the following routes of administration: injecting, smoking, snorting and/or swallowing.

Guide to days of use/injection

180 days	Daily use/injection* over preceding six months
90 days	Use/injection* every second day
24 days	Weekly use/injection*
12 days	Fortnightly use/injection*
6 days	Monthly use/injection*

* As appropriate

EXECUTIVE SUMMARY

Demographic characteristics of IDRS participants

Sample characteristics for the 2012 Illicit Drug Reporting System (IDRS) in South Australia (SA) were generally similar to previous years. Fifty-nine percent of the sample were male, three-fifths (61%) were unemployed and half (50%) had a history of previous imprisonment. The median number of years spent at school was 11, with over half (60%) reporting some kind of post-secondary qualification (primarily a trade or technical qualification). Thirty-two percent of the sample were currently undertaking some form of treatment for drug use, most commonly pharmacotherapy. These characteristics were largely unchanged from 2011.

In fact, the only significant difference in 2012 was that a greater proportion of the sample reported 'home duties' as their current employment status (15% in 2012 versus 5% in 2011).

Patterns of drug use

The median age of first injection among the IDRS sample was 18 years, which was stable from 2011. The first drug ever injected by participants was primarily methamphetamine (65%), followed by heroin (28%). However, in relation to drug of choice (favourite or preferred drug), heroin was the most popular drug nominated by participants (46%), closely followed by methamphetamine (39%). Interestingly, in 2012 methamphetamine overtook heroin as the drug injected most often in the last month (47% and 36% respectively).

Polydrug use was common among participants in 2012, and has remained consistently so across all years of the IDRS.

Heroin

In 2012, the proportion of SA participants who reported recent use of heroin was slightly lower than reported in 2011. In addition, the frequency of use decreased to a median of 48 days in a six month period. Daily heroin use remained relatively stable at 29% (of recent heroin users), compared to 25% in 2011. White powder or rock continued to be the most common form of heroin used by participants. Heroin users continued to supplement or substitute their heroin use with other opioid substances such as morphine and methadone, and also with methamphetamine and benzodiazepines.

The median price paid for heroin at last purchase remained stable in 2012, at $400 for a gram and $100 for a cap. Fifty percent of participants able to comment reported that heroin purity was low, a non-significant increase from 2011 (37%). Perceptions regarding changes in purity over the past six months were mixed, with a third reporting that it had decreased and a third reported that it had remained stable. Availability, however, remained easy (44%) and very easy (48%), and this had reportedly remained stable over the preceding six months.

Experience of lifetime and past 12 month heroin overdose remained stable in 2012, with 11% of recent heroin users reporting that they had overdosed in the preceding year. Data from the SA Alcohol & Drug Information Service revealed that telephone calls relating to any opioid substance increased slightly in the 2011/12 financial year, whilst data from Drug & Alcohol Services SA (DASSA) showed that the proportion of clients nominating heroin as their primary drug of concern decreased in 2011/12.

Methamphetamine

In 2012, over three-quarters of participants (79%) had used some form of methamphetamine in the six months preceding interview, a non-significant increase from 2011 (66%). More specifically, there was a non-significant increase in the recent use of crystal methamphetamine, whilst the use of powder, base and liquid methamphetamine remained stable from 2011. Frequency of use declined across all forms of methamphetamine, and injecting remained the main route of administration.

In 2012, the median price paid for all three forms of methamphetamine (speed, base and ice) was $100 for a point. Few participants were able to comment on the current price for a gram of methamphetamine. The majority of participants able to answer reported that the price of methamphetamine had remained stable over the preceding six months; however, across all three forms of methamphetamine, there was an increase in the proportion of participants who reported that the price had increased.

Reports regarding the current purity of the three forms of methamphetamine were extremely mixed. The purity of base methamphetamine, as perceived by participants, was largely reported as high (42%), although a third reported it as medium (31%). In regards to methamphetamine powder almost equal proportions of the sample reported that purity was high (33%), fluctuating (31%) or medium (28%). Similarly, the purity of crystal methamphetamine was perceived as high (35%), medium (33%) or fluctuating (26%). All forms of methamphetamine were considered easy or very easy to obtain in 2012, and availability had reportedly remained stable over the preceding six months.

A higher number of calls were received by the Alcohol and Drug Information Service (ADIS) in SA regarding methamphetamine, whilst the proportion of DASSA clients nominating amphetamines as their primary drug of concern also increased. Moreover, the number of clients admitted to DASSA inpatient (detox) services with amphetamine as the primary drug of concern also increased.

Cannabis

Cannabis, though generally not the drug of choice among participants, was used by almost two-thirds of the sample – stable from 2011. Frequency of use decreased to a median of 90 days in a six month period; however, daily use remained stable at 44% of recent cannabis users. Whilst the majority of cannabis users reported that hydro was the form they had used most in the preceding months, bush cannabis was also commonly used.

In 2012, the price last paid for a bag of both hydro and bush remained stable at $25, as it has done for many years. Most of those who were able to comment perceived the potency of bush cannabis as ‘medium’ and hydro cannabis as ‘high’. Both hydro and bush cannabis were considered very easy or easy to obtain, and availability was stable.

The number of calls to ADIS concerning cannabis remained relatively stable, although there was an increase in the proportion of DASSA clients who nominated cannabis as their primary drug of concern.

Opioids

In 2012, 58% of PWID reported recent use of some type of illicit opioid substance, excluding heroin; this was stable from 2011. Twenty-three percent of participants reported they had used illicit morphine in the six months prior to interview on a median of twelve days (range: 1-180) which was similar to 2011 reports. The price of

illicit morphine appeared to increase slightly in 2012; however, due to small numbers no real comparison can be made with 2011 data. The majority of participants reported that the availability of illicit morphine was easy to very easy, and that this had remained stable over the preceding six months. As in previous years, the majority of morphine users reported use by injecting and they had mainly used illicit supplies of MS Contin® and Kapanol®.

Similarly, the recent use of illicit methadone syrup remained stable in 2012 (13% in 2012 vs. 11% in 2011) as did the frequency of use. Only three participants reported the recent use of illicit Physeptone® tablets, and frequency was low at a median of three days in the last six months (range: 2-3).

Compared to 2011, the number of participants reporting recent use of illicit buprenorphine remained stable, although the frequency of use did increase slightly to 12 days. Ten participants reported recent use of illicit Suboxone® tablets on a median of two days (range: 1-96), and ten participants reported recent use of Suboxone® film on a median of four days (range: 1-72 days) in the six months prior to interview.

The recent use of illicit oxycodone also remained stable in 2012. More specifically, 24 participants reported recent use of illicit oxycodone on a median of 5 days (range: 1-96) in the six months prior to interview. The main brands of illicit oxycodone used in the six months preceding interview were Oxycontin® (79%), followed by Endone® (16%).

Other drugs

Eleven percent of IDRS participants had used ecstasy and 7% had used some type of hallucinogen in the six months prior to interview, with both recent use and frequency of use remaining stable compared to 2011.

In 2012, approximately one-third of PWID (29%) reported recent use of any illicit benzodiazepines, which is similar to participant reports in 2011. Prevalence and frequency of recent cocaine use remained stable in 2012, with seven participants reporting that they had used cocaine on a median of four days within the preceding six months.

The recent use of illicit pharmaceutical stimulants was relatively stable in 2012, with 8% of the sample reporting use over the preceding six months. The frequency of use remained low at two days within a six month period (range: 1-10). Twenty-two percent of participants reported recently using OTC codeine for non-medicinal purposes, and they had done so on a median of 10 days within the six months preceding interview (range: 1-180).

Tobacco use remains highly prevalent among PWID, with 96% of the sample reporting that they had consumed tobacco on a median of 180 days in the six months preceding interview (i.e. daily use). Alcohol use was less common, with 66% of the sample reporting use on a median of 12 days in the past six months. Both alcohol and tobacco use remained stable from 2011.

Health-related issues

In 2012, there was a non-significant increase in the self-reported mental health problems (other than drug dependence) among PWID in the six months preceding interview. However, among those who had experienced a mental health disorder, depression and anxiety continued to be the most commonly reported problems. Of particular concern was the significant decrease in the proportion of these participants who had sought professional help for such problems (34% versus 77% in 2011).

Using the Kessler Psychological Distress Scale (K10) (Kessler & Mroczek, 1994), it was found that almost two-thirds of the SA sample (62%) were at a high or very high risk of psychological distress. Similarly, using the SF-12, IDRS participants scored lower than the Australian population, indicating that IDRS participants had poorer mental and physical health than the population average.

For the third year running, participants of the IDRS have been asked the AUDIT-C as a valid measure of identifying heavy drinking. In 2012, among those who drank alcohol recently the mean score on the AUDIT-C was 5.1. More specifically, 62% of males and 37% of females scored 5 or more on the AUDIT-C, indicating the need for further assessment.

Risk behaviours

The number of participants who reported 'borrowing' needles remained low and stable in 2012 (n=5), as did the number of participants who had lent a used needle to someone else (n=9). The proportion of participants who had shared injecting equipment (other than needles) decreased in 2012 (17%), continuing a downward trend that has been observed since 2010. Re-use of one's own needles (40%) and equipment (55%) was much more common.

In 2012, 73% of the participants reported experiencing at least one type of injecting-related health problem in the month prior to interview. By far the most commonly experienced problem was prominent scarring/bruising around the injection site (49%), followed by difficulty injecting (47%). About a third of participants reported that they had experienced a dirty hit, stable from 2011.

Law enforcement

The prevalence of self-reported criminal activity in the month preceding interview remained stable in 2012, whilst the prevalence of past year arrest declined slightly. Drug dealing and property crime remained the most commonly committed crimes. Furthermore, the proportion of participants who reported a prison history also remained stable in 2012.

Driving a car while under the influence of alcohol was reported by 19% of participants who had driven in the preceding six months. Eighty-one percent reported driving under the influence of an illicit drug during that time, mainly methamphetamines, heroin and cannabis.

In 2012, the median expenditure on illicit drugs remained stable at $100.

Special topics of interest

Fagerstrom test for Nicotine Dependence

Among those who smoked daily, half had had their first cigarette within five minutes of waking up and 55% reported smoking between 11-20 cigarettes a day. Nearly half of daily smokers scored 6 or above indicating high nicotine dependence, with the mean HSI score being 5.0.

Pharmaceutical opioids

In 2012, participants were asked questions about the use of pharmaceutical opioids and pain. Sixty percent of the sample reported that they had recently used pharmaceutical opioids, and of these 55% reported using them for pain relief and 43% reported using them to treat self-dependence. Twenty-seven percent of those

who commented reported being refused pharmaceutical medications due to their injecting history.

Brief Pain Inventory

In 2012, the Brief Pain Inventory (BPI) was asked to examine the association between injecting drug use and the legitimate therapeutic goals of pharmaceutical opioids (e.g. pain management). Forty-two percent of PWID reported that they had experienced pain (other than everyday pain) on the day of interview; this was most commonly non-cancer pain (80%), followed by acute pain (21%). The mean 'pain severity score' was 4.7, and the mean 'pain interference score' was 4.6. Of those who had experienced pain, 44% reported trouble obtaining pain relief medication in the preceding six months.

Opioid and stimulant dependence

Participants in the IDRS were also asked questions from the Severity of Dependence Scale (SDS) for the use of stimulants and opioids. Of those who recently used a stimulant drug (mainly methamphetamine) and commented, the median SDS score was 3.0, with 45% scoring four or above. Of those who recently used an opioid drug and commented, the median SDS score was 8.0, with 74% scoring 5 or above.

Neurological history

Forty-three percent of the IDRS sample reported a lifetime history of a traumatic brain injury on a median of 1.5 occasions. The median age of most severe traumatic brain injury was 25 years.

One-quarter of the group reported being under the influence of alcohol at the time of injury, and 16% were under the influence of drugs (excluding alcohol).

OST injection

Due to the introduction of buprenorphine-naloxone film in 2011, questions were included in the 2012 IDRS survey asking about the recent injection of opioid substitution treatment medications. Thirteen percent of PWID reported recently injecting methadone, 10% buprenorphine-naloxone 'film', 7% buprenorphine and 7% buprenorphine-naloxone 'tablet'.

Fifty-eight percent of those who injected methadone reported using their own medication the last time they injected; this compares to 17% for buprenorphine, and 50% and 43% for buprenorphine-naloxone 'tablet' and 'film' respectively.

Injection-related injuries and diseases

In 2012, the IDRS gathered more in-depth information on injection-related injuries and diseases, which was then compared to the Injection-Related Injuries and Diseases (IRID) project. The most common lifetime injection-related injury reported ever by the IDRS sample and in the IRID project was a dirty hit (74% and 68% respectively). In comparison, the most common injection-related problem experienced by the IDRS sample within the preceding six months was redness near the injection site (39%).

Possession laws

Participants in the IDRS were asked a number of questions regarding their knowledge of drug trafficking thresholds/possession laws. The majority of PWID (87%) believed the quantity of drugs caught with would affect the type of charge they received; however, there were a considerable number of participants who didn't know

what the drug trafficking thresholds were. Among those participants who *were* able to comment, the perceived trafficking threshold for heroin and methamphetamine was a median 2 grams, which is consistent with the actual threshold.

Implications

The findings from the 2012 SA IDRS have policy and research implications, and a number of recommendations are outlined below. However, it is worth noting that there were very few changes from 2011 and, as such, the number of recommendations have been kept to a minimum. In addition, several of these issues may have already received attention and/or may be in the process of further investigation.

- In 2012, methamphetamine was the most commonly used illicit drug among PWID, as well as the drug injected most often in the past month (overtaking cannabis and heroin respectively). In addition, there was an increase in the proportion of DASSA clients who nominated amphetamines as their primary drug of concern. Given the negative health effects that are associated with prolonged methamphetamine use, it is essential that education and harm reduction strategies continue to be disseminated among this population; and that existing treatment services are accessible, and appropriate for those who are dependent on methamphetamine.

- The proportion of participants who had 'borrowed' or 'lent' needles and syringes in the past month remained low and stable in 2012, and there was a decrease in the proportion of participants who had shared other injecting equipment (such as mixing containers and filters). However, re-use of one's own needles and equipment remained common practice (40% and 55% respectively), as did past month experience of injection-related problems (73%). As such, it is imperative that information regarding safe injection practices and vein care continue to be disseminated.

- Tobacco use remains alarmingly high among PWID, with 90% of the sample reporting that they were smoking daily and 96% reporting any use in the six months preceding interview. This is in stark contrast to the general community, where the prevalence of smoking has been steadily decreasing. As such, it is a *continuing* recommendation that health campaigns be targeted specifically towards this group.

- Participants of the SA IDRS continue to have poorer mental and physical health than the population average. Of additional concern was the significant decrease in the proportion of participants who sought professional help for their mental health problems. It is therefore of paramount importance that services and strategies that cater for those with substance use and mental health problems continue to be developed and implemented.

1 INTRODUCTION

The Illicit Drug Reporting System (IDRS) was trialled 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 Australian Government Department of Health and Ageing (AGDH&A). The trial consisted of conducting the complete IDRS in New South Wales, Victoria and South Australia (SA) (see Hando et al., 1998 for a national comparison; and Cormack et al., 1998 for the SA findings). The 'core' IDRS incorporated a triangulated approach to data collection on drug trends, and consisted of a survey of injecting drug users, a semi-structured survey of key experts (KE), who had regular contact with injecting drug users, and secondary data sources or indicators relevant to drug use.

The IDRS process was repeated in 1998 in the same three jurisdictions, and in 1999 Western Australia, Northern Territory, Australian Capital Territory, Queensland (QLD) and Tasmania joined them. For a review of the history and progression of the IDRS nationally up to 2000, see Darke, Hall & Topp (2000). 2012 marks the 16th year in which the IDRS has been conducted in SA, and the 14th year it has included all states and territories (see Stafford & Burns, 2013 for a national comparison of the 2012 findings).

The IDRS provides a co-ordinated and ongoing monitoring system predominantly focusing on heroin, methamphetamine, cocaine and cannabis, and contributes as an early warning system for emerging illicit drug problems. The IDRS is a sensitive and timely indicator of drug trends both nationally and by jurisdiction; it is 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 IDRS provides direction for more detailed data collection on specific issues such as those listed above.

The 2012 South Australian Drug Trends Report summarises information collected by the SA component of the national IDRS. The information comes from three sources: a survey of people who inject drugs (the participants); KE interviews with professionals working in the drug and alcohol or related fields; and existing and up-to-date data indicators relating to drugs and drug use. The three sources complement each other, each having its 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 SA.

1.1 Study aims

The aim of the SA component of the 2012 IDRS is to provide information on drug trends in SA (specifically the Adelaide metropolitan area), particularly focusing on the 12 months between mid-2011 and mid-2012.

2 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 a sample of current regular illicit drug users who use injection as a route of administration and who represent a population likely to be aware of trends in illicit drug markets;
- a semi-structured survey of KE who work in the drug and alcohol area, or some related field, and who have regular contact with or knowledge of people who use drugs by injection; and
- an examination of existing and current indicators (other indicators) relating to drugs, drug use and drug-related issues.

2.1 Participants

The sample consisted of people who had regularly used illicit drugs and used injection as a route of administration (n=93) in the 12-months prior to interview. Participants were recruited through Clean Needle Program (CNP) sites across Adelaide. Clients of the service were invited to participate by a study flyer, displayed at CNP sites, or were recruited on site. Informed consent was sought and gained from all participants, who were interviewed individually. Ethics approval was also granted prior to commencement of the study.

2.2 Procedure

Participants were interviewed in July and August 2012. 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 (not incarcerated) in the Adelaide metropolitan area for at least the 12 months prior to interview.

In order to be consistent with the IDRS data collection procedures in other jurisdictions, since 2001 trained research interviewers have conducted the interviews with participants. In 2012, six research interviewers with a sound working knowledge of issues related to illicit and injecting drug use were trained on administration of the survey instrument. The purpose and content of the survey was fully explained and informed consent was obtained from participants prior to the interviews being conducted. Interviews were conducted at a time convenient to the participant and generally in a room provided by the agency associated with the Clean Needle Program (CNP) or an agreed location nearby. Participants were compensated $40 for their time and travel.

The structured interview was based on previous research conducted at NDARC (Darke et al., 1992; Darke et al., 1994). The survey consists of sections designed to collect information including participant demographic details; lifetime and recent drug use; knowledge of price, purity and availability of drugs (for example, heroin, methamphetamine, cocaine, cannabis, morphine and methadone); criminal behaviour patterns; engagement in risk-taking behaviours; health-related issues; and general trends in drug use. In general, participants were asked to consider changes on the above parameters over the six to 12 months prior to interview (mid-2011 to mid-2012).

2.3 Survey of KE

The KE interview was semi-structured and took approximately 30 minutes to administer via telephone. The instrument used was based on previous research conducted at NDARC for the World Health Organization (WHO) (Hando & Flaherty, 1993) and included sections on demographics, drug use patterns, drug price, purity and availability, criminal behaviour, police activity and health issues. In general, KE were asked to consider changes on the above parameters over the six to 12 months prior to interview (mid-2011 to mid-2012). The responses to the semi-structured interview were transcribed and analysed for content and trends. Information gained from these interviews was largely qualitative in nature.

Entry criteria for the KE 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, or specialist knowledge of drug markets in SA. All KE were paid or volunteer workers in drug treatment agencies, other health and community services, drug user advocacy groups, South Australia Police (SAPOL), or research organisations. KE were recruited based on their participation in previous IDRS surveys, and on recommendations made by existing KE and colleagues. Potential KE were contacted via telephone, and/or email and assessed for suitability according to the criteria. A mutually convenient time was made via the telephone. Informed consent was sought and gained from all KE, who were interviewed individually.

In 2012, sixteen KE were interviewed from September to late October 2012. The majority of KE worked in the health sector, including in drug diversion, community drug and alcohol work, drug treatment services, mental health services, health promotion/information and emergency treatment. There were three KE from the law enforcement sector, ranging from forensic scientists to intelligence analysts. Methamphetamine continued to be the most identified drug used by the users whom KE had most contact with in 2012, followed by heroin and cannabis

2.4 Other indicators

To complement and validate data collected from the participants and KE surveys, a range of secondary data sources was utilised including population surveys and other health and law enforcement data. The pilot study for the IDRS (Hando et al., 1997) recommended that secondary indicator data should:

- be available at least annually;
- include 50 or more cases;
- provide brief details of illicit drug use;
- be located in the main study site (Adelaide or SA for the present study); and
- include details of the four main illicit drugs under investigation.

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

- telephone advisory data provided by the Alcohol and Drug Information Service (ADIS) of South Australia;
- Australian Needle and Syringe Program (NSP) survey data;
- admissions data from Drug and Alcohol Services South Australia (DASSA);
- drug-related attendances to the Royal Adelaide Hospital Emergency Department;
- state-wide rates of drug-related arrests provided by SAPOL;
- number of clandestine laboratory detections in SA provided by SAPOL;

- state-wide and national rates of amphetamine, cocaine and opioid-related fatalities provided by the Australian Bureau of Statistics (ABS);
- purity of drug seizures made by SAPOL and the Australian Federal Police (AFP) provided by the Australian Crime Commission (ACC);
- drug-related hospital admissions data (state and national) provided by the Australian Institute of Health and Welfare (AIHW); and
- National Notifiable Diseases Surveillance System (NNDSS) data, from the AGDH&A.

2.5 Data analysis

Statistical analyses (descriptive and inferential) were performed using the Statistical Package for the Social Sciences (SPSS) for Windows, Version 18.0 (2009). Continuous, normally distributed variables were analysed using *t*-tests and means reported. Where continuous variables were skewed, medians were reported and the Mann-Whitney *U*-test, a non-parametric analogue of the *t*-test (Siegel & Castellan, 1988), was employed. Confidence intervals (CI) were calculated using an Excel spreadsheet available at http://www.cebm.net/index.aspx?o=1023 (Tandberg). This calculation tool was an implementation of the optimal methods identified by Newcombe (1998).

2.6 Notes

2.6.1 Methamphetamine

Prior to 2001, IDRS reports used the overarching term 'amphetamines' to refer to both amphetamine and methamphetamine. Amphetamine is used to denote the sulphate of amphetamine, which throughout the 1980s was the form of illicit amphetamine most available in Australia (Chesher, 1993). Chemically, amphetamine and methamphetamine differ in molecular structure but are closely related. 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/crystal, shabu, crystal meth, base and paste – have been identified as becoming more widely available and used in all jurisdictions (Topp & Churchill, 2002). These forms are also methamphetamine. Therefore, the term methamphetamine was used from 2001 onward to refer to the drugs available that were previously termed amphetamines. The terms are used interchangeably within this report unless specifically noted within the text. For a further discussion of this issue, see White, Breen & Degenhardt (2003).

2.6.2 Price, purity and availability

It should be noted that the price, purity and availability sections of the participant survey were not restricted to users of the particular drug but to those who feel confident of their knowledge of these parameters of the market. In addition, participants may answer any or all price, purity and availability sections, thereby the sample sizes (n) per section may fluctuate for any given drug. In addition, people who answered 'don't know' to the initial question for each of the price, purity and availability sections were eliminated from the sample for these sections to increase the validity of remaining categories. The sample sizes are, therefore, reported in each table. Furthermore, within the text of these sections, findings may also be expressed as percentage of entire sample to highlight the fact that the proportion answering was not equivalent to the whole IDRS participant sample. Care should be taken in interpreting category percentages that may be associated with small sample sizes.

3 DEMOGRAPHICS

Key findings

- The median age of the 2012 sample was 39 years.
- Over half of the sample were male (59%) and just under two-thirds (61%) were unemployed, similar to that reported in 2011.
- Half of the sample reported a previous history of imprisonment, similar to that reported in 2011.
- Half of the sample had completed Year 11 and/or 12. Forty percent of the sample had no tertiary qualifications, 41% had a trade/technical qualification and 19% had a university education.
- About a third of the sample (32%) reported being in current drug treatment, primarily maintenance pharmaceutical treatment.
- Three-quarters of the sample received a government allowance/pension and the majority lived in rental accommodation.

3.1 Overview of the IDRS participant sample

The demographic characteristics of the 93 participants interviewed in 2012 are summarised in Table 1, with the 2011 sample characteristics provided for comparison.

There was some overlap of the 2012 participant sample with previous years' samples. That is, 16% percent of the sample stated that they had participated in the 2011 IDRS; 5% in 2010; 4% in 2009; 1% in 2008; and 1% in 2003 (participants could nominate more than one year). An additional 10% of the sample reported that they had participated in the IDRS previously, but couldn't remember in what year.

The median age of the sample was stable in 2012 at 39 years (range=22-58 years). Over half of the sample were male (59%), three-fifths (61%) were unemployed and 50% had a history of previous imprisonment; this is similar to participant reports in 2011. The median number of years spent at school was 11 (range=4-12 years), with half of the sample (50%) reporting completion of years 11 and/or 12. Forty percent of the sample reported having no tertiary qualifications; this is stable from 2011. Of those who did report having a tertiary qualification, most had completed a technical or trade qualification (41%) and about one-fifth (19%) reported that they had completed a university qualification.

In 2012, approximately one-third of the sample (32%) were in drug treatment at the time of the interview, with the majority of participants in maintenance pharmacotherapy treatment. More specifically, 16% reported being on a methadone program (compared to 26% in 2011) and 15% reported being on a buprenorphine program, including those receiving suboxone treatment (compared to 7% in 2011).

As in previous years, in 2012 the majority of participants reported some form of government pension, allowance or benefit as their main source of income in the month prior to interview (78%). The remaining participants reported their main source of income was a wage (13%), criminal activity (6%), sex work (1%), child support (1%) or work cover (1%).

The majority of the participant sample resided in rental accommodation (71%). A further 11% of the sample reported living at their family/parent's home, followed by residing in their own house/flat (10%) or at a boarding house/hostel (7%). Two participants reported having no fixed address/homeless.

Table 1: Demographic characteristics of IDRS sample, 2005-2012

Characteristic	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	2010 (N=97)	2011 (N=100)	**2012 (N=93)**
Age (median in years)	35	37	36	38	40	37	39	**39**
(range)	(16-57)	(19-63)	(17-53)	(20-57)	(20-60)	(18-56)	(21-57)	**(22-58)**
Sex (% male)	64	53	66	65	66	56	59	**59**
Sexual identity (%)*								
Heterosexual	82	78	85	92	89	88	83	**85**
Gay male	4	4	3	1	4	3	4	**1**
Lesbian	0	2	1	1	4	1	0	**4**
Bisexual	10	11	8	4	3	7	12	**9**
Other	4	5	3	2	0	1	1	**1**
English speaking (%)	96	98	95	93	99	97	96	**97**
A&TSI (%)	8	8	9	6	3	4	10	**11**
Employment (%)								
Not employed	62	71	66	76	67	63	67	**61**
Full-time	6	6	7	9	9	8	7	**4**
Part-time/casual	13	13	12	9	21	20	15	**13**
Full-time student	5	2	1	0	1	1	0	**2**
Both studying & employed	-	-	1	4	1	1	2	**1**
Home duties	14	8	6	4	1[#]	4[#]	5	**15**
Other	0	0	7	0	0	3	4	**3**
Median income per week ($)**	-	-	-	-	259	350	368	**365**
School education (median in years)	10	10	11	10	11	11	11	**11**
(Range)	(3-12)	(7-12)	(7-12)	(5-12)	(7-12)	(7-12)	(7-12)	**(4-12)**
Tertiary education (%)								
None	45	40	43	34	38	52	42	**40**
Trade/technical	44	43	50	45	49	40	39	**41**
University/college	12	17	7	21	13	8	19	**19**
Prison history (%)	53	52	46	44	40	43	48	**50**
Current drug treatment (%)	46	52	38	52	45	37	40	**32**

Source: IDRS participant interviews
*Asked from 2005 onwards
**Only asked from 2009 onwards
[#]One participant reported being a full-time carer

In summary, compared to 2011, the 2012 sample characteristics were largely unchanged. Indeed, the only significant difference was that a greater proportion of the 2012 sample reported 'home duties' as their current employment status (15% in 2012 versus 5% in 2011; p=0.04; 95% CI: -0.19 − -0.015).

4 CONSUMPTION PATTERNS

Key findings

- The median age of first injection among the sample was 18 years.
- The majority of participants reported that methamphetamine was the first drug injected.
- Heroin was the most popular drug of choice reported by participants, closely followed by methamphetamines.
- However, in contrast to 2011, methamphetamine was the drug injected most often in the last month, followed by heroin.
- Polydrug use over the last six months was common among the sample.

4.1 Lifetime and current drug use

Patterns of lifetime (i.e. ever having used a drug) and recent (last six months) use of all drugs monitored in the IDRS are shown in Table 5. Routes of administration, including injecting, swallowing, snorting and smoking/inhaling are also provided in some detail.

The median age of first injection by the participant sample was 18 years (range=7-39). The drug most commonly first injected by the sample was methamphetamine (65%), followed by heroin (28%). When first injection of methamphetamine is examined according to type, methamphetamine powder (56%) was by far the most commonly first injected drug, with smaller numbers reporting first injection of methamphetamine base (4%) and crystal/ice methamphetamine (4%).

Table 2: Injecting drug history, 2011-2012

	2011 (N=100)	**2012 (N=93)**
Median age first injected in years (range)	18 (12-40)	**18 (7-39)**
First drug injected (%)		
Heroin	33	**28**
Methamphetamine*	62	**65**
Cocaine	0	**2**
Morphine	2	**2**
Other	3	**3**

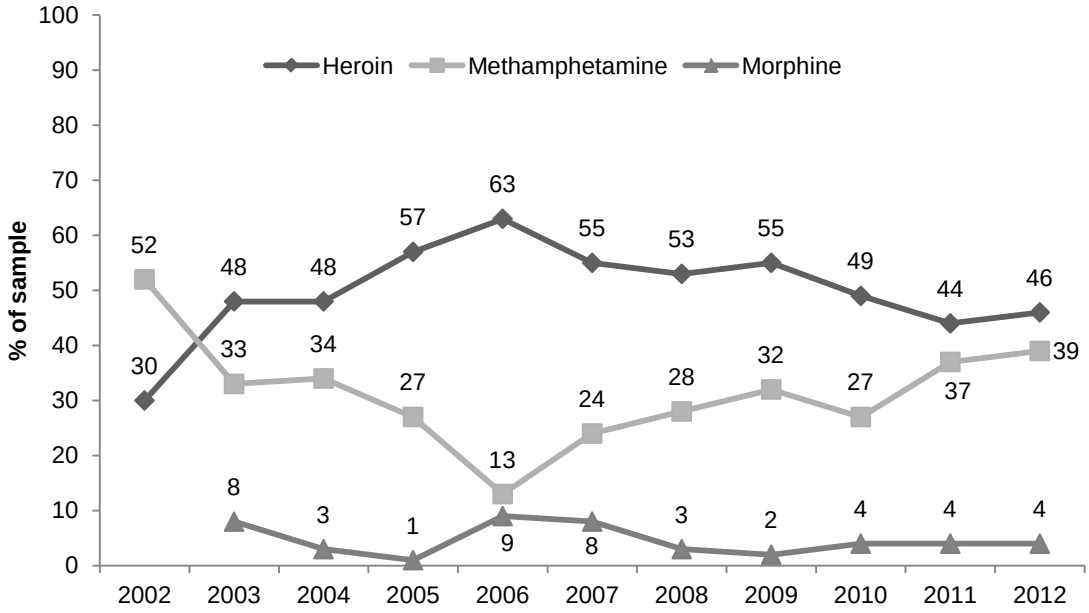
Source: IDRS participant interviews

*Collapsed categories: powder, base and crystal forms

4.1.1 Drug of choice

In 2012, a similar proportion of the sample reported heroin as their drug of choice (46%) compared to 2011 (44%), and it remained the most popular drug of choice. The proportion of the sample nominating some form of methamphetamine as their drug of choice also remained stable (39% in 2012 versus 37% in 2011). Interestingly, it appears that, overall, since 2006 there has been a downward trend in the proportion of PWID who nominated heroin as their drug of choice; inversely, in the same time period, there has been an upward trend in those nominating methamphetamine as their drug of choice.

Figure 1: Trend for drug of choice, 2002-2012



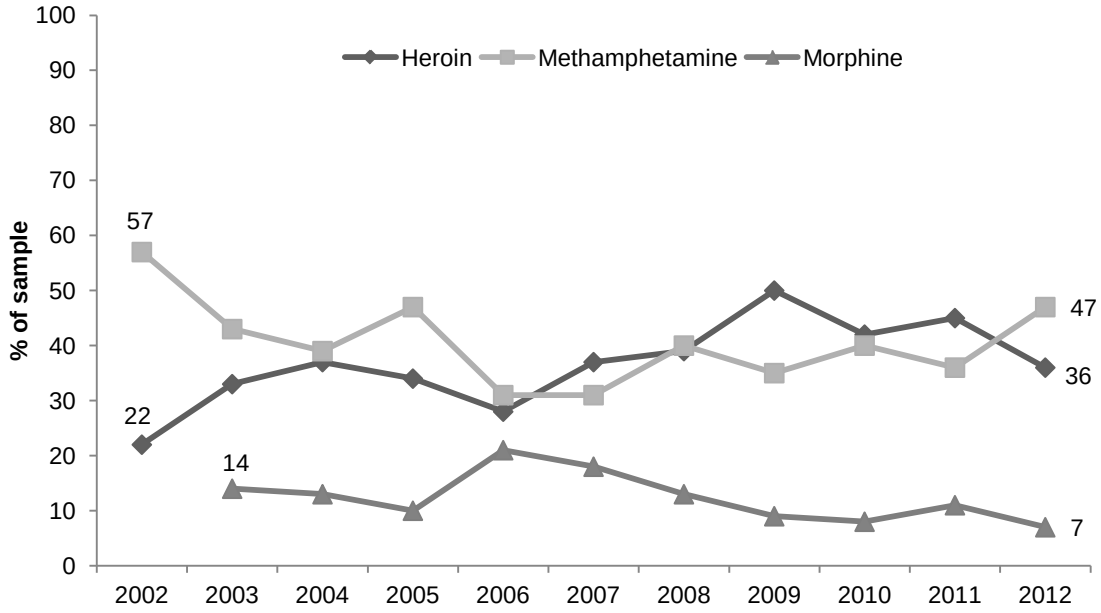
Source: IDRS Participant interviews

4.1.2 Drug last injected and injected most often in the last month

The proportion of the sample who reported heroin as the drug most frequently injected in the last month decreased, albeit non-significantly, in 2012 (36% versus 45% in 2011) (see Figure 2). Inversely, the proportion of participants reporting methamphetamine as the drug most injected in the last month increased, although again this didn't reach statistical significance (47% in 2012 versus 36% in 2011).

Interestingly, this trend was mirrored in terms of the most recently injected drug. More specifically, there was a decrease in the proportion of PWID who reported that heroin was the drug they had injected most recently and an increase in the proportion who reported that methamphetamine was the last drug injected. However, as found above, neither of these changes reached statistical significance (see Table 3).

Figure 2: Trend for drug injected most in last month, 2002-2012



Source: IDRS participant interviews

Table 3: Injecting drug preferences, 2011-2012

	2011 (N=100)	**2012 (N=93)**
Drug injected most often in last month (%)		
Heroin	45	**36**
Methamphetamine**	36	**47**
Cocaine	0	**1**
Morphine	11	**7**
Methadone	2	**2**
Buprenorphine	1	**0**
Suboxone	1	**0**
Oxycodone	3	**4**
Other	1	**3**
Most recent drug injected (%)		
Heroin	48	**35**
Methamphetamine**	35	**50**
Morphine	9	**5**
Methadone	1	**1**
Buprenorphine	0	**0**
Oxycodone	3	**4**
Other	2	**4**
Frequency of injecting in last month (%)		
Weekly or less	18	**27**
More than weekly but less than daily	37	**33**
Once a day	28	**12**
2-3 times a day	13	**22**
>3 times a day	4	**7**

Source: IDRS participant interviews
**Collapsed categories: powder, base and crystal forms

Frequency of injecting any drug in the last month was greater than weekly for 73% of the sample, with 41% reporting they had injected at least once a day during that period. More specifically, the proportion of PWID who reported injecting once a day decreased from 28% in 2011 to 12% in 2012 (p=0.01; 95% CI: 0.05–0.27); inversely,

there was an increase in the proportion of PWID who reported injecting 2-3 times a day, although this didn't quite reach statistical significance.

Table 4: Polydrug use, 2011-2012

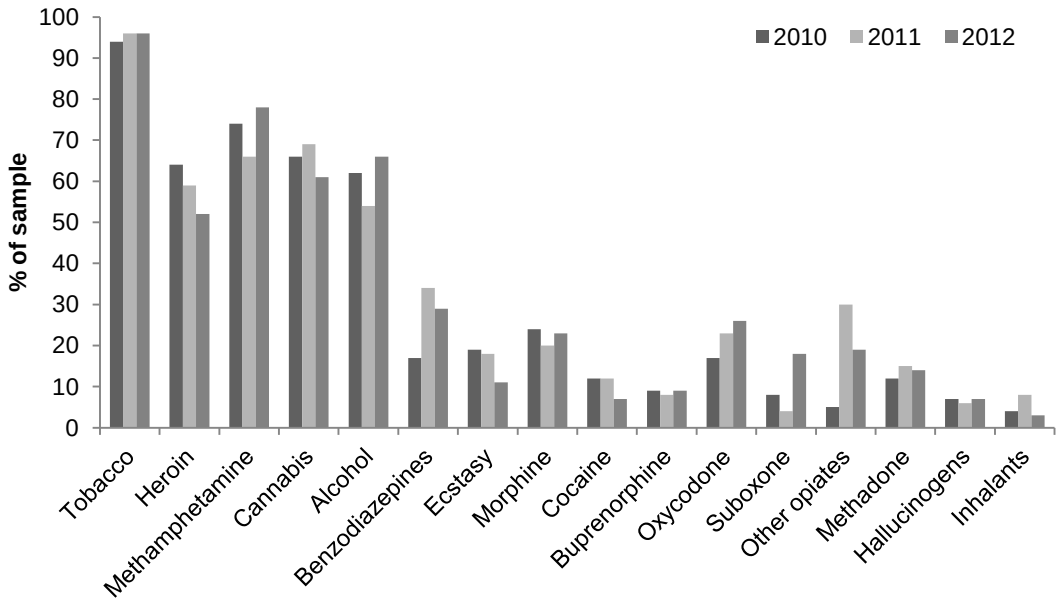
	2011 (N=100)	**2012 (N=93)**
Polydrug use (median)		
Number of drug classes ever used	11 (3-21)	**10 (4-18)**
Number of drug classes used in last 6 months	6 (2-15)	**5 (1-15)**
Number of drug classes ever injected	5 (1-14)	**4 (1-11)**
Number of drug classes injected in last 6 months	2 (1-9)	**2 (1-8)**

Source: IDRS participant interviews

Participant polydrug use was common in 2012, and has remained consistently so across the years (see
Table 4). In 2012, participants were asked about their history of use of 21 separate substances[1]. Only illicit use of a drug was analysed. The total number of possible injected drug types was 18. In 2012, participants reported use of a median of 10 (range 4-18) drug types across their lifetime and a median of five (range 1-15) during the six months prior to interview; this was stable from 2011.

The drugs most commonly used among the participants in the last six months were tobacco, 'any' methamphetamine, alcohol, cannabis and heroin (Figure 3). This order of commonality was quite different to 2011, with methamphetamine emerging as the most commonly used illicit drug and heroin slipping to fifth place overall.

Figure 3: Recent drug use, percentage of the participants to have used each substance type in the last six months, 2010-2012



Source: IDRS participant interviews
Note: All use of pharmaceutical drugs relates to illicit use (e.g. of methadone, morphine etc.)

[1] Drug types were heroin, illicit morphine, illicit methadone (including physeptone), illicit buprenorphine, homebake, other opioids, illicit oxycodone, amphetamines (powder, base, crystal and liquid), illicit pharmaceutical stimulants, cocaine, hallucinogens, ecstasy, OTC codeine, seroquel, inhalants, alcohol, cannabis, illicit benzodiazepines, illicit Suboxone®, tobacco and steroids.

In 2012, there were no significant changes in the recent use of any drugs. Some of the most notable trends were the continuing decline in recent heroin use, as well as the increase in the recent use of alcohol, methamphetamine and oxycodone. A more detailed history of participants' drug use can be found in Table 5.

Table 5: Drug use history and routes of administration of the sample, 2012 (% of total sample; N=93)

Drug class	**Ever used %**	**Ever inject %**	**Use last 6 mths %**	**Inject last 6 mths %**	**Ever smoke %**	**Smoke last 6 mths %**	**Ever snort %**	**Snort last 6 mths %**	**Ever swallow %**	**Swallow last 6 mths %**	**Days used in last 6 mths^**	**Days injected in last 6 mths***
Heroin	76	76	52	51	44	8	9	1	16	4	48	48
Homebake	32	32	10	10	2	2	1	1	2	2	4	4
Any heroin	***76***	***76***	***54***	***53***	***44***	***9***	***9***	***2***	***17***	***5***	***48***	***48***
Methadone – licit	42	16	18	8	-	-	-	-	41	18	180	24
Methadone – illicit	40	22	13	8	-	-	-	-	26	8	2	2
Physeptone – licit	8	2	0	0	0	0	0	0	4	0	-	-
Physeptone – illicit	30	18	3	2	0	0	0	0	15	2	3	2
Any methadone (inc. physeptone)	***58***	***37***	***27***	***14***	***0***	***0***	***0***	***0***	***51***	***25***	***120***	***5***
Buprenorphine – licit	26	9	2	1	2	1	2	1	25	2	108	35
Buprenorphine – illicit	24	14	9	7	7	0	0	0	11	3	12	28
Any buprenorphine	***40***	***19***	***11***	***8***	***8***	***1***	***2***	***1***	***30***	***5***	***14***	***35***
Suboxone tablet – licit	27	9	9	4	1	1	1	1	25	8	60	1
Suboxone tablet – illicit	26	11	11	4	4	1	1	1	17	8	2	35
Any suboxone tablet	**42**	**16**	**15**	**7**	**5**	**2**	**2**	**2**	**34**	**13**	**28**	**35**
Suboxone film – licit	18	4	17	4	0	0	0	0	18	17	135	25
Suboxone film – illicit	12	8	11	7	0	0	0	0	8	8	4	10
Any suboxone film	**28**	**11**	**26**	**10**	**0**	**0**	**0**	**0**	**24**	**23**	**72**	**5**
Any suboxone	***50***	***20***	***32***	***13***	***5***	***2***	***2***	***2***	***43***	***30***	**-**	**-**
Oxycodone – licit	20	10	8	2	0	0	0	0	17	7	24	37
Oxycodone – illicit	41	39	26	22	0	0	0	0	15	9	5	6
Any oxycodone	***53***	***43***	***30***	***23***	***0***	***0***	***0***	***0***	***28***	***13***	***8***	***6***

Source: IDRS Participant interviews
^ Refers to any route of administration, i.e. includes use via injection, smoking, swallowing, and snorting
*****Among those who had used/injected

Table 5: Drug use history and routes of administration of the sample, 2012 (% of total sample; N=93) (continued)

Drug Class	**Ever used %**	**Ever Inject %**	**Use last 6 mths %**	**Inject last 6 mths %**	**Ever Smoke %**	**Smoke last 6 mths %**	**Ever snort %**	**Snort last 6 mths %**	**Ever Swallow %**	**Swallow last 6 mths %**	**Days used in last 6 mths^**	**Days injected in last 6 mths***
Morphine – licit	26	23	11	9	1	1	1	1	13	7	75	5
Morphine – illicit	48	44	23	22	1	1	2	2	14	3	12	12
Any morphine	***61***	***55***	***28***	***27***	***2***	***2***	***3***	***3***	***25***	***9***	***12***	***12***
Other opioids	42	2	19	1	0	0	0	0	42	19	24	3
OTC codeine	45	4	22	0	2	0	1	0	45	22	10	-
Methamphetamine powder (speed)	87	84	34	33	23	5	46	1	39	7	13	16
Methamphetamine base (paste/point/wax)	47	46	32	32	16	10	7	1	15	4	12	12
Crystaline methamphetamine (ice)	77	73	56	54	33	16	6	1	12	4	11	11
Amphetamine liquid	29	29	15	15	-	-	-	-	4	2	5	5
Any form methamphetamine[#]	***97***	***97***	***79***	***77***	***48***	***22***	***51***	***3***	***47***	***13***	***27***	***26***
Pharmaceutical stimulants − licit	8	2	2	1	0	0	1	0	8	2	52	1
Pharmaceutical stimulants − illicit	16	8	8	3	1	0	3	0	13	5	2	2
Any pharmaceutical stimulants	***23***	***10***	***9***	***4***	***1***	***0***	***4***	***0***	***19***	***7***	***2***	***2***
Cocaine	53	34	7	4	10	1	46	2	8	1	3	4
Hallucinogens	59	10	7	1	0	0	0	0	56	5	3	12
Ecstasy	63	23	11	5	1	0	7	3	57	5	2	1
Alprazolam – licit	17	1	11	0	0	0	0	0	17	11	180	-
Alprazolam − illicit	33	5	22	3	0	0	0	0	30	20	7	24
Any alprazolam	***43***	***7***	***30***	***3***	***0***	***0***	***0***	***0***	***41***	***29***	***30***	***-***

Source: IDRS Participant interviews

^ Refers to any route of administration, i.e. includes use via injection, smoking, swallowing, and snorting

*****Among those who had used/injected

[#] Category includes speed powder, base, ice/crystal and amphetamine liquid (oxblood), but does not include pharmaceutical stimulants

Table 5: Drug use history and routes of administration of the sample, 2012 (% of total sample; N=93) (continued)

Drug Class	**Ever used %**	**Ever Inject %**	**Use last 6 mths %**	**Inject last 6 mths %**	**Ever Smoke %**	**Smoke last 6 mths %**	**Ever snort %**	**Snort last 6 mths %**	**Ever Swallow %**	**Swallow last 6 mths %**	**Days used in last 6 mths^**	**Days injected in last 6 mths***
Other benzodiazepines − licit	44	2	31	0	0	0	0	0	44	31	134	-
Other benzodiazepines − illicit	30	1	19	1	0	0	0	0	30	19	6	20
Any other benzodiazepines	***56***	***3***	***40***	***1***	***0***	***0***	***0***	***0***	***56***	***40***	***48***	***-***
Any benzodiazepines	***63***	***9***	***46***	***3***	***0***	***0***	***0***	***0***	***62***	***46***	***180***	***30***
Seroquel – licit	12	1	8	0	-	-	-	-	11	8	180	-
Seroquel − illicit	17	1	7	0	-	-	-	-	17	7	4	-
Any seroquel	***27***	***1***	***14***	***0***	***-***	***-***	***-***	***-***	***27***	***14***	***29***	***-***
Alcohol	99	4	66	0	-	-	-	-	99	66	12	-
Cannabis	94	-	61	-	100	60	-	-	38	7	90	-
Tobacco	98	-	96	-	-	-	-	-	-	-	180	-
Inhalants	10	-	3	-	-	-	-	-	-	-	1	-
Steroids	8	4	3	2	0	0	0	0	7	3	180	7

Source: IDRS Participant interviews

^ Refers to any route of administration, i.e. includes use via injection, smoking, swallowing, and snorting

*****Among those who had used/injected

4.2 Heroin use

Key findings

- In 2012 just over half of the sample reported recent use of heroin; this was stable from 2011.
- However, the frequency of heroin use decreased to a median of 48 days within a six month period; daily use remained stable.
- White rock and powder continued to be the most commonly used forms of heroin in 2012.

4.2.1 Use of heroin

Twenty-eight percent of participants reported heroin as the first drug ever injected, 46% nominated it as their drug of choice, 36% reported it as the drug most often injected in the last month and 35% reported that heroin was the last drug they had injected.

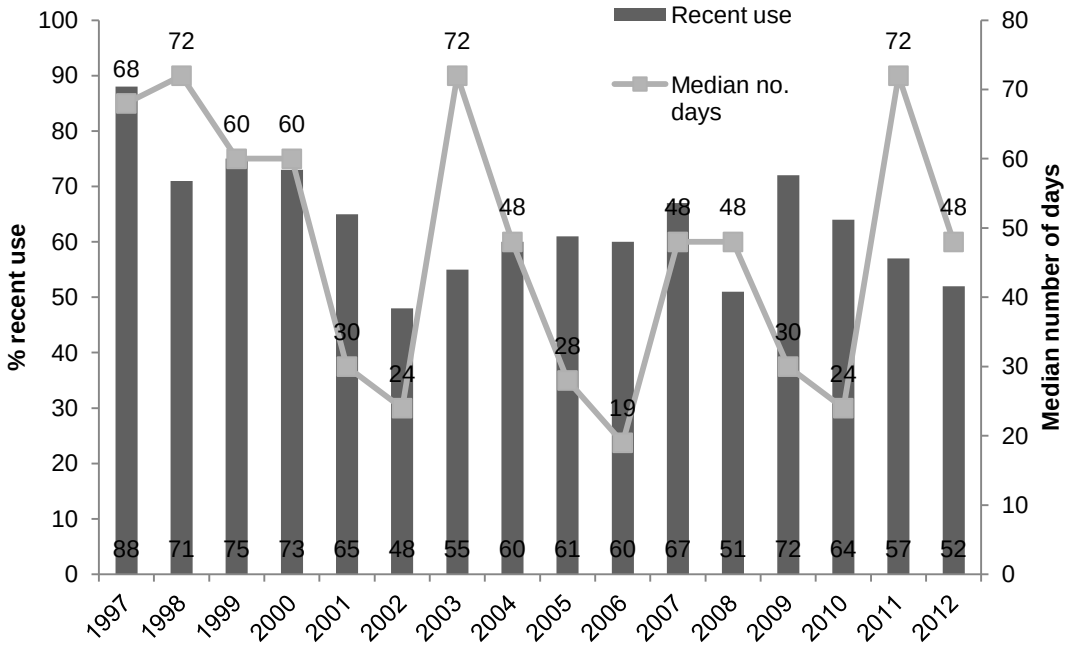
Fifty-two percent of the IDRS participants interviewed in 2012 had used heroin in the six months prior to interview, a slightly lower proportion than reported in 2011 (57%). The frequency of recent heroin use (median number of days used in a six month period) also decreased, from 72 days in 2011 to 48 days in 2012. Nearly all recent heroin users reported injecting heroin within the preceding six months, and the median number of injection days was also 48 (range 1-180). Among recent users of heroin, daily use remained stable at 29%.

Table 6: Recent heroin use of IDRS participants, 2011-2012

	2011	**2012**
Recent use (%)	57	**52**
Median days of use*	72	**48**
Daily use* (%)	25	**29**

Source: IDRS participant interviews
*Among those who had used. Maximum number of days, i.e. daily use, is 180. See page x for guide to days of use/injection

Figure 4: Heroin, recent use and median number of days used, 1997-2012



Source: IDRS participant interviews
Note: Shows reports of those reporting recent use, i.e. in the previous six months

Of the 48 participants who had used heroin in the last six months, 67% (n=32) reported heroin as the last drug that they injected. The remaining heroin using participants reported the last drug they injected as speed (n=4, 8%); ice (n=4, 8%), morphine (n=2, 4%); or oxycodone (n=2, 4%).

Homebake is a form of heroin made from pharmaceutical products and involves the extraction of diamorphine from pharmaceutical opioids such as codeine and morphine. In 2012, a third (32%) of participants reported that they had used homebake heroin at least once in their lifetime. Ten percent reported the use of homebake heroin in the six months preceding interview. All who reported recent use of homebake heroin had injected it; however, 2% also reported smoking or swallowing it and one participant reported snorting it in the six months preceding interview. In 2012, homebake heroin was used for a median of four days (range=1-90 days).

4.2.2 Heroin forms used

Of the 48 participants who had used heroin in the six months prior to interview, 81% (n=39) reported use of a white/off-white powder or rock form of heroin, a slight decline from 2011. Fifty percent of the sample (n=24) reported using a brown powder or rock, stable from 2011. The forms most used in the last six months showed a similar pattern to 2011, with 72% using mostly white/off-white powder or rock and 23% using brown powder or rock most often. Four percent (n=2) used heroin of another colour (see Table 7).

Table 7: Reports of heroin forms used in the last six months among those who had recently used heroin, 2011-2012

	2011	2012
Used last 6 months (%)	(n=57)	**(n=48)**
White/off-white powder or rock	93	**81**
Brown powder or rock	47	**50**
Form most used last 6 months	(n=57)	**(n=47)**
White powder or rock	70	**72**
Brown powder or rock	25	**23**
Homebake	4	**0**
Other colour	2	**4**

Source: IDRS participant interviews

Of the 43 participants who nominated heroin as their drug of choice, 39 participants (91%) had used heroin in the previous six months, 16 (37%) had used any methadone (licit or illicit), and 15 (36%) had used any morphine (licit or illicit). In addition, 23 participants (54%) had used benzodiazepines (licit and illicit), and 26 (61%) had used some form of methamphetamine. Compared to 2011, more participants nominating heroin as their drug of choice reported recent use of morphine, benzodiazepines or methamphetamine (16%, 48% and 42% respectively).

Twelve participants nominated heroin as their drug of choice, but reported that the drug they had injected most in the last month was something other than heroin. Of these participants, the reasons given for not injecting heroin were drug price (n=4), currently in drug treatment (n=3), availability (n=2), attempting to remove oneself from the drug scene (n=2), purity (n=1) and addiction (n=1). Three participants had mostly injected morphine, three had injected ice, two injected methadone and two injected speed. Although the numbers are small, this data may indicate that people who inject drugs (PWID) continue to supplement or replace their use of heroin with other opioid and non-opioid drugs.

4.2.3 Heroin preparation method

According to Ciccarone (2009), the type of heroin that is being used dictates the method of preparation that is needed; this is also dependent on the intended route of administration. The use of different coloured heroin may require an additional step, involving citric acid or heating, in the preparation for injection. Subsequently, participants were asked if they had used heat or acid the last time they injected heroin and they were also asked about the colour of the heroin involved (see Table 8). Over one-third (38%) of recent heroin users reported the last time they used heroin they had used heat, with 13% reporting using acid in the preparation process. Participants reported use of heat or acid in the preparation process of white heroin (56%) and brown heroin (39%). Only one participant reported the use of acid or heat in the preparation process of yellow heroin.

Table 8: Preparation of heroin, 2011-2012

	2011	**2012**
Heated in the last injection (%)	(n=54)	**(n=45)**
	33	**38**
Acid in the last injection (%)	(n=54)	**(n=45)**
	6	**13**
Main colour	(n=18)	**(n=18)**
White	39	**56**
Brown	50	**39**
Other	11	**6**

Source: IDRS participant interviews

KE comments

- Reports regarding the prevalence of heroin were mixed. The majority of KE reported that heroin use remained popular but stable; however, there were four KE who reported that there had been an increase in heroin use.
- One KE reported that there had been a very slight increase in opioid related deaths, as well as an increase in the use of naloxone in ambulance call-outs.
- Polydrug use was also raised as an issue. For example, one KE observed that 5 years ago they would have had clients who were primarily heroin users, but now they all seem to use heroin in conjunction with a whole range of other drugs such as methamphetamine, alcohol, cannabis, oxycodone and benzodiazepines.
- One KE also noted that, although injection continues to be the preferred route of administration, the Vietnamese community generally prefer to smoke it.

4.3 Methamphetamine

Key findings

- There was a non-significant increase in the use of crystal methamphetamine in the six months preceding interview, whilst the use of powder, base and liquid methamphetamine all remained stable.
- All four forms of methamphetamine were reported as being used at a lower frequency than in 2011.
- The majority of participants using all forms of methamphetamine reported having done so by injection in the six months prior to interview.
- The proportion of recent methamphetamine users who reported using on a daily basis halved, from 10% in 2011 to 5% in 2012.

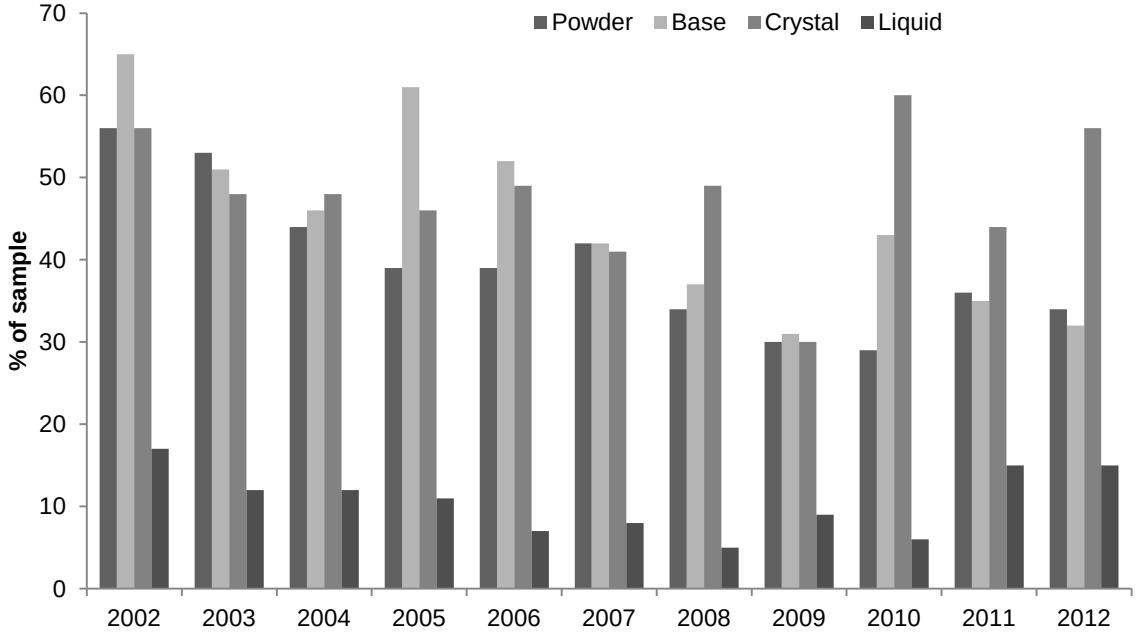
In 2002, the IDRS collected data on three different forms of methamphetamine in order to collect more comprehensive data on the use, purity and availability of each. Flashcards with colour photographs were introduced to clarify more precisely the characteristics of the different forms of methamphetamine that are marketed under a variety of names, but can be categorised into three main forms: 'speed/powder', 'base/paste', and 'crystal/ice' (see Breen et al., 2003). For ease of understanding and comparability with previous IDRS reports, these three main forms will be referred to as powder, base and crystal, respectively in the following sections. Also, due to this categorisation, price, purity and availability data prior to 2002 is not directly comparable to data collected in the years following the 2002 IDRS report and care should be taken when interpreting the changes in these parameters, as reported in the following sections.

4.3.1 Use of methamphetamines

Sixty-five percent of participants reported methamphetamine as the first drug ever injected, 39% nominated it as their drug of choice, 47% reported it as the drug most often injected in the last month and 50% reported methamphetamine was the last drug they injected. Of those who had used methamphetamine in the preceding six months, a large proportion reported that methamphetamine was the first drug they had ever injected (68%), the drug injected most often in the past month (60%), the last drug injected (63%) and 49% nominated it as their drug of choice.

In 2012, over three-quarters of participants (79%) had used any form of methamphetamine in the six months preceding interview, increasing slightly from 2011 (66%). More specifically, a third of the sample reported recent use of powder (34%) and base (32%); the use of liquid amphetamine remained stable (15%); and there was a non-significant increase in the proportion of PWID who had used crystal in the preceding six months (44% in 2011 versus 56% in 2012). Most participants had recently used all forms of methamphetamine by injecting (see Table 5).

Figure 5: Methamphetamine, percentage of participants that used in the last six months, 2002-2012

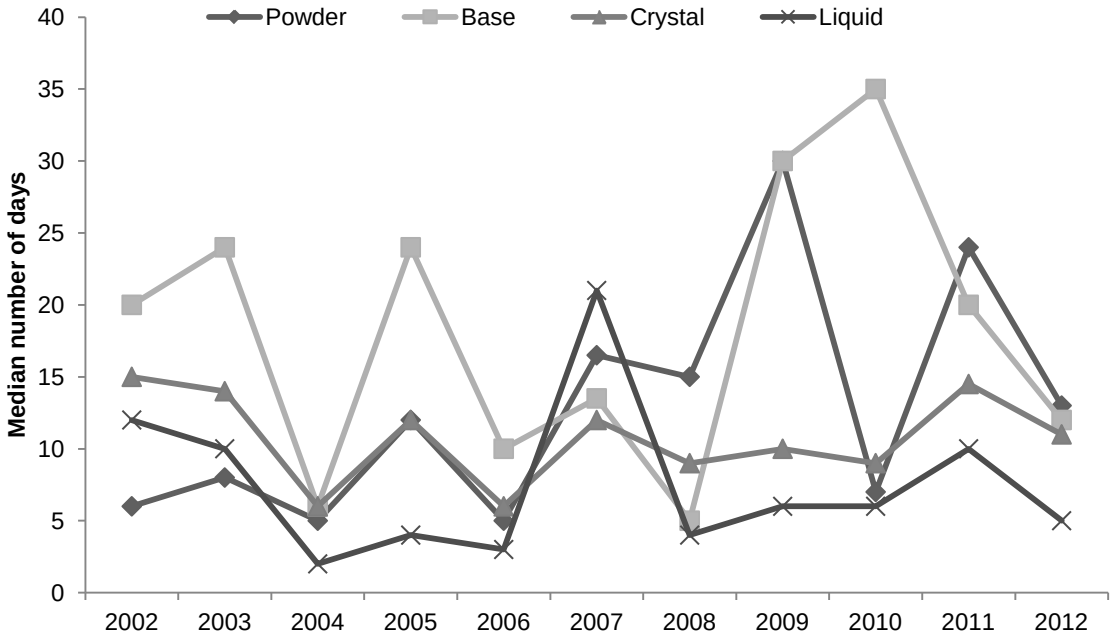


Source: IDRS participant interviews

4.3.2 Methamphetamine frequency of use

In the last six months, all four forms of methamphetamine were reported as being used at a lower frequency than in 2011 (as measured by the median number of days used in the six months prior to interview). That is, in 2012, participants reported using powder on a median of thirteen days (range: 1-180) compared to 24 days (range: 1-180) in 2011; base on a median of 12 days (versus 20 days in 2011); crystal on a median of 11 days (versus 15 days in 2011); and amphetamine liquid on a median of 5 days (versus 10 days in 2011).

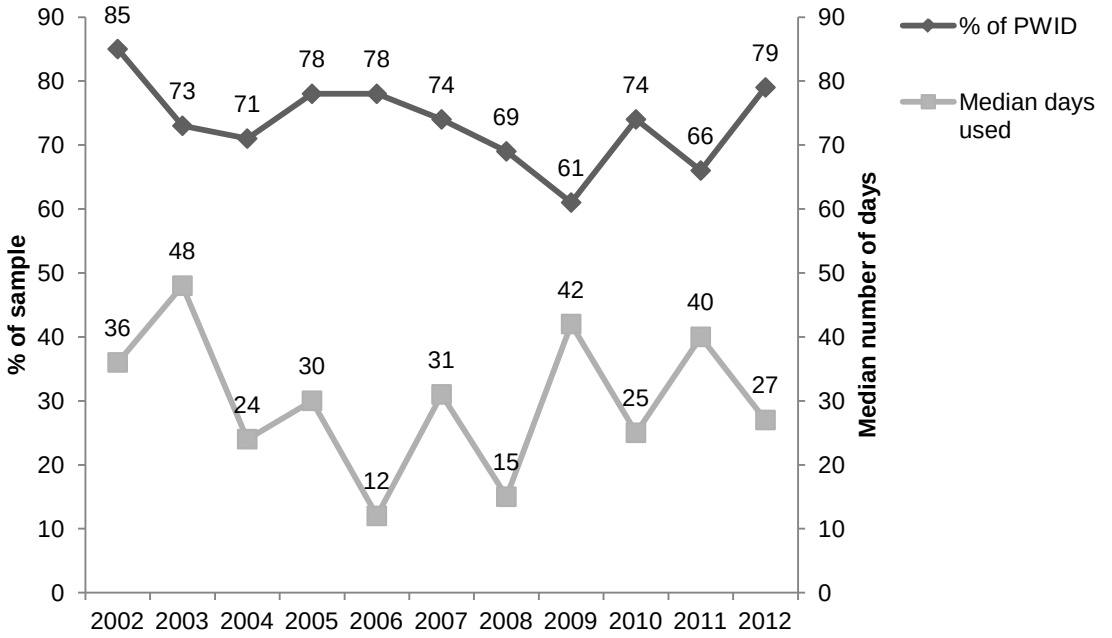
Figure 6: Methamphetamine, median number of days used in the last six months, 2002-2012



Source: IDRS participant interviews
Note: Used by those participants who reported use of each form in the six months prior to interview

The long-term trend in the parameters of use is depicted in Figure 7. Overall, in 2012 79% of participants had used some form of methamphetamine (powder, base, crystal, and liquid), representing a non-significant increase from 2011 (66%). However, the frequency of methamphetamine use had decreased with recent methamphetamine users reporting that they had used on a median of 27 days (range=1-180) in a six month period; down from 40 days in 2011.

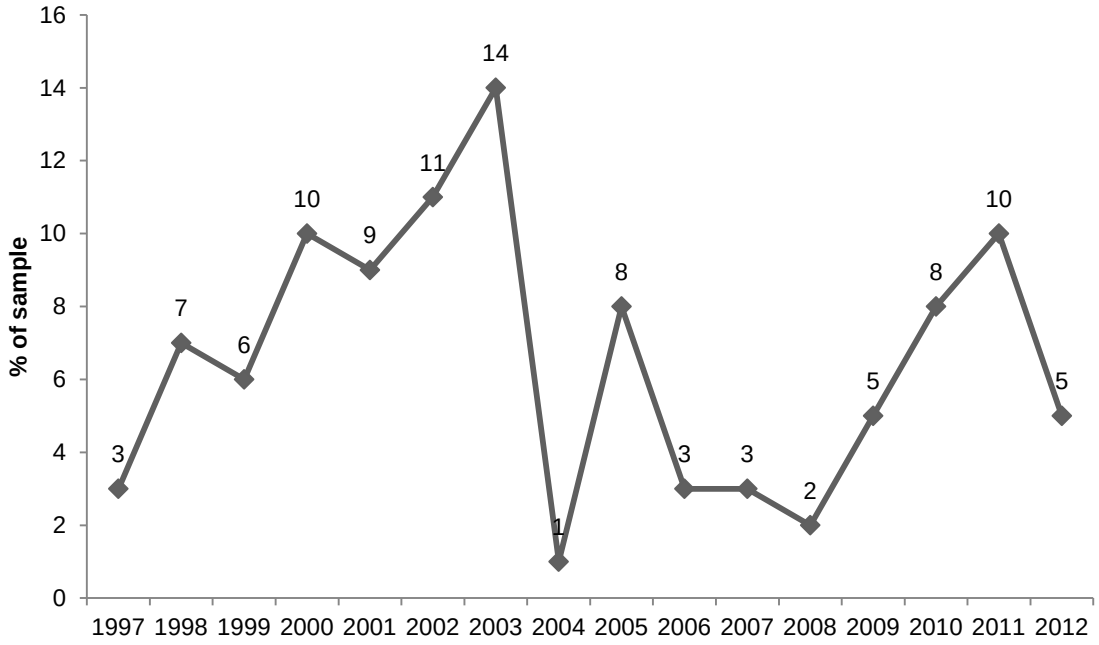
Figure 7: Methamphetamine, recent use and median number of days used, 2002-2012



Source: IDRS participant interviews
Note: Results of those reporting recent use in the previous six months

Of the 73 participants who reported using some form of methamphetamine in the last six months, four participants reported daily use during that period. This was slightly lower than the number of methamphetamine users reporting daily use of any methamphetamine (n=10) in 2011. The long-term trend for the percentage of participants using some form of methamphetamine on a daily basis is depicted in Figure 8. As shown, the prevalence of daily methamphetamine use has fluctuated considerably over the past 16 years; however, numbers remain relatively small.

Figure 8: Methamphetamine, percentage that used daily in the last six months, 1997-2012



Source: IDRS participant interviews

As would be expected of a sample of PWID, the majority of participants using all forms of methamphetamine reported having done so by injecting in the six months prior to interview. A third of the sample (33%) had injected powder (stable from 2011), 32% had injected base (compared to 31% in 2011), 54% had injected crystal (41% in 2011) and 15% had injected amphetamine liquid (14% in 2011). Five percent of participants reported smoking powder, 1% reported snorting and 7% had swallowed powder in the preceding six months; this remained relatively stable compared to 2011. Ten percent of the sample reported smoking base methamphetamine, followed by swallowing (4%) and snorting (1%); again this was stable from 2011. Recent smoking of crystal increased significantly to 33% (vs. 19% in 2011; p=0.035; 95% CI: -0.26 − -0.019), with both snorting and swallowing of crystal remaining low (1% and 4% respectively) (Table 5).

Of the 36 participants reporting methamphetamine as their drug of choice, virtually all had used some form of methamphetamine (100%) and tobacco (97%; n=35) in the six months preceding interview; 26 (72%) had used alcohol, 24 (67%) had used cannabis, 3 (8%) had used ecstasy, and two (6%) had used heroin.

KE comments

- A number of KE noted that their clientele didn't distinguish between speed, base and ice; rather, they just referred to meth/amphetamines more generally. However, it was generally agreed that crystal is the most popular form of methamphetamine being used.

- Perceptions regarding the prevalence of methamphetamine were mixed. Approximately half of the KE reported that although methamphetamine remained extremely popular, its prevalence had remained relatively stable over the preceding year; the remaining KE reported that there had been an increase in methamphetamine use.

- KE raised a number of concerns regarding methamphetamine, including an increase in associated violence, earlier onset and initiation of use, and an increase in use among indigenous users (perhaps due to the closure of a number of their drinking spots and the emergence of methamphetamine as a relatively cheap alternative).

- When asked what drug they considered to be most problematic at the moment, virtually all KE nominated methamphetamine. The reasons for this were varied and ranged from the fact that it was highly prevalent, to the physical (e.g. cardiovascular problems; strokes) and mental (e.g. aggression; psychosis) impacts it can have on the individual and their family/friends.

- Interestingly, two KE reported that, anecdotally, there may have been a slight shift towards smoking methamphetamine, rather than injecting it.

4.4 Cannabis

Key findings

- The proportion of participants who had recently used cannabis remained relatively stable in 2012, whilst the frequency of use decreased to a median of 90 days in a six month period.
- Forty-four percent of recent cannabis users (n=25) stated they had used on a daily basis in the last six months; this was stable from 2011.
- Of the participants who had used cannabis recently, 48 (89%) reported the use of hydro and 39 (72%) reported the use of bush within that period.

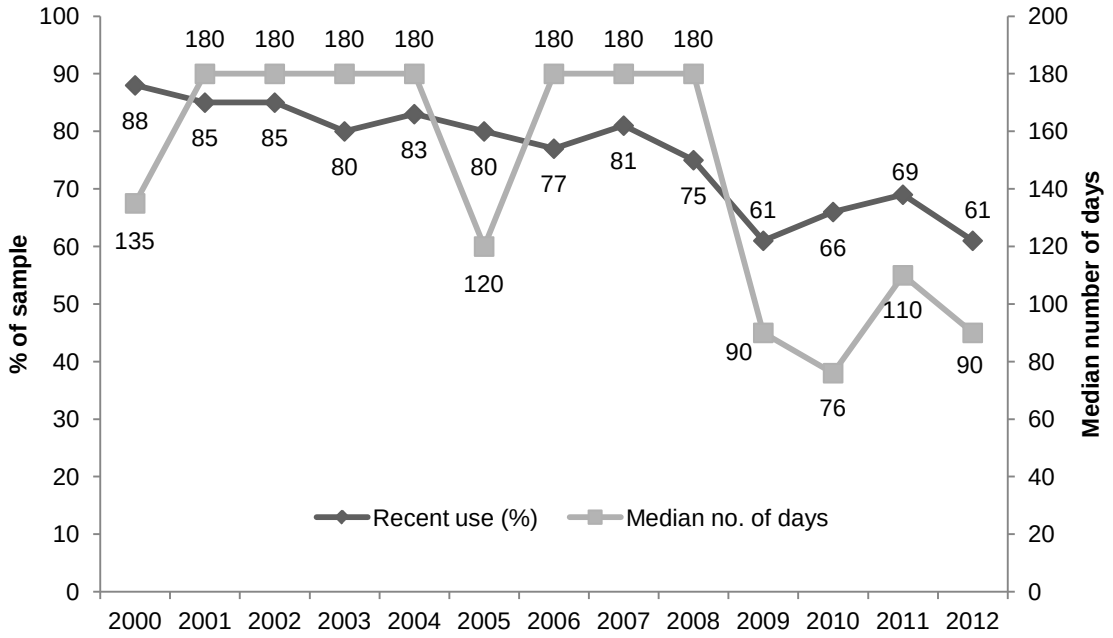
The current legal approach to cannabis use in SA is one of 'prohibition with civil penalties'. Under this approach, the production, possession or use of cannabis is illegal. Any cultivation of a cannabis plant by hydroponic means will result in the accused being arrested/reported and required to attend court. A single cannabis plant grown in the ground, i.e. not grown hydroponically, will attract an expiation fee. In cases where more than one cannabis plant is grown outdoors (bush cannabis), the accused is arrested and required to attend court. There are varying penalties for possession of cannabis offences and these penalties are dependent on the amount the person is located with. Under the Cannabis Expiation Notice Scheme, police issue the offender with an 'on-the-spot' fine notice. If the offender disagrees with any aspect of the charge, he or she can elect to go to court and defend the case rather than pay the expiation fee. Failure to pay the prescribed fee within the expiation period results in a summons being issued for the offender to appear in court. The original expiation fee becomes the fine, with the additional court costs. Changes to the legislation were introduced in 2007 codifying trafficking offences.

4.4.1 Current patterns of cannabis use

It is worth noting that because participants were recruited on the basis of their injecting drug use (rather than use of illicit drugs in general), the following data may not be representative of cannabis users in general; rather, it is specific to an injecting drug using population. That is, the IDRS reports on cannabis use by a sample of PWID only.

Sixty-one percent of the sample reported having used cannabis on a median of 90 days (range: 1-180) during the last six months (compared to 110 days in 2011). Although cannabis is generally not the drug of choice among the IDRS sample, the majority of participants (94%) reported using this substance in their lifetime. Reported use of cannabis in the six months prior to interview remained stable: 69% in 2011 compared to 61% in 2012 (see Figure 9).

Figure 9: Cannabis, recent use and median number of days used, 2000-2012



Source: IDRS participant interviews
Note: Results from those reporting recent use in the previous six months

Forty-four percent of recent cannabis users (n=25) stated they had used on a daily basis in the last six months, which was stable from 2011 (46%).

Participants who had used cannabis in the six months prior to interview were asked to report the number of cones/joints/other they used on the last day they smoked. Readers should note that the term 'cone' refers to the indentation in a pipe/bong or a pipe/bong attachment in which cannabis is inserted to be ignited. The term 'cones', in the context of the question, refers to the number of times the 'cone' was filled and the contents smoked on the last day the participant used. A 'bong' is a water-pipe apparatus which enables the filtering of cannabis smoke through a chamber. The majority of participants reported smoking cannabis in 'cones' (n=40; 89%) the last time they used and had smoked a median of three cones (range 0.25-20). Four participants reported smoking a median of one joint (no range) the last time they smoked cannabis. One participant reported having one 'puff' on the last occasion of use. The median number of cones and joints smoked on the last occasion of use were the same among daily users.

Of the participants who had used cannabis recently, 48 (89%) reported use of hydro and 39 (72%) reported use of bush, within that period. In addition, seven participants (13%) reported use of 'hash' (cannabis resin) and seven (13%) reported use of 'hash oil'. The majority of the cannabis-using participants reported hydro as the form they had used most in the last six months (70%, n=38). Twenty-eight percent (n=15) reported bush was the form they had used most, and one participant reported that hash oil was the form they had used most in the preceding six months.

KE comments

- There was a general consensus among KE that cannabis remains popular and is still widely used among their clientele (and among the general population).
- Hydroponic cannabis was largely reported to be the dominant form of cannabis; however, there were a couple of KE who noted that outdoor cannabis does appear to gaining popularity.
- When asked what drug they considered to be most problematic at the moment, four KE reported that cannabis was one of the drugs that they were concerned about. These concerns were largely due to the fact that cannabis is the most prevalent of the illicit drugs and is so easily available. One KE raised concerns about the earlier onset of use, with initiation into cannabis use starting at as young as 11 years of age.

4.5 Opioids

Key findings

- Twenty-three percent of participants reported they had used illicit morphine in the six months prior to interview on a median of 12 days (range 1-180); this was similar to participant reports in 2011.
- The majority of morphine users (65%, n=17) also reported that the type they had used most during the last six months was illicit.
- The recent use of illicit methadone was stable in 2012, with 12 participants reporting that they had recently used illicit methadone syrup on a median of two days (range 1-96) in the last six months.
- Compared to 2011, the number of participants reporting recent use of illicit buprenorphine remained stable, although the frequency of use did increase slightly to 12 days.
- The proportion of participants reporting recent use of illicit oxycodone remained stable in 2012, as did the frequency of use.

The IDRS investigates the use patterns, harms and market characteristics of a number of pharmaceutical opioids including methadone, buprenorphine, buprenorphine-naloxone, morphine and oxycodone. Use of these substances is broadly split into the following categories:

Use

1. Use of licitly obtained opioids, i.e. use of opioids obtained by a prescription in the user's name, through any route of administration (includes the use of these medications as prescribed).
2. Use of illicitly obtained opioids, i.e. those obtained from a prescription in someone else's name, through any route of administration ('illicit use').
3. Use of any opioids, i.e. does not distinguish between licitly and illicitly obtained opioids.

Injection

1. Injection of licitly obtained opioids.
2. Injection of illicitly obtained opioids.
3. Injection of any opioids.

Note on interpretation: the IDRS and the term 'diversion'. The IDRS documents the use of opioid medications, licitly obtained or otherwise, among a sentinel sample of PWID. These include opioids prescribed for opioid substitution treatment (OST) – i.e. methadone, buprenorphine and buprenorphine-naloxone maintenance treatments – in addition to opioids prescribed for pain relief (including morphine and oxycodone). In regards to OST, it is imperative to note that screening of participants ensured that those sampled had all been active in the illicit drug markets and therefore were able to provide meaningful data on market indicators. However, whilst a proportion of those sampled in 2012 were engaged in such treatment at the time of interview, responses presented are not representative of all clients engaged in drug treatment services.

4.5.1 Overview of opioid use among participants

Table 5 provides data on the history of use and route of administration of opioid substances for the 2012 participant sample. Opioid substances include heroin; morphine; 'homebake' (a crude opioid substance derived from codeine) (Reynolds et al., 1997); and other opioids (such as codeine, pethidine, oxycodone); as well as methadone/Physeptone® and buprenorphine.

Heroin was the most commonly used opioid in the six months prior to interview (54%), followed by either licit or illicit Suboxone® (32%), licit or illicit oxycodone (30%), licit or illicit morphine (28%), licit or illicit methadone (27%) or buprenorphine (licit or illicit) (11%). Heroin use among participants is described in detail in section 4.2, with use of other opioids (illicit use only) described in the following sections. It should be noted that some of the sample sizes for these sections were relatively small and, therefore, should be interpreted with caution.

When all the opioid substance categories (heroin, methadone, morphine, other opioids, oxycodone, buprenorphine and Suboxone®) are collapsed, 77% of participants had used some type of opioid substance (including licit and illicit use) in the six months prior to interview. When licit use (of methadone, morphine, buprenorphine, Suboxone® or oxycodone) is excluded, 69% had used any of these substances in that time. Excluding heroin and licit use (of methadone, morphine, buprenorphine, Suboxone® or oxycodone), 58% of participants had used some other opioid substance in the six months prior to interview.

4.5.2 Use of illicit morphine

Four participants (4%) nominated morphine as their drug of choice, 7% reported it as the drug most often injected in the last month, and 5% as the last drug they injected (see Figure 1, Figure 2 & Table 3).

Twenty-three percent of participants reported they had used illicit morphine in the six months prior to interview on a median of 12 days (range: 1-180); this was similar to 2011. One participant reported daily use of illicit morphine in the six months prior to interview.

The majority of all morphine users (65%, n=17) also reported that the type they had used most during the last six months was illicit. The main brands of illicit morphine used in that time were Kapanol® (63%, n=10) and MS Contin® (38%, n=6).

4.5.3 Use of illicit methadone

2012 was the tenth year that IDRS survey participants were asked to provide separate information on the use of licit and illicit methadone syrup and Physeptone® tablets.

Twelve participants reported having recently used illicit methadone syrup on a median of two days (range: 1-96) in the last six months. Of those, seven reported injecting illicit

methadone syrup on a median of two days (range: 1-24), and seven participants reported use by swallowing during that period. This was largely stable from 2011.

Three participants reported having used illicit Physeptone® tablets on a median of three days in the last six months (range: 2-3). Of those, two participants reported use of illicit Physeptone® tablets by injecting and they had done so on a median of two days; and two participants reported use by swallowing during that period.

4.5.4 Use of illicit buprenorphine

IDRS survey participants were asked to provide separate information on the use of licit and illicit buprenorphine.

Eight participants reported having used illicit buprenorphine on a median of 12 days (range: 1-96) in the six months prior to interview. Most of the participants who reported use of illicit buprenorphine did so by injection (n=6), and they had done so on a median of 28 days (range: 1-96). Three participants reported use of illicit buprenorphine by swallowing in the six months preceding interview.

4.5.5 Use of illicit oxycodone

Twenty-four participants reported recent use of illicit oxycodone on a median of 5 days (range: 1-96) in the six months prior to interview. Of those, 20 reported injecting illicit oxycodone on a median of six days (range: 1-96) and eight participants reported use by swallowing during that period. These figures are largely stable compared to 2011. The main brands of illicit oxycodone used in the six months preceding interview were Oxycontin® (79%), followed by Endone® (16%).

4.5.6 Use of illicit Suboxone®

In September 2011 Suboxone® became available as a sublingual film, and hence in 2012 participants were asked to distinguish between Suboxone® tablets and Suboxone® film. Ten participants reported recent use of illicit Suboxone® tablets on a median of two days (range: 1-96), and ten participants reported recent use of Suboxone® film on a median of four days (range: 1-72 days) in the six months prior to interview. Of those, four and six participants reported injecting illicit Suboxone® tablets and film, respectively.

KE comments

- Half of the KE noted there had been an increase in the use of other opioids such as oxycodone and morphine, in the 12 months preceding interview. It was speculated that this may have been due to a shortage in the supply of illicit drugs; or that it may have been a flow-on effect from the increased prescription of such drugs.
- It was believed that these drugs were being used to 'get high', as well as to meet a legitimate need in treating pain. One KE noted that long-term pain patients are not well-managed, and that people therefore resort to self-medicating as best they can. Such drugs are often injected and this raises concerns regarding the process of crushing and filtering pills, with one KE noting a lack of knowledge about what constitutes 'safe injecting'.
- KE confirmed that patients have been moved over to Suboxone® film; if doctors wish to prescribe anything other than methadone or Suboxone® film they need to apply for permission.
- In terms of diversion, one KE reported that Suboxone® film is just as problematic as the tablet form. When being supervised, it was reported that patients may tear the film in half when they put their hand to their mouth, swallow half and keep the other half. An alternative strategy was to put glad wrap under the tongue so that the film would adhere to it, and then remove it later on.
- One KE had heard reports of Suboxone® film being smoked (by putting it in their cigarette) or vaporised whist in prison.

4.6 Other drugs

Key findings

- Eleven percent of IDRS participants had used ecstasy and 7% had used some type of hallucinogen in the six months prior to interview; this remained stable from 2011.
- In 2012, approximately one-third of PWID (29%) reported recent use of any illicit benzodiazepines, which is similar to participant reports in 2011.
- The prevalence and frequency of recent cocaine use remained low among PWID.
- Twenty-two percent of participants reported recent use of OTC codeine for non-medicinal purposes; fewer participants reported recent use of illicit pharmaceutical stimulants (8%) and seroquel (7%).
- Two-thirds of PWID had recently consumed alcohol, and had done so on median of 12 days in the preceding six months.
- Tobacco remains highly prevalent among PWID, with 96% reporting use within the six months preceding interview. Ninety percent of PWID reported daily use of tobacco.

4.6.1 Ecstasy

Details regarding the use of ecstasy (3,4-methylenedioxymethamphetamine − MDMA), hallucinogens (including lysergic acid (LSD) or 'trips'), and naturally occurring compounds such as magic mushrooms are provided in Table 5.

The majority of participants reported that they had used ecstasy (63%) and hallucinogens (59%) within their lifetime. Eleven percent of the sample had used ecstasy and 7% had used some type of hallucinogen in the six months prior to interview, although neither had been consumed frequently. Ecstasy had been consumed on a median of two days (range: 1-30) and hallucinogens on a median of three days (range: 1-12). The use and frequency of both ecstasy and hallucinogens remained stable when compared to 2011. Both ecstasy and hallucinogens had mainly been consumed orally (ecstasy: 50%; hallucinogens: 71%), although 50% of recent ecstasy users also reported that they had injected ecstasy on a median of one day (range 1-5) during the past six months. Other parameters of use for these two drug classes were very similar to those reported in 2011. The main forms of hallucinogens used by PWID were mushrooms (n=3), followed by LSD/trips (n=2).

Since 2000, the use of ecstasy and related drugs amongst a separate sample of primarily non-injecting drug users has been examined on an annual basis. This was previously done as a module of the IDRS, but is currently conducted as a separate study known as the Ecstasy and Related Drugs Reporting System (EDRS) – formerly the Party Drugs Initiative (PDI). State and national reports are produced annually: see http://ndarc.med.unsw.edu.au/group/drug-trends.

4.6.2 Illicit benzodiazepines

In 2012, participants were asked to distinguish between their use of alprazolam (Xanax) and other benzodiazepines. Twenty-two percent of PWID reported illicit use of alprazolam on a median of 7 days; and 19% reported illicit use of other benzodiazepines on a median of 6 days within the preceding six months.

Virtually all participants who had used illicit alprazolam and other benzodiazepines reported use by swallowing; three users of illicit alprazolam reported use by injection on a median of 7 days and one participant reported injecting other illicit benzodiazepines on 20 days within the preceding six months. In 2012, approximately one-third of PWID (29%) reported recent use of any illicit benzodiazepines, which is similar to participant reports in 2011 (34%).

Among those who had used 'other benzodiazepines' in the preceding six months, the main brand used was diazepam (Valium) (75%; n=24).

4.6.3 Cocaine

Seven participants reported use of cocaine on a median of three days (range: 2-24) in the six months prior to interview; this remained stable from 2011. Fifty-seven percent of these participants (n=4) reported that they had injected cocaine on a median of four days (range: 2-24) in that time. Such results indicate that cocaine use among PWID in Adelaide is relatively rare.

4.6.4 Pharmaceutical stimulants

Since 2004, participants have been asked to comment on their use of pharmaceutical stimulants. This includes drugs such as Dexamphetamine® and methylphenidate, which are medications most commonly prescribed for attention deficit hyperactivity disorder (ADHD). From 2006, the IDRS has asked about licit and illicit forms of pharmaceutical stimulants.

In 2012, 16% of the sample reported using illicit pharmaceutical stimulants at least once in their lifetime (23% in 2011) and 8% reported use within the preceding six months (9% in 2011). The frequency of use remained low at two days within a six month period (range: 1-10). Recent injection of illicit pharmaceuticals was reported by only 3% of the sample, on a median of 2 days.

Among those who had used illicit pharmaceutical stimulants, the most common form used was Dexamphetamine® (n=4).

4.6.5 Over the counter codeine

Codeine is a mild opioid. In Australia, over the counter (OTC) codeine is readily available in pharmacies. It is mainly used for the relief of mild to moderate pain. OTC codeine medications vary in codeine quantity and are only available in combinations (usually with analgesics or decongestants). There are associated health concerns with the prolonged use of OTC codeine, most notably the risk of liver damage. There are also health risks associated with the overdose of combination drugs such as paracetamol.

The following section has been included in the survey to investigate OTC codeine use amongst PWID. The questions aim to investigate the extra-medical use of OTC codeine, pain management, frequency of use, main brands used, the reason for use, and the amount of tablets/capsules used per dose. For more information on the harms associated with OTC codeine use, see Dutch (2008) and Dyer et al. (2004).

In 2012 45% of participants reported ever using OTC codeine for non-medicinal purposes, and 22% reported using it on a median of 10 days in within the six months preceding interview (range: 1-180). There were four participants who reported daily use. Swallowing was the only ROA reported by recent OTC codeine users, and the main brands used were Panadol® (n=5), followed by Panadeine® (n=3) and Codapane® (n=3).

4.6.6 Alcohol

Not surprisingly, almost all participants reported that they had consumed alcohol within their lifetime (99%). Two-thirds of the sample (66%) had used alcohol in the six months preceding interview; and they had done so on a median of 12 days (range 1-180). Twelve participants reported daily use of alcohol.

4.6.7 Tobacco

Tobacco remains highly prevalent among PWID, with 98% of the sample reporting lifetime use and 96% reporting use in the six months preceding interview. The median days of use, among those who had recently used tobacco, was 180 days (range 24-180). More specifically, 90% of PWID (or 94% of those who had recently used tobacco) reported daily use of tobacco.

4.6.8 Seroquel

In 2012, participants were asked about their use of seroquel; an antipsychotic which is used to treat major psychotic and depression disorders. Twelve percent of the sample reported lifetime use of licit seroquel, whilst 17% reported lifetime use of illicit seroquel. Eight percent of participants had used licit seroquel in the preceding six months; and they had done so on a median of 180 days (range 3-180). Seven percent had used illicit seroquel on a median of four days (range 2-30). Swallowing was the only ROA for both licit and illicit seroquel, with no participants reporting injection within the preceding six months.

KE comments

- The majority of KE reported that they had little contact with cocaine users, and it was generally agreed that cocaine use remains low and stable in SA. There were, however, three KE who reported that cocaine use had decreased, with only one cocaine seizure being made in 2012.

- Alcohol was considered to be an "oldie but a goldie", in that it continues to remain a popular drug of choice, as well as a significant drug of concern. Three KE noted that binge drinking continues to be problematic, with one KE reporting that there had been a marked increase in binge drinking among females.

- One KE noted that there had been an increase in the consumption of wine, rather than beers and spirits. This was largely attributed to the comparatively low price of cask wine and $2 'clean skins'. Alcohol-related violence and an earlier onset of use were also raised as issues of concern

- It was generally reported that prescription medications remain a 'flourishing trade', with benzodiazepines and painkillers considered particularly prevalent. One KE called for the introduction of a real-time monitoring system in SA, and believed this would be particularly beneficial in controlling the use of benzodiazepines.

- Two KE expressed particular concern regarding the use and prescription of benzodiazepines (especially alprazolam) and called for an overhaul in the way such drugs are prescribed and packaged. It was believed that these drugs provided very little long-term benefits, yet caused a wide array of negative consequences.

- One KE reported that people are using anti-psychotics, as well as benzodiazepines, to help them come down from methamphetamine.

- A couple of KE expressed concern regarding the increasing use of steroids amongst an injecting naïve population. More specifically, it was reported that this was a much younger group of users who were typically using steroids for body image reasons, and that they have very little knowledge about harm minimisation. In fact, they are often injecting for the first time ever. Although these are not people that would be captured in the IDRS, it is important to take note of such trends as it does carry some concerning public health implications.

5 PRICE, PURITY AND AVAILABILITY

Key findings

- The median price of heroin was reported to be $100 for a cap and $400 for a gram, with the price reported as stable over the previous six months.
- The purity of heroin was perceived as low, with a third of participants reporting that purity had decreased over the preceding six months.
- The majority of participants reported that heroin was easy or very easy to obtain, and that availability had remained stable over the preceding six months.
- Roughly two-fifths of the sample scored heroin from a known dealer; most commonly at an agreed location.

5.1 Heroin

5.1.1 Price

Among those who could comment on the price of heroin, the majority of participants reported price per cap. The median price at last purchase for a cap of heroin was $100 (range=$50-150, n=19), which was stable from 2011 ($100, range=$50-100, n=19). The median price at last purchase for a gram of heroin was $400 (range=$100-650, n=13), again stable from 2011 ($400, range $380-1,100; n=8).

Of those participants who were confident to report on the current price of heroin (n=43), 88% reported the price as stable over the last six months (see Table 9). This has remained stable from 2011.

Table 9: Change in price of heroin over last six months, 2011-2012

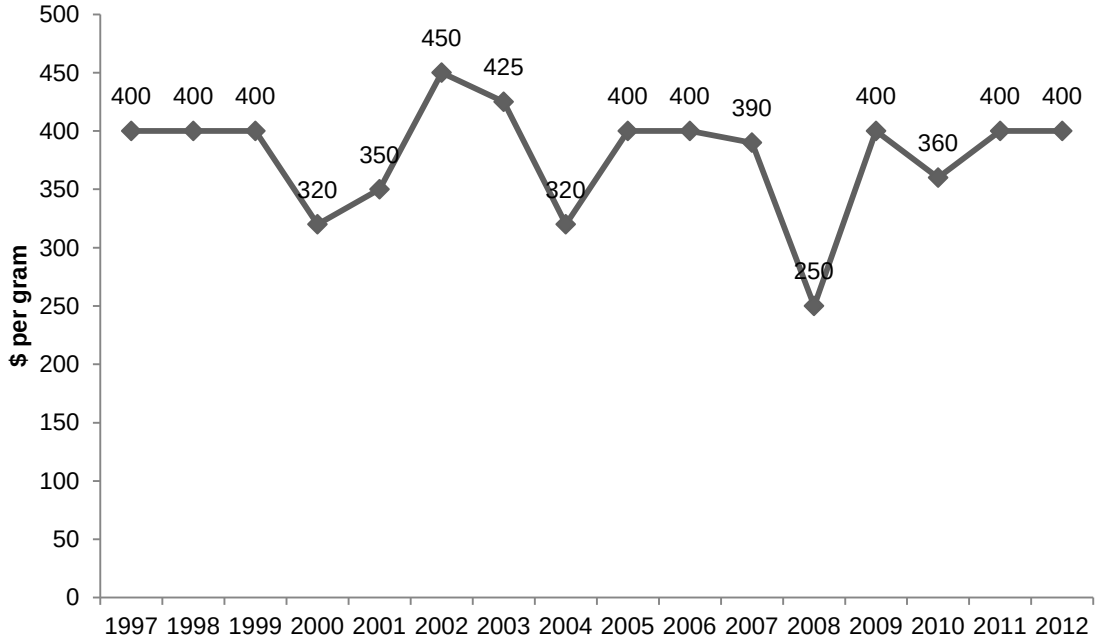
Reported price status	% able to answer	
	2011 (n=51)	**2012 (n=43)**
Increasing	12	**9**
Stable	84	**88**
Decreasing	2	**0**
Fluctuating	2	**2**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Long-term trends in the median price paid for a gram of heroin are shown in Figure 10. Despite a decrease being observed in 2008, it can be seen that the median price paid for a gram of heroin at last purchase has remained relatively stable since 2005.

However, as mentioned above, such data has generally been based on small sample sizes (n<18 since 2001), with most participants buying heroin in 'caps'.

Figure 10: Median price of a gram of heroin, last purchase, 1997-2012



Source: IDRS participant interviews

5.1.2 Purity

Table 10 and Table 11 summarise the current purity of heroin and the changes in heroin purity over the last six months, as reported by participants. In 2012, the majority of those able to answer (50%) reported that the current purity of heroin was low; this was an increase (albeit non-significant) from 2011 in which 37% of the sample perceived purity as low. About a third of the sample (30%) reported that the purity was medium, a non-significant decrease from 2011. Thirty-three percent of those able to answer reported that the purity of heroin had remained stable over the preceding six months, with an additional 33% reporting that it had decreased. A fifth (18%) believed that the purity of heroin had fluctuated and 16% reported it to have increased.

Table 10: Current purity/strength of heroin, 2011-2012

How pure would you say heroin is at the moment?	% able to answer	
	2011 (n=51)	**2012 (n=46)**
High	6	**9**
Medium	51	**30**
Low	37	**50**
Fluctuates	6	**11**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

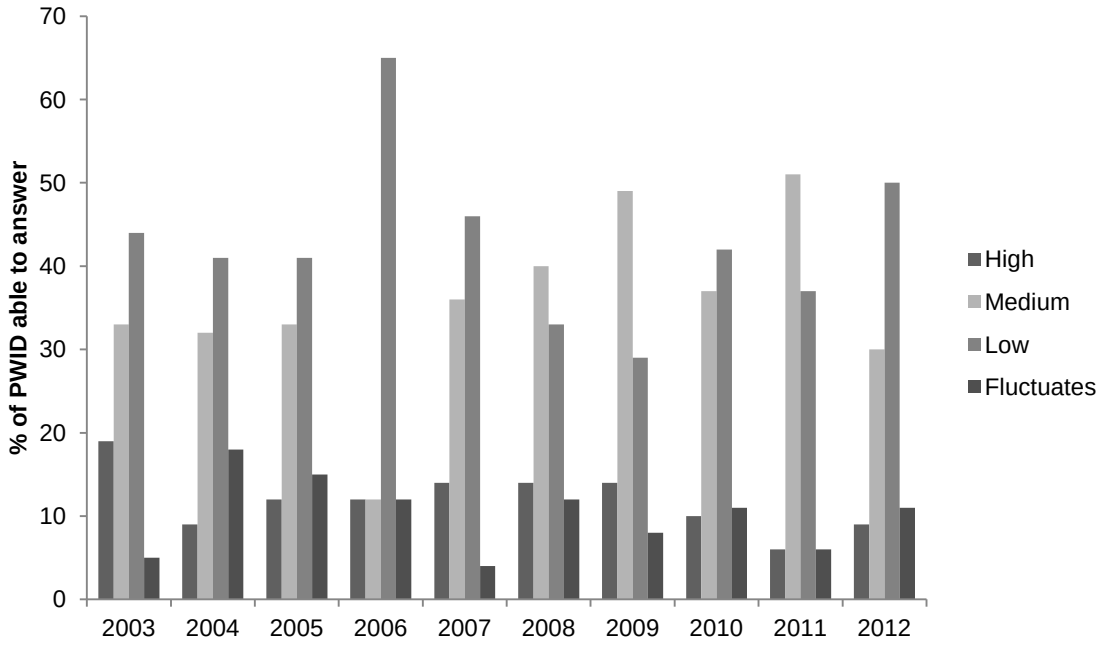
Table 11: Change in purity/strength of heroin in last six months, 2011-2012

Has the purity of heroin changed in the last 6 months?	% able to answer	
	2011 (n=51)	**2012 (n=45)**
Increasing	6	**16**
Stable	39	**33**
Decreasing	24	**33**
Fluctuating	31	**18**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Figure 11 shows the trend in purity of heroin, as perceived by participants, from 2003 onward. Despite various fluctuations over the years, it can be seen that purity has generally been reported as 'medium' or 'low'. Few participants have reported that heroin was of high purity at the time of interview.

Figure 11: Perception of current purity of heroin, 2003-2012



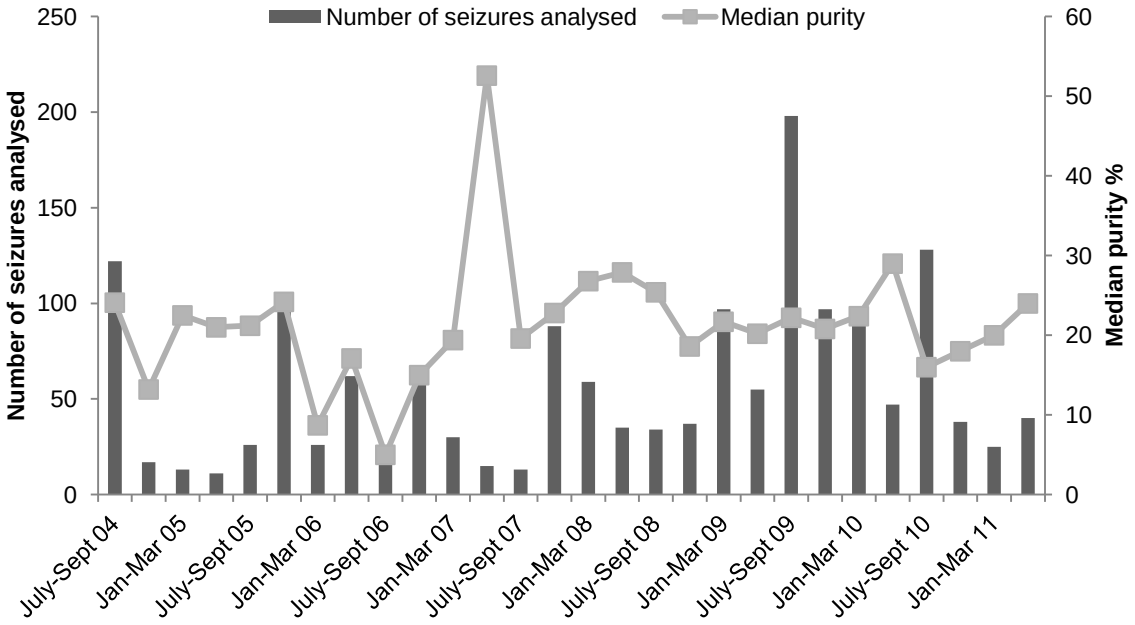
Source: IDRS participant interviews
Note: The category 'fluctuates' was not included in 2000; Note: 'Don't know' was excluded from 2009 onwards

ACC data were unavailable for 2011/12 at the time of publication. Hence, the data provided by the ACC only relates to the purity data on heroin seized in SA during the last financial year: 2010/11 (Australian Crime Commission, 2012). Figure 12 shows the number of seizures received and analysed by the state forensic laboratory per quarter, and the median purity of those seizures, from 2004/05 to 2010/11.

Despite quarterly variation, and variation in the number of seizures, the median purity of SAPOL heroin seizures remained relatively stable in 2010/11 at 18% (compared to 22.1% in 2009/10). The median purity for these years was considerably lower than that

reported for SAPOL seizures in pre-shortage 1999/00 (48.3%, n=246). The number of seizures received and analysed almost halved, from 436 in 2009/10 to 231 in 2010/11 (see Figure 12). The vast majority of SAPOL seizures analysed (n=182) were less than two grams.

Figure 12: Number of heroin seizures analysed and median heroin purity in SA 2004/05-2010/11



Source: Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

5.1.3 Availability

Table 12 and Table 13 summarise the current availability of heroin and changes in heroin availability over the last six months, as perceived by participants. Of those who were able to answer questions regarding the availability of heroin, the overwhelming majority reported it was either easy or very easy to obtain heroin (92%), with only 8% reporting that it was difficult to obtain. Four-fifths (81%) of those able to answer perceived that heroin availability had remained stable in the six months preceding interview, stable from 2011.

Table 12: Availability of heroin currently, 2011-2012

How easy is it to get heroin at the moment?	**% able to answer**	
	2011 (n=52)	**2012 (n=50)**
Very easy	48	**48**
Easy	50	**44**
Difficult	2	**8**
Very difficult	0	**0**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

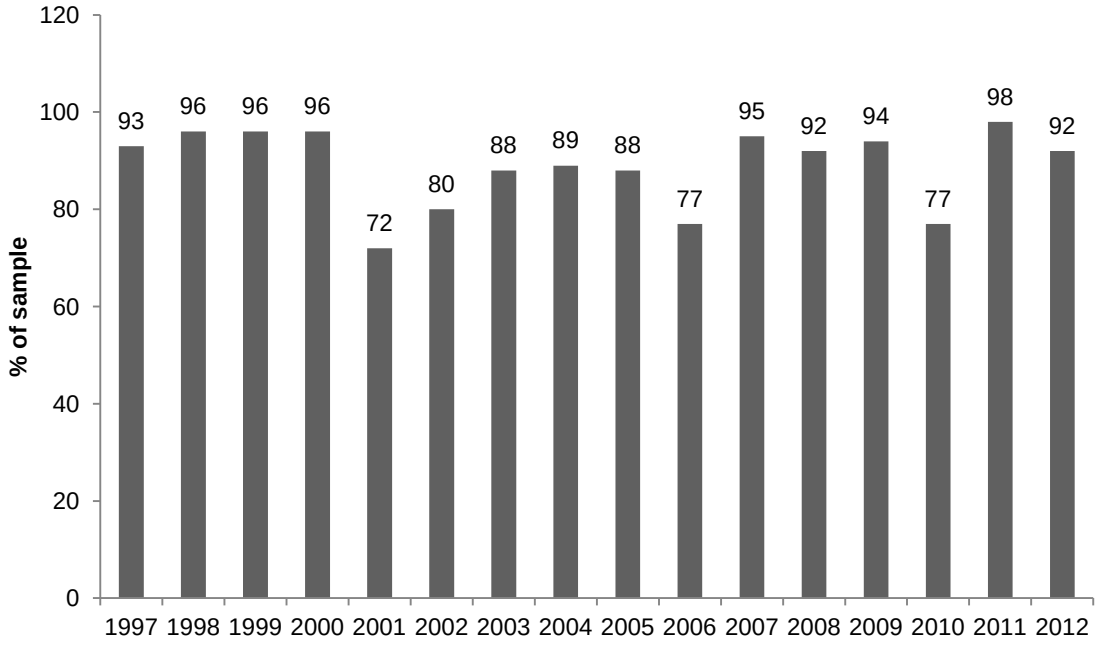
Table 13: Change in availability of heroin over the last six months, 2011-2012

Has [availability] changed in the last 6 months?	% able to answer	
	2011 (n=51)	**2012 (n=48)**
More difficult	4	**6**
Stable	80	**81**
Easier	6	**6**
Fluctuates	10	**6**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Long-term trend data for the availability of heroin, as reported by participants in all previous surveys, are presented in Figure 13. As can be seen, the proportion of participants who reported that heroin was very easy or easy to obtain in the six months prior to interview has fluctuated somewhat over the years. In 2012, 92% of participants able to answer reported that heroin was easy or very easy to obtain, stable from 2011.

Figure 13: Availability of heroin as 'easy' or 'very easy' in the last six months, 1997-2012



Source: IDRS participant interviews
Note: 'Don't know' was excluded from 2009 onwards

Participants were also asked about the person from whom, and the location from where, they had last obtained heroin (see Table 14). The largest proportion of participants who provided information on the source of their heroin in the six months prior to interview (n=42) reported they usually obtained heroin from a known dealer (43%). The majority of participants who had recently used heroin bought their heroin at an agreed public location (63%), which represented a significant increase from 2011 (29%; p=0.003; 95% CI: -0.50 – -0.13). Inversely, there was a significant decrease in the number of

participants obtaining heroin from a friend's home (p=0.02; 95% CI: 0.04–0.28); and non-significant decreases in the number of participants obtaining heroin from a dealer's home (15%) and through home delivery (10%).

Table 14: Source person and source venue last time obtained heroin in the last six months, 2011-2012

Last source person and venue	2011 (n=51)	**2012 (n=42)**
Person		
Street dealer	6	**21**
Known dealer	63	**43**
Friends	18	**17**
Acquaintances	8	**2**
Mobile dealer	4	**12**
Unknown dealer	2	**5**
Venue		**n=40**
Home delivery	24	**10**
Dealer's home	22	**15**
Friend's home	16	**0**
Acquaintance's home	0	**3**
Agreed public location	29	**63**
Street market	8	**8**
Other	2	**3**

Source: IDRS participant interviews

KE comments

- It was generally reported that the heroin market had remained stable in the 12 months preceding interview. Purity was perceived to be quite low, although it remained within an 'acceptable level'. In contrast, one KE reported that there had been a good batch of heroin going around within the preceding three months – however, it wasn't known if this was limited to their particular geographical area or whether it was a more general trend.

5.2 Methamphetamine

Key findings

- The median price for all three forms of methamphetamine was $100 for a point, and this was largely reported to have remained stable in the six months preceding interview.
- Reports regarding the purity of methamphetamine were extremely mixed; however, across all forms of methamphetamine the largest proportion of participants perceived purity as high.
- The availability of all forms of methamphetamine was reported as easy or very easy to obtain, and this had remained stable over the preceding six months.
- Participants generally reported scoring from friends for all forms of amphetamine, and from a friend's home.

5.2.1 Price

5.2.1.1 Methamphetamine – powder

The last reported price paid for methamphetamine powder was a median of $100 for a point (range $50-100; n=22), which was stable from 2011 ($100; range=$50-100; n=13). Three participants commented on the price for a gram of powder, with the median price being $350 (range $250-400) and two participants commented on the price for ½ gram ($225; range $200-250).

5.2.1.2 Methamphetamine – base

The last reported price paid for a point of base was $100 (range: $50-100, n=17), representing a slight increase from 2011 ($75; range: $25-150; n=18). Only a small number of participants commented on the price for a ½ weight or a gram of base, with the last reported prices being a median of $350 (range: $180-400; n=10) and $700 (range: $400-800; n=4) respectively (see Table 15).

5.2.1.3 Methamphetamine – crystal

The last reported price paid for a point of crystal was $100 (range: $50-100; n=33), an increase from 2011 ($75; range: $30-100; n=28). The median price for a ½ weight of crystal was $275 (range: $180-450; n=12), and $500 for a gram (range=$350-700, n=7); however, it is important to note that only a small number of participants commented and hence these figures must be viewed with caution.

Table 15: Reported price of all forms of methamphetamine, 2011-2012

	2011	**2012**
Price ($) SPEED		
Per point	100	**100**
Per gram	-	**350^**
Price ($) BASE		
Per point	75	**100**
Per gram	700^	**700^**
Price ($) ICE/CRYSTAL		
Per point	75	**100**
Per gram	575^	**500^**

Source: IDRS participant interviews
^Small numbers reporting (n<10); interpret with caution
Note: 'Don't know' was excluded

Whilst Table 15 shows comparisons between 2011 and 2012, it is important to note that long-term changes in the last purchase price of a point or gram for the different forms of methamphetamine have been difficult to gauge. This is due to the fact that few participants have been able to comment.

Table 16 summarises participant reports of recent changes in the price of the three forms of methamphetamine. In 2012, the majority of participants answering this section reported the price of all forms of methamphetamine to be stable. However, across all three forms of methamphetamine, there was an increase in the proportion of participants who reported that the price had increased in the six months preceding interview.

Table 16: Change in price of methamphetamine over last six months, 2011-2012

Reported price status	**Powder**		**Base**		**Crystal**	
	% able to answer					
	2011 (n=33)	**2012 (n=39)**	2011 (n=28)	**2012 (n=25)**	2011 (n=37)	**2012 (n=44)**
Increasing	30	**44**	14	**28**	16	**34**
Stable	67	**54**	71	**72**	76	**59**
Decreasing	0	**3**	7	**0**	5	**5**
Fluctuating	3	**0**	7	**0**	3	**2**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Table 17 and Table 18 summarise the current purity of the three forms of methamphetamine and the changes in methamphetamine purity over the last six months. As can be seen, participant reports were quite varied. In regards to methamphetamine powder and methamphetamine base, there was an increase in the proportion of participants who perceived current purity as high, and a decrease in those who perceived it as low. In regards to crystal methamphetamine, there was a decrease in those who described current purity as high, whilst there was an increase in those who reported it as medium.

Table 17: Purity/strength of methamphetamine currently, 2011-2012

How pure would you say [powder/base/crystal] is at the moment?	Powder		Base		Crystal	
	% able to answer					
	2011 (n=31)	**2012 (n=39)**	2011 (n=28)	**2012 (n=26)**	2011 (n=37)	**2012 (n=46)**
High	23	**33**	32	**42**	43	**35**
Medium	26	**28**	21	**31**	24	**33**
Low	23	**8**	18	**12**	5	**7**
Fluctuates	29	**31**	29	**15**	27	**26**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Reports regarding changes in the purity of methamphetamine are also quite mixed. In regards to methamphetamine powder, the greatest proportion of participants reported that purity had fluctuated over the preceding six months (37%), whilst for base participants largely reported that the purity had remained stable over this time (39%). An equal proportion of participants reported that the purity of crystal methamphetamine had remained stable or fluctuated in the six months preceding interview (30% respectively).

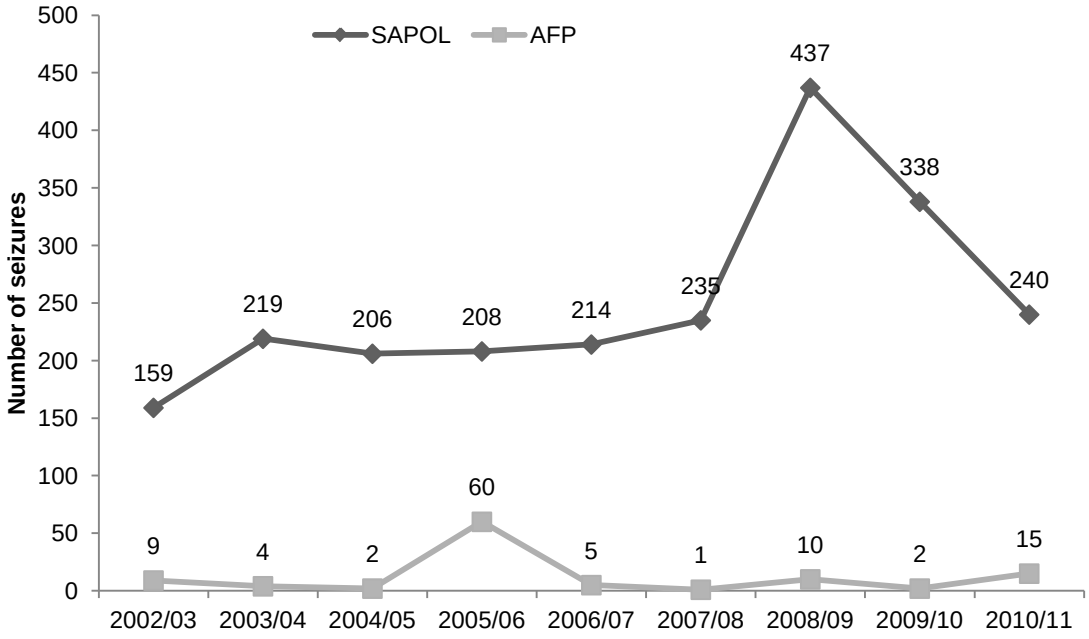
Table 18: Change in purity/strength of methamphetamine in last six months, 2011-2012

Has the purity of [powder /base/crystal] changed in the last 6 months?	Powder		Base		Crystal	
	% able to answer					
	2011 (n=30)	**2012 (n=38)**	2011 (n=27)	**2012 (n=26)**	2011 (n=35)	**2012 (n=43)**
Increasing	13	**16**	7	**12**	20	**21**
Stable	37	**16**	22	**39**	31	**30**
Decreasing	20	**32**	22	**23**	14	**19**
Fluctuating	30	**37**	48	**27**	34	**30**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

The Australian Crime Commission (ACC) data were unavailable for 2011/12 at the time of publication. As such, data provided by the ACC relates to methamphetamine seizures in SA during the last financial year: 2010/11 (Australian Crime Commission, 2012). Figure 14 shows the number of seizures for amphetamine-type stimulants, by South Australia Police (SAPOL) and the Australian Federal Police (AFP). As can be seen, seizures dropped in 2010-11, continuing a sharp downward trend that has been observed since 2008/09. The number of AFP seizures remained low, although there was an increase from 2009/10.

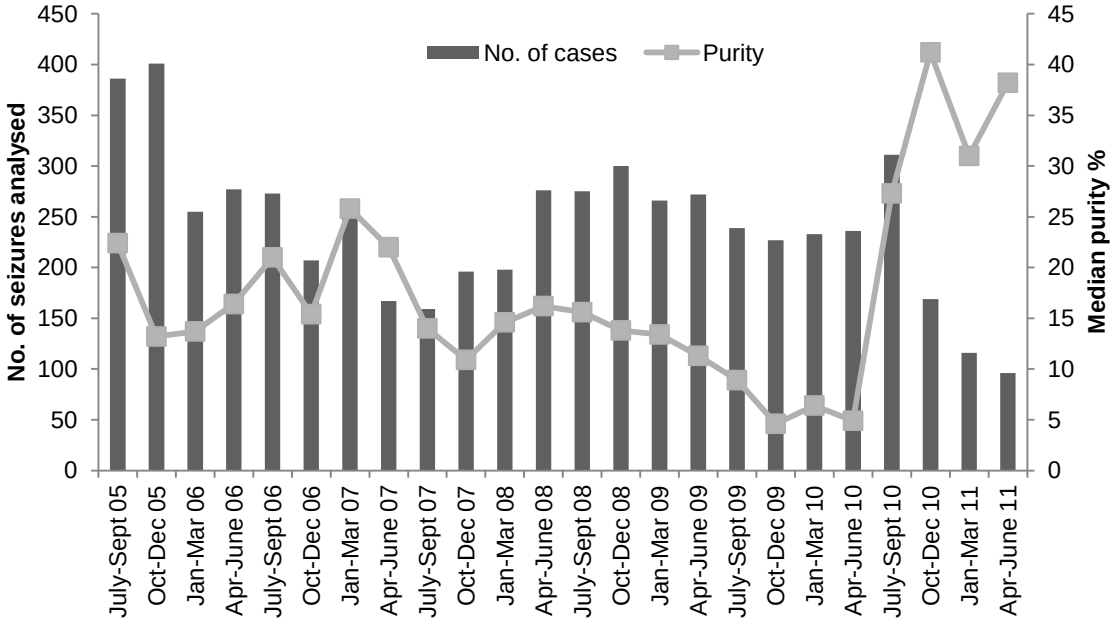
Figure 14: Number of seizures: amphetamine-type stimulants, 2002/03-2010/11



Source: Australian Crime Commission, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

Figure 15 shows the number of methamphetamine seizures received and analysed by the state forensic laboratory (within the quarter depicted) and the median purity per quarter of those seizures from 2005/06 to 2010/11. The total number of SAPOL methamphetamine seizures analysed from July 2010 to June 2011 was 692, which was a considerable decrease from the 2009/10 financial year (935). However, the overall median purity of the seizures analysed more than quadrupled, from 6.9% in 2009/10 to 31.7% in 2010/11. The majority of seizures analysed were less than or equal to 2 grams.

Figure 15: Number of methamphetamine seizures analysed and median methamphetamine purity in SA, 2005/06-2010/11



Source: Australian Crime Commission, 2006, 2007, 2008, 2009, 2010, 2011, 2012

5.2.3 Availability

Table 19 and Table 20 summarise the current availability of the three main forms of methamphetamine and the changes in availability over the last six months, as reported by participants. In 2011, all three types of methamphetamine were largely reported as easy or very easy to obtain. The majority of those able to comment also reported that the availability of all three forms of methamphetamine had remained stable over the preceding six months.

Table 19: Availability of methamphetamine currently, 2011-2012

How easy is it to get [powder/base/crystal] at the moment?	Powder		Base		Crystal	
	% able to answer					
	2011 (n=32)	**2012 (n=39)**	2011 (n=28)	**2012 (n=26)**	2011 (n=38)	**2012 (n=47)**
Very easy	31	**62**	39	**54**	29	**47**
Easy	50	**31**	46	**39**	58	**43**
Difficult	13	**8**	14	**8**	13	**11**
Very difficult	6	**0**	0	**0**	0	**0**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

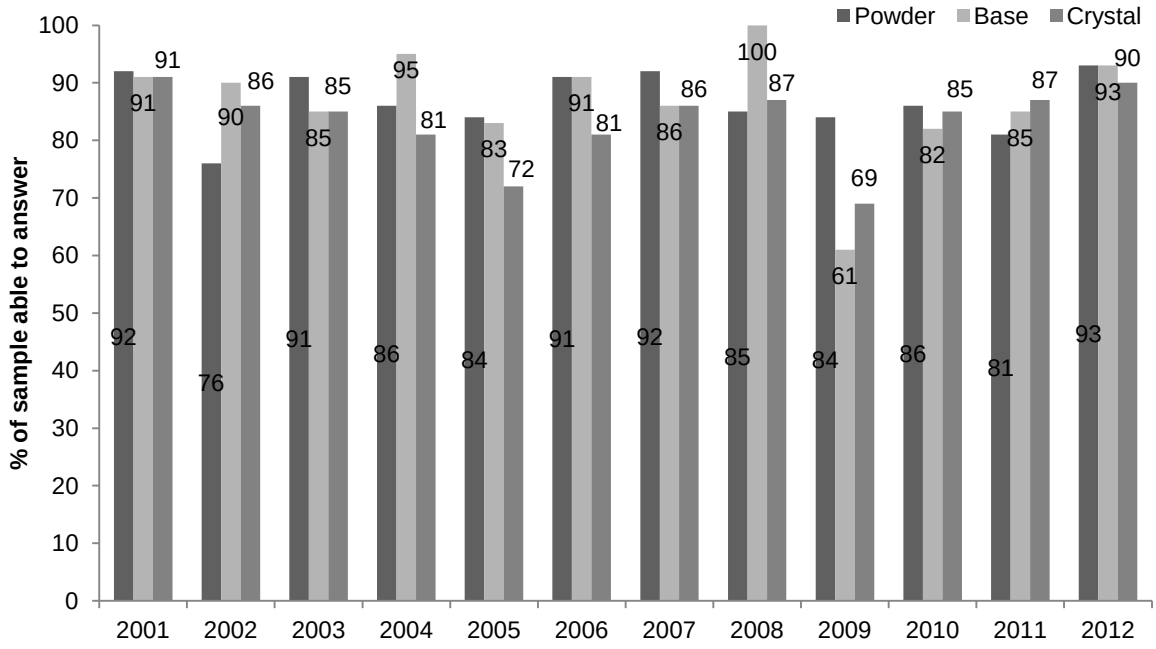
Table 20: Change in availability of methamphetamine over the last six months, 2011-2012

Has [availability] changed in the last 6 months?	Powder		Base		Crystal	
	% able to answer					
	2011 (n=31)	**2012 (n=38)**	2011 (n=28)	**2012 (n=26)**	2011 (n=38)	**2012 (n=44)**
More difficult	10	**5**	4	**4**	13	**9**
Stable	61	**79**	79	**69**	61	**77**
Easier	13	**11**	11	**15**	18	**9**
Fluctuates	16	**5**	7	**12**	8	**5**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Long-term trend data depicting the availability of methamphetamine, as reported by participants since 2001, are presented in Figure 16. As shown, methamphetamine has generally been considered easy or very easy to obtain across all years and for all forms since differentiation was made in 2001 (for figures prior to 2001, please see previous editions of the IDRS SA report).

Figure 16: Availability of methamphetamine in the last six months, easy or very easy, 2001-2012



Source: IDRS participant interviews
Note: 'Don't know' was excluded

Participants were asked about both the person and location from which they had last obtained the various forms of methamphetamine. Table 21 shows that the majority of methamphetamine users reported obtaining all forms of methamphetamine from friends, followed by known or street dealers.

The locations/venues from which participants most commonly obtained all three forms of methamphetamine were as follows: a friend's home, followed by home delivery, an agreed public location or dealer's home.

Table 21: Last usual source person and venue used for obtaining various forms of methamphetamine in the last six months, 2012

Usual source person and venue of those able to answer (%)	Powder (n=34)	Base (n=25)	Crystal (n=42)
Person			
Street dealer	15	4	5
Friend	65	76	67
Known dealer	12	12	24
Workmates	0	0	0
Acquaintances	6	4	5
Unknown dealer	3	0	0
Mobile dealer	0	4	0
Venue			
Home delivery	21	12	22
Dealer's home	12	12	10
Friend's home	44	60	39
Acquaintance's home	0	4	5
Street market	6	0	2
Agreed public location	18	12	20
Other	0	0	2

Source: IDRS participant interviews

KE comments

- Of those who were able to comment, the majority of KE seemed to agree that the price, purity and availability of methamphetamine had remained relatively stable over the past 12 months.
- One KE noted that although overall methamphetamine seizures had remained stable in the preceding year, there did appear to be an increase in the seizure of methamphetamine oil (before it gets refined into crystal or paste).
- Three KE reported that there had been an increase in the price of methamphetamine, with prices ranging from $50-150 for a point and $200-800 for a gram, depending on supply/demand and the quality of the product. Oxblood was said to cost $150 for a point.
- One KE reported that the purity of methylamphetamine was extremely high in SA (approaching 100%), and speculated that this may be due to Vietnamese involvement in its distribution and importation. In contrast, another KE reported that methamphetamine was currently of 'middle-range' purity and was being cut with methylsulfonylmethane (a dietary supplement which can be used to treat arthritis).

5.3 Cannabis

Key findings

- The price for both hydro and bush cannabis remained stable in 2012 at $25 for a bag.
- The purity of hydro cannabis was reported to be high, whilst for bush cannabis purity was reported as medium. This was believed to have remained stable over the preceding six months.
- Availability of both forms of cannabis was reported as easy or very easy, and had remained stable over the preceding six months.
- Participants scored cannabis primarily from friends and from a friend's home.

To ensure more detailed information was collected on the different forms of cannabis, the cannabis section was separated into hydro (hydroponically grown) and bush (grown outdoors); this has been done from 2003 onwards.

The following sections refer to a bag as a standard measure (particular to the SA cannabis market). A detailed investigation of the weight/content of a bag of cannabis was undertaken in 2002 (Longo et al., 2003). Briefly, in the 2002 survey, 33 participants gave a single value of the average weight of cannabis bags sold in SA; the results yielded a median of two grams and a mean of 2.5 grams. A further 19 gave both a lower and upper weight range for cannabis bags. The median lower range was two grams (mean=2.1) and the median upper range was three grams (mean=2.9). It can be understood, therefore, that the amount of cannabis in a bag may fluctuate, but that a bag in SA generally conveys a weight of cannabis between two and three grams.

5.3.1 Price

Participants reported the price for their last purchase to be a median of $220/ounce for hydro (range: $150-280, n=18) and $180/ounce for bush (range: $180-300, n=7). The most common amount purchased in the last six months was a bag and the reported median price paid by participants at last purchase was $25, for both hydro (range: $10-100, n=25) and bush (range: $20-40, n=17). That is, there was no difference in the reported price of a bag of hydro compared to bush cannabis (see Table 22).

Table 22: Price of last cannabis purchases, 2011-2012

	2011	**2012**
Price ($) HYDRO		
Per gram	25^	**-**
Per quarter ounce	60	**60**
Per ounce	210	**220**
Per bag	25	**25**
Price ($) BUSH		
Per gram	25^	**-**
Per quarter ounce	60^	**62.5^**
Per ounce	220	**180^**
Per bag	25	**25**

Source: IDRS participant interviews
^Small numbers

The price of both hydro and bush cannabis was generally reported as stable over the last six months, although there were non-significant increases in the proportion of participants reporting that prices had increased compared to 2011 (see Table 23).

Table 23: Change in price of cannabis over the last six months, 2011-2012

Reported price status	**% able to answer**			
	2011		**2012**	
	Hydro (n=60)	Bush (n=47)	**Hydro (n=49)**	**Bush (n=37)**
Increasing	12	11	**31**	**19**
Stable	75	79	**59**	**70**
Decreasing	5	6	**2**	**5**
Fluctuating	8	4	**8**	**5**

Source: IDRS participant interviews
Note: 'Don't know' was excluded from 2009 onwards

5.3.2 Purity

Table 24 and Table 25 summarise the current potency of cannabis and the changes in cannabis potency over the last six months, according to participant reports. In 2012, the strength of hydro was reported as high by the majority of participants, whilst the potency of bush cannabis was reported as medium. The majority of participants reported that the potency of both hydro and bush cannabis had remained stable over the last six months.

Table 24: Current potency/strength of cannabis, 2011-2012

How strong would you say cannabis is at the moment?	% able to answer			
	2011		2012	
	Hydro (n=60)	Bush (n=48)	**Hydro (n=48)**	**Bush (n=38)**
High	60	29	**52**	**32**
Medium	23	56	**29**	**47**
Low	5	4	**4**	**16**
Fluctuates	12	10	**15**	**5**

Source: IDRS participant interviews
Note: 'Don't know' was excluded from 2009 onwards

Table 25: Change in potency/strength of cannabis in last six months, 2011-2012

Has the strength of cannabis changed in the last 6 months?	% able to answer			
	2011		2012	
	Hydro (n=60)	Bush (n=48)	**Hydro (n=45)**	**Bush (n=36)**
Increasing	15	4	**22**	**17**
Stable	63	83	**56**	**64**
Decreasing	3	4	**7**	**8**
Fluctuating	18	8	**16**	**11**

Source: IDRS participant interviews
Note: 'Don't know' was excluded from 2009 onwards

5.3.3 Availability

Table 26 and Table 27 summarise the current availability of cannabis and the changes in cannabis availability over the last six months, according to participant reports. In 2012, the majority of participants reported both types of cannabis as easy or very easy to obtain; 86% for hydro and 71% for bush. Over three-quarters of those able to answer (80%) reported that the availability of hydro was stable in the last six months. The majority of the participants who were able to answer also reported the availability of bush to be stable (65%).

Table 26: Availability of cannabis currently, 2011-2012

How easy is it to get cannabis at the moment?	% able to answer			
	2011		2012	
	Hydro (n=61)	Bush (n=48)	**Hydro (n=50)**	**Bush (n=40)**
Very easy	43	17	**50**	**28**
Easy	49	48	**36**	**43**
Difficult	8	29	**14**	**30**
Very difficult	0	6	**0**	**0**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

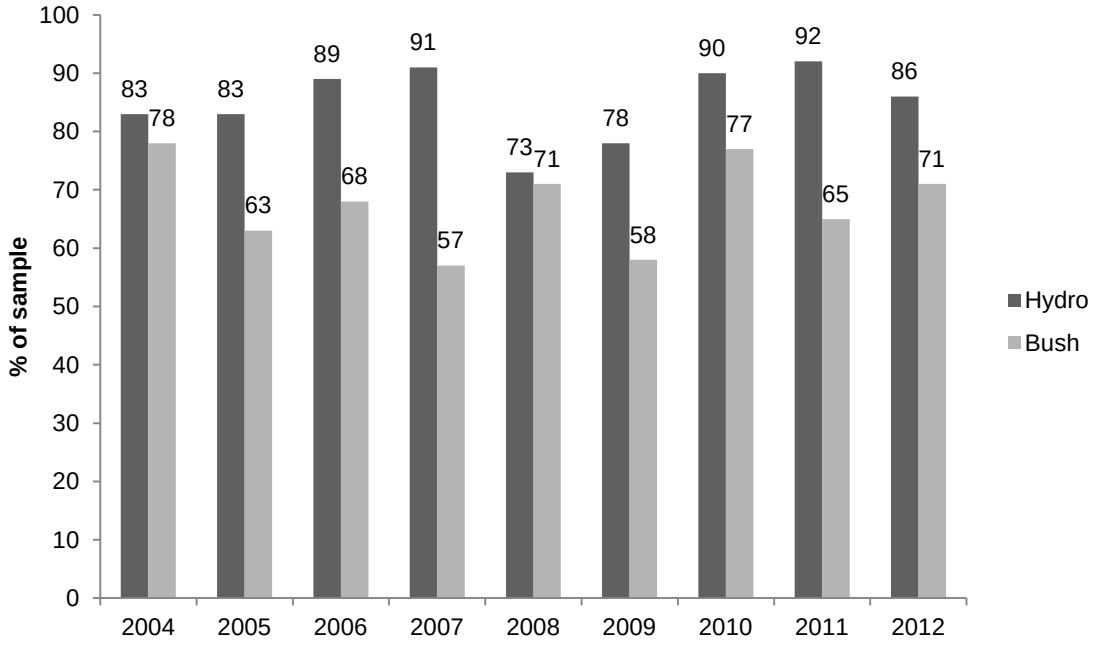
Table 27: Change in availability of cannabis over the last six months, 2011-2012

Has [availability] changed in the last 6 months?	% able to answer			
	2011		2012	
	Hydro (n=61)	Bush (n=48)	**Hydro (n=50)**	**Bush (n=40)**
More difficult	8	26	**14**	**18**
Stable	79	64	**80**	**65**
Easier	7	4	**4**	**13**
Fluctuates	7	6	**2**	**5**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Figure 17 shows the long-term trend in the proportion of participants reporting availability of cannabis as easy or very easy, from 2004 onwards. As can be seen, the reported ease of availability has fluctuated over the years, although it has generally remained high. In 2012, the majority of the sample reported that both hydro and bush cannabis were easy or very easy to obtain; stable from 2011.

Figure 17: Availability of cannabis in the last six months, easy or very easy, 2004-2012



Source: IDRS participant interviews
Note: Prior to 2004, availability of hydro and bush was combined; 'Don't know' was excluded from 2009 onwards

Table 28 presents information collected from participants on the source (both person and venue) from which participants had last obtained cannabis. In 2012, the majority of participants who were able to comment reported that they usually obtained cannabis from a friend (77% for hydro and 81% for bush) in the six months prior to interview. Participants reported that the venue they had usually obtained cannabis from was a friend's home (hydro: 56%; bush: 59%).

Table 28: Source person and source venue of last purchase of hydro and bush cannabis, 2012

Usual source or method of obtainment	Hydro (n=43)	Bush (n=32)
Person[#]		
Street dealer	7	3
Friend	77	81
Known dealer	5	3
Workmates	2	3
Acquaintances	2	3
Unknown dealer	0	0
Mobile dealer	0	0
Other	7	6
Venue[#]		
Home delivery	16	16
Dealer's home	5	6
Friend's home	56	59
Acquaintance's home	2	3
Street market	7	3
Agreed public location	5	6
Work	5	3
Other	5	3

Source: IDRS participant interviews
#Only one response allowed

KE comments

- The majority of KE agreed that the cannabis market had remained stable in the 12 months preceding interview. There were, however, some mixed reports regarding the price of cannabis. More specifically, a number of KE reported that the price of cannabis had remained stable at $25 for a bag, whilst others reported that there had been a slight increase in price − or that people were still paying $25 for a bag but there was 'hardly anything in it'. In regards to larger quantities, the price was reported to have remained stable at $2,200-3,600 for a pound.

5.4 Morphine

Key findings

- Reports regarding the price of illicit morphine were varied; due to small numbers no real comparison can be made with 2011 data.
- Illicit morphine was largely reported as easy or very easy to obtain, although almost a third perceived availability as difficult or very difficult.
- Participants most commonly obtained illicit morphine through friends.

5.4.1 Price

In 2012, the median price paid by participants at last purchase was $50 for 100mg of Kapanol®, higher than what was reported in 2011 ($40). The median price paid for 100mg of MS Contin® at last purchase was $50, which was slightly lower than the median price reportedly paid by participants in 2011 (see Table 29). Readers should note the small number of participants commenting on prices.

Table 29: Price of morphine at last purchase by participants, 2011-2012

Amount bought	Median price paid, $ (range)	
	2011	2012
MS Contin® – 60mg	**20^ (no range)**	**22.5^ (15-30)**
MS Contin®– 100mg	**40^ (30-70)**	**50^ (20-50)**
Kapanol® – 50mg	**25^ (20-50)**	**27.5^ (25-50)**
Kapanol®– 100mg	**40 (20-50)**	**50^ (30-80)**

Source: IDRS participant interviews
^ n<10

Twenty participants were able to comment on whether the price of morphine had changed in the six months prior to interview: half (n=11) reported that the price had remained stable and half (n=9) reported that it had increased. Comparisons were not made with 2011 due to small numbers.

5.4.2 Availability

Table 30 and Table 31 summarise the current availability of morphine and the changes in its availability over the last six months, according to participant reports. Among those able to comment, 35% reported illicit morphine as easy to obtain; a non-significant decrease from 2011. Inversely, there was a increase in the proportion of participants who reported that morphine was difficult to obtain, although again this was not significant. Over half of the sample (57%) reported that the availability of morphine had

remained stable over the past six months, with a third reporting that it had become more difficult to obtain.

Table 30: Availability of illicit morphine currently, 2011-2012

How easy is it to get morphine at the moment?	% able to answer	
	2011 (n=21)	**2012 (n=20)**
Very easy	10	**30**
Easy	62	**35**
Difficult	29	**15**
Very difficult	0	**20**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Table 31: Change in availability of illicit morphine over the last six months, 2011-2012

Has [availability] changed in the last 6 months?	% able to answer	
	2011 (n=20)	**2012 (n=21)**
More difficult	30	**33**
Stable	60	**57**
Easier	10	**0**
Fluctuates	0	**10**

Source: IDRS participant interviews
Note: 'Don't know' was excluded

Table 32 presents information collected from participants on the person(s) from whom they had bought morphine, and the venues from which they had normally obtained morphine in the six months prior to interview. Of those who were able to answer (n=17), the majority of participants reported that they had obtained morphine from a friend (65%), followed by an acquaintance (24%). Participant reports regarding the venue from which they had obtained morphine differed from 2011 reports, with the main location being a friend's home, followed by an agreed public location.

Table 32: Usual source person and source venue used to obtain illicit morphine in the last six months, 2011-2012

Usual source person and venue	% able to answer	
	2011 (n=14)	**2012 (n=17)**
Person		
Street dealer	7	**6**
Friend	43	**65**
Known dealer	43	**6**
Acquaintance	7	**24**
Unknown dealer	0	**0**
Mobile dealer	0	**0**
Other	0	**0**
Venue		
Home delivery	7	**0**
Dealer's home	29	**6**
Friend's home	29	**53**
Acquaintance's home	7	**6**
Street market	7	**0**
Agreed public location	21	**29**
Work	0	**6**

Source: IDRS participant interviews

5.5 Methadone

Key findings

- The median price of illicit methadone was reported to be $1 for 1ml, and this was perceived to have remained stable over the preceding six months.
- Reports regarding the availability of illicit methadone were mixed, with equal proportions of participants reporting that it was easy or difficult to obtain (33% respectively).
- Participants obtained methadone primarily through friends and acquaintances.

As with other drug types, all participants were asked about the illicit methadone market. Seventeen percent of the sample were able to comment on the price, purity and/or availability of illicit methadone and among these participants the median price for methadone liquid was reported to be one dollar per ml (range $0.5-2; n=4). One participant reported paying $10 for a 10mg Physeptone® tablet.

In response to the question 'has the price of illicit methadone changed in the past six months?', the majority of those commenting (58%; n=7) reported that the price had remained stable during this time. Four participants reported that prices had increased, whilst one reported that prices had decreased.

With regard to the current availability of street methadone, 58% of those who commented said that it was 'very-easy' (25%) to 'easy' (33%) to obtain. Forty-two percent thought it was 'difficult' (33%) to 'very difficult' (8%) to obtain When asked whether availability had changed over the preceding six months, the majority of those commenting (69%; n=9) reported that it had remained stable. Three participants (23%) reported that illicit methadone had become easier to obtain and one participant (8%) reported that it had become harder to obtain in the preceding six months.

Among those that had recently bought illicit methadone, it was most commonly purchased from friends or acquaintances (40% respectively), with the most common venues being a friend or acquaintance's home (40% respectively).

5.6 Oxycodone

Key findings

- The median price of illicit oxycodone was $40 for an 80mg tablet, and this was reported to have remained stable over the preceding six months.
- Reports regarding the availability of Illicit oxycodone were mixed, with the largest proportion of participants (44%) reporting that it was difficult to obtain.
- Participants obtained oxycodone most commonly through friends and at a friend's home.

In 2012, one-quarter (26%) of the sample were confident enough to complete survey items relating to the illicit oxycodone market. The most commonly purchased amounts were 80mg tablets (OxyContin®), bought for a median of $40 each (range: $25-50; n=9); and 40mg tablets (OxyContin®), bought for a median of $22.5 each (range: $20-25; n=4). There were insufficient purchases of Endone® to report on prices.

The overall price for oxycodone was reported as having been stable (44% of those commenting) or increasing (39%) over the past six months. In regards to availability, almost equal proportions reported that it was 'very-easy' to 'easy' (52%) or 'difficult' to 'very difficult' (48%) to obtain. Availability was reported by the majority of those commenting (52%) to have remained stable over the preceding six months, while 35% reported it had become more difficult, 9% reported that it had fluctuated and 4% reported that it had increased.

Oxycodone was most commonly purchased from friends (60%), followed by street dealers, acquaintances and known dealers (13% respectively). The most commonly cited locations for purchase were a friend's home (47%), an acquaintance's home or agreed public location (20% each), followed by a dealer's home or home delivery (7% each).

5.7 Other drugs

The number of participants who answered questions relating to the cocaine, illicit buprenorphine (subutex) or illicit buprenorphine-naloxone (suboxone) markets were extremely low (n≤10). As such, the data from these sections will not be presented.

KE comments

- One KE reported that an 8mg strip of Suboxone® film cost approximately $25; another reported that OxyContin® cost $10 for a 20mg tablet and that morphine cost $70 for an 100mg tablet.

6 HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE

Key findings

Overdose

- The proportion of heroin users reporting an overdose in the previous 12 months remained stable in 2012 at 11%. Six participants reported that they had accidentally overdosed on another drug within the preceding 12 months, again stable from 2011.

Health service use

- Telephone calls to ADIS decreased for alcohol, and increased slightly for amphetamines. Calls relating to cannabis and opioids remained stable, whilst cocaine and ecstasy related calls continued to remain very low.
- Alcohol dominated as the primary drug of concern for the largest proportion of total clients to DASSA treatment services, followed by amphetamines, cannabis, opioid analgesics and heroin. Both ecstasy and cocaine accounted for only a very small fraction of the total attendances.
- The substances most commonly involved in a primary diagnosis for SA drug-related hospital admissions were opioids (heroin, morphine, methadone, etc.), followed by amphetamines, cannabis and cocaine.
- Drug-related attendances to the RAH emergency department were largely alcohol-related. Of the illicit drugs, amphetamines accounted for the largest number of drug-related attendances, followed by heroin.

Mental health

- There was a non-significant increase in self-reported mental health problems among PWID in the six months preceding interview. Among those who had suffered from a mental health problem, depression and anxiety continued to be the most commonly reported disorders.
- Just under two-thirds of participants (62%) were assessed as having high to very high levels of psychological distress; this was much higher than reported among the general population.
- IDRS participants scored a mean of 39 for the mental component score and 41 for the physical component score; this was lower than the Australian population scores, indicating that IDRS participants had poorer mental and physical health than the population average.

Alcohol Use Disorders Identification Test

- Among those who drank alcohol recently, the mean score on the AUDIT-C was 5.1.
- Sixty-two percent of males and 37% of females scored 5 or more on the AUDIT-C, indicating the need for further assessment

Health service access

- Almost three-quarters of PWID reported that they had seen a health professional in the month preceding interview, most commonly a general practitioner.

6.1 Overdose and drug-related fatalities

6.1.1 Heroin and other opioids

6.1.1.1 Non-fatal overdose

Of the 71 participants who reported lifetime use of heroin, 34 (48%) also reported that they had overdosed on heroin on a median of two occasions (range: 1-10). Ninety-one percent (n=31) had overdosed six times or less, with the majority reporting that they had overdosed once (n=12; 35%), twice (n=7, 21%), or three times (n=6, 18%). As can be seen in Table 33, there was a non-significant decrease in the proportion of participants who had overdosed once, and an inverse increase in those who had overdosed three times or more.

Eight (24%) of those participants who had ever overdosed on heroin had done so in the past 12 months; one participant had overdosed in the past month.

Table 33: Lifetime experience of heroin overdose reported by participants who had ever used heroin, 2003-2012

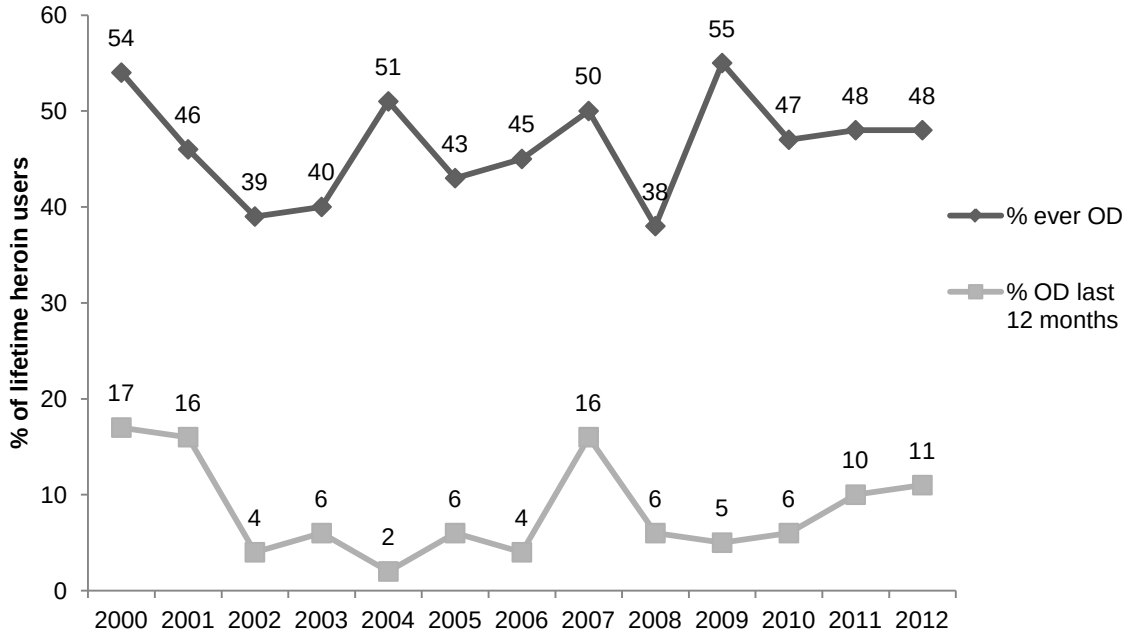
Heroin overdose variable	2003 (n=42)	2004 (n=42)	2005 (n= 41)	2006 (n=43)	2007 (n=45)	2008 (n=33)	2009 (n=44)	2010 (n=79)	2011 (n=38)	**2012 (n=34)**
Overdosed once (%)	38	36	32	37	33	58	46	43	53	**35**
Overdosed twice (%)	14	21	22	19	16	15	14	19	21	**21**
Overdosed 3 times or more (%)	48	43	46	44	51	27	40	38	26	**44**

Source: IDRS participant interviews

Long-term trends in the experience of lifetime and past 12 month overdose, among those who had ever used heroin, is depicted in Figure 18. As can be seen, recent heroin overdoses were fairly low and stable from 2003-2006, before a sharp rise was noted in 2007. Overdoses declined the following year in 2008, before increasing again in 2011-2012. Given these recent rises in heroin overdoses, it is important that these trends continue to be closely monitored.

The prevalence of lifetime heroin overdose among PWID has fluctuated quite considerably over the years; however, in 2012 it remained stable at 48%. In 2012, the median amount of time between interview and last overdose was 96 months (range: 1-240 months; n=34), representing an increase from 2011 (66 months).

Figure 18: Experience of lifetime and past 12 month heroin overdose, as a proportion of participants that had ever used heroin, 2000-2012



Source: IDRS Participant interviews

In 2012, questions relating to the use of Narcan® again referred only to the last time the participants overdosed. Seventeen participants (50% of those who had ever experienced a heroin overdose) reported having been administered the opioid antagonist naloxone (Narcan®) for heroin. Of those who had overdosed in the preceding 12 months (n=8), 38% (n=3) reported receiving Narcan®. Other immediate treatments received included ambulance attendance (n=6), CPR (n=4), hospital emergency department (n=3), oxygen (n=2) and GP (n=1). Most participants did not receive any treatment or information as a result of such overdose (n=6; 86%).

6.1.2 Fatal opioid overdose

The Australian Bureau of Statistics (ABS) collates and manages the national causes of death database, utilising information from the National Coronial Information System (NCIS). Prior to 2003, ABS staff visited coronial offices to manually update information about the cause of death for records that had not yet been loaded onto the NCIS. Since 2003 the ABS has progressively ceased visiting jurisdictional coronial offices, therefore ceasing manual updates of deaths that were not already included on the NCIS.

In 2006, the ABS relied solely on the data contained on NCIS at the time the ABS ceased processing the deaths data. Since 2007, the causes of death data have been subject to a revisions process. The preliminary data is released, then two successive revisions are released 12 months apart from the date of the release of preliminary data. The 2006 data were not subject to this revision process, and are therefore likely to be incomplete. This is likely to result in an underestimate of the number of opioid induced deaths recorded in 2006. We have tried to offset this underestimate by analysing the changes between preliminary and final findings for both 2007 and 2008. We have

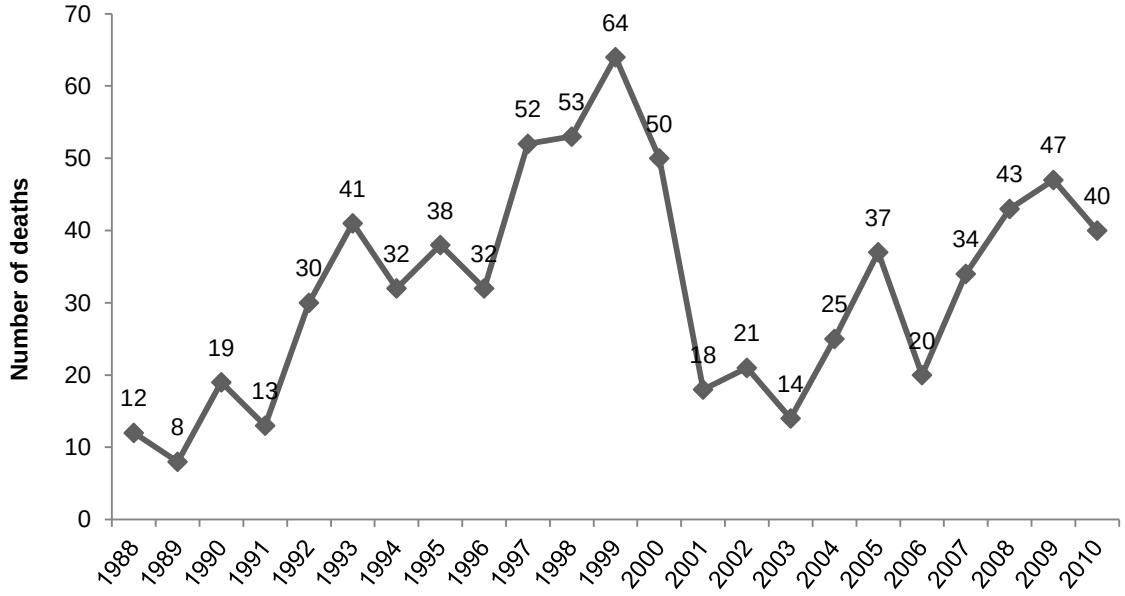
averaged the changes across both years, and applied it to the 2006 figures. This data should be interpreted with caution.

Data for both 2007 and 2008 represent the 2nd and final revision of each dataset, and are therefore methodologically comparable. Data for 2009 and 2010 are projected estimates, based on the changes that occurred in 2008 and 2009 data. Again these data should be interpreted with caution as figures may change. The result of the revisions process is a longer time from the reporting of a death to finalisation by the coroner. These revisions will most likely result in an increase in the number of deaths. This is particularly true for deaths that are drug related, as coronial investigations can be complex and lengthy in nature.

The ABS have implemented a number of additional strategies, including examination of death certificates and coroners reports, to ensure that as many of the deaths as possible have a cause of death coded at the time the data file is closed.

In 2010, the preliminary data found that there were 503 accidental deaths due to opioids at a national level. Most of these deaths occurred in NSW, VIC and QLD (116,134 and 130 respectively), with 40 deaths being recorded in SA (8% of the total number of deaths). This represents a slight decrease from 2009, in which SA recorded 47 deaths due to accidental opioid overdose. It should be noted that the deaths reported are opioid-related and not necessarily heroin overdose deaths

Figure 19: Number of accidental deaths due to opioids among those aged 15-54 years in SA, 1988-2010



Source: ABS causes of death data (Roxburgh and Burns, 2012a)
Note: the 2006 and 2007 data will be underestimates and not necessarily reflective of a downward trend (given that enhanced methodology was not introduced until 2008); the 2008 data are the final figures after two revisions; the 2009 data are the first revision figures; and the 2010 data are the preliminary figures.

6.1.3 Accidental overdose (other drugs)

Participants were asked to specify how many times they had accidentally overdosed on any other drug (not heroin), how long since that had happened, and which drugs were involved. Nineteen participants reported that they had accidentally overdosed on another drug within their lifetime, and they had done so on a median of one occasion (range: 1-10). The median period of time since last overdose was 48 months (or 4 years; range 1-300 months). Six participants had accidentally overdosed within 12 months of interview. Of these participants, two reported overdosing on benzodiazepines, one on alcohol, one on methadone, one on morphine and one participant couldn't specify what they had overdosed on. Only one participant received immediate treatment as a result of such overdoses; and that was CPR. No participants received any information or treatment post-overdose.

6.2 Drug treatment

6.2.1 IDRS participant survey

As mentioned in section 3.1, approximately one-third of the sample (32%) were in drug treatment at the time of the interview, with the majority of participants in maintenance pharmacotherapy treatment. More specifically, 16% reported being on a methadone program (compared to 26% in 2011) and 15% reported being on a buprenorphine program, including those receiving suboxone treatment (compared to 7% in 2011).

Participants who were in treatment at the time of interview reported having been in that treatment for a median of 36 months (range: 2-360 months), with 63% reporting that they had been able to start their current treatment immediately.

Twenty-four participants (26%) reported that at some stage throughout their life they had sought treatment, but been turned away or told they had to wait longer than one week before they could enter. Interestingly, of those participants who were not in treatment at the time of interview, 52% said that they would start maintenance pharmacotherapy treatment straight away if it was free and convenient.

6.2.2 Treatment services

The following drug treatment data for SA comes from two sources: telephone calls to the SA Alcohol & Drug Information Service (ADIS), and Drug & Alcohol Services SA (DASSA). In order to provide a clearer picture of trends in the number of individuals seeking treatment for various illicit substances, DASSA data will be presented in terms of clients per drug type. For information regarding episodes of treatment per drug type – which gives a more accurate measure of demand, or total load, on treatment services – the reader is directed to the Report on the National Minimum Data Set (Australian Institute of Health & Welfare, 2009), which details findings from DASSA and other non-government treatment agencies in SA.

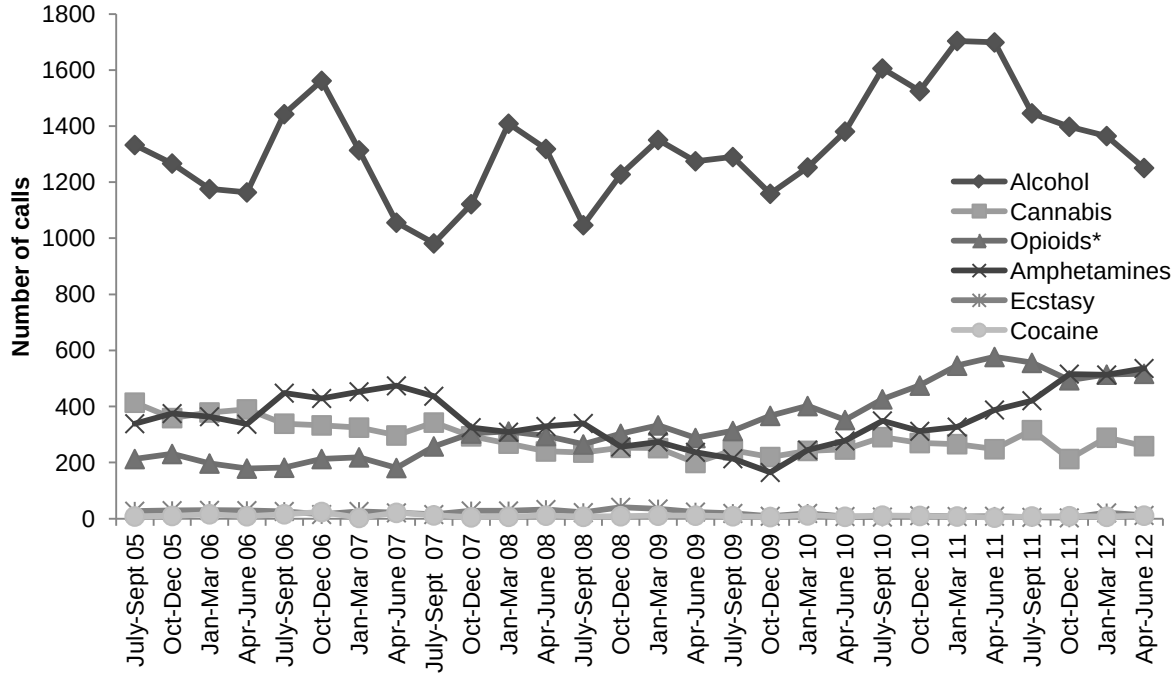
6.2.3 Heroin and other opioids

6.2.3.1 Treatment services – ADIS

Telephone calls to ADIS regarding any opioid substance accounted for 13.20% of the total coded telephone contacts (drug-related) in the 2011/12 financial year (n=15,761). This is a slight increase from 2010/11 (12.50% of 16,191 calls) and represents the highest number of opioid-related calls over the period June 2006-June 2012. Since 2004, the breakdown of number of calls per opioid substance category (e.g. heroin, methadone) has been unavailable.

Figure 20 depicts the number of opioid-related calls, per quarter, for the last six financial years compared to calls related to other drug types. It can be seen that the majority of drug-related calls to SA ADIS across the time period depicted have been alcohol-related, although there does appear to have been a decline in such calls in the 2011/12 financial year. In relation to cannabis, opioids and amphetamines, the numbers have fluctuated considerably over the years. Across time, there seems to have been a steady decrease in the number of cannabis-related calls; a steady increase in the number of opioid-related calls; and a fluctuation in the number of amphetamine-related calls. In 2011/2012, opioid-related calls continued to surpass amphetamine-related calls. Calls relating to ecstasy or cocaine have constituted less than 1% of the total coded calls to SA ADIS across all years depicted.

Figure 20: Number of drug-related calls to ADIS per quarter, by selected drug type, July 2005-June 2012



Source: SA ADIS

* 'Opioids' includes all calls coded under the categories heroin, methadone, buprenorphine, naltrexone, opioid pharmacotherapies and other opioids

6.2.3.2 Treatment services – DASSA

The primary drug of concern nominated by DASSA clients, as a proportion of the total number of clients, is presented in Table 34. In 2011/12, the proportion of clients nominating heroin as their primary drug of concern (7.8%) remained relatively stable from 2010/11 (8.7%). In addition, the proportion of total DASSA clients nominating heroin as their primary drug of concern was lower than that for opioid analgesics (8.3%), amphetamines (19.4%) and substantially less than that for alcohol (49.4%).

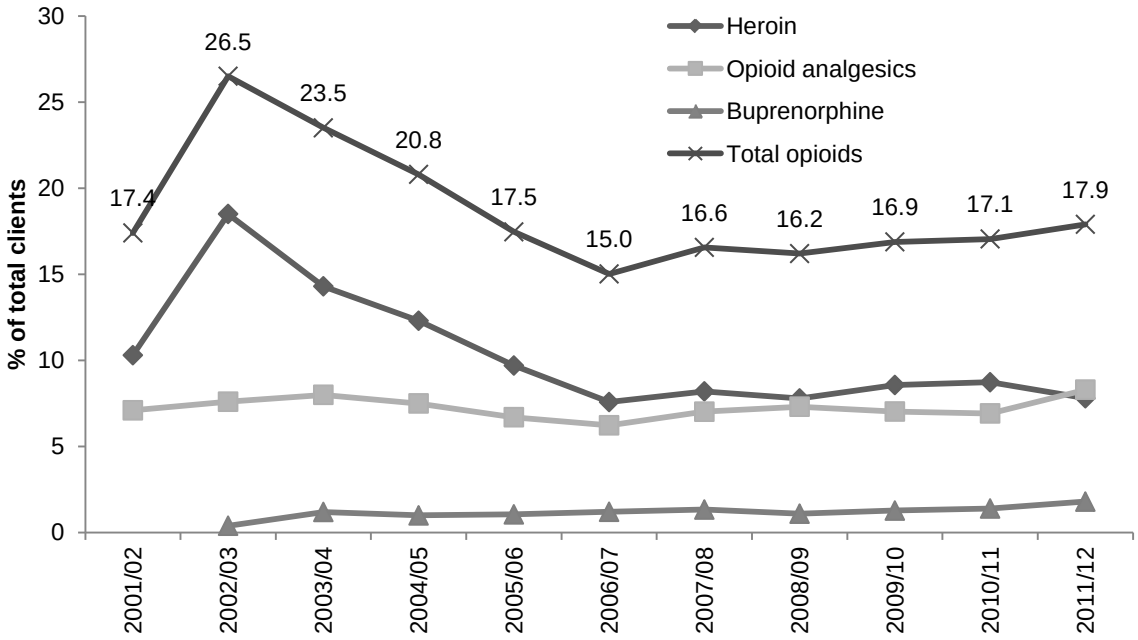
Table 34: Primary drug of concern nominated by clients of DASSA as a percentage of total number of clients, 2001/02-2011/12

Drug type (%)	2001/ 02	2002/ 03[#]	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11	**2011/12 n=5,438**
Alcohol	42.0	44.6	47.7	48.3	51.8	52.09	55.91	57.46	57.10	54.71	**49.4**
Amphetamines	14.5	19.3	18.5	20.0	18.8	21.71	16.28	15.15	13.30	15.95	**19.4**
Heroin	10.3	18.5	14.3	12.3	9.7	7.58	8.20	7.79	8.57	8.73	**7.8**
Opioid analgesics	7.1	7.6	8.0	7.5	6.7	6.23	7.02	7.31	7.03	6.92	**8.3**
Cannabis	10.7	10.6	13.1	12.8	13.2	11.28	11.48	10.30	10.81	11.42	**13.9**
Benzodiazepines	1.9	2.6	2.3	2.4	2.3	2.02	2.25	2.01	1.92	1.92	**1.9**
Ecstasy	0.12	0.38	0.74	0.63	1.1	0.94	1.33	1.98	1.61	0.99	**0.5**
Cocaine	0.3	0.3	0.1	0.4	0.4	0.41	0.35	0.48	0.42	0.20	**0.2**
Tobacco	0.2	0	0.2	0.2	0.3	0.31	0.53	0.43	0.63	0.72	**0.5**
Unknown	6.1	0	0.1	0.2	0.2	0.39	0.30	0.17	0.07	0.11	**0.3**
Buprenorphine	-	0.4	1.2	1.0	1.06	1.21	1.34	1.10	1.28	1.40	**1.8**
Other	6.8	1.6	1.5	1.8	1.3	2.46	2.20	1.70	2.48	2.08	**1.2**

Source: DASSA
Note: Total percentages for each year may not equal 100% as clients may have presented with more than one primary drug of concern within that time
[#] During this period a new data collection system (Client Management Engine-DASC Information System) was employed to meet the requirements of the Alcohol and Other Drug Treatment Services - National Minimum Data Set (AODTS-NMDS)

As can be seen in Figure 21 the percentage of DASSA clients nominating opioid analgesics as their primary drug of concern has remained relatively stable over the years, from 7.1% in 2001/02 to a current level of 8.3%. In 2011/12, the proportion of clients nominating 'any' type of opioid substance as their primary drug of concern was 17.9%, compared to the 'peak' of 26.5% in 2002/03. This was stable from 2010/11 (17.1%).

Figure 21: Percentage of total DASSA clients with opioid as the primary drug of concern, 2001/02-2011/12



Source: DASSA
Note: During 2002/2003 a new data collection system was employed to meet the requirements of the AODTS-NMDS

Table 35 depicts the number of clients (individuals) who have been admitted to DASSA's in-patient detoxification services over the last 11 financial years. It can be seen that attendance at these services was by far the most common for alcohol-related treatment, and this has remained consistent across all ten years. Aside from alcohol, in 2011/12 the greatest number of clients attended inpatient detoxification services for treatment related to cannabis, followed by amphetamines and then opioid analgesics and heroin.

Table 35: Number of clients to DASSA inpatient detoxification treatment services, by primary drug of concern, 2001/02-2011/12

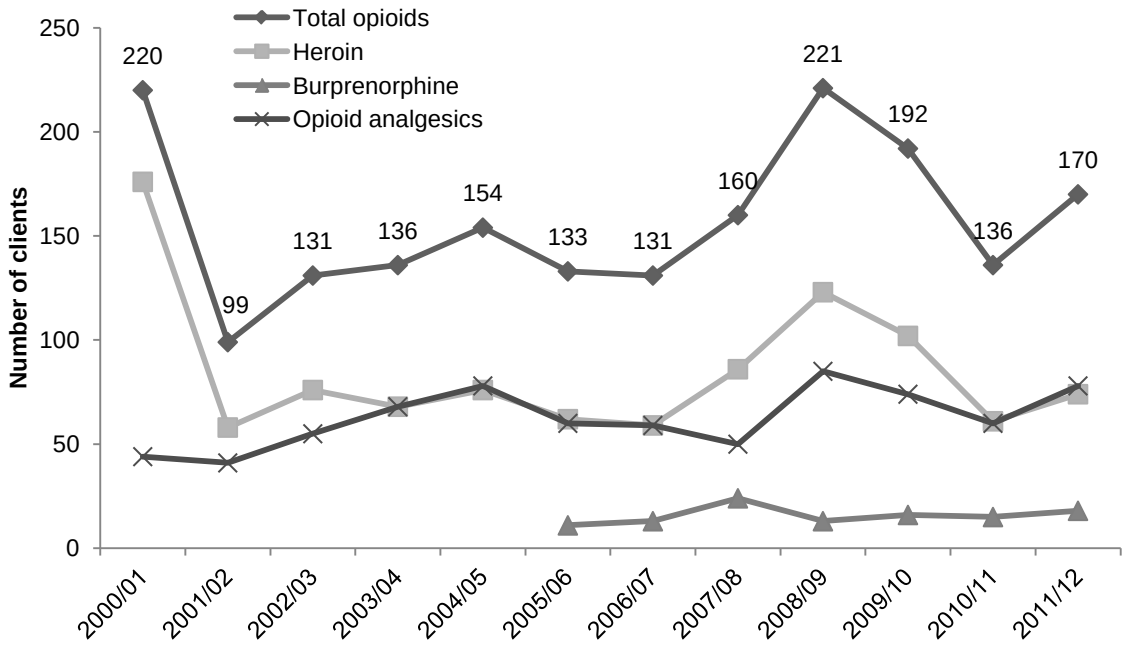
Drug type	2001 /02	2002 /03#	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	**2011 /12**
Alcohol	357	365	318	358	410	454	487	522	503	524	**494**
Amphetamines	156	154	138	130	118	150	130	92	65	83	**111**
Heroin	58	76	68	76	62	59	86	123	102	61	**74**
Opioid analgesics	41	55	68	78	60	59	50	85	74	60	**78**
Cannabis	67	76	97	109	92	103	114	97	102	99	**121**
Benzodiazepines	36	48	44	50	50	41	47	45	30	23	**30**
Cocaine	5	1	1	2	4	3	4	1	2	3	**2**
Tobacco	1	0	0	1	2	2	1	0	0	0	**0**
Buprenorphine	-	-	-	-	11	13	24	13	16	15	**18**
Unknown	37	0	0	0	-	2	0	0	1	-	**0**
Other	8	6	3	5	10	23	38	15	15	19	**10**
TOTAL	766	733	698	759	763	894	891	939	854	852	**896**

Source: DASSA
Note: Results show the number of clients, i.e. the number of individuals who started one or more new episodes of treatment during the period; Totals for each year may exceed the sum of clients per drug type as an individual client may have attended detox for more than one drug within the given year
#During this period a new data collection system was employed to meet the requirements of the AODTS-NMDS

Figure 22 presents the number of clients admitted to DASSA's in-patient detoxification treatment services for heroin, opioid analgesics or buprenorphine, from 2000/01 to 2011/12. As can be seen, there was quite a substantial decline in the number of clients nominating heroin as their primary drug of concern from 2008/09-2010/11, before making a small recovery in 2011/12. There was also a slight increase in the number of clients nominating other opioid analgesics as their primary drug of concern (from 60 in 2010/11 to 78 in 2011/12). This interrupts the downward trend (for all opioids) that was observed from 2008/09- 2010/11.

In 2011/12 the number of in-patient admissions for amphetamines (111) exceeded that for heroin (74). However, when the data was analysed in terms of whether the primary drug of concern was amphetamines or *any* opioid substance (heroin or other opioid analgesics), it was found that the total number of clients entering treatment for *any* opioid substance (152) was higher than that for amphetamines (111).

Figure 22: Number of clients to DASSA inpatient detoxification treatment services per year, with heroin or other opioid as the primary drug of concern, 2000/01-2011/12



Source: DASSA
Note: During 2002/2003 a new data collection system was employed to meet the requirements of the AODTS-NMDS

6.2.4 Methamphetamine

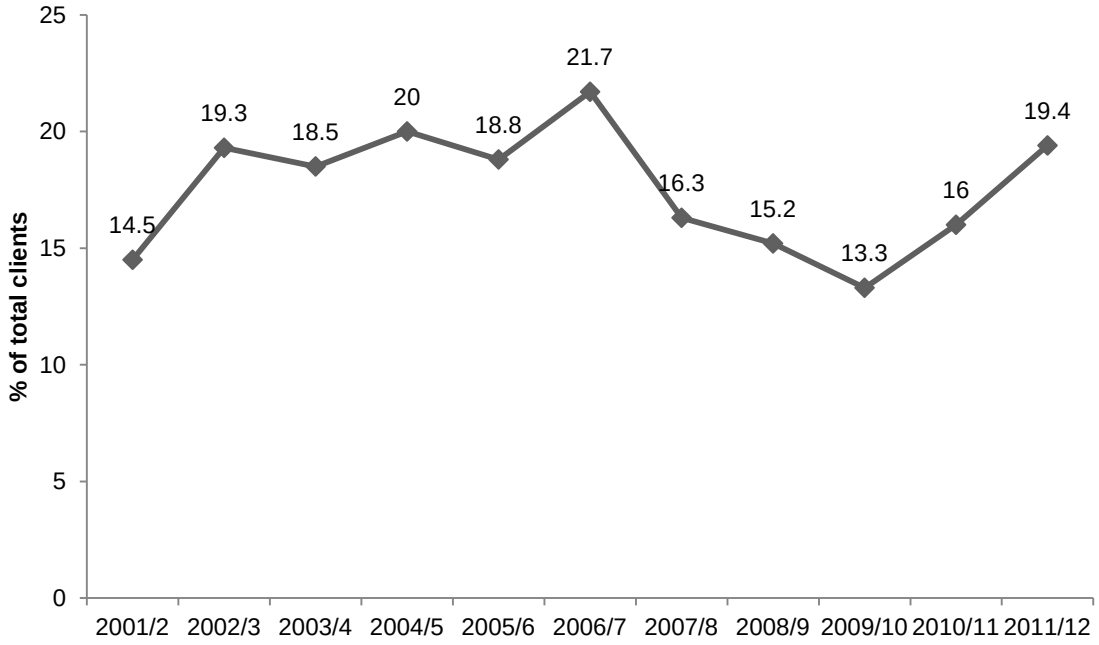
6.2.4.1 Treatment services – ADIS

Telephone calls to ADIS regarding amphetamines accounted for 12.60% (n=1,986) of the 15,761 total drug-related calls in the 2011/12 financial year. This was higher than recorded in the previous financial year (8.50% of a total 16,191 calls), and represents a continuing upward trend since October-December 2009. Figure 20 depicts the number of amphetamine-related calls, per quarter, for the last six financial years compared to calls relating to other drug types. As can be seen, calls relating to methamphetamine have overtaken those for cannabis and are now comparable to the number of calls relating to opioids.

6.2.4.2 Treatment services – DASSA

The proportion of clients nominating amphetamines as their primary drug of concern increased in 2011/12, continuing an upward trend that has been observed since 2009/10 (see Table 34 and Figure 23). In 2011/12, amphetamines (19.38%%) were the second most commonly nominated drug of concern by DASSA clients, and dominated as the most common illicit drug of concern, well above cannabis (13.94%).

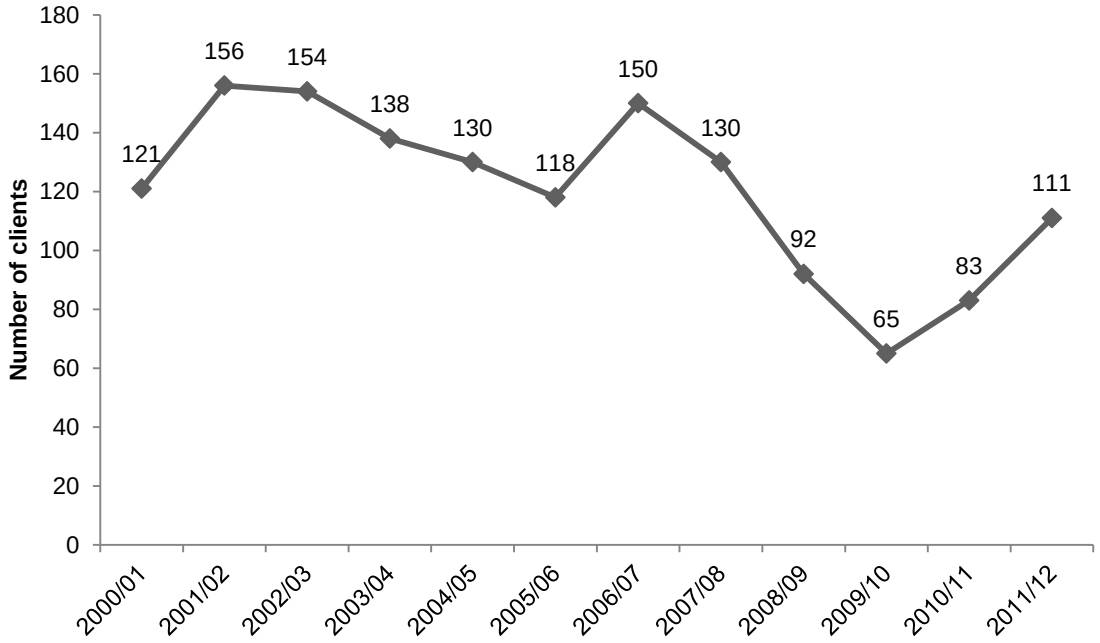
Figure 23: Percentage of total DASSA clients with amphetamines as the primary drug of concern, 2001/02-2011/12



Source: DASSA
Note: During 2002/2003 a new data collection system was employed to meet the requirements of the AODTS-NMDS

Figure 24 presents the number of clients attending DASSA's in-patient detoxification treatment services for amphetamines, from 2000/2001 to 2011/12. Consistent with the increase in the number of amphetamine-related clients to all DASSA services, the number of in-patient detoxification clients who nominated amphetamines as their primary drug of concern also increased, from 83 in 2010/11 to 111 in 2011/12.

Figure 24: Number of clients to DASSA in-patient detoxification treatment services, with amphetamines as the primary drug of concern, 2000/01-2011/12



Source: DASSA
Note: During 2002/03 a new data collection system was employed to meet the requirements of the AODTS-NMDS

6.2.5 Cocaine

6.2.5.1 Treatment services – ADIS

Telephone calls to ADIS regarding cocaine accounted for only 0.22% (n=35) of total drug-related telephone calls in 2011/12. This remained stable from 2010/11, with cocaine-related calls being consistently low over the years. More specifically, cocaine accounted for 0.20% (n=33) of all drug-related calls in 2010/11; 0.25% (n=34) of all drug-related calls in 2009/10; 0.28% (n=38) in the 2008/09 financial year; 0.24% (n=35) in 2007/08; 0.45% (n=64) in 2006/07; 0.32% (n=43) in 2005/06; 0.32% (n=41) in 2004/05; 0.20% (n=27) 2003/04; 0.25% (n=35) in 2002/03; and 0.4% (n=50) in 2001/02. Figure 20 depicts the number of cocaine-related calls, per quarter, for the last six financial years compared to calls related to other drug types.

6.2.5.2 Treatment services – DASSA

The proportion of clients nominating cocaine as their primary drug of concern has remained relatively stable and low across all years reported (Table 34). Of the clients attending any DASSA treatment services in 2011/12, 0.22% (n=12 of 5,438 individuals) nominated cocaine as their primary drug of concern.

6.2.6 Cannabis

6.2.6.1 Treatment services – ADIS

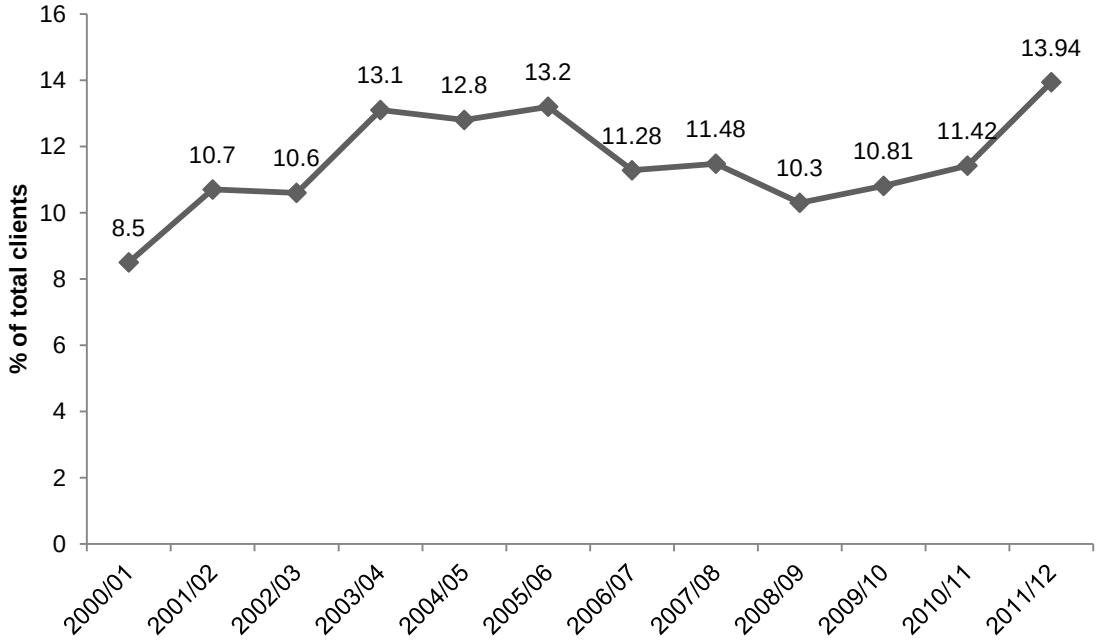
Telephone calls to ADIS regarding cannabis accounted for 6.83% (n=1,077) of the total coded telephone contacts in the 2011/12 financial year; this was stable from 2010/11 (6.6%; n=1,075). Overall, it appears that across the years there has been a downward trend in the number of cannabis-related calls. More specifically, in the 2009/10 financial year, cannabis accounted for 7.26% (n=953) of all drug-related calls; in 2008/09 that was 7.03% (n=940); 8.13% in 2007/08; 9% in 2006/07; 11.7% in 2005/06; 12% in 2004/05; 10.3% in 2003/04; 12% in 2002/03; and 14% in 2001/02.

In 2011/12, the number of enquiries regarding cannabis (6.83% of total) was lower than for both amphetamines (12.60% of total) and opioids (13.20% of total). Figure 20 depicts the number of cannabis-related calls, per quarter, for the last six financial years compared to calls related to other drug types.

6.2.6.2 Treatment services – DASSA

The proportion of clients nominating cannabis as their primary drug of concern increased slightly in 2011/12 (13.94% compared to 11.42% in 2010/11). However, as can be seen in Table 34 and Figure 25, the proportion of clients nominating cannabis as a drug of concern has remained relatively stable over the past decade, hovering at around 10%-13%.

Figure 25: Percentage of total DASSA clients with cannabis as the primary drug of concern, 2000/01-2011/12

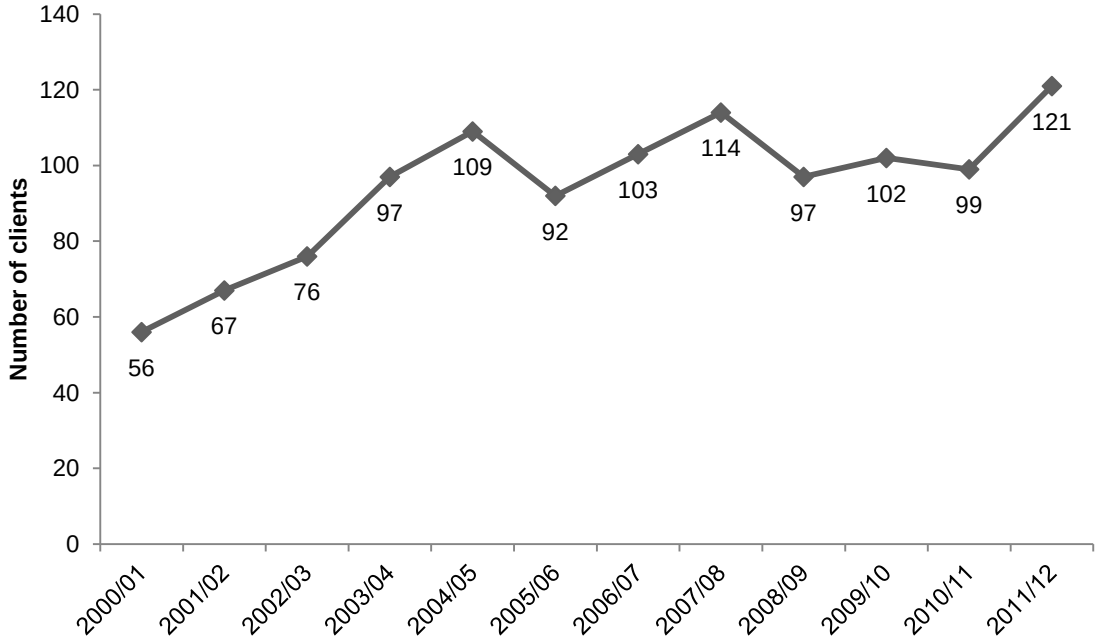


Source: DASSA
Note: During 2002/2003 a new data collection system was employed to meet the requirements of the AODTS-NMDS

Figure 26 presents the number of DASSA clients attending in-patient detoxification treatment services for cannabis, from 2000/01 onwards. In 2011/12, the number of

cannabis-related clients attending in-patient detoxification increased to 121 – the highest number recorded over the past 12 years. Interestingly, the number of clients entering inpatient detoxification for cannabis was higher than those entering treatment for heroin and amphetamines; with the number of cannabis-related admissions coming second only to alcohol.

Figure 26: Number of admissions to DASSA in-patient detoxification treatment services, with cannabis as the primary drug of concern, 2000/01-2011/12



Source: DASSA
Note: During 2002/2003 a new data collection system was employed to meet the requirements of the AODTS-NMDS

6.3 Hospital admissions

An analysis of data from the National Hospital Morbidity Dataset (provided by the AIHW for the period 1997/98 to 2009/10) was undertaken by NDARC. This data reports on both state-specific and national drug-related hospital admissions[2] for the four main illicit drug classes (see Appendix 2 for national data). The data is adjusted so that all years reflect International Classification of Diseases, 9th Revision (ICD-9) classifications for comparability across this time period. Readers should note that the major impact of this adjustment is the exclusion of admissions for drug-related psychosis and withdrawal, due to incomparability between ICD-9 and International Classification of Diseases, 10th Revision (ICD-10) coding for these conditions[3]. It should also be noted that these data lag behind other indicators by one year. At the time of printing, data was not available for 2010/2011.

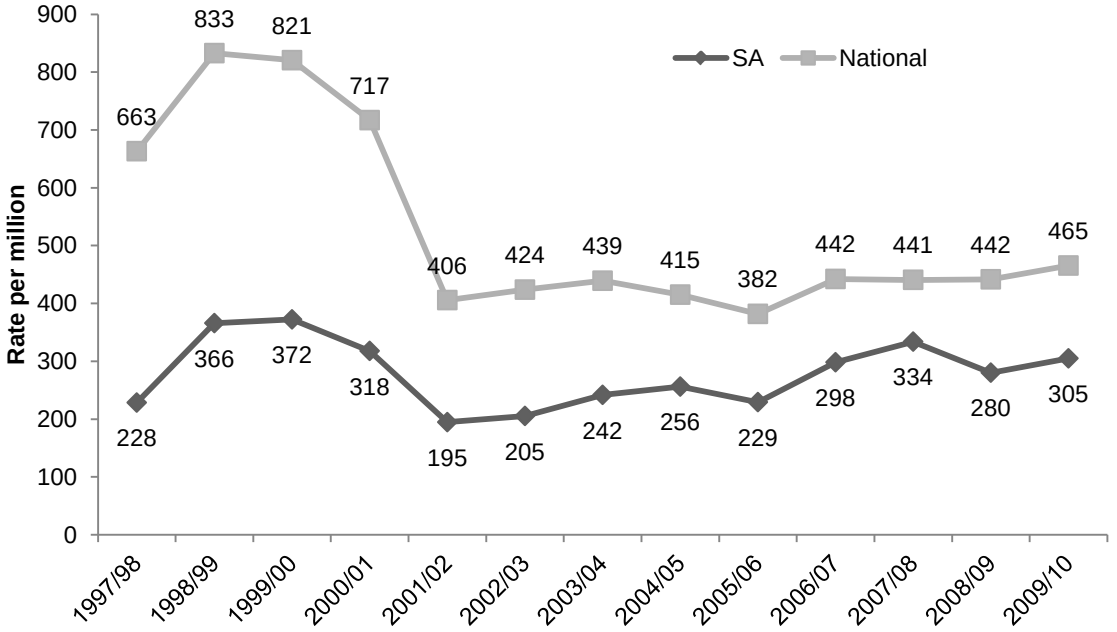
[2] The National Hospital Morbidity Dataset includes admissions data from public and private hospitals across metropolitan, regional and remote locations.
[3] ICD-9 coding for drug-related psychosis and withdrawal was non-specific for drug type, where ICD-10 coding is specific for drug type.

The substances most commonly involved in a primary diagnosis for SA drug-related hospital admissions were opioids (heroin, morphine, methadone, etc.), followed by amphetamines, cannabis and cocaine. Ecstasy-related admissions are not specifically coded. South Australian data followed a similar pattern to national data (see Appendix), but differed in the rates of admissions per drug type. In particular, SA had a lower rate per million of opioid-related admissions (SA: 305 vs. national: 465), cocaine-related admissions (SA: 2 vs. national: 20), and cannabis-related admissions (SA: 75 vs. national: 164), whilst having a similar rate (per million) of amphetamine-related admissions (SA: 127 vs. national: 136).

6.3.1 Opioid-related hospital admissions

Figure 27 shows the rates of opioid-related admissions from 1997/98 onwards. In 2009/10, there was a slight increase in admissions; from 280 in 2008/09 to 305. At the national level, opioid-related admissions have remained relatively stable over the past nine years.

Figure 27: Rate of opioid-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/1998-2009/10

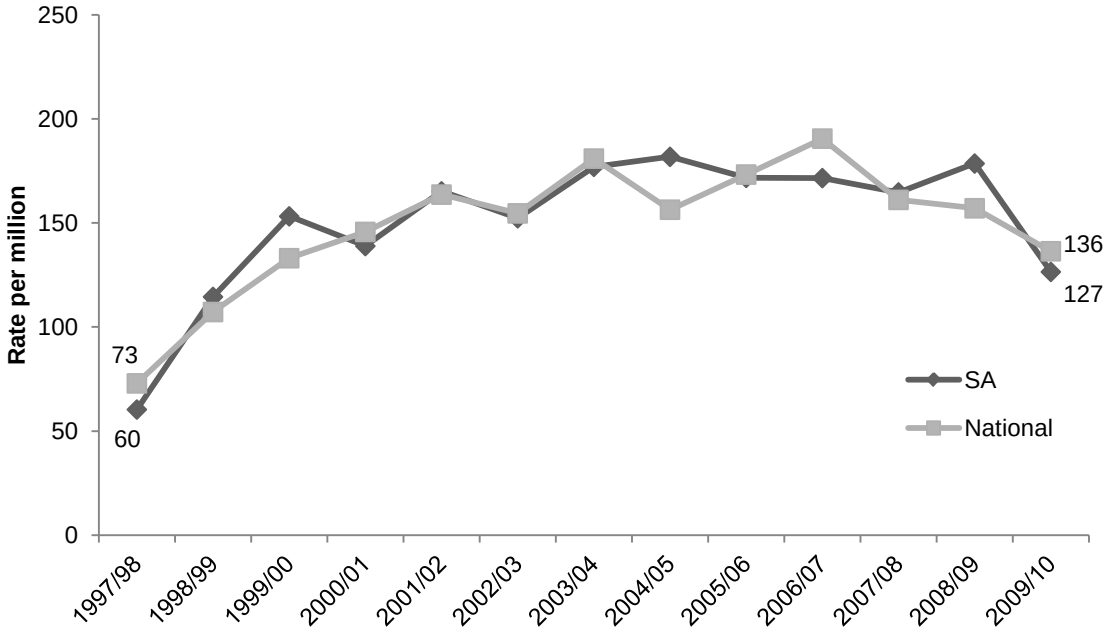


Source: Australian Institute of Health and Welfare
Note: Results are for persons aged between 15 and 54 years, excluding opioid withdrawal and psychosis admissions. A 'primary diagnosis' was given when opioids were considered chiefly responsible for the patient's episode of care in hospital

6.3.2 Amphetamine-related hospital admissions

Figure 28 shows the long-term trend of amphetamine-related hospital admissions, from 1997/98 onwards. Admissions with amphetamines as a primary diagnosis decreased sharply in 2009/10 (to 127 per million), the lowest rate observed since 1998/99 (114 per million). Nationally, these figures have been more varied with a downward trend being observed from 2006/07. Readers are reminded that this figure does not include amphetamine-related psychosis or withdrawal admissions.

Figure 28: Rate of amphetamine-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/98-2009/10

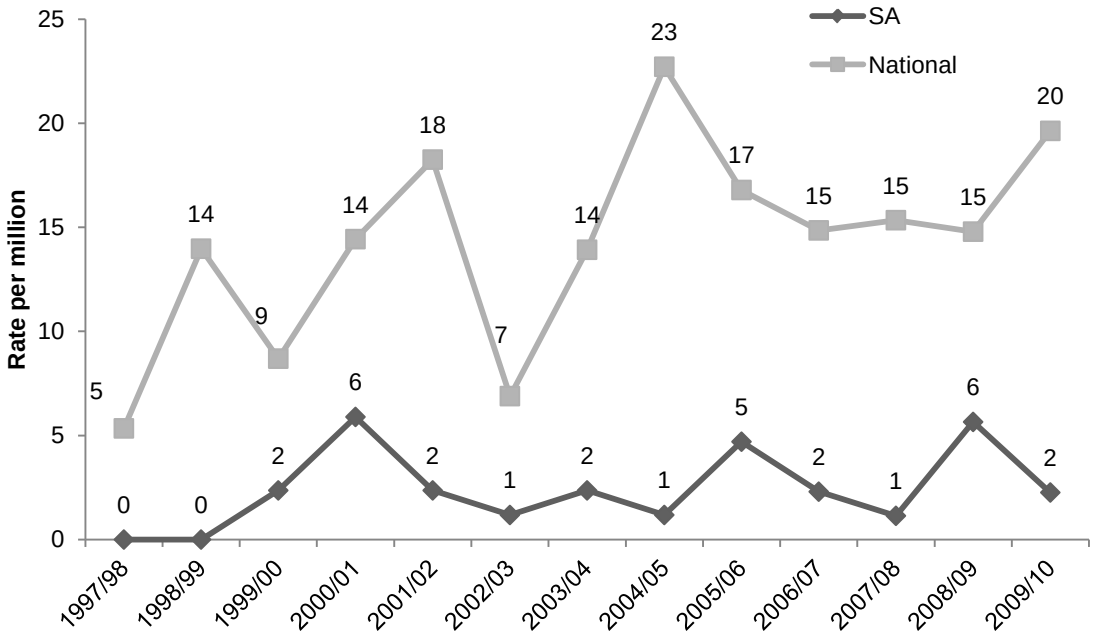


Source: Australian Institute of Health and Welfare
Note: Results are for persons aged between 15 and 54 years, excluding amphetamine withdrawal and psychosis admissions. A 'primary diagnosis' was given when amphetamines were considered chiefly responsible for the patient's episode of care in hospital

6.3.3 Cocaine-related hospital admissions

Figure 29 shows that the rates of cocaine-related hospital admissions have fluctuated considerably over the years, both nationally and in South Australia. However, the national rate of cocaine-related admissions has remained consistently higher than observed in SA. Interestingly, in 2009/10 the rates of admissions observed at the national level increased (from 15 per million in 2008/09 to 20 per million), whilst in SA there was a slight decrease in admissions (from 6 per million in 2008/09 to 2 per million).

Figure 29 Rate of cocaine-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/98-2009/10

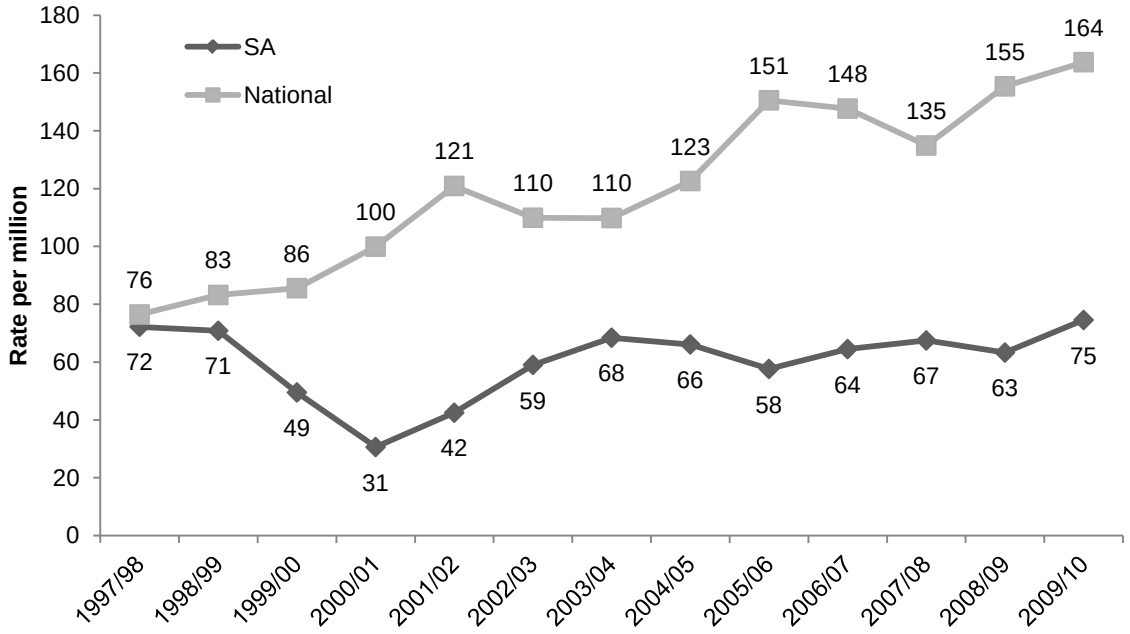


Source: Australian Institute of Health and Welfare
Note: For persons aged between 15 and 54 years, excluding cocaine withdrawal and psychosis admissions. A 'primary diagnosis' was given when cocaine was considered chiefly responsible for the patient's episode of care in hospital

6.3.4 Cannabis-related hospital admissions

Figure 30 depicts the long-term trend in cannabis-related hospital admissions (primary diagnosis), both nationally and in SA from 1997/98 onwards. As can be seen, both SA and national rates were similar until a divergence in 1999/00, when the national rate continued to rise and the SA rate declined for two years. From 2000/01-2003/04, SA observed an increase in the rate of cannabis-related admissions, with rates remaining relatively stable across 2004/05-2008/09. In 2009/10 there was an increase in the rates of cannabis-related admissions, from 63 per million in 2008/09 to 75 per million; this is the highest rate ever observed. Readers are reminded that this figure does not include cannabis-related psychosis or withdrawal admissions.

Figure 30: Rate of cannabis-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/98-2009/10



Source: Australian Institute of Health and Welfare
Note: Results include persons aged between 15 and 54 years, excluding cannabis withdrawal and psychosis admissions. A 'primary diagnosis' was given when cannabis was considered chiefly responsible for the patient's episode of care in hospital

6.4 Emergency department attendances

Information on drug-related attendances to the emergency department was provided by the Royal Adelaide Hospital (RAH), the largest central public hospital in Adelaide, and is presented in Table 36. It is important to note that these data are likely to be an underestimate of drug-related emergency department presentations. Drug involvement may not always be coded accurately, and coding accuracy is also dependent on accurate self-report of those presenting. Data should be interpreted with these caveats in mind. Readers are also warned that these are 'uncleaned' data and should be interpreted with caution; however, they are included here to give a picture of trends over time, rather than to provide precise numbers.

It can be seen that alcohol has continued to account for the largest portion of attendances across all years; however, there was a decline in the number of alcohol-related attendances in 2011/12. Attendances regarding heroin remained stable in 2011/12 at 63 (compared to 66 in 2010/11). Interestingly, in 2011/12 amphetamine overtook heroin as the most common illicit drug-related attendances. In addition, if the diagnosis 'drug-induced psychosis' (which includes amphetamine-induced psychosis) is examined, it can be seen that the number of attendances with this diagnosis had decreased in 2005/06 (from 89 to 31), increased slightly in 2006/07 to 37, and again decreased in 2007/08 with no attendances recorded for 2008/09-2011/12. The number of attendances in relation to cannabis have remained stable and low across the years depicted.

Table 36: Number of attendances to the emergency department at the RAH, SA, from 2002/03-2011/12 (per drug or diagnosis)

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	**2010/11**	**2011/12**
Amphetamines	65	81	91	61	82	67	58	61	61	**83**
Cocaine	0	1	4	6	4	1	4	5	1	**2**
LSD	1	2	6	3	2	3	7	7	3	**2**
GHB	28	28	48	38	14	15	15	17	20	**20**
Alcohol	994	1,106	1,465	1,409	1,559	1,554	1,585	2,078	2,119	**1,835**
Cannabis	9	11	15	13	15	15	13	11	14	**22**
Heroin	38	25	30	32	39	44	66	51	66	**63**
Other opioid**	64	57	70	68	59	28	38	36	38	**40**
Benzodiazepines	138	138	141	122	174	145	151	169	162	**147**
Antidepressants	79	80	87	55	74	78	67	58	71	**73**
Drug addiction[#]	38	20	37	28	17	8	1	0	0	**0**
Drug-induced psychosis[#]	52	44	89	31	37	28	0	0	0	**0**
Drug withdrawal[#]	26	24	26	19	20	0	0	0	0	**0**
Other[##]	434	442	434	360	579	528	464	480	471	**439**
TOTAL	1,966	2,059	2,543	2,245	2,675	2,514	2,469	*2,973*	*3,026*	***2,726***

Source: RAH Emergency Department
Note: Results show attendances coded as drug- or poisoning-related
****** Includes opium, methadone, other narcotics (morphine, codeine, pethidine, etc.) and opioid withdrawal
[#] Not otherwise specified
[##] Includes all other poisonings related to food, drug (medical and non-medical), chemical and other toxins

6.5 Mental and physical health problems and psychological distress

6.5.1. Self-reported mental health problems

In 2012, 47% of participants reported experiencing a mental health problem (other than drug dependence) in the six months preceding interview. This was a non-significant increase from 2011 (34%). Among those who had experienced a mental health disorder, depression and anxiety continued to be the most commonly reported problems (see Table 37).

Table 37: Mental health problem reported by participants, 2011-2012

Mental health problem (%)	2011 (n=100)	2012 (n=93)
Depression	24	**26**
Mania	0	**1**
Manic depression	4	**4**
Anxiety	15	**26**
Phobias	0	**4**
Panic	3	**8**
Obsessive compulsive disorder (OCD)	0	**4**
Paranoia	0	**3**
Personality disorder	0	**5**
Drug-induced psychosis	4	**1**
Other psychosis	2	**1**
Schizophrenia	4	**2**
Post traumatic stress disorder (PTSD)	3	**7**
Other	3	**0**

Source: IDRS participant interviews
Note: Percentages in each column do not total 100% as participants could report more than one mental health problem

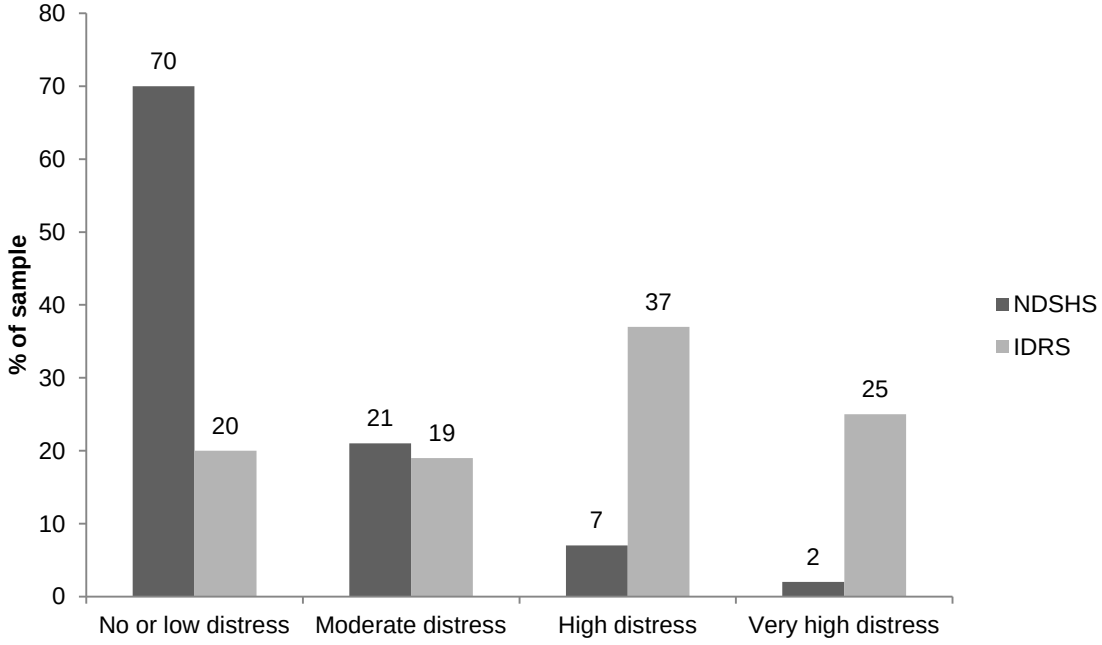
Among those who had experienced a mental health problem in the preceding six months, one-third (34%; n=16) reported that they had attended a professional for such problems; this was a significant decrease from 2011 (77%; p=0.0004; 95% CI: 0.21–0.59). Fifteen participants reported that they had been prescribed medication for their mental health disorder in the preceding six months; predominantly benzodiazepines (n=8), followed by an antidepressant (n=6), antipsychotics (n=3) and mood stabilisers (n=1).

6.5.2 Psychological distress

The Kessler 10 (K10) was administered to participants for the fifth year running in order to obtain a measure of psychological distress. The K10 is a 10-item standardised measure that has been found to have good psychometric properties and which can identify clinical levels of psychological distress as measured by the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) and the Structured Clinical Interview for DSM disorders (SCID) (Kessler et al., 2002; Andrews & Slade, 2001). The K10 asks about the level of anxiety and depressive symptoms that a person may have experienced in the preceding 4 week period (Australian Institute of Health and Welfare, 2011a). It should be noted that the K10 does not require that individuals give reasons for the psychological distress reported in the previous month, nor whether this was an unusual or 'normal' month for the individual.

The minimum score that can be obtained is 10 (indicating no distress) and the maximum is 50 (indicating very high psychological distress). The 2010 National Drug Strategy Household Survey (NDSHS) (Australian Institute of Health & Welfare, 2011a) provided the most recent Australian population norms available for the K10, and used four categories to describe degree of distress: scores from 10-15 were considered to be low, 16-21 as moderate, 22-29 as high and 30-50 as very high. Using these categories, IDRS participants reported greater levels of high and very high distress compared to the general population (see Figure 31).

Figure 31: **K10 scores in the NDSHS (2010) and the SA IDRS interviews, 2012**



Source: IDRS participant interviews; Australian Institute of Health & Welfare, 2011a
Note: The extent to which cut-offs derived from population samples can be applied to the IDRS population is yet to be established and, therefore, these findings should be taken as a guide only

Sixteen (20%) participants had scores between 10 and 15 on the K10 (low risk), 15 (19%) scored between 16 and 21 (moderate distress), 30 (37%) participants scored from 22 to 29 (high distress), and 20 (25%) scored from 30-50 (very high distress). The median total score for the sample was 23 (range: 8-47), indicating that half of the sample was at high or very high risk of psychological distress as measured by the K10.

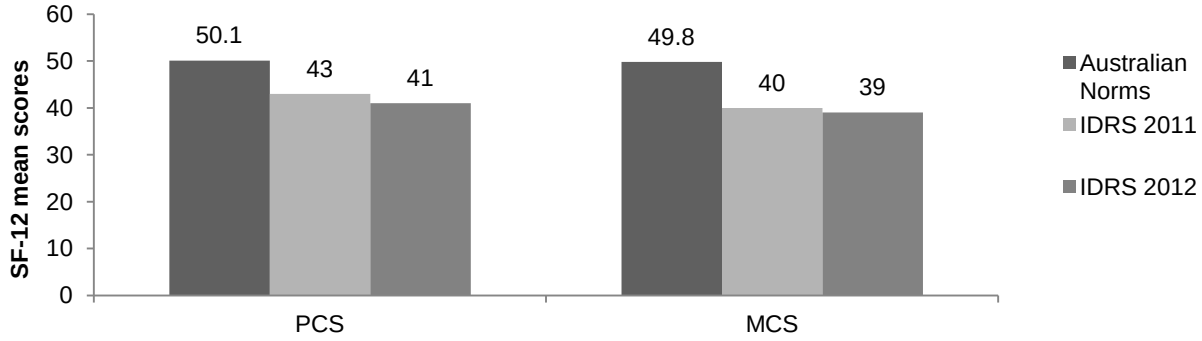
6.5.3 Mental and physical health problems

The Short Form 12 Item Health Survey (SF-12) is a questionnaire designed to provide information on general health and wellbeing and includes 12 questions from the Short Form 36 Item Health Survey (SF-36). The SF-12 was administered for the second time in the IDRS in 2012. The SF-12 measures health states across eight dimensions concerning physical functioning, role limitations due to physical health problems, bodily pain, general health, energy/fatigue, social functioning, role limitations due to emotional problems and psychological distress and wellbeing. The scores generated by these eight components are combined to generate two composite scores: the physical component

score (PCS) and the mental component score (MCS) (Ware et al., 1995; 1996). A higher score indicates better health.

The SF-12 scoring system was developed to yield a mean of 50 and a standard deviation of 10. Participants in the 2012 IDRS scored a mean of 39 (SD=11.4) for the MCS and 41 (SD=11.8) for the PCS (Figure 32). The MCS and PCS were found to be one standard deviation below the Australian population mean score. This would indicate that IDRS participants had poorer mental and physical health than the population average.

Figure 32: SF-12 scores for SA IDRS participants compared with the general Australian population (ABS), 2012



Source: IDRS participant interviews; Australian Bureau of Statistics, 1995

6.6 Alcohol Use Disorders Identification Test

Recently, a lot of media attention has focused on young people and alcohol. However, there has been less focus on alcohol use amongst PWID, despite the fact that they are particularly at risk for alcohol-related harms due to a high prevalence of HCV. Half of the participants interviewed in the Australian NSP Survey 2011 (n=2,395) were found to have HCV antibodies (Kirby Institute, 2011). Given that the consumption of alcohol has been found to exacerbate HCV infection and to increase the risk of both non-fatal and fatal opioid overdose and depressant overdose (Coffin et al., 2007; Schiff & Ozden, 2004; Darke, Ross & Hall, 1996), it is important to monitor risky drinking among PWID.

The information on alcohol consumption currently available in the IDRS includes the prevalence of lifetime and recent use, and number of days of use over the preceding six months. Over the past three years, participants of the IDRS have been asked the AUDIT-C as a valid measure of identifying heavy drinking (Bush et al., 1998). The AUDIT-C is a three item measure, derived from the first three consumption questions in the AUDIT. Dawson et al. (2005) reported on the validity of the AUDIT-C finding that it was a good indicator of alcohol dependence, alcohol use disorder and risky drinking.

In 2012, the overall mean score on the AUDIT-C was 5.1 (SD=3.4, range: 1-12). There was no significant difference between male and female scores. According to Dawson et al. (2005) and the AGDH&A's Guidelines for the Treatment of Alcohol Problems (Haber et al., 2009), a cut-off score of five or more indicates the need for further assessment.

Over one-half (52%) of the sample scored five or more on the AUDIT-C, a non-significant increase from 2011. There was also an increase in the proportion of males who scored 5 or more (62% vs. 48%), whilst for females the proportion remained stable at 37% (Table 38).

Table 38: AUDIT-C among PWID, 2011-2012

	2011 (n=72)	**2012 (n=67)**
Mean AUDIT-C score, SD (range)	4.3, 3.3 (1-12)	5.1, 3.4 (1-12)
Score of 5 or more (%)	43	52
Males	48	62
Females	36	37

Source: IDRS participant interviews

6.7 Health service access

Participants in the 2012 IDRS were asked about access to health services in the previous four weeks; 72% (n=66) reported that they had seen a health professional in the preceding 30 days. Table 39 looks at the median number of occasions a participant visited a particular health service and how many of those occasions were substance use related.

For example, eight participants reported visiting a hospital emergency department (ED)/Casualty in the last four weeks on a median of one occasion (range: 1-3 occasions). Of those who had visited a hospital ED/Casualty, 75% had visited on one occasion in the last four weeks; no participants reported that the visit was substance use related (Table 39).

The majority of participants (n=52) reported visiting a GP in the last four weeks on a median of one occasion (range: 1-12 occasions). Fifty-two percent reported visiting a GP once in the last four weeks, of which two-fifths (41%) reported the visit was substance use related (Table 39).

Table 39: Health service access in the last four weeks, 2012

	Number of occasions visited %					Number of visits due to substance use* %			
	Median	1	2	3	4 or more	0	1	2	3 or more
Hospital ED/Casualty (n=8)	1 (1-3)	75	13	13	0	100	0	0	0
Hospital Outpatient (n=3)	1 (1-5)	67	0	0	33	100	0	0	0
Hospital Inpatient (n=6)	1 (no range)	100	0	0	0	100	0	0	0
GP visit (n=52)	1 (1-12)	52	33	10	6	60	23	12	6
Pain specialist (n=3)	1 (1-2)	67	33	0	0	67	0	33	0
Cancer specialist (n=2)	1.5 (1-2)	50	50	0	0	100	0	0	0
Other specialist (n=6)	1 (no range)	100	0	0	0	100	0	0	0
Dentist (n=10)	1 (1-6)	80	10	0	10	80	10	10	0
Ambulance (n=5)	1 (no range)	100	0	0	0	80	20	0	0
Psychiatrist (n=5)	1 (no range)	100	0	0	0	100	0	0	0
Psychologist (n=7)	1 (1-2)	86	14	0	0	71	14	14	0
Social/welfare worker (n=8)	1.5 (1-4)	50	38	0	13	63	25	0	13
Drug/alcohol counsellor (n=9)	1 (1-4)	56	11	11	22	0	56	11	33
OST doctor (n=17)	1 (1-2)	77	24	0	0	6	71	24	0
Other (n=2)	1 (no range)	100	0	0	0	100	0	0	0

Source: IDRS participant interviews
*Among those who reported accessing a health service

KE comments

- Although not asked directly about the issues reported above, a number of KE did raise some important health-related issues that are worth considering.
- One KE expressed concern regarding our ageing population, and the impact this will have on long-term methadone/buprenorphine patients (e.g. mobility, cirrhosis of the liver). It was argued that we need to start incorporating this group of people into our general practice services.
- Another KE noted that risky needle exposures have declined. More specifically, it was observed that there were fewer needles in alleyways and more sharp containers being kept in the home. This was thought to be the result of education campaigns and generational change.
- Injecting in prison, and re-occurring infection, was also raised as an issue that needs to addressed – preferably through the introduction of an NSP (although it was recognised that this will be a long process).
- Finally, it was reported that there can be difficulty in getting hepatitis C patients to take up treatment. This is largely due to a misunderstanding of what the treatment entails and the side-effects that it can have, as well having to deal with competing priorities such as homelessness and poor mental health.

7 RISK BEHAVIOURS

Key findings

- Receptive sharing (borrowing) of needles/syringes was reported by 5% of participants in the month preceding interview, typically after a partner or close friend. Sharing of injecting equipment such as mixing containers (e.g. spoons), tourniquets and filters was more common, although there was an overall decrease from 2011.
- Forty-percent of the sample reported re-using their own needles in the last month. Sterile needles and syringes were predominantly obtained from a NSP, although a range of other sources were also used. The majority of participants reported that they had last injected in a private home.
- Almost three-quarters of the sample reported experiencing an injection-related problem in the preceding month – most commonly prominent scarring or bruising and difficulty injecting (e.g. in finding a vein).
- In Australia, hepatitis C (HCV) continued to be more commonly notified than hepatitis B (HBV). The prevalence of human immunodeficiency virus (HIV) among PWID in Australia remained stable and low.

7.1 Injecting risk behaviour

7.1.1 Access to needles and syringes

Participants reported that they had obtained needles and syringes on a median of two occasions in the month preceding interview (range: 0-10; n=84). In addition, the median number of needles and syringes obtained within the preceding two weeks was 50 (range 0-600; n=84), with participants reporting that they had given away or sold a median of 5 needles or syringes (range 0-500; n=85). Fourteen participants reported that they had experienced difficulty in obtaining needles/syringes in the preceding month.

Needle and syringe programs were by far the most common source of needles and syringes in the preceding six months (98%), followed by friends (23%) and NSP vending machines (17%). As can be seen in Table 40, a range of other sources were also used.

Table 40: Main sources of needles and syringes in the preceding six months, 2012

Accessing from (%)	2012 (N=92)
NSP	**98**
NSP vending machine*	**17**
Chemist	**15**
Partner	**5**
Friend	**23**
Dealer	**8**
Hospital	**2**
Outreach/peer worker	**3**

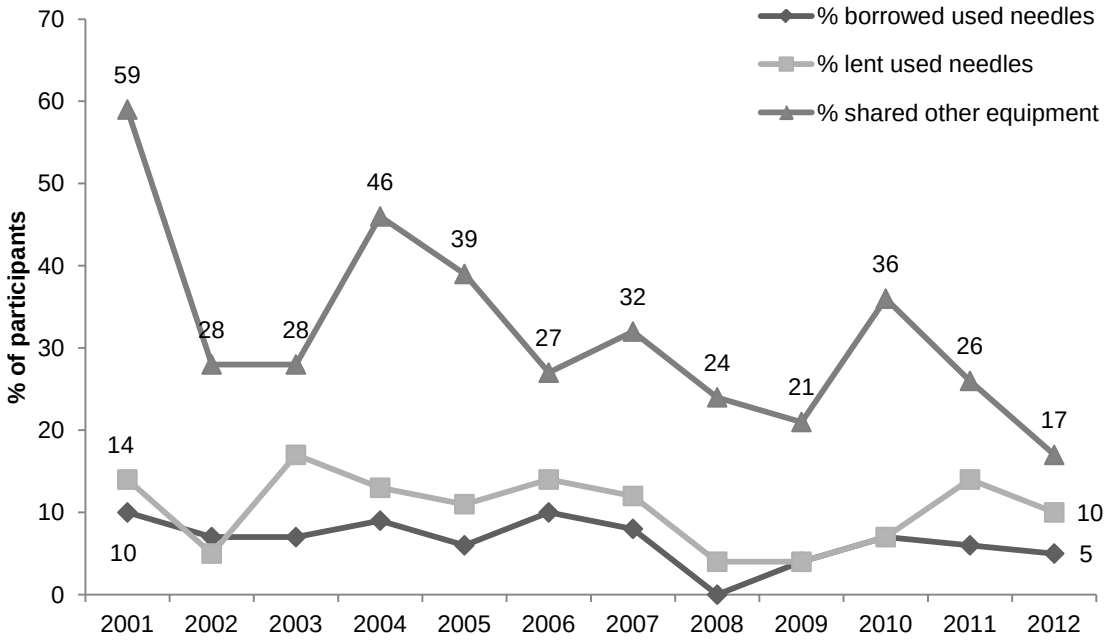
Source: IDRS participant interviews
* Vending machines not available in all jurisdictions
Note: Multiple responses allowed

7.1.2 Sharing of injecting equipment

The sharing of injecting equipment remains an issue of concern due to the risk of transmission of blood-borne viral infections (BBVI) such as human immunodeficiency virus (HIV) and hepatitis C virus (HCV). In 2012, five participants reported that they had used a needle after someone else ('borrowed'). This was stable from 2010 (n=6). Among those who had borrowed a needle in the preceding month, the majority reported doing so on one occasion (n=4; 80%), although one participant reported borrowing needles more than 10 times. In all cases, participants reported that only one person had used a needle before them; this was usually a regular sex partner (n=2) or close friend (n=2), followed by a casual sex partner (n=1).

In comparison, nine participants reported that they had used a needle *before* someone else in the month prior to interview ('lent'); this was stable from 2011 (n=14). However, the number of times these participants had lent a needle to someone was mixed; two reported lending needles on one occasion (22%), three participants had done so on two occasions (33%), one participant had done so 3-5 times (11%) and three participants had lent needles more than 10 times (33%).

Figure 33: Sharing of needles and injecting equipment by participants in the month preceding interview, 2001-2012



Source: IDRS participant interviews

Seventeen percent of the sample reported that they had shared injecting equipment in the preceding month, the details of which are displayed in Table 41. As can be seen, the sharing of all forms of injecting equipment remained relatively stable in 2012, with spoons and torniquets being the commonly shared items.

Table 41: Sharing of injecting equipment (other than needles) among participants in the month preceding interview, 2011-2012

Injecting equipment	2011 (N=100) %	**2012 (N=93) %**
Spoons/mixing container	18	**12**
Filters	5	**8**
Tourniquet	10	**12**
Water	5	**5**
Swabs	0	**1**
Other	0	**0**

Source: IDRS participant interviews
Note: Multiple responses allowed

Re-use of one's own needles (40%) and equipment (55%) was much more common among this sample. Similar to the table above, the most common equipment to be re-used was spoons/mixing containers (n=37) and tourniquets (n=30), followed by water (n=9) and filters (n=5).

7.1.3 Location of injecting

In 2012, the majority of participants reported that the last location in which they had injected drugs was a private home (87%), with small proportions reporting use in public locations (see Table 42). The last location of injecting was unchanged compared to 2011.

Table 42: Location when last injected in the month preceding interview, 2011-2012

Location when injecting %	2011 (n=98)	**2012 (n=91)**
Private home	81	**87**
Street/car park/beach	1	**0**
Car	13	**9**
Public toilet	4	**4**
Other	1	**0**

Source: IDRS participant interviews

Not surprisingly, the majority of participants reported that their last injection 'site' was their arm (80%), followed by their hand (11%).

7.1.4 Self-reported injecting-related health problems

Participants were asked if they had experienced six different injecting-related health problems in the last month (as listed in Table 43). In 2012, 73% of the sample reported experiencing at least one type of injecting-related health problem in the month prior to interview. By far the most commonly experienced problems were prominent scarring or bruising around the injection site (49%), difficulty injecting (47%) and a dirty hit (37%); all of were stable from 2011.

Table 43: Injecting-related health problems experienced in the month preceding interview, 2011-2012

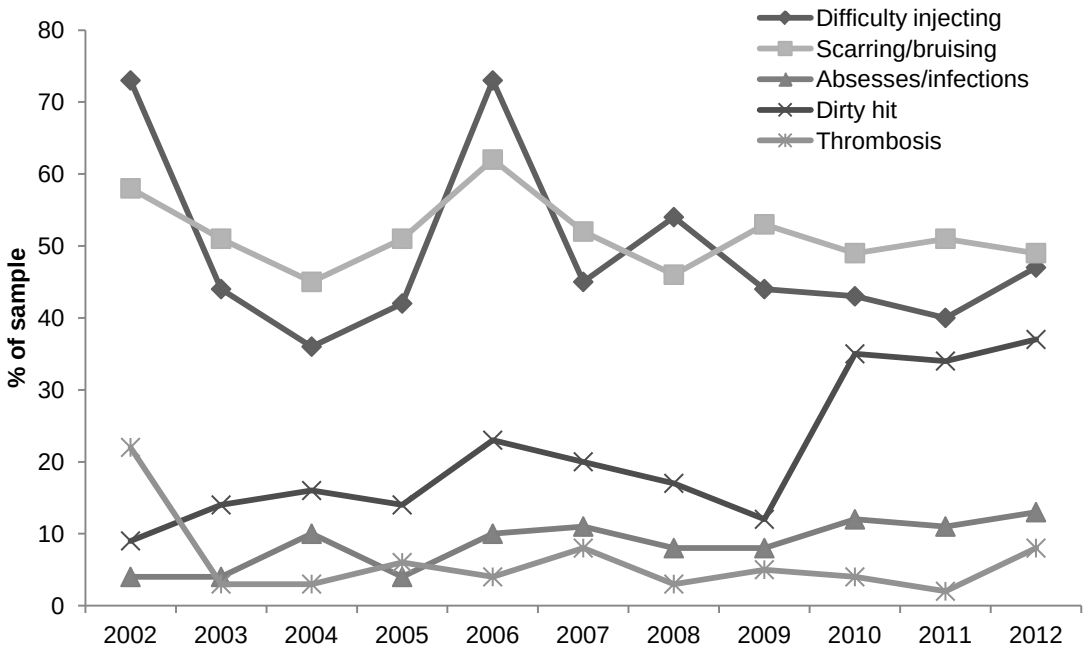
Reported injection related health problems %	2011 (n=99)	**2012 (n=92)**
Overdose	8	**8**
Dirty hit	34 (n=93)	**37 (n=90)**
Abscesses/infections	11	**13**
Prominent scarring/bruising	51	**49**
Difficulty injecting	40	**47**
Thrombosis	2	**8**
Any problems (%)	72	**73**
Total median score*	2	**2**

Source: IDRS participant interviews
*Among those who reported an injection-related problem

Among those who had overdosed in the last month (n=7), heroin and other opiates were most commonly reported as the main drugs they had overdosed on. Those experiencing a dirty hit (n=34) most commonly attributed it to the injection of methamphetamine (n=41%), followed by heroin (29%), methadone (9%), morphine (9%) and oxycodone (6%).

Figure 34 depicts the long-term trends for experience of injection-related problems since 2002. Experience of thrombosis remained stable and still remains relatively low compared to the level of incidence reported in 2002. Reports of difficulty injecting and prominent scarring and bruising resulting from injection practices have remained high, with 2012 reports similar to previous years. Reports of a dirty hit remained stable in 2012 and remains far higher than reported throughout 2002-09.

Figure 34: Experience of injection-related problems by participants in the month preceding interview, 2002-2012



Source: IDRS participant interviews

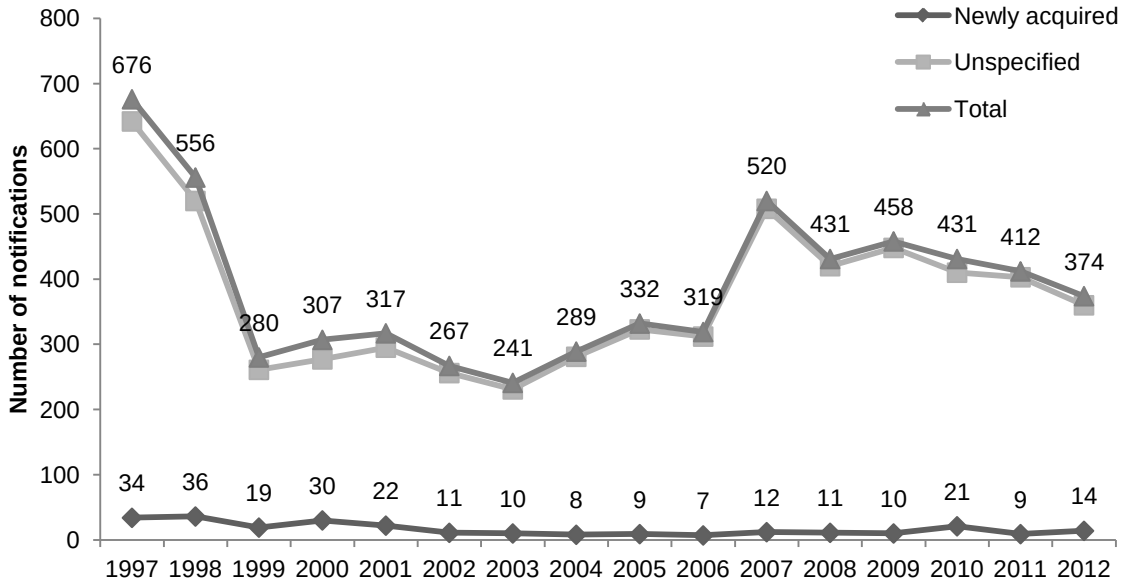
7.2 Blood-borne viral infections (BBVI)

PWID are at significantly greater risk of acquiring HBV, HCV[4] and HIV because BBVI can be transmitted via the sharing of needles, syringes and equipment.

Figure 35 and Figure 36 present the total number of notifications for HBV and HCV in Australia from the Communicable Diseases Network – NNDSS. Incident or newly acquired infections, and unspecified infections (i.e. where the timing of the disease acquisition is unknown), are presented. In 2012, HCV continued to be more commonly notified than HBV, although the gap between the two is narrowing. In 2012, there was a decline in HBV notifications, continuing a downward trend that has been observed from 2007-2012. HCV notifications are also continuing to decrease slightly, with 2012 marking the lowest number of HCV infections ever recorded.

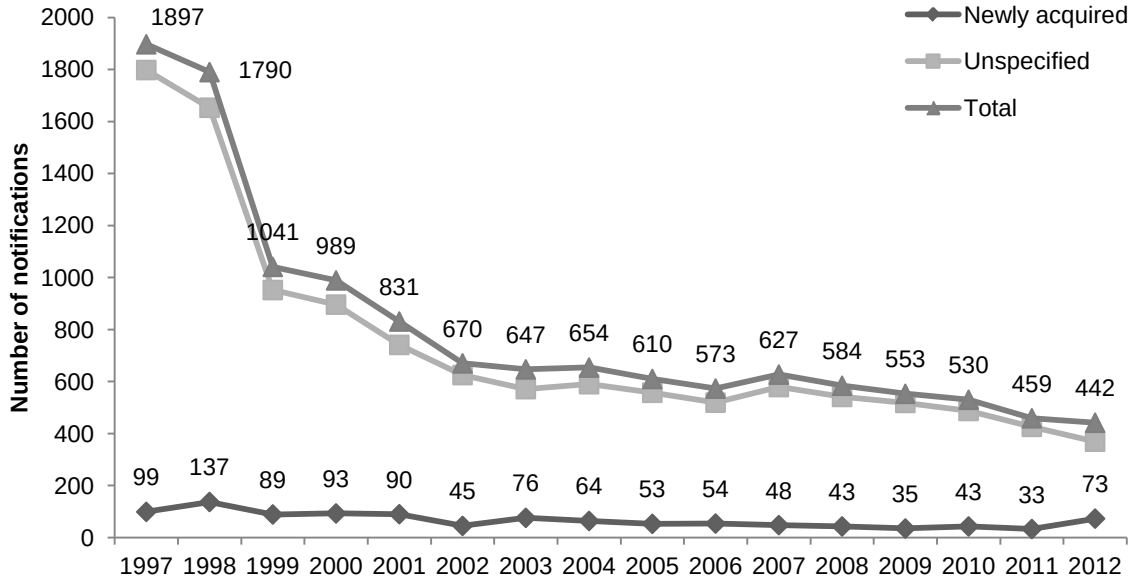
[4] HCV antibody testing has only been available since 1990.

Figure 35: Notifications for HBV infections, South Australia, 1997-2012



Source: National Notifiable Diseases Surveillance System – NNDSS

Figure 36: Notifications for HCV infections, South Australia 1997-2012



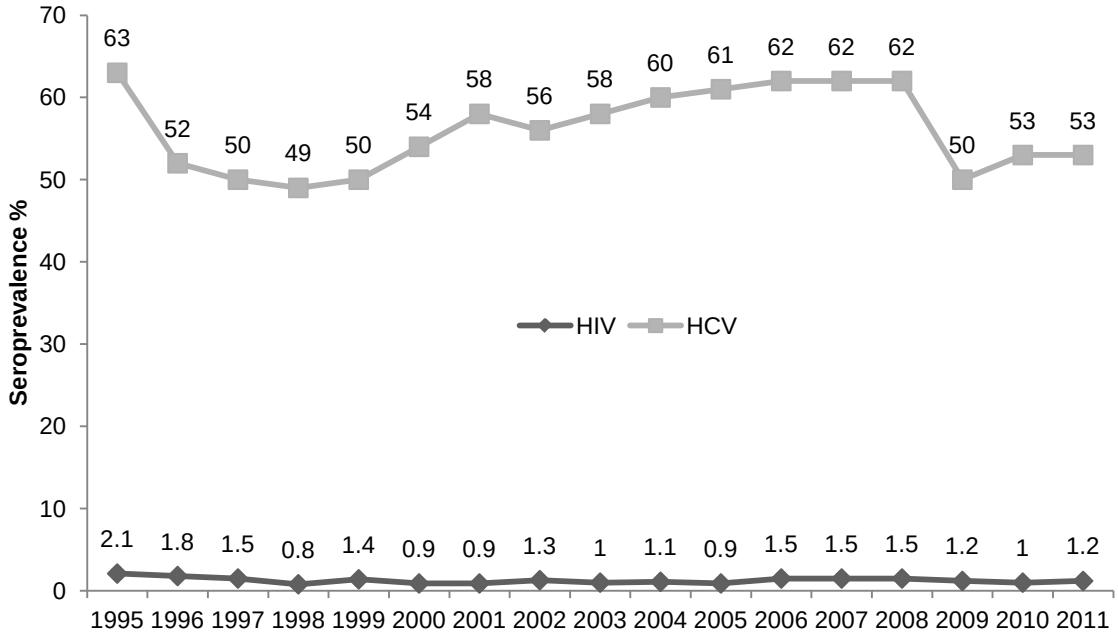
Source: National Notifiable Diseases Surveillance System – NNDSS [5]
Note: Data accessed on 31 January 2012. Figures are updated on an ongoing basis

In 2011, the prevalence of HIV among PWID in Australia continued to be low at 1.2%. This has remained stable over the past decade (Figure 37). HCV prevalence among this

[5] Notes on interpretation: There are several caveats to the NNDSS data that need to be considered. As no personal identifiers are collected, duplication in reporting may occur if patients move from one jurisdiction to another and are notified in both. In addition, notified cases are likely to only represent a proportion of the total number of cases that occur, and this proportion may vary between diseases, between jurisdictions, and over time.

group was much higher at 53%. This was stable from 2010 and remains substantially lower than found in 2008.

Figure 37: HIV and HCV seroprevalence among participants recruited for the Australian NSP Survey, 1995-2011



Source: Australian NSP survey (Kirby Institute 2012; National Centre in HIV and Epidemiology Clinical Research, 2007, 2009[6])

[6] Respective sample sizes for the NSP Survey were: 2000: 2,694; 2001: 2,454; 2002: 2,445; 2003: 2,495; 2004: 2,035; 2005: 1,800; 2006: 1,961; 2007: 1,912; 2008: 2,270; 2009: 2,697.

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH DRUG USE

Key findings

- Self-reported criminal activity remained stable in 2012, with drug dealing being the most commonly reported crime.
- The proportion of the sample who had been arrested in the preceding 12 months declined slightly to 30%.
- The median expenditure on illicit drugs the day before interview was $100.
- Driving a car while under the influence of alcohol was reported by 19% of participants who had driven in the preceding six months. Eighty-one percent reported driving under the influence of an illicit drug during that time, mainly methamphetamines, heroin and cannabis.

8.1 Reports of criminal activity among participants

In 2012, approximately one-third of the sample (36%) reported involvement in any type of crime during the last month, stable from 2011 (32%). Similarly, the proportion of participants who reported being arrested in the 12 months prior to interview also remained relatively stable at 30% – compared to 38% in 2011 (see Table 44). The most commonly reported types of crime were the same as for 2011, with participants primarily reporting involvement in drug dealing (25%), followed by property crime (18%) and, to a lesser extent, fraud (3%) and violent crime (2%). The number of participants who reported having ever been in prison remained stable compared to 2011 (50% and 48% respectively).

Table 44: Criminal activity as reported by participants, 2011-2012

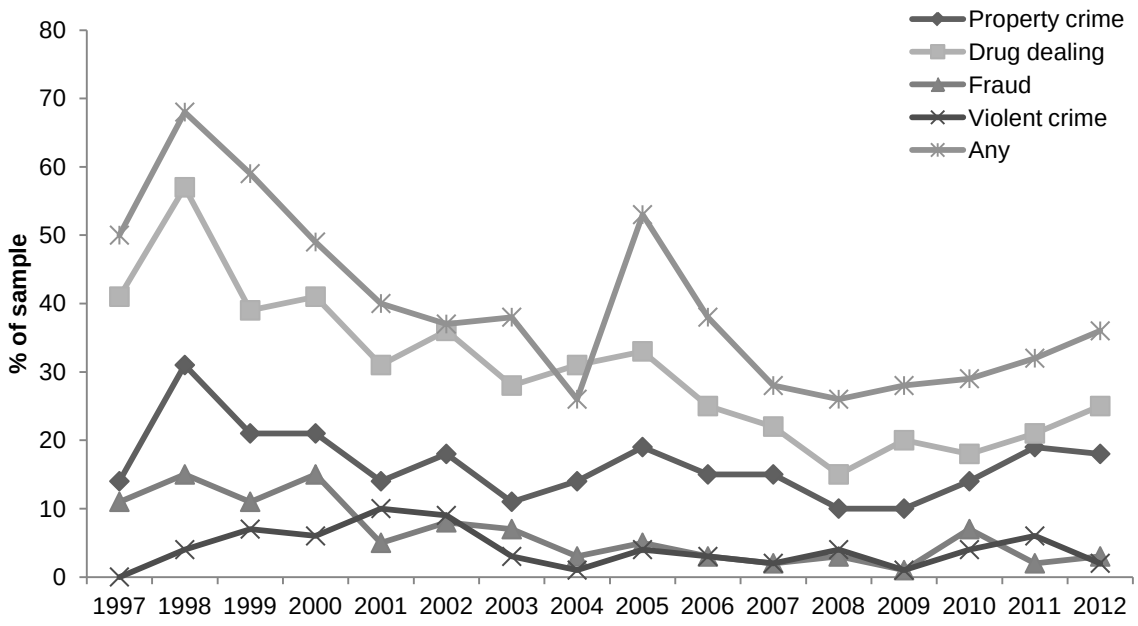
Criminal behaviour (%)	2011 (n=100)	**2012 (n=93)**
Criminal activity in last month		
Property crime	19	**18**
Drug dealing	21	**25**
Fraud	2	**3**
Violent crime	6	**2**
Any crime	*32*	***36***
Arrested in last 12 months	38	**30**
Ever in prison	(n=82) 48	**(n=91)** **50**

Source: IDRS participant interviews

Of the 27 participants who had been arrested in the preceding 12 months, the most common reasons for arrest were driving offences (n=9) and property crime (n=8). Small numbers reported being arrested for a violent crime (n=2), breaching an Apprehended Violence Order (AVO) (n=2), fraud (n=1) and drug driving (n=1).

Figure 38 shows the long-term trends in criminal activity, by offence type, from 1997 onwards. It can be seen that there was a steady decline in any criminal activity from 1998 to 2004. After a peak in 2005, criminal activity started to decline again and has remained relatively stable from 2007-2012. The two most prominent types of criminal activity across all years are drug dealing followed by property crime – although the gap between the two offences has decreased over time. Fraud and violent crime remain low.

Figure 38: Self-reported involvement in crime, by offence type, in the month prior to interview, 1997-2012



Source: IDRS participant interviews

8.1.1 Heroin

Thirty-five percent of participants who had recently used heroin (n=48) reported being arrested in the 12 months prior to interview. Over one-third of recent heroin users reported that they had engaged in criminal activity in the month preceding interview (38%), with the most common offences being dealing for cash profit (23%) or property crime (21%), followed by violent crime (4%; n=2) and fraud (2%; n=1).

8.1.2 Methamphetamine

Thirty-six percent of participants who had recently used methamphetamine (n=72) reported being arrested in the 12 months prior to interview. Forty-three percent of recent methamphetamine users reported that they had engaged in criminal activity in the month preceding interview, with the most common offence being dealing for cash profit (31%), closely followed by a property offence (22%), fraud (4%) and violent crime (3%).

8.2 Arrests

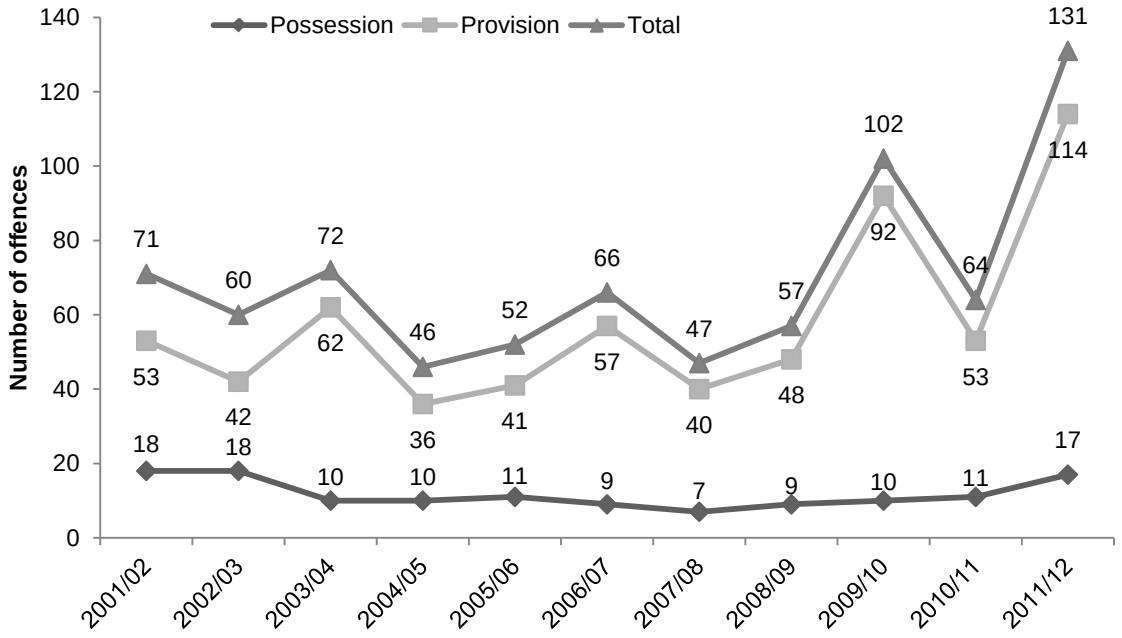
8.2.1 Heroin

The total number of illicit drug-related possession and provision offences for 2011/12 was 3,068 which was stable from 2010/2011 (2,869 in 2009/10; 2,830 in 2008/09; 2,493 in 2007/08; 2,394 in 2006/07; 2,687 in 2005/06; 2,320 in 2004/05; 2,985 in 2003/04) (South Australia Police, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012). The

'possession/use' category will continue to be affected by the introduction of SAPOL's Police Drug Diversion Initiative in 2001.

The number of heroin possession/use and provision offences (incorporating import/export drugs, sell/trade drugs, produce/manufacture drugs categories), reported or becoming known to police from 2001/02 to 2011/12 (as reported by SAPOL) is presented in Figure 39. As can be seen, there was an increase in the number of provision offences for heroin from 2010/11 to 2011/12 (from 53 to 114 offences), while possession/use offence numbers remained stable. In regards to the trend over a longer period, total heroin-related possession and provision offences have fluctuated across the years. Heroin possession and provision offences made up 4.3% of the total number of illicit drug possession and provision offences in 2011/12, which indicates an increase compared to 2010/11 (2.1%).

Figure 39: Number of heroin-related offences reported by SAPOL, 2001/02-2011/12

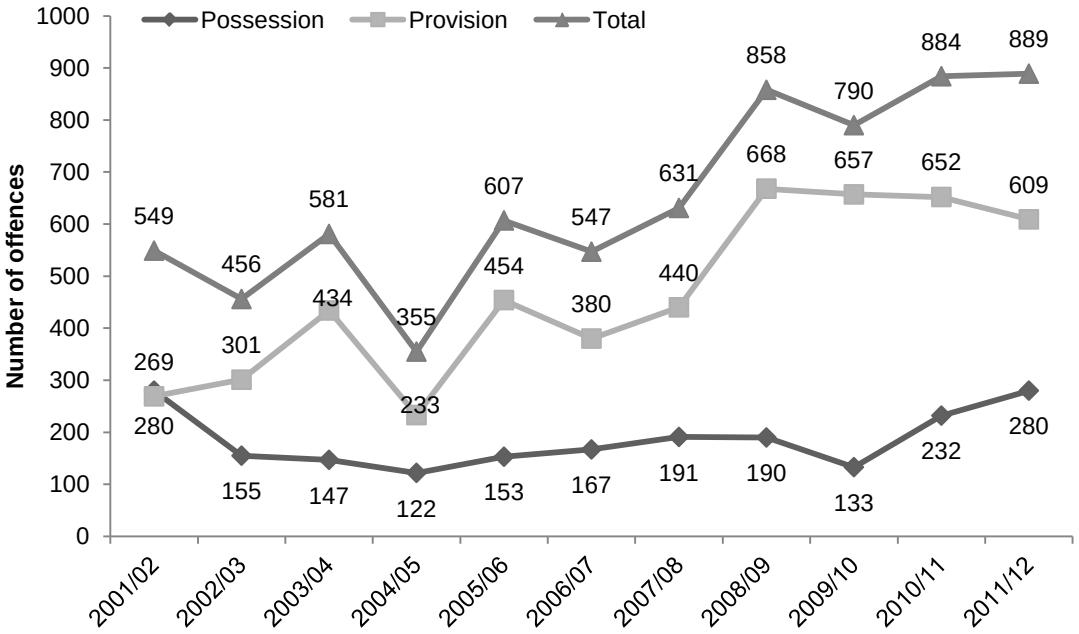


Source: South Australia Police, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

8.2.2 Methamphetamine

Figure 40 presents the number of amphetamine possession/use and provision (incorporating the categories of import/export drugs, sell/trade drugs, and produce/manufacture drugs) offences reported or becoming known to police from 2001/02 to 2011/12 (South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012). As can be seen, in 2011/12 the number of amphetamine possession offences recorded (280) increased slightly compared to 2010/11 (232), whilst the number of provision offences declined slightly (from 652 offences in 2010/11 to 609 in 2011/12). Amphetamine possession and provision offences made up 29% of the total number of illicit drug possession and provision offences in 2011/12, which was stable from 2010/11 (29%).

Figure 40: Number of amphetamine-related offences reported by SAPOL, 2001/02-2011/12

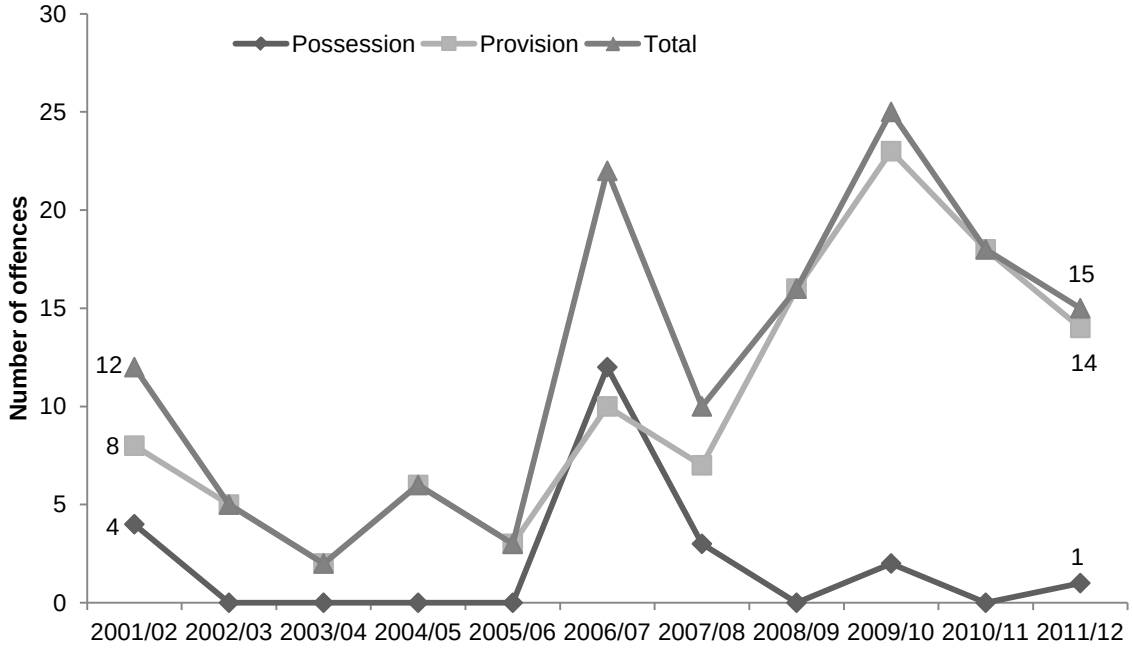


Source: South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012
Note: SAPOL Annual Reports only refer to amphetamines and do not distinguish between amphetamine and methamphetamine

8.2.3 Cocaine

Figure 41 presents the number of cocaine possession/use and provision (incorporating the categories of import/export drugs, sell/trade drugs, produce/manufacture drugs) offences reported or becoming known to police from 2001/02 to 2011/12 (South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012). As can be seen, there was one cocaine possession offence in 2011/12. The number of provision offences was stable at 14 (compared to 18 in 2010/11). Cocaine possession and provision offences in 2011/12 continued to make up less than 1% of all offences, as has been the case in all years depicted.

Figure 41: Number of cocaine-related offences reported by SAPOL, 2001/02-2011/12

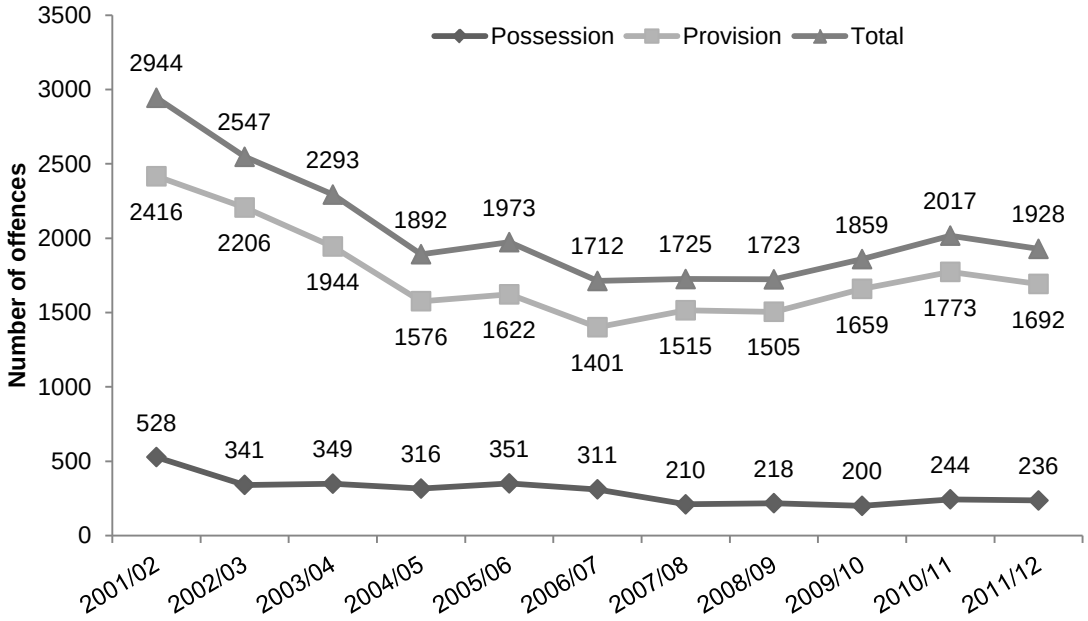


Source: South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

8.2.4 Cannabis

Figure 42 presents the number of cannabis possession/use offences and provision (incorporating import/export drugs, sell/trade drugs, produce/manufacture drugs categories) offences reported or becoming known to police from 2001/02 to 2011/12 (South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012). As can be seen, the number of cannabis possession offences remained stable in 2011/12 (236 vs. 244 in 2010/11); whilst there was a decrease in the number of provision offences (from 1,773 offences in 2010/11 to 1,692 offences in 2011/12). Historically, cannabis-related offences have made up the majority of illicit drug possession and provision offences and they continued to do so in 2011/12, with 63% of the total number of offences being cannabis-related. This proportion remained stable compared to 2010/11 (66%).

Figure 42: Number of cannabis-related offences reported by SAPOL, 2001/02-2011/12



Source: South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

8.3 Expenditure on illicit drugs

Forty-three participants had purchased illicit drugs on the day prior to interview. Among these participants, the median amount spent on illicit drugs was $100 (range: $2-2,000; n=43). This was stable from 2011 ($100; range: $5-500; n=50). Table 45 presents the breakdown of the amounts spent on illicit drugs (i.e., excluding alcohol, tobacco and licit supplies of prescription medications) by the whole sample on the day before interview. As can be seen, the categories of expenditure remained stable in 2012.

Table 45: Expenditure on illicit drugs on the day preceding interview, 2011-2012

Expenditure (%)	2011	2012
	(n=100)	(n=93)
Nothing	50	**54**
Less than $20	2	**2**
$20-49	7	**2**
$50-99	12	**8**
$100-199	17	**19**
$200-399	9	**14**
$400 or more	3	**1**
Median expenditure* ($)	$100	**$100**

Source: IDRS participant interviews
*Among those who had spent money on drugs

8.4 Driving risk behaviour

8.4.1 Self-report data for driving under the influence of alcohol and illicit drugs

Fifty-four participants reported that they had driven a vehicle in the six months prior to interview ('recent drivers'). Among these participants, 19% (n=10) reported driving under the influence of alcohol and 6% (n=3) had driven over the blood alcohol concentration limit. Those who reported driving over the limit had done so on a median of six occasions (range 2-10).

Eighty-one percent of recent drivers (n=43) reported driving after the consumption of illicit drugs in the six months prior to interview, and they had done so on a median of 18 occasions (range 1-180). In addition, 19% of drug drivers (n=8) reported driving under the influence of drugs on a daily basis. Methamphetamine (any form) was the most common drug involved in drug driving episodes (54%; n=23), followed by heroin 35%, n=15) and cannabis (33%; n=14). Sixteen percent of drug drivers reported that they had driven under the influence of morphine and 14% had driven under the influence of oxycodone; smaller numbers reported driving under the influence of other substances (see Table 46).

Table 46: **Driving behaviour by jurisdiction, 2011-2012**

	2011 (n=100)	**2012 (n=93)**
Driven in the last six months (n)	58 (n=100)	**54 (n=92)**
Driven under the influence of alcohol last six months* (%)	12	**19**
Driven while over the limit of alcohol# (%)	57	**38**
Driven soon after using an illicit drug(s) last six months* (%)	85	**81**
Drug(s) taken prior to driving (%)**	(n=49)	**(n=43)**
Heroin	57	**35**
Methadone	6	**7**
Buprenorphine	2	**0**
Bup-naloxone	0	**5**
Morphine	6	**16**
Oxycodone	4	**14**
Speed	18	**19**
Base	18	**16**
Ice/crystal	29	**30**
Any methamphetamine	*51*	***54***
Cocaine	0	**0**
Benzodiazepines	4	**7**
Cannabis	31	**33**

Source: IDRS participant interviews
*Among those who had driven a car in the last six months
#Among those who had driven while under the influence of alcohol
**Among those who had driven soon after taking a drug. Refers to drug driving episodes within the six months preceding interview

The *last* time participants drove under the influence of any illicit drug, methamphetamine (any form) was the most commonly used drug (44% n=19), followed by heroin (28%, n=120) and cannabis (21%, n=9) (see Table 47). The median amount of time between consumption and operation of a motor vehicle was 20 minutes (range=0-180 minutes), with the majority (72%; n=31) reporting that the use of illicit drugs had had no impact upon their ability to drive. Fourteen percent (n=6) reported that when driving under the influence of drugs they felt their driving ability was impaired, whilst 14% (n=6) reported that their driving had improved slightly as a result of using illicit drugs.

In 2012, participants were asked a number of additional questions regarding roadside drug testing and its impact upon their behaviour. When asked about future drug driving, participants reported that they would probably drug drive on a median of 11 times over the next six months (range: 0-180). Twenty-one participants reported that the introduction of roadside drug testing had changed their driving behaviour such that they didn't drive after using drugs (n=17) or would organise for someone else to drive/take public transport (n=4). Additionally, when asked about the probability of getting caught, participants believed that out of next 100 people who were to drive after taking drugs, a median of 20 people (range 1-100) would get caught.

Table 47: Illicit drugs involved in most recent drug driving episode, 2011-2012

DRUG (%)	2011 (n=49)	**2012 (n=43)**
Cannabis	22	**21**
Heroin	55	**28**
Methadone**	2	**2**
Buprenorphine**	0	**0**
Morphine**	2	**14**
Benzodiazepines**	2	**2**
Methamphetamine – powder	14	**12**
Methamphetamine – base	10	**12**
Methamphetamine – crystal	25	**21**
*Any methamphetamine^*	*41*	***44***
Cocaine	0	**0**
LSD	0	**0**
Ecstasy	0	**0**

Source: IDRS participant interviews
**Refers to illicit use of these substances
^Includes powder, base and crystal forms
Note: Recent use means in the six months preceding interview

For further information regarding the driving practices of PWID in SA, please refer to: Sutherland, R & Burns, L. (2011). *Driving behaviours among people who inject drugs in South Australia, 2006-2011.* Drug Trends Bulletin, December 2011. Sydney: National Drug and Alcohol Research Centre, University of New South Wales, http://ndarc.med.unsw.edu.au/sites/all/shared_files/ndarc/resources/IDRS%20Bulletin%20Dec11.pdf

9 SPECIAL TOPICS OF INTEREST

Key findings

Fagerstrom test for nicotine dependence

- Among those who smoked daily, half reported having their cigarette within the first five minutes of waking.
- Fifty-five percent of daily smokers reported smoking between 11-20 cigarettes a day.
- Thirty-six percent of daily smokers found it difficult to refrain from smoking in forbidden places.
- Almost two-thirds reported that they would hate giving up the first cigarette in the morning.
- Nearly half of daily smokers scored 6 or above indicating high/very high nicotine dependence. The mean Heavy Index Score was 5.0.

Pharmaceutical opioids

- Sixty percent of the sample had recently used pharmaceutical opioids.
- The most common reasons for the use of pharmaceutical opioids were pain relief and to treat drug dependence.
- Twenty-seven percent of those who commented reported being refused pharmaceutical medications due to injecting history.
- Of those who commented, 50% were prescribed pharmaceutical opoiods for pain relief in the preceding six months.

Brief Pain Inventory

- Forty-two percent of PWID experienced pain (other than everyday pain) on the day of interview; this was most commonly non-cancer pain (80%), followed by acute pain (21%).
- The mean 'pain severity score' was 4.7, with 41% scoring 5 or more and 3% scoring 10.
- The mean 'pain interference score' was 4.6, with just over one-third scoring 5 or more.
- The mean score for 'relief from pain medication' was 5.5, with 60% scoring 5 or more and 15% scoring 10.
- Of those who had experienced pain, 44% reported trouble obtaining pain relief medication in the last six months.

Opioid and stimulant dependence

- Of those who recently used a stimulant drug (mainly methamphetamine) and commented, the median SDS score was 3.0, with 45% scoring four or above.
- Of those who recently used an opioid drug and commented, the median SDS score was 8.0, with 74% scoring five or above.

Neurological history

- Life prevalence of epilepsy and cerebrovascular disease (e.g. stroke) was higher in the IDRS sample than the general population
- Forty-three percent of the IDRS sample reported a lifetime history of a traumatic brain injury on a median of 1.5 occasions.
- The median age of most severe traumatic brain injury was 25 years.
- One-quarter of the group reported being under the influence of alcohol and 16% were under the influence of at least one drug at the time of injury

OST injection

- Thirteen percent of PWID reported recently injecting methadone, 10% buprenorphine-naloxone 'film', 7% buprenorphine and 7% buprenorphine-naloxone 'tablet'.
- Fifty-eight percent of those who injected methadone reported using their own medication the last time they injected; this compares to 17% for buprenorphine, and 50% and 43% for buprenorphine-naloxone 'tablet' and 'film' respectively.

Injection-related injuries and diseases

- The IDRS gathered information on injection-related injuries and diseases which was then compared to the IRID project.
- The most common injection-related injury reported ever by the IDRS sample and in the IRID project was a dirty hit (74% and 68% respectively).
- In the last six months, the most common injection-related injuries or diseases reported by the IDRS sample was redness near the injection site (39%).

Possession laws

- The majority of PWID (87%) believed the quantity of drugs caught with would affect the type of charge they received.
- Among those participants who were able to comment, the perceived trafficking threshold for heroin and methamphetamine was a median 2 grams, which is consistent with the actual threshold.

9.1 Fagerstrom test for nictone dependence

In 2012, participants who smoked daily were asked the Fagerstrom test for nicotine dependence (FTND). These questions included: 'How soon after waking do you smoke your first cigarette?'; 'Do you find it difficult to refrain from smoking in places where it is forbidden?'; 'Which cigarette would you hate to give up?'; 'How many cigarettes a day do you smoke?'; Do you smoke more frequently in the morning?'; and 'Do you smoke even when you are sick in bed?'.

The FTND gives a score between zero and 10. The responses were then scored on a four category scheme (0,1,2,3) for both time to the first cigarette of the day (≤5, 6-50, 31-60 and 61+ min) and average daily consumption of cigarettes (1-10, 11-20, 21-30, 31+ cigarettes). The remaining questions were scored either 0 or 1. The sum of these scores was computed and a cut-off score between 6 and 8 was used to indicate 'high' nicotine dependence. A score of 8 or more was used to indicate 'very high' nicotine dependency (Heatherton et al., 1991)
http://www0.health.nsw.gov.au/factsheets/general/nicotinedependence.html

As seen in Table 48, over half of the SA sample who commented (53%) reported smoking their first cigarette within five minutes of waking and one-third (29%) between five to 30 minutes of waking. Fifty-five percent of daily smokers reported smoking between 11-20 cigarettes a day and 23% smoked 10 or less cigarettes a day.

Thirty-six percent of daily smokers reported that they find it difficult to refrain from smoking in forbidden places such as a library, and 60% reported that they would hate to

give up the first cigarette in the morning compared to other times of the day. Over a third reported smoking more often in the morning (36%) and when in bed when sick (41%). The mean FTND score was 5.0 (SD=2.4). Thirty-three percent of the daily smokers scored between 6 and 8 on the FTND indicating 'high' nicotine dependence. Twelve percent scored 8 or more on the FTND indicating 'very high' nicotine dependence.

Table 48: Fagerstrom test for nicotine dependence, 2012

	National	SA
Time till first cigarette	n=793	**n=83**
Within 5 minutes (%)	48	**53**
5-30 mins (%)	32	**29**
31-60 mins (%)	10	**6**
60+ mins (%)	11	**12**
Number of cigarettes smoked a day	n=791	**n=83**
10 or less cigarettes (%)	30	**23**
11-20 cigarettes (%)	46	**55**
21-30 cigarettes (%)	19	**16**
31 or more cigarettes (%)	6	**6**
Experienced difficulty refraining from smoking in forbidden places (%)	38	**36**
Would hate to give up first cigarette in the morning (%)	62	**60**
Smoke when sick in bed (%)	49	**41**
Smoke more often in the morning (%)	43	**36**
Dependence* (%)	n=784	**n=82**
High	31	**33**
Very high	15	**12**
Mean score	5.0	**5.0**

Source: IDRS participant interviews
* Scored 6 or above

9.2 Pharmaceutical opioids

Since the heroin shortage (2001), the Illicit Drugs Reporting System (IDRS) has noted an increase in the use and injection of morphine and oxycodone. Over the same period the age of people who inject drugs (PWID) has also increased. The Australian Needle and Syringe Program (NSP) survey (Kirby Institute, May 2011) noted similar findings over the same period. We know from a number of Australian and international studies that PWID experience excess morbidity and mortality when compared to those in the general population (English et al., 1995; Hulse et al., 1999; Randall et al., 2001; Vlahov et al., 2004) and that prescribers are often reluctant to prescribe opioid analgesics to people with a history of injecting drug use (Merrill and Rhodes, 2002; Baldacchino et al., 2010). This section aimed to examine the complex interplay among PWID, pain management and the extra-medical use of pharmaceutical opioids (PO).

In 2012, participants in the IDRS were asking questions about the use of PO and pain. Pharmaceutical opioids included methadone, buprenorphine, buprenorphine-naloxone, morphine, oxycodone, and other PO such as fentanyl, pethidine and tramadol. Of the SA sample, 60% (n=56) reported the use of PO in the last six months (Table 49). Among those who had recently used PO and commented (n=51), 33% reported that morphine

(MS contin® or Kapanol®) was their pharmaceutical of choice, followed by Oxycontin® (oxycodone) (24%).

Among those who recently used PO (n=51), 55% reported using them for pain relief, 43% to treat self-dependence and 31% to seek an opioid effect. Participants were asked if they were refused PO medications for pain due to injecting history. Of those who commented (49), 27% reported 'yes' and 27% 'hadn't sought pain relief' (Table 49).

Among those who sought pain relief (n=36), half (50%) reported being prescribed PO for pain relief. Participants were then asked to rate on a scale of zero (not taken pharmaceutical last week) to 10 (complete relief) how much pain relief the pharmaceutical opioids had provided in the last week. Of those who commented (n=24), the median score was 7 (mean 5.7, SD=3.0) with a range from zero to 10.

Participants were then asked if they had sold, traded or given away any pharmaceutical opioids in the last six months. Of those who commented (n=53), two participants reported selling, trading or giving away methadone and suboxone, respectively.

Among those participants who had recently injected a pharmaceutical opioid (n=34), 29% hadn't obtained any information about filtering; 35% received information about filtering from an NSP and 12% received information about filtering through a peer run user group (Table 49).

Table 49: Pharmaceutical opioids use among people who inject drugs, 2012

	National	SA
Used pharmaceutical opioids in the last 6 months (%)	74	**60**
Reason for using pharmaceutical opioids* (%)	N=674	**n=51**
Treat self-dependence	48	**43**
Seek an opioid effect	25	**31**
Pain relief	35	**55**
Know what dose to expect	7	**20**
Cheaper than heroin	14	**25**
Current heroin purity	4	**14**
Couldn't score heroin	9	**12**
Safer than heroin	7	**16**
Refused pharmaceutical opioids medications for pain due to injecting history (%)	N=665	**n=49**
Yes	21	**27**
Haven't sought pain relief	33	**27**
No, concealed injecting history	3	**2**
No	43	**45**
Prescribed pharmaceutical opioids[#] (%)	N=448	**n=36**
For pain last six months	41	**50**
Sourced information about filtering[##] (%)	N=512	**n=34**
Haven't obtained any information	34	**29**
NSP	40	**35**
Friends	14	**9**
Other	12	**27**

Source: IDRS participant interviews
* Among those who recently used. Multiple responses were allowed
[#] Among those who sought pain relief
[##] Among those who recently injected a pharmaceutical opioid

9.3 Brief Pain Inventory

In 2012, the Brief Pain Inventory (BPI) was asked to examine the association between injecting drug use and the legitimate therapeutic goals of pharmaceutical opioids (e.g. pain management). Comparisons between PWID and the general population, both in Australia and internationally, have consistently shown excess mortality and morbidity (English et al., 1995; Hulse et al., 1999; Vlahov et al., 2004) yet there is no current evidence in Australia on the characteristics or the extent to which PWID obtain pharmaceutical opioids (licitly or illicitly) for the management of chronic non-malignant pain. Furthermore, there is growing evidence that prescribers are often reluctant to prescribe pharmaceutical opioids to people with a history of injecting drug use (Baldacchino et al., 2010). This module seeks to examine the complex interplay among PWID, pain management and the extra-medical use of pharmaceutical opioids among a sample of PWID and specifically address the issue of access to, and distribution of, PO by PWID.

The BPI is a tool used for the assessment of pain in both clinical and research settings. The BPI uses rating scales from 0 to 10. For questions 3 to 6, 0 is 'no pain' and 10 is 'pain as bad as you can imagine'. The mean of questions 3 to 6 is then calculated to make the 'pain severity score'. For questions 9A to 9G, 0 is 'Does not interfere' and 10 is 'Completely interferes'. The mean of questions 9A to 9G is then calculated to make the 'pain interference score'. The 'pain interference score' looks at how much pain interferes with daily activities: general activity, mood, walking, normal work, relations, sleep and enjoyment of life.

As can be seen in Table 50, 42% of the SA sample experienced pain (other than everybody pain) on the day of interview. Of those who experienced pain, the majority (80%) reported the pain as chronic non-cancer pain (continuous pain which lasts for more than three months), while 21% reported acute pain. The mean 'pain severity score' was 4.7 (SD 1.9; range 1-10), with 41% scoring 5 or more and 3% scoring 10. The mean 'pain interference score' was 4.6 (SD 2.1; 0-9), with just over one-third (36%) scoring 5 or more.

Participants were also asked on a scale of 0 to 10 (0=no relief, 10=complete relief) how much relief they experienced from any treatments/medications they received in the past 24 hours. Of those who received treatment/medication for pain (n=20), a mean score of 5.5 (SD 3.3; range 0-10) was reported. Over half (60%) scored 5 or more and 15% scored 10.

Participants were then asked if they had any trouble obtaining sufficient pain relief from a doctor or specialist. Of those who experienced pain, around half (44%) reported trouble obtaining pain relief from a doctor or specialist in the last six months. Participants were also asked if they informed the doctor or specialist about their drug use when requesting pain relief in the last six months. Of those who commented (n=35), 31% reported 'no', 40% reported 'yes', 14% reported 'yes, but not all use' and 14% reported that the 'doctor already knew' (Table 50).

Table 50: Brief Pain Inventory (BPI) among PWID who commented, 2012

	National N=924	**SA n=93**
Experienced pain today (other than everyday pain) (%)	34	**42**
Nature of pain (%)	N=314	**n=39**
Acute/short term	16	**21**
Chronic non-cancer pain	73	**80**
Chronic cancer/malignant pain	9	**0**
Other	2	**0**
Mean 'Pain Severity' score	4.7	**4.7**
Mean relief experience from treatment/medications*	4.7	**5.5**
Mean 'Pain Interference' score	5.2	**4.6**
Trouble obtaining pain relief from doctor last 6 months (%)	52	**44**
Told doctor about drug use when requested pain relief (%)	N=272	**n=35**
No	37	**31**
Yes	37	**40**
Yes, but not all use	11	**14**
Doctor already knew	15	**14**

Source: IDRS Injecting drug user interviews
* among those who received treatment/medication for pain and commented

9.4 Opioid and stimulant dependence

Understanding whether participants are dependent is an important predictor of harm, and typically demonstrates stronger relationships than simple frequency of use measures.

In 2012, the participants in the IDRS were asked questions from the Severity of Dependence Scale (SDS) for the use of stimulants and opioids.

The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. The SDS focuses on the psychological aspects of dependence, including impaired control of drug use, and preoccupation with and anxiety about use. The SDS appears to be a reliable measure of the dependence construct. It has demonstrated good psychometric properties with heroin, cocaine, amphetamine, and methadone maintenance patients across five samples in Sydney and London (Dawe et al., 2002).

Previous research has suggested that a cut-off of 4 is indicative of dependence for methamphetamine users (Topp and Mattick, 1997) and a cut-off value of 3 for cocaine (Kaye and Darke, 2002). No validated cut-off for opioid dependence exists; however, researchers typically use a cut-off value of 5 for the presence of dependence.

Of those who had recently used a stimulant and commented (n=73), the median SDS score was 3 (mean 3.6, range 0-12), with 45% scoring 4 or above. There were no significant differences regarding gender and mean stimulant SDS score, or regarding gender and those who scored 4 or above. Of those who scored 4 or above (n=33), 94% reported specifically attributing responses to methamphetamines, and 3% attributed their responses to cocaine.

Of those who had recently used an opioid and commented (n=65), the median SDS score was 8 (mean 7.3, range 0-15), with 74% scoring 5 or above. There were no significant differences regarding gender and mean opioid SDS score, or regarding gender and those who scored 5 or above. Of those who scored 5 or above (n=42), 57% reported specifically attributing their responses to heroin, 19% to morphine, 19% to methadone, 5% to buprenorphine, 5% to oxycodone and 7% to other.

9.5 OST medication injection

Due to the introduction of buprenorphine-naloxone film in 2011, questions were included in the 2012 IDRS survey asking about the recent injection (last six months) of opioid substitution treatment (OST) medications (methadone, buprenorphine and buprenorphine-naloxone).

Of the SA sample, 13% of participants reported recently injecting methadone, 7% reported recently injecting buprenorphine, 7% buprenorphine-naloxone 'tablet' and 10% buprenorphine-naloxone 'film'.

Please refer to Larance and colleagues for further information on OST medication injection (Larance et al., in preparation).

9.6 Injection-related injuries and diseases

People who inject drugs (PWID) are exposed to a broad range of potential harms including (but not limited to) bacterial infections, soft tissue damage and vascular injury. Research conducted with PWID has identified high levels of experience of such injuries (Dwyer, Power, Topp et al., 2007).

Previous IDRS surveys have asked a limited set of questions regarding harms experienced from injecting. The aim of these questions was to gather in greater detail the experience of these harms and identify individual risk factors significant for injection-related injuries and diseases. Results can be compared with findings from the Injection-Related Injuries and Diseases (IRID) project (Dwyer et al., 2007).

In 2012, IDRS participants were asked if they had ever and recently (last six month) experienced any injection-related injuries or diseases (IRDI) from the list used in the IRID project (Dwyer et al., 2007).

Table 51 below lists the IRIDs ever and recently experienced in the last six months by participants in the IDRS survey and also those from the IRID project (note: recent use in the IRID project refers to the last 12 months). For example, of those who commented in the IDRS sample, over half (52%) reported experiencing redness near the injection site in their lifetime and 39% reported experiencing this in the six months preceding interview. This is slightly higher than reported in the IRID project; 42.2% (ever) and

28.3% (recently). Interestingly IDRS participants reported a higher prevalence of all IRIDs, except in relation to 'hives' and 'collapsed/blocked veins'.

Table 51: Self-reported injecting-related injuries and diseases ever experienced and recently* from injection, 2012

Problem experienced from injecting (%)	The IRID project (N=393)		SA IDRS (N=92)	
	Ever	Last 12 months*	Ever	Last 6 months*
Non-serious IRIDs			N=92	N=93
Redness near injection site	42.2	28.3	52	39
Swelling near injecting site	45.0	30.9	46	32
Raised red area (hives)	56.0	41.3	37	25
Dirty hit	67.9	35.4	74	30
Hit an artery when injecting	21.9	9.4	29	14
Numbness/Pins and needles	19.3	12.4	29	23
Collapsed/blocked veins	47.8	27.0	42	23
Potentially serious IRIDS			N=91	N=93
Pus-filled lump (skin abscess)	16.5	7.0	19	7
Internal/inside body abscess	3.0	1.0	14	3
Red, hot, swollen, tender skin (cellulitis)	14.2	7.0	28	15
Inflamed veins (thrombophlebitis)	14.2	6.6	35	22
Swelling leaves a dent (pitting oedema)	7.4	4.4	20	13
Puffy hands syndrome (lymph oedema)	7.1	3.9	22	18
Fistula (permanent hole)	n.a	n.a.	8	5
Injecting sinus	4.8	2.8	n.a	n.a
Serious IRIDs			N=91	n-93
Heart infection (endocarditis)	3.0	1.0	4	2
Septicaemia	4.3	1.3	n.a	n.a
Septic arthritis	1.0	0.2	n.a	n.a
Osteomyelitis	0.5	0.2	n.a	n.a
Serious infection (unspecified)	2.3	0.5	n.a	n.a
Other serious infection[#]	n.a	n.a	15	4
Deep vein thrombosis (blood clot)	3.3	1.3	6	2
Gangrene	0.8	0.3	7	5
Amputation	0.8	0.3	1	0
Venous ulcer	1.5	0.8	10	4
Other problem	n.a.	n.a.	2	1

Source: IDRS participant interviews, (Dwyer, Power, Topp et al., 2007)
*recently = last six months for the IDRS and the last 12mths for the IRID project (Dwyer, Power, Topp et al., 2007)
needing stay in hospital and intravenous antibiotics (septic arthritis, osteomyelitis, septicaemia)
n.a not available

9.7 Neurological history

People with a neurological illness or injury may be at greater risk of experiencing adverse effects associated with drug use. Existing research indicates that there is an association between traumatic brain injury (TBI) and drug use (Corrigan, Bogner and Holloman, 2012). This may be due to greater exposure to violence, mental illness, poor nutrition and poor sleep among other factors. TBI is a major cause of morbidity and mortality in developed countries (Bruns and Hauser, 2003) and can result in long term physical and cognitive impairments, as well as negatively impact upon psychological wellbeing, and social and occupational outcomes (Tait, Anstey and Butterworth, 2010). The cognitive, emotional and functional impairments associated with drug use could potentially compound those associated with TBI (Kelly et al., 1997). In 2012, the IDRS examined the prevalence of selected neurological illnesses and also of TBI among PWID. Table 52 and Table 53 outline the results of this investigation.

Table 52: Incidence of selected neurological conditions among PWID who commented, 2012

	National N=903	SA n=90
Epilepsy[7] (%)	6	**8**
Stroke (%)	3	**2**
Hypoxia (%)	2	**1**
Traumatic brain injury[8] (%)	48	**43**

Source: IDRS Injecting drug user interviews

The lifetime prevalence of epilepsy was higher in this group (8%) than the Australian population estimate (0.7%) obtained in the 2007-08 National Health Survey (ABS, 2009). Data from the same survey estimates the Australian prevalence of cerebrovascular disease (including stroke) as approximately 1.2%, slightly lower than the proportion reported in the current sample (2%). It is difficult to estimate the prevalence of hypoxic brain injury because it can result from a range of different situations (including drowning, carbon monoxide poisoning, heart attack etc.). Nonetheless, the prevalence in this group is reasonably low.

In contrast, a substantial proportion of the group (43%) reported a lifetime history of TBI[9]. In a recent study, Perkes et al. (2011) estimated the lifetime prevalence of TBI with loss of consciousness (LOC) as 35% among a community sample of males in Australia. Similarly, a cohort study conducted in Christchurch, New Zealand demonstrated that approximately 32% of the community sample had experienced at least a mild-traumatic brain injury by 25 years of age. Both of these prevalence estimates are lower than that recorded in our sample. However, caution should be used when directly comparing these figures due to differences in sampling techniques, sample characteristics (e.g. age) and data collection.

[7] National prevalence approximately 6.4 per 1,000 people (i.e. 0.6%) in 2001 Australian Bureau of Statistics (2001). Long-term Health Conditions - A Guide to Time Series Comparability from the National Health Survey. *Occasional Paper.* Canberra, ABS.

[8] Population prevalence rates usually between approximately .01% and 0.4% Bruns, J. & Hauser, W.A. (2003). The epidemiology of traumatic brain injury: a review. *Epilepsia,* 44 Suppl 10**,** 2-10.

[9] TBI was measured as a knock on the head resulting in loss of consciousness.

Table 53: Traumatic brain injury (TBI) among PWID, 2012

	National n=433	SA n=39
Median No. TBIs (range)	2 (1-50)	**1.5** **(1-30)**
Median LOC[a] (mins)	4	**2**
Most severe LOC - median age (years, range)	25 (1-58)	**25** **(8-49)**
For most severe TBI:	n=421	**n=38**
Under influence of alcohol (%):	29	**16**
Under influence of drugs (%):	34	**24**
Main drug*: (%)	n=116	**n=9**
Heroin	31	**22**
Methadone	3	**0**
Benzodiazepines	14	**22**
Morphine	5	**0**
Speed	13	**11**
Ice/crystal	6	**0**
Other	28	**45**

Source: IDRS Injecting drug user interviews
[a] LOC = Loss of consciousness.
*among those who reported being under the influence of drugs at the time of injury

Multiple TBIs were the norm with the median number of TBIs experienced over the lifetime equalling 1.5 (1-30). Participants were asked further details about the most severe occasion. The vast majority of participants who had experienced a TBI reported that the LOC on the most severe occasion lasted for only a couple of minutes (consistent with a mild injury). Three participants reported a LOC of half an hour or longer. The most severe TBI had usually occurred during the mid-twenties at a median of 25 years of age (range: 8-49). Sixteen percent of the group were under the influence of alcohol at the time of the injury and a further 24% were under the influence of at least one drug (mainly cannabis, heroin, benzodiazepines or methamphetamines).

Some people experience neuropsychological sequelae (symptoms such as cognitive, motor and behavioural changes) following a TBI which can complicate recovery. A large proportion of the group (74%) reported having experienced neurological sequelae immediately following the injury. The most common complaints were poor concentration and poor coordination/balance (57%), followed by functional weakness (52%) and memory loss (50%). Ongoing complaints were less common (31% of those that had a TBI, n=12). Participants who had experienced ongoing issues complained mostly of ongoing memory loss, poor concentration, mood changes and personality change (58% each), followed by ongoing problems with coordination and balance, word finding problems while speaking and weakness in the body (50% each).

Table 54: Effects of traumatic brain injury (TBI) among PWID, 2012

	National n= 414	SA n=39
Experienced any effects[a] following the injury (%)	68	**74**
Experienced at the time (%):	n=280	**n=29**
Functional weakness	41	**52**
Poor concentration	65	**57**
Memory loss	63	**50**
Word finding problems	50	**44**
Poor coordination/ balance	59	**57**
Personality change	30	**32**
Mood changes/Anxiety issues	44	**37**

Source: IDRS participant interviews
[a] Neurological, cognitive, behavioural or psychiatric effects.

9.8 Possession laws

Drug trafficking thresholds are used throughout every state and territory in Australia and often reverse the onus of proof onto users who exceed the nominated threshold quantity to prove they do not possess drugs for the purpose of trafficking. For the first time in 2012, participants in the IDRS were asked a number of questions relating to drug trafficking thresholds/possession laws. The aim of these questions was to find out whether regular users were aware of the existence of drug trafficking thresholds.

Participants were firstly asked a hypothetical scenario, 'Imagine you are caught by police and have drugs on you, do you think the quantity of drugs will affect the type of charge you will get?' Those participants who responded 'yes' were then asked 'what quantity would you need to possess to be charged with sell or supply (as opposed to possession for personal use), for heroin, methamphetamine, MDMD, cocaine and cannabis?'

As shown in Table 55, the majority of the sample (87%) believed the quantity of drugs caught with would affect the type of charge received. Although there was considerable variation in what the perceived drug law thresholds were, it can be seen that, overall, the participants who commented seemed to have a fairly good knowledge of this − particularly in regards to heroin and methamphetamine (seeTable 55). The greatest discrepancies between the perceived and actual thresholds for trafficable quantities of drugs were in relation to MDMA and cocaine.

Table 55: Drug trafficking thresholds among PWID, 2012

	Perceived thresholds (median; range; n)	Actual threshold for trafficable quantities, SA
Heroin		
points	5 (0.1-6; 9)	
grams	2 (0.5-28; 29)	2g
Methamphetamine		
points	3.5 (0.1-10; 12)	
grams	2 (0.5-14; 29)	2g
MDMA		
pills	7.5 (1-15; 10)	
grams	1.5 (1-2; 2)	0.5g
Cocaine		
grams	1.1 (0.1-5; 15)	2g
Cannabis		
ounces	1.1 (0.5-16; 27)	
grams	8.8 (0.1-127; 14)	2-100g*

Source: IDRS participant interviews; http://ndarc.med.unsw.edu.au/content/legislative-thresholds
*varies according to type of cannabis; cannabis oil=2g, cannabis resin=20g, cannabis leaf =100g, cannabis plants =10

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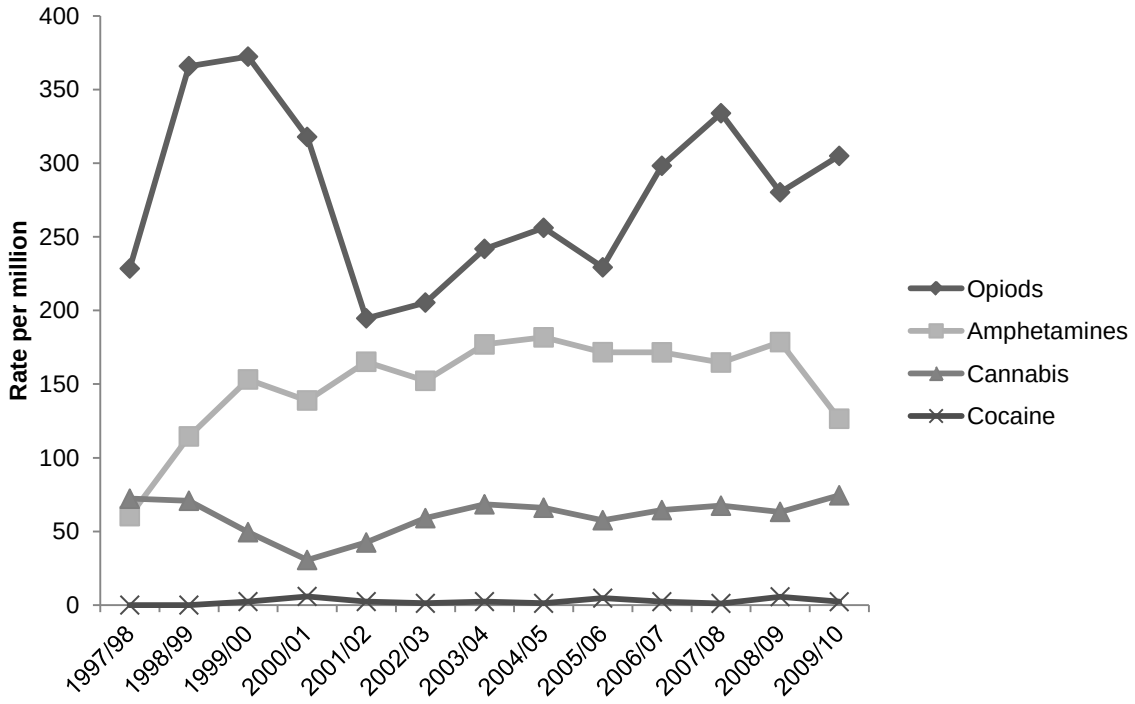
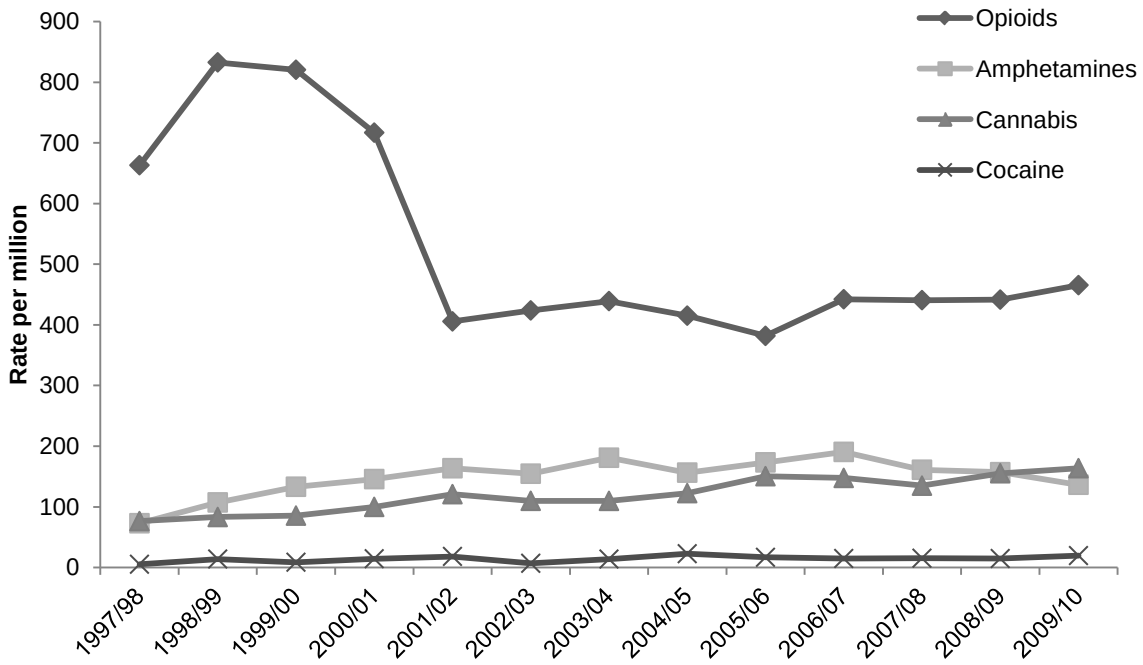
APPENDIX: SUBSTANCE-RELATED ADMISSIONS TO HOSPITALS IN SOUTH AUSTRALIA AND AUSTRALIA

Appendix 1: Rate of substance-related admissions (primary diagnosis) to hospitals in South Australia, 1997/98-2009/10



Source: Australian Institute of Health and Welfare
Note: Result relate to persons aged between 15 and 54 years; 'Primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care

Appendix 2: Rate of substance-related admissions (primary diagnosis) to hospitals in Australia, 1997/98-2009/10



Source: Australian Institute of Health and Welfare
Note: Results relate to persons aged between 15 and 54 years; 'Primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care