SOUTH AUSTRALIAN DRUG TRENDS 2011

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
ADHA	Attention Deficit Hyperactivity Disorder
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
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 2011 Illicit Drug Reporting System (IDRS) in South Australia (SA) were generally similar to previous years. Fifty-nine percent of the sample were male, two-thirds (67%) were unemployed and just under half (48%) had a history of previous imprisonment. The median number of years spent at school was 11, with over half reporting some kind of post-secondary qualification (primarily a trade or technical qualification). Forty percent of the sample were currently undertaking some form of treatment for drug use, most commonly pharmacotherapy. These characteristics were largely unchanged from 2010.

There were, however, a couple of differences that were noted among the 2011 sample. The median age of the sample was 39 years which was slightly older than in 2010 (median of 37 years). In addition, there was a significant increase in the proportion of participants who had completed a university qualification (19% vs. 8% in 2010).

Patterns of drug use

The median age of first injection among the IDRS sample was 18 years, which was slightly older than reported in 2010 (17 years). The first drug ever injected by participants was primarily methamphetamine (62%), followed by heroin (33%). However, in relation to drug of choice (favourite or preferred drug) heroin was the most popular drug nominated by participants (44%), closely followed by methamphetamine (37%). Heroin was also the drug injected most often in the last month (45%), again followed by methamphetamine (36%).

Polydrug use was common among participants in 2011, and has remained consistently so across all years of the IDRS.

Heroin

In 2011, the proportion of SA participants who reported recent use of heroin was lower than reported in 2010, although the frequency of use increased threefold to a median of 72 days in a six month period. Daily heroin use also increased, from 10% (of recent heroin users) in 2010 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 price paid for a gram of heroin at last purchase increased to $400 in 2011 (up from $360 in 2010). Despite this, the majority of participants (84%) reported that the price of heroin had remained stable over the six months prior to interview, with only 12% reporting that there had been an increase in price. According to participants, heroin purity was generally reported as 'medium' in 2011, whilst perceptions regarding changes in purity over the past six months were mixed.

Heroin was overwhelmingly considered easy or very easy to obtain, and this had reportedly remained stable over the preceding six months.

Experience of past 12 month heroin overdose increased in 2011, continuing an upward trend that has been observed since 2009. Interestingly, a number of key experts noted that there had been a recent batch of high purity heroin which had led

to a spate of overdoses. Taken together, the IDRS data and key expert observations indicate that this is a concern that needs to be closely monitored.

Data from the SA Alcohol & Drug Information Service revealed that telephone calls relating to any opioid substance increased in the 2010/11 financial year, whilst data from Drug & Alcohol Services SA (DASSA) showed that the proportion of clients nominating heroin as their primary drug of concern remained stable in 2010/11.

Methamphetamine

In 2011, two-thirds of participants had used some form of methamphetamine in the six months preceding interview, a non-significant decrease from 2010. More specifically, there were slight increases in the recent use of powder and liquid methamphetamine, a slight decrease in the recent use of base and a significant decrease in the use of crystal methamphetamine. Frequency of use has fluctuated considerably over the years. In 2011, the frequency of use for powder increased substantially, whilst there were slight increases in the frequency of liquid and crystal methamphetamine. Inversely, the frequency of base methamphetamine decreased quite substantially. The main route of administration for all forms of methamphetamine was injecting, although there was a decrease in the proportion of participants who had injected base or crystal methamphetamine.

In 2011, there was no consistent trend in the price paid for a point of methamphetamine. More specifically, the last median price paid per point remained stable for crystal, decreased for base and doubled for powder. Few participants were able to comment on the current price of a gram for all forms. Reports regarding the current purity of the three forms of methamphetamine were also mixed. The purity of crystal methamphetamine, as perceived by participants, was largely reported as high with a quarter reporting that it fluctuated. The purity of powder and base methamphetamine was equivocal. All forms of methamphetamine were considered easy or very easy to obtain in 2011, 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 two-thirds of the sample – stable from 2010. Frequency of use increased quite substantially to a median of 110 days in a six month period. 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. Of interest was that one-third of the sample indicated that they were unable to distinguish between hydro and bush cannabis, suggesting that either participants use whatever cannabis is available, or are not specifically concerned which type of cannabis they use.

In 2011, 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 also perceived the potency of both hydro and bush cannabis as ‘medium’ and stable. 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, as did the number of DASSA clients who nominated cannabis as their primary drug of concern. This supports the idea that the Adelaide cannabis market has generally remained stable over the preceding 12 months.

Opioids

In 2011, there was an increase in the use of other illicit opioid substances by SA participants, with 53% reporting recent use of some type of illicit opioid substance, excluding heroin. Twenty percent of participants reported they had used illicit morphine in the six months prior to interview on a median of ten days (range: 1-180) which was similar to 2010 reports. The price of illicit morphine appeared to remain relatively stable in 2011, although only a small number of participants commented thus making it difficult to draw any meaningful comparisons. Although the majority of participants reported that the availability of illicit morphine had remained stable over the preceding six months, there was an increase in the proportion who nominated it as easy to obtain. 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 2011 (11% in 2011 vs. 12% in 2010) as did the frequency of use. This was also the case for physeptone tablets.

Whilst the number of participants reporting recent use of illicit buprenorphine remained stable in 2011, reported frequency of use halved to a median of 7 days in a six month period.

In 2011, a slightly greater proportion of the sample reported recent use of illicit oxycodone; however, the frequency of use was stable compared to 2010. The majority of participants had injected oxycodone. It is worth noting that the majority reported mainly illicit use of this substance.

Other drugs

Eighteen percent of IDRS participants had used ecstasy and six percent 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 2010.

In 2011, the proportion of participants who reported recent use of illicit benzodiazepines (34%) doubled compared to participant reports in 2010 (17%). Prevalence and frequency of recent cocaine use remained stable in 2011, with twelve participants reporting that they had used cocaine on a median of two days within the preceding six months.

There was a significant increase in both lifetime and recent use of over the counter (OTC) codeine. Frequency of recent use increased slightly from a median of six days in 2010, to nine days in 2011. The only route of administration was swallowing, and the main brands used were Nurofen Plus® and Panadeine®.

The recent use of illicit pharmaceutical stimulants was relatively stable in 2011, with 9% of the sample reporting use over the preceding six months. There was, however, a substantial drop in frequency of use – from a median of 26 days in 2010 to 4 days in 2011.

Tobacco use remains highly prevalent among PWID, with 94% 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 54% of the

sample reporting use on a median of 14 days in the past six months. Both alcohol and tobacco use remained stable from 2010.

Health-related issues

In 2011, there was a significant decrease 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 continued to be the most commonly reported problem and the majority reported that they had attended a professional for such problems.

The Kessler Psychological Distress Scale (K10) (Kessler & Mroczek, 1994) was incorporated into the participant survey to give a measure of levels of psychological distress among the participants. Half of the participants were assessed to be at a high or very high risk of psychological distress.

Risk behaviours

The number of participants who reported 'borrowing' needles remained low and stable in 2011 (n=6), whilst the number of participants who had lent needles doubled (n=14). There was a decline in the sharing of injecting equipment (other than needles), with significant declines in the sharing of tourniquets and water. Re-use of one's own needles (55%) and equipment (54%) was much more common.

In 2011, seventy-two percent 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, followed by difficulty injecting. About a third of participants reported that they had experienced a dirty hit, stable from 2010.

In 2011, the median expenditure on illicit drugs remained stable at $100.

Law enforcement

The prevalence of self-reported criminal activity in the month preceding interview remained stable in 2011, as did the prevalence of past year arrest. 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 2011.

Driving a car while under the influence of alcohol was reported by 12% of participants who had driven in the preceding six months. Eighty-five percent reported driving under the influence of an illicit drug during that time, mainly cannabis, heroin and methamphetamines.

Special topics of interest

Heavy Smoking Index (HSI) for nicotine dependence

Among those who smoked daily, half had had their first cigarette within five minutes of waking up and 49% reported smoking between 11-20 cigarettes a day. Approximately one-quarter of daily smokers scored 5 or above indicating high nicotine dependence, with the mean HSI score being 4.

Alcohol Use Disorders Identification Test

In 2011, IDRS participants were asked to respond to the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C). Just under half of males who had recently drank alcohol, and 36% of females, scored 5 or more indicating the need for further assessment. The overall mean score was 4.3.

Pharmaceutical opioids

In 2011, participants were asked questions about the use of pharmaceutical opioids and pain. Approximately one-quarter of the sample reported that they had recently used pharmaceutical opioids, and of these 41% reported using them for pain relief and almost one-third to treat self-dependence. Nineteen percent of those who commented reported being refused pharmaceutical medications due to their injecting history.

Over the counter codeine

In 2011, participants in the IDRS survey were asked questions about the use of over the counter (OTC) codeine for medical and non-medical purposes**.** Fifty percent reported use within the preceding six months, 48% of the sample reported using OTC codeine for medical purposes and 8% reported using it for non-medical purposes. The main type of medical purpose was acute/short-term pain (69%).

Injecting equipment use

Ninety-five percent of the sample reported the use of 1ml needle and syringes in the last month, followed by a 3ml syringe (13%) and detachable needle (12%). The re-use of 1ml needle and syringes was reported by 50% of the sample, with two-thirds reporting that they had cleaned 1ml needle/syringes in the month preceding interview.

Mental and physical health problems (SF12)

The Short Form 12-Item Health Survey (SF-12®) is a questionnaire designed to provide information on general health and wellbeing, and it was administered for the first time in the IDRS in 2011. IDRS participants scored a mean of 40 for the mental component score and 43 for the physical component score. They scored substantially lower than the Australian population, indicating that they have poorer mental and physical health than the general population.

Health service access

Participants in the 2011 IDRS were asked about access to health services in the previous four weeks. The majority of participants (n=57) reported visiting a General Practitioner (GP) in the last four weeks, on a median of one occasion. Of those, three-quarters reported visiting a GP once in the last four weeks and one-quarter reported the visit was substance use related.

Online activities

Over half of the sample reported that they had never used the internet in the last month, while 17% reported daily internet use. Of those who had used the internet in the last six months, around one-third reported going ‘online’ to get information about drugs.

Policy

In 2011, questions were added to the IDRS in order to gather data about how PWID themselves perceive drug policy in Australia. It was found that virtually the entire sample supported needle and syringe programs to reduce problems associated with heroin use, whilst the majority also supported methadone/buprenorphine maintenance programs, treatment with drugs (not including methadone) and regulated injecting rooms.

The majority of the sample also supported the legalisation of cannabis for personal use, and just over half supported the legalisation of heroin for personal use.

Interestingly, around one-quarter supported the increased penalties for sale or supply of methamphetamine or heroin

Implications

The findings from the 2011 SA IDRS have policy and research implications, and a number of recommendations are outlined below. It is worth noting that several of these issues have already received attention and/or may be in the process of further investigation.

- Although the prevalence of heroin use remained stable in 2011, the frequency of use increased three-fold to a median of 72 days in a six month period. This is the highest frequency of use recorded since 2003. This is somewhat concerning, especially when accompanied by an increase in daily use, and it highlights the importance of continued education and harm reduction strategies.

- There was a slight increase in recent heroin overdoses, which continues an upward trend that has been observed since 2009. In addition, a number of key experts (KE) reported that there had been a recent spate of heroin overdoses, which was likely the result of a batch of high purity heroin. Although this is a group of experienced users, this emphasises how important it is for PWID to buy drugs from a reliable source so that they can be certain about the quality and strength. In addition, it is important to *always* test a small dose before taking the whole dose.

- The proportion of participants who had 'lent' needles and syringes in the past month doubled to 14% in 2011. Although this remains relatively low, the consequences of sharing injecting equipment are substantial. Re-use of one's own needles and equipment also remained high, with over half of the sample reporting that they had done this in the month preceding interview. It is imperative that harm reduction strategies continue to be disseminated among this population, particularly in regards to safe injection practices and vein care.

- There was a substantial increase in the use of illicit benzodiazepines, and a significant increase in the use of OTC codeine. This indicates that the development and implementation of strategies to reduce diversion of, and non-adherence with, prescribed pharmaceuticals is warranted.

- Tobacco use remains alarmingly high among PWID, with 88% of the sample reporting that they were smoking daily and 94% 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 recommended that health campaigns be targeted specifically towards this group.

- The development and implementation of services and strategies to cater for those with substance use and mental health appears warranted, especially considering the proportion of participants assessed as having high or very high psychological distress as measured by the Kessler Psychological Distress Scale (K10) and low SF-12 scores compared to the general population.

- It is widely recognised that engaging citizens is important in the policy making process and is a core element of good governance. Unfortunately, the

opinions of PWID have often been neglected in drug policy debates, with preference being given to broader population attitudes. The policy questions included in the 2011 IDRS show that the PWID have strong views regarding measures to reduce problems associated with drug use. Indeed, given their first-hand experience, PWID are in a better position to determine whether such policies would be/are effective, and as such it is strongly encouraged that in the future more consideration be given to the views of PWID, and other drug using populations.

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). 2011 marks the 15th year in which the IDRS has been conducted in SA, and the 13th year it has included all states and territories (see Stafford & Burns, 2012 for a national comparison of the 2011 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 2011 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 2011 IDRS is to provide information on drug trends in SA (specifically the Adelaide metropolitan area), particularly focusing on the 12 months between mid-2010 and mid-2011.

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=100) 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 June and July 2011. 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 2011, 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.

2.3 Materials

2.3.1 Survey instrument

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-2010 to mid-2011).

2.3.2 Kessler Psychological Distress Scale

The Kessler Psychological Distress Scale (K10) (Kessler & Mroczek, 1994) is utilised to give a measure of levels of psychological distress among the sample. The K10 was developed as a screening instrument to measure for negative emotional states, referred to as psychological distress. It is described as a simple, brief, valid and reliable instrument used to detect mental health conditions in the population. The scale consists of 10 questions on non-specific psychological distress and measures the level of anxiety and depressive symptoms a person may have experienced in the past four-weeks, so it asks specifically about recent levels of distress.

The cut-off scores for the K10 are taken from the method developed by the Clinical Research Unit for Anxiety and Depression (CRUFAD) at the School of Psychiatry, University of New South Wales. The items are totalled to give scores that range from eight to 50, with 50 indicating that the person has a high risk of having an anxiety or depressive disorder. The cut-off scores range from 10-15 for low or no distress, 16-22 for moderate distress, 22-29 for high distress and 30-50 for very high distress.

2.3.3 Personal WellBeing Index

The Personal Wellbeing Index (PWI) (Cummins et al., 2007) was incorporated into the IDRS survey. Questions asked how satisfied participants were with various aspects of their life. Questions included standard of living, health, personal achievement, personal relationships, personal safety, feeling a part of the community, future security and life as a whole. Participants were asked to respond on a scale of 0-10 where 0 was ‘very unsatisfied’ and 10 was ‘very satisfied’

2.4 Survey of KE

The KE interview was semi-structured and took approximately 25 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-2010 to mid-2011). 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 2011, fifteen KE were interviewed from September to late October 2011. 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 2011, followed by heroin and cannabis

2.5 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 opioid-related fatalities provided by the Australian Bureau of Statistics (ABS), in Degenhardt, Roxburgh & Black et al. (2006a);
- national rates of methamphetamine-related and cocaine-related fatalities provided by the ABS, in Degenhardt, Roxburgh & Black (2006b);
- 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) (2008); and
- National Notifiable Diseases Surveillance System (NNDSS) data, from the AGDH&A, was also included as an indicator of blood-borne viral infection (BBVI) rates. BBVI transmission is correlated to injecting drug use and despite these data not having drug specific breakdowns they are a useful indicator of injecting-related trends.

2.6 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).

2.7 Notes

2.7.1 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).

2.7.2 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 2011 sample was slightly older than the 2010 participant sample, with over a half being male.
- Two-thirds (67%) of the sample were unemployed, similar to that reported in 2010.
- Almost half of the sample reported a previous history of imprisonment (48%), similar to that reported in 2010.
- Half of the sample had completed Year 11 and/or 12. Forty-two percent of the sample had no tertiary qualifications, 39% had a trade/technical qualification and there was a significant increase in those that had a university education.
- Over a third of the sample (40%) 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 100 participants interviewed in 2011 are summarised in Table 1, with the 2010 sample characteristics provided for comparison.

There was some overlap of the 2011 participant sample with previous years' samples. That is, 25% percent of the 2011 sample stated that they had participated in the IDRS previously: 13% in 2010, 6% in 2009, 4% in 2008, 1% in 2007-2005, 2% in 2004, 1% in 2003-02, 2% in 2001, and 1% in each year from 1996-2000 (participants could nominate more than one year).

The median age of the sample was slightly older in 2011: 39 years (range=21-57 years), compared to 37 years in 2010. Over half of the sample were male (59%), two-thirds (67%) were unemployed and 48% had a history of previous imprisonment; this is similar to participant reports in 2010. Males were significantly more likely than females to report a prison history (59% vs. 33%, p=0.022). The median number of years spent at school was 11 (range=7-12 years), with half of the sample (50%) reporting completion of years 11 and/or 12. Forty-two percent of the sample reported having no tertiary qualifications; this is lower than what was reported in 2010 (52%). Of those who did report having a tertiary qualification, most had completed a technical or trade qualification (39%), although there was a significant increase in those that had completed a university qualification (19% vs. 8%; p=0.047; 95% CI: -0.0107 – -0.204).

In 2011, over a third of the sample (40%) were in drug treatment at the time of the interview, with the majority of participants in maintenance pharmacotherapy treatment. More specifically, 26% reported being on a methadone program (compared to 19% in 2010) and 7% reported being on a buprenorphine program, including those receiving suboxone treatment (compared to 16% in 2010).

As in previous years, in 2011 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 (74%). The remaining participants reported their main source of income was a wage (20%), criminal activity (2%) or sex work (2%).

The majority of the participant sample resided in rental accommodation (74%). A further 10% of the sample reported living at their family/parent's home, followed by residing in a boarding house/hostel (5%), in their own house/flat (4%), or at a shelter (1%). Four participants reported having no fixed address/homeless.

Table 1: Demographic characteristics of IDRS sample, 2004-2011

Characteristic	2004 (n=101)	2005 (n=101)	2006 (n=100)	2007 (n=100)	2008 (n=100)	2009 (n=100)	2010 (n=97)	**2011 (n=100)**
Age (median in years)	32	35	37	36	38	40	37	**39**
(range)	(16-55)	(16-57)	(19-63)	(17-53)	(20-57)	(20-60)	(18-56)	**(21-57)**
Sex (% male)	61	64	53	66	65	66	56	**59**
Sexual identity (%)*								
Heterosexual	-	82	78	85	92	89	88	**83**
Gay male	-	4	4	3	1	4	3	**4**
Lesbian	-	0	2	1	1	4	1	**0**
Bisexual	-	10	11	8	4	3	7	**12**
Other	-	4	5	3	2	0	1	**1**
English speaking (%)	98	96	98	95	93	99	97	**96**
A&TSI (%)	14	8	8	9	6	3	4	**10**
Employment (%)								
Not employed	63	62	71	66	76	67	63	**67**
Full-time	3	6	6	7	9	9	8	**7**
Part-time/casual	13	13	13	12	9	21	20	**15**
Full-time student	6	5	2	1	0	1	1	**0**
Both studying & employed	-	-	-	1	4	1	1	**2**
Home duties	15	14	8	6	4	1[#]	4[#]	**5**
Other	0	0	0	7	0	0	3	**4**
Median income per week ($)**	-	-	-	-	-	259	350	**368**
School education (median in years)	10	10	10	11	10	11	11	**11**
(Range)	(5-12)	(3-12)	(7-12)	(7-12)	(5-12)	(7-12)	(7-12)	**(7-12)**
Tertiary education (%)								
None	46	45	40	43	34	38	52	**42**
Trade/technical	29	44	43	50	45	49	40	**39**
University/college	26	12	17	7	21	13	8	**19**
Prison history (%)	48	53	52	46	44	40	43	**48**
Current drug treatment (%)	41	46	52	38	52	45	37	**40**

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 2010, the 2011 sample characteristics were largely unchanged. Indeed, the only significant difference was that a greater proportion of the 2011 sample reported that they had completed a university/college degree.

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.
- Following this pattern, the drug injected most often in the last month was heroin closely followed by methamphetamines.
- Polydrug use over the last six months was common among the sample.

4.1 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=12-40). The drug most commonly first injected by the sample was methamphetamine (62%), followed by heroin (33%). When first injection of methamphetamine is examined according to type, methamphetamine powder (49%) was by far the most commonly first injected drug, with smaller numbers reporting first injection of methamphetamine base (4%) and crystal/ice methamphetamine (9%).

Table 2: Injecting drug history, 2010-2011

	2010 (N=97)	**2011 (N=100)**
Median age first injected in years (range)	17 (11-39)	**18 (12-40)**
First drug injected (%)		
Heroin	32	**33**
Methamphetamine*	62	**62**
Cocaine	2	**0**
Morphine	0	**2**
Other	4	**3**

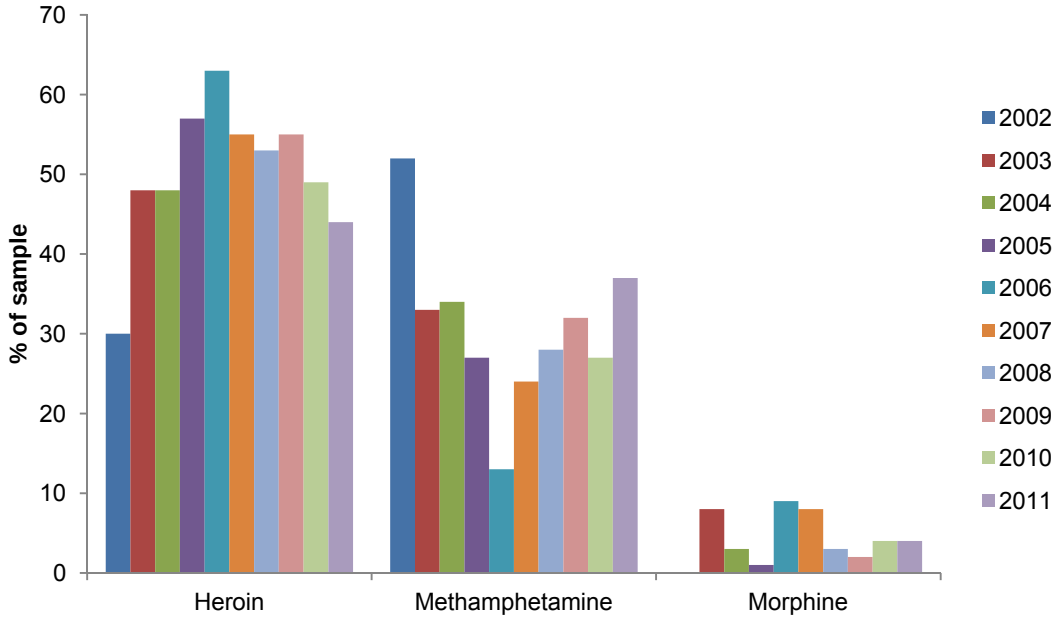
Source: IDRS participant interviews

*Collapsed categories: powder, base and crystal forms

4.1.1 Drug of choice

In 2011, a similar proportion of the sample reported heroin as their drug of choice (44%) compared to 2010 (49%), and this remained the most popular drug of choice. The proportion of the sample nominating some form of methamphetamine as their drug of choice increased (37% in 2011 vs. 27% in 2010), although this was non-significant. Interestingly, it appears that 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, 2002-2011

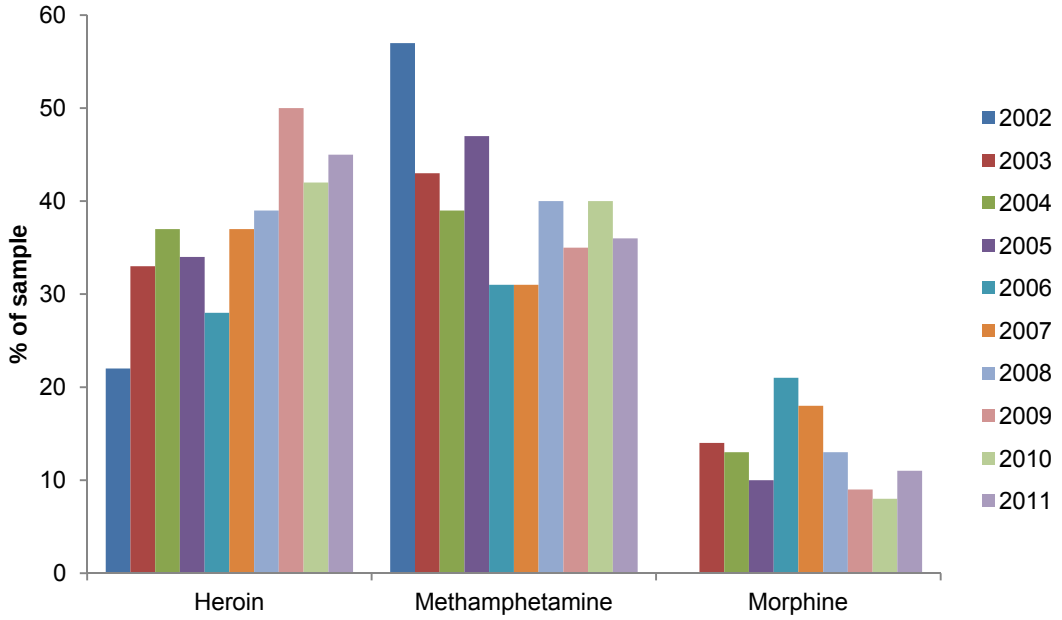


Source: IDRS Participant interviews

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 remained stable in 2011 (45% vs. 42% in 2010) (see Figure 2). The proportion of participants reporting methamphetamine as the drug most injected in the last month slightly decreased, from 40% in 2010 to 36% in 2011. Furthermore, there was an increase in the proportion of PWID who reported that heroin was the drug they had injected most recently, although this did not reach statistical significance (see Table 3).

Figure 2: Trend for drug injected most in last month, 2002-2011



Source: IDRS participant interviews

Table 3: Injecting drug preferences, 2010-2011

	2010 (N=97)	**2011 (N=100)**
Drug injected most often in last month (%)		
Heroin	42	**45**
Methamphetamine**	41	**36**
Cocaine	0	**0**
Morphine	8	**11**
Methadone	3	**2**
Buprenorphine	2	**1**
Suboxone	2	**1**
Oxycodone	2	**3**
Other	0	**1**
Most recent drug injected (%)		
Heroin	36	**48**
Methamphetamine**	39	**35**
Morphine	11	**9**
Methadone	4	**1**
Buprenorphine	7	**0**
Oxycodone	2	**3**
Other	1	**2**
Frequency of injecting in last month (%)		
Weekly or less	31	**18**
More than weekly but less than daily	39	**37**
Once a day	14	**28**
2-3 times a day	12	**13**
>3 times a day	2	**4**

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 82% of the sample, with 45% reporting they had injected at least once a day during that period. More specifically, the proportion of PWID who reported injecting weekly or less decreased substantially, although this didn't quite reach statistical significance

(p=0.052, 95% CI: 0.246 – 0.009). Inversely, there was a significant increase in the proportion of participants who reported injecting on a daily basis (14% in 2010 vs. 28% in 2011; p=0.03; 95% CI: -0.021 – -0.246).

Table 4: Polydrug use, 2010-2011

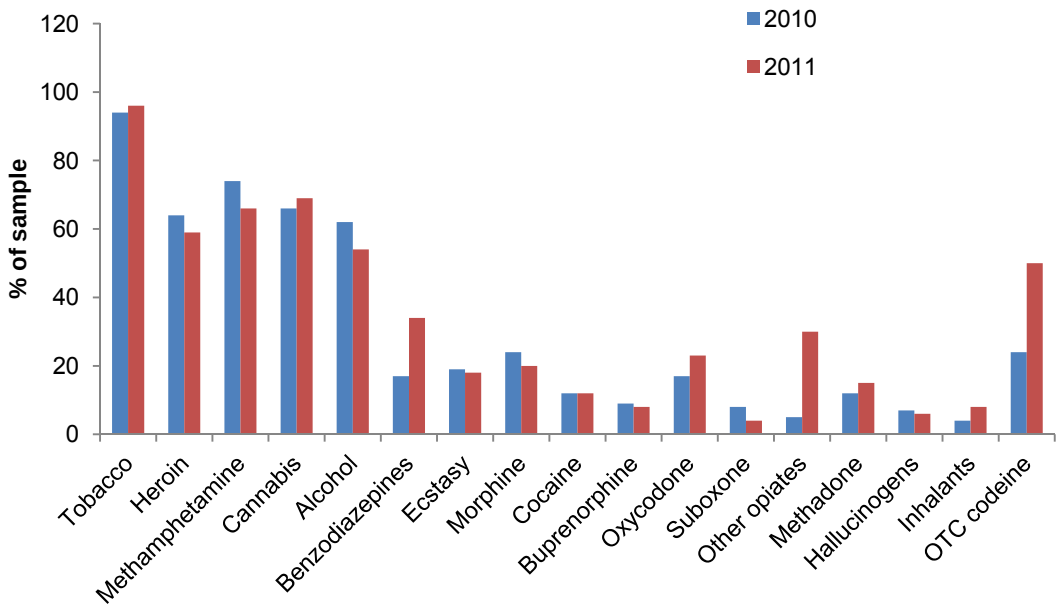
	2010 (N=97)	**2011 (N=100)**
Polydrug use (median)		
Number of drug classes ever used	10 (3-21)	**11 (3-21)**
Number of drug classes used in last 6 months	5 (1-13)	**6 (2-15)**
Number of drug classes ever injected	6 (1-14)	**5 (1-14)**
Number of drug classes injected in last 6 months	3 (1-9)	**2 (1-9)**

Source: IDRS participant interviews

Participant polydrug use was common in 2011 and has remained consistently so across the years, with no real differences being reported from 2010 to 2011 (see Table 4). In 2011, participants were asked about their history of use of 23 separate substances[1]. Only illicit use of a drug was analysed. The total number of possible injected drug types was 20. In 2011, participants reported use of a median of 11 (range 3-21) drug types across their lifetime and a median of six (range 2-15) during the six months prior to interview.

The drugs most commonly used among the participants in the last six months were tobacco, cannabis, 'any' methamphetamine, heroin and alcohol (Figure 3). This order of commonality was quite different to 2010, with heroin slipping from the second most commonly used drug in 2010 to the fourth in 2011.

Figure 3: Recent drug use, percentage of the participants to have used each substance type in the last six months, 2010-2011



Source: IDRS participant interviews
Note: All use 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, inhalants, alcohol, cannabis, illicit benzodiazepines, illicit Suboxone®, tobacco and steroids.

In 2011, significant increases were noted for illicit benzodiazepines ($p=0.008$; 95% CI: -0.054 – -0.29); other opiates ($p<0.001$; 95% CI: -0.146 – -0.349) and OTC codeine ($p<0.001$; 95% CI: -0.13 – -0.38). 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, 2011 (% of total sample; N=100)

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	79	79	57	57	42	6	9	0	13	4	72	72
Homebake	20	19	9	9	2	1	1	1	3	1	7	5
Any heroin	***79***	***79***	***59***	***59***	***44***	***7***	***10***	***1***	***15***	***5***	***72***	***72***
Methadone – licit	46	18	27	6	-	-	-	-	45	27	180	9
Methadone – illicit	29	18	11	9	-	-	-	-	22	4	4	4
Physeptone – licit	6	2	1	1	0	0	0	0	4	0	180	180
Physeptone – illicit	18	11	5	1	1	1	2	0	13	2	2	1
Any methadone (inc. physeptone)	***62***	***30***	***39***	***14***	***1***	***1***	***2***	***0***	***58***	***31***	***66***	***4***
Buprenorphine – licit	25	7	3	1	2	0	0	0	21	3	180	180
Buprenorphine – illicit	27	14	8	4	10	1	1	0	16	5	7	14
Any buprenorphine	***39***	***16***	***11***	***5***	***10***	***1***	***1***	***0***	***30***	***8***	***14***	***24***
Suboxone – licit	15	2	7	1	1	0	0	0	14	7	90	3
Suboxone – illicit	14	4	4	1	1	0	0	0	9	3	4	6
Any suboxone	***25***	***6***	***11***	***2***	***2***	***0***	***0***	***0***	***21***	***10***	***10***	***5***
Oxycodone – licit	14	9	5	3	0	0	0	0	6	3	40	40
Oxycodone – illicit	45	36	23	19	1	0	0	0	18	9	7	6
Any Oxycodone	***51***	***40***	***26***	***20***	***1***	***0***	***0***	***0***	***22***	***11***	***8***	***8***
Morphine – licit	27	20	6	5	0	0	0	0	8	3	15	91
Morphine – illicit	50	45	20	18	2	0	2	1	18	8	10	10

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, 2011 (% of total sample; N=100) (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*
Any Morphine	***62***	***56***	***23***	***20***	***2***	***0***	***2***	***1***	***21***	***11***	***23***	***48***
Other opioids	53	4	30	0	0	0	0	0	48	30	6	0
OTC Codeine	66	4	50	0	0	0	0	0	64	50	9	0
Methamphetamine powder (speed)	83	76	36	33	22	5	46	6	38	8	24	24
Methamphetamine base (paste/point/wax)	52	44	35	31	18	12	3	2	16	6	20	24
Crystaline methamphetamine (ice)	68	60	44	41	36	19	11	2	18	7	15	14
Amphetamine liquid	32	26	15	14	-	-	-	-	7	2	10	7
Any form methamphetamine[#]	***91***	***87***	***66***	***63***	***52***	***24***	***48***	***8***	***45***	***12***	***40***	***48***
Pharmaceutical stimulants - licit	2	2	0	0	0	0	1	0	1	0	0	0
Pharmaceutical stimulants - illicit	23	6	9	1	1	0	1	0	21	9	4	3
Any pharmaceutical stimulants	***24***	***7***	***9***	***1***	1	0	2	0	22	9	4	3
Cocaine	56	35	12	6	8	2	32	6	9	1	2	2
Hallucinogens	57	11	6	0	0	0	0	0	53	6	4	0
Ecstasy	59	29	18	6	4	0	15	3	54	16	3	2
Alprazolam – licit	19	1	12	0	0	0	0	0	18	12	165	0
Alprazolam - illicit	32	5	23	3	0	0	0	0	28	20	3	3
Any alprazolam	***46***	***6***	***32***	***3***	***0***	***0***	***0***	***0***	***43***	***30***	***7***	***3***
Other benzodiazepines - licit	34	4	20	1	0	0	0	0	34	20	60	1
Other benzodiazepines - illicit	38	3	19	0	0	0	0	0	38	19	10	0
Any other benzodiazepines	***54***	***6***	***34***	***1***	***0***	***0***	***0***	***0***	***54***	***34***	***27***	***1***
Any benzodiazepines	***69***	***11***	***50***	***4***	***0***	***0***	***0***	***0***	***69***	***50***	***24***	***1***

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, 2011 (% of total sample; N=100) (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***
Seroquel – licit	5	0	2	0	-	-	-	-	4	2	138	0
Seroquel - illicit	12	0	7	0	-	-	-	-	11	7	1	0
Any seroquel	***16***	***0***	***9***	***0***	**-**	**-**	**-**	**-**	***15***	***9***	***2***	***0***
Alcohol	95	7	54	0	-	-	-	-	93	54	14	0
Cannabis	95	-	69	-	95	69	-	-	61	17	110	-
Tobacco	96	-	94	-	-	-	-	-	-	-	180	-
Inhalants	26	-	8	-	-	-	-	-	-	-	4	-
Steroids	9	7	1	0	0	0	0	0	3	1	4	0

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

KE Comments

- One KE expressed concern regarding the increasing use of steroids amongst an injecting naive population. More specifically, it was reported that these steroid users are from a different socio-economic background, are typically using steroids for body image reasons and have very little knowledge of 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.

4.2 Heroin use

Key findings

- In 2011, there was a decrease in the proportion of participants who reported recent use of heroin.
- However, the frequency of heroin use increased threefold to a median of 72 days within a six month period; daily use also increased.
- There was an increase in the use of white rock and powder heroin compared to 2010.

4.2.1 Use of heroin

Thirty-three percent of participants reported heroin as the first drug ever injected, 44% nominated it as their drug of choice, 45% reported it as the drug most often injected in the last month and 48% reported that heroin was the last drug they had injected.

Fifty-seven percent of the IDRS participants interviewed in 2011 had used heroin in the six months prior to interview, a lower proportion than reported in 2010 (64%). However, the frequency of recent heroin use (median number of days used in a six month period) increased threefold in 2011, from 24 days in 2010 to 72 days in 2011. Interestingly, however, this did not reach statistical significance (see Table 6/Figure 4). All recent heroin users reported injecting heroin within the preceding six months, and the median number of injection days was also 72 (range 1-180).

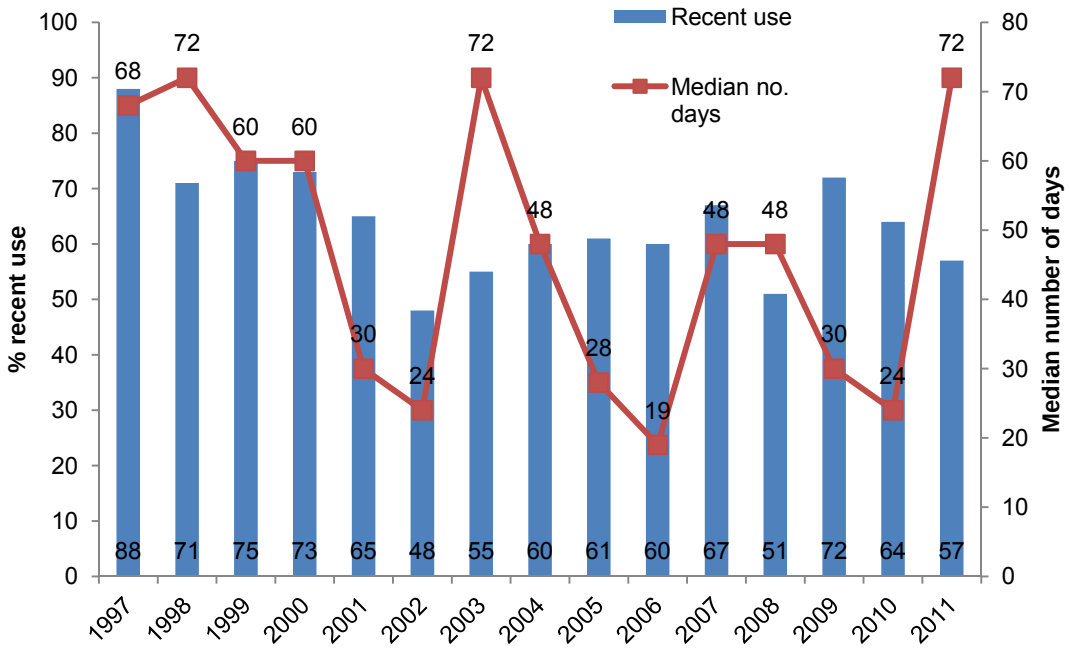
Among recent users of heroin, daily use also increased in 2011; although again this didn't quite reach significance (p=0.054).

Table 6: Recent heroin use of IDRS participants, 2010-2011

	2010	**2011**
Recent use (%)	64	**57**
Median days of use*	24	**72**
Daily use* (%)	10	**25**

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, 1997-2011



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

The proportion of participants reporting use of heroin on a daily basis was 25% in 2011, a substantial increase from 2010 (although this didn't quite reach significance, p=0.054; 95% CI: -0.013 – -0.28). Moreover, in 2011, 30% of participants reported using heroin the day prior to the interview, with this figure lower than in 2010 (18%).

Of the 57 participants who had used heroin in the last six months, 84% (n=48) reported heroin as the last drug that they injected. The remaining heroin using participants reported the last drug they injected as speed (n=4, 7%); morphine (n=4, 7%); or oxycodone (n=1, 2%).

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 2011, a fifth (20%) of participants reported that they had used homebake heroin at least once in their lifetime. Nine 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, 1% also reported smoking, snorting or swallowing it in the six months preceding interview. In 2011, homebake heroin was used for a median of seven days (range=1-12 days).

4.2.2 Heroin forms used

Of the 57 participants who had used heroin in the six months prior to interview, 93% (n=53) reported use of a white/off-white powder or rock form of heroin, a significant increase from 2010 (p=0.0345; 95% CI: -0.026 – - 0.28). Forty-seven percent of the sample (n=27) reported using a brown powder or rock, stable from 2010. The forms most used in the last six months showed a similar pattern to 2010, with 70% using

mostly white/off-white powder or rock and 25% using brown powder or rock most often. Two percent (n=1) used heroin of another colour and two participants mentioned homebake as the most often used (see Table 7).

Table 7: Reports of heroin forms used in the last six months among those who had recently used heroin, 2010-2011

	2010	**2011**
Used last 6 months (%)	(n=62)	**(n=57)**
White/off-white powder or rock	77	**93**
Brown powder or rock	50	**47**
Form most used last 6 months	(n=55)	**(n=57)**
White powder or rock	67	**70**
Brown powder or rock	29	**25**
Homebake	0	**4**
Other colour	4	**2**

Source: IDRS participant interviews

Of the 44 participants who nominated heroin as their drug of choice, 41 participants (93%) had used heroin in the previous six months, 24 (55%) had used any methadone (licit or illicit), and 7 (16%) had used any morphine (licit or illicit). In addition, 21 participants (48%) had used benzodiazepines (licit and illicit), and 18 (42%) had used some form of methamphetamine. Compared to 2010, fewer participants nominating heroin as their drug of choice reported recent use of morphine, benzodiazepines or methamphetamine (38%, 61% and 55% respectively).

Five 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=3), purity and availability (n=1), pain management (n=1), and high tolerance (n=1). Two participants had mostly injected morphine, one injected subutex, one injected speed and one injected base. 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). One third (33%) of recent heroin users reported the last time they used heroin they had used heat, with 6% reporting using acid in the preparation process. Participants reported use of heat or acid in the preparation process of white heroin (39%), brown heroin (50%) and other colours (11%). The number of participants reporting the use of heat or acid in the preparation of

another colour other than white or brown was stable in 2011. The colours reported were pink (n=1) and yellow (n=1).

Table 8: Preparation of heroin, 2010-2011

	2010	**2011**
Heated in the last injection (%)	(n=56) 48	**(n=54)** **33**
Acid in the last injection (%)	(n=54) 9	**(n=54)** **6**
Main colour	(n=24)	**(n=18)**
White	50	**39**
Brown	46	**50**
Other	4	**11**

Source: IDRS participant interviews

KE comments

- While it was noted that injection continues to be the main route of administration (ROA) for heroin users, one KE had observed an increase in the smoking of heroin. It was hypothesised that this may have occurred due to the fact that many people already own a pipe to smoke crystal methamphetamine.

4.3 Methamphetamine

Key findings

- There was a significant decrease in the use of crystal methamphetamine in the six months preceding interview.
- Frequency of use varied between the different forms of methamphetamine: base decreased, powder increased, whilst crystal and liquid methamphetamine remained relatively stable.
- The majority of participants using all forms of methamphetamine reported having done so by injection in the six months prior to interview. However, the proportion of people who had injected base or crystal methamphetamine declined in 2011.

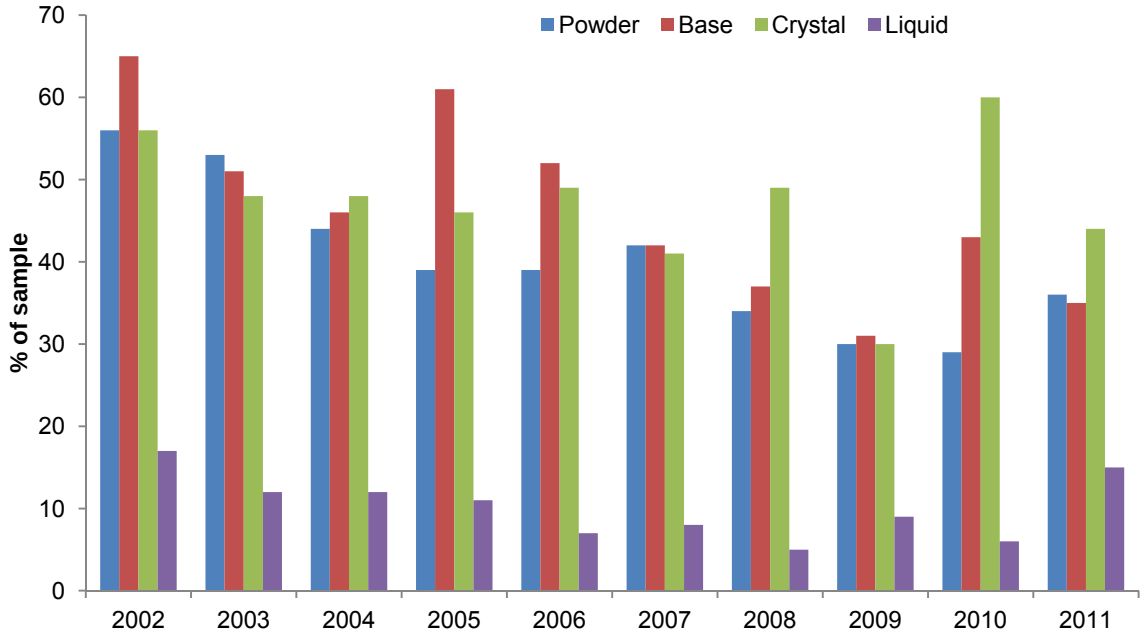
In 2002, the IDRS collected data on three different forms of methamphetamine in order to collect more comprehensive data on the use, purity and availability of each. Flashcards with colour photographs were introduced to clarify more precisely the characteristics of the different forms of methamphetamine 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-two percent of participants reported methamphetamine as the first drug ever injected, 37% nominated it as their drug of choice, 36% reported it as the drug most often injected in the last month and 35% 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 (73%), the drug injected most often in the past month (55%), the last drug injected (53%) and 55% nominated it as their drug of choice.

In 2011, two-thirds of participants (66%) had used any form of methamphetamine in the six months preceding interview, a non-significant decrease from 2010 (74%) (p=0.28). More specifically, a third of the sample reported recent use of powder (36%) and base (35%); the use of liquid amphetamine remained relatively stable (15%); and there was a significant decrease in the proportion of PWID who had used crystal in the preceding six months (60% in 2010 vs. 44% in 2011; p=0.038; 95% CI: 0.29 – 0.019). 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, 2002-2011



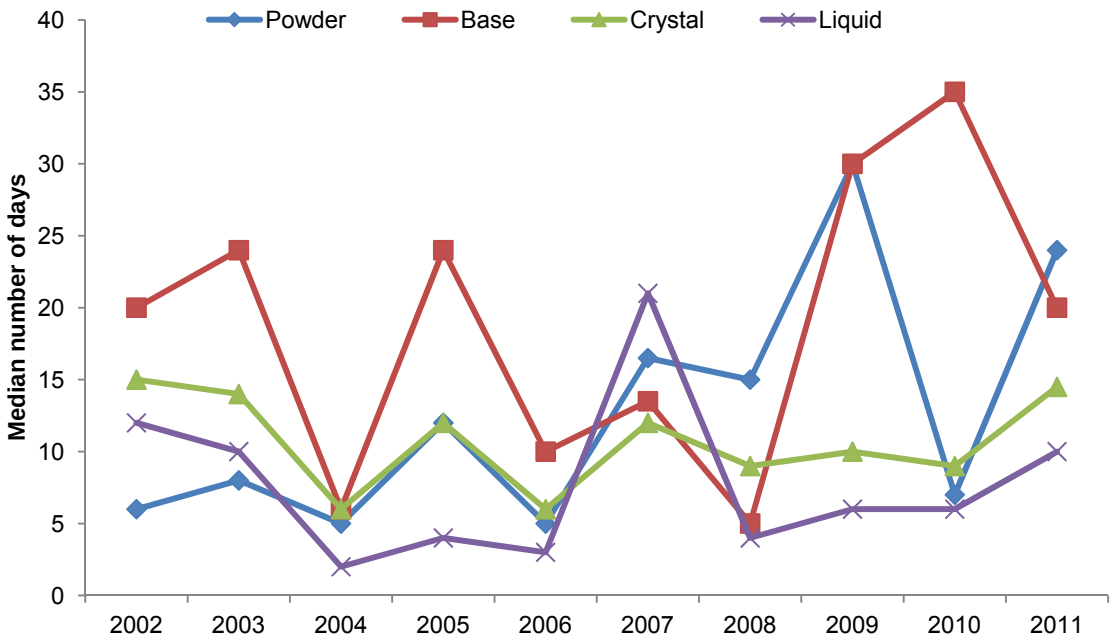
Source: IDRS participant interviews

4.3.2 Methamphetamine frequency of use

In the last six months, powder was reported as being used at a higher frequency than in 2010 (as measured by the median number of days used in the six months prior to interview). That is, in 2011, participants reported using powder on a median of twenty-four days (range: 1-180) compared to 7 days (range: 1-180) in 2010.

Inversely, there was a decrease in the median number of days base methamphetamine was used; from 35 days in 2010 to 20 days in 2011. The frequency of crystal use remained relatively stable (from nine days in 2010 to 14.5 in 2011), as did the frequency of amphetamine liquid (see Figure 6).

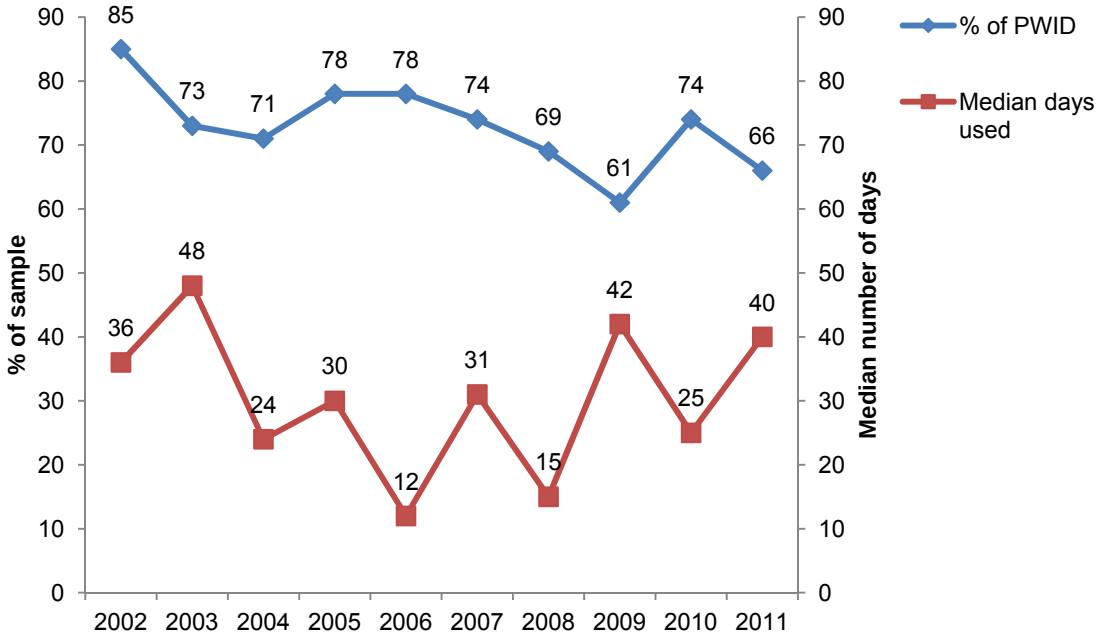
Figure 6: Methamphetamine, median number of days used in the last six months, 2002-2011



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 2011 66% of participants had used some form of methamphetamine (powder, base, crystal, and liquid), representing a decrease from 2010 (74%). However, the frequency of methamphetamine use had increased with recent methamphetamine users reported that they had used on a median of 40 days (range=1-180) in a six month period; up from 25 days in 2010.

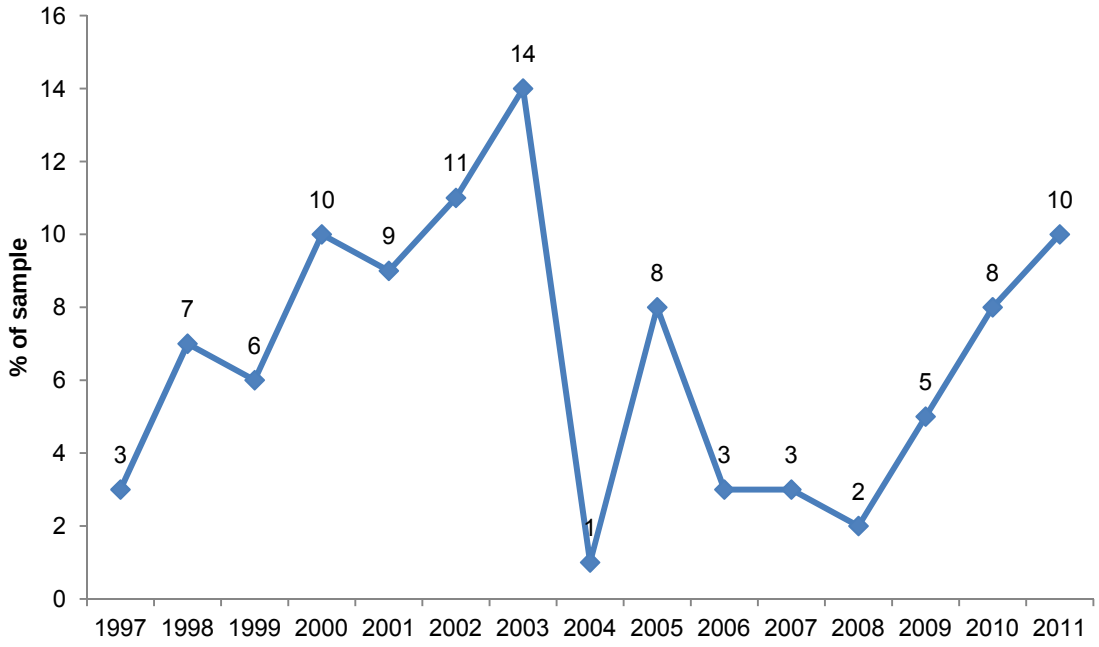
Figure 7: Methamphetamine, recent use and median number of days used, 1997-2011



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

Of the 66 participants who reported using some form of methamphetamine in the last six months, ten participants reported daily use during that period. This was similar to the number of methamphetamine users reporting daily use of any methamphetamine (n=6) in 2010. 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, there has been a steady increase of daily methamphetamine use since 2008, although numbers remain relatively small.

Figure 8: Methamphetamine, percentage that used daily in the last six months, 1997-2011



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% vs. 31% in 2010) had injected powder, 31% had injected base (compared to 43% in 2010), 41% had injected crystal (63% in 2010) and 14% had injected amphetamine liquid (7% in 2010). Five percent of participants reported smoking powder, 6% reported snorting and 8% had swallowed powder in the preceding six months; this remained relatively stable compared to 2010. Twelve percent of the sample reported smoking base methamphetamine, followed by swallowing (6%) and snorting (2%); again this was stable from 2010. Recent smoking of crystal remained stable at 19% (vs. 21% in 2010), with both snorting and swallowing of crystal remaining low (2% and 7% respectively) (Table 5).

Of the 37 participants reporting methamphetamine as their drug of choice, virtually all had used some form of methamphetamine (97%; n=36) and tobacco (95%; n=35) in the six months preceding interview; 27 (73%) had used cannabis, 19 (51%) had used alcohol, 9 (24%) had used ecstasy, and eight (22%) had used heroin.

Crystal was the most common form of methamphetamine used by PWID in the preceding six months although, as mentioned earlier, there was a significant decrease from 2010 (44% vs. 60%; p=0.038; 95% CI: 0.29 – 0.019). The gap between the use of speed and base closed quite considerably in 2011, with the two being used almost equally (36% and 35% respectively).

KE comments

- The majority of KE reported that the use of methamphetamine had remained stable among their clientele, although three KE did feel that the popularity (and use) of methamphetamine had increased. It was generally perceived that ice was the most popular form of methamphetamine, although one KE reported that they were seeing paste, rather than powder and crystal. Five KE also report that they don't distinguish between the various forms of methamphetamine.
- When asked what drug they considered to be most problematic at the moment, the majority (9/15) nominated methamphetamines.
- Reports regarding the ROA were mixed; with KE noting that although most dependent users inject methamphetamine there was also a substantial portion who were smoking it.

4.4 Cannabis

Key findings

- The proportion of participants who had recently used cannabis remained stable in 2011, whilst the frequency increased to a median of 110 days in a six month period.
- Forty-six percent of recent cannabis users (n=31) stated they had used on a daily basis in the last six months; an increase from 2010.
- Of the 69 participants who had used cannabis recently, 59 (86%) reported the use of hydro and 54 (78%) reported the use of bush within that period.

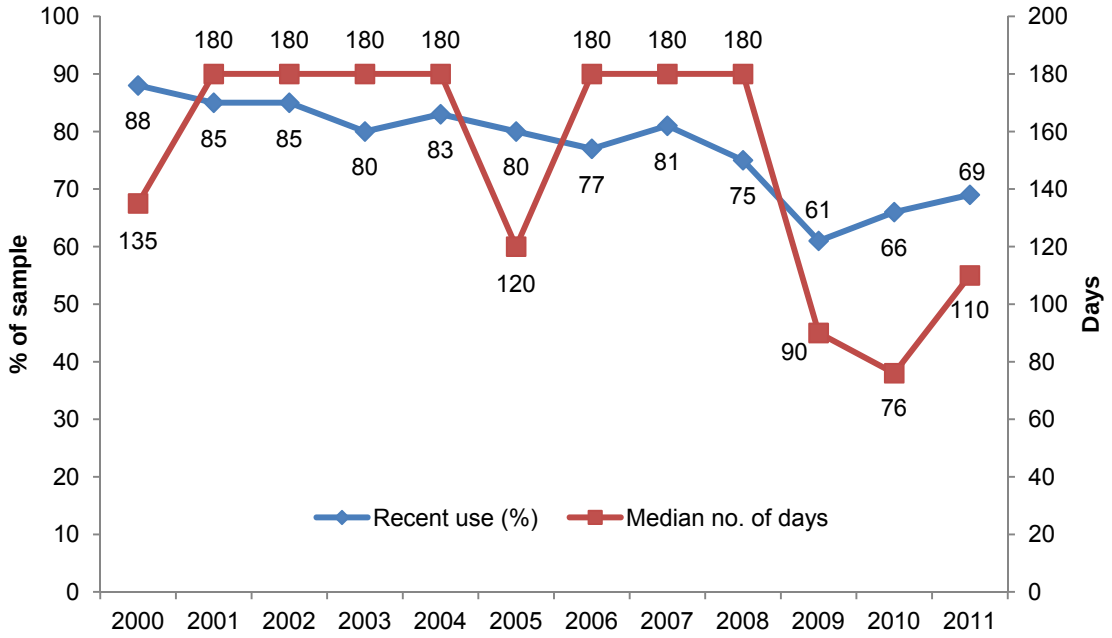
The current legal approach to cannabis use in SA is one of 'prohibition with civil penalties'. Under this approach, the production, possession or use of cannabis is illegal. Any cultivation of a cannabis plant by hydroponic means will result in the accused being arrested/reported and required to attend 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-nine percent of the sample reported having used cannabis on a median of 110 days (range: 2-180) during the last six months (compared to 76 days in 2010). Although cannabis is generally not the drug of choice among the IDRS sample, the majority of participants (95%) reported using this substance in their lifetime. Reported use of cannabis in the six months prior to interview remained stable: 66% in 2010 compared to 69% in 2011 (see Figure 9).

Figure 9: Cannabis, recent use and median number of days used, 2000-2011



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

Forty-six percent of recent cannabis users (n=31) stated they had used on a daily basis in the last six months, an increase from 2010 which didn't quite reach significance (p=0.058; 95% CI: -0.0099 – -0.326). Almost two-thirds of recent cannabis users (64%; n=44) reported that they had used cannabis on the day preceding interview, a significant increase from 2010 (40%; n=25) (p=0.01; 95% CI: -0.07 – -0.39).

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 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=52; 77%) the last time they used and had smoked a median of two cones (range 0.5-12). Nine participants reported smoking a median of two joints (range 1-5) 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 69 participants who had used cannabis recently, 59 (86%) reported use of hydro and 54 (78%) reported use of bush, within that period. In addition, twenty-four participants (35%) reported use of 'hash' (cannabis resin) and fourteen (20%) 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 (69%, n=47). Twenty-nine percent (n=20) reported bush was the form they had used most, and one participant reported that hash was the form they had used most in the preceding six months.

KE comments

- All KE reported that there was no real change in the cannabis market. Two KE reported that a bag of cannabis costs $25 (consistent with participant reports), and one reported that it costs between $2,200-3,600 for a pound of cannabis.
- One KE noted that although the cannabis market was stable, there had been an increase in the prevalence of mental health disorders among regular cannabis users.
- Two KE noted that outdoor crops were not very common, with hydro being the preferred form of cannabis.

4.5 Opioids

Key findings

- Twenty percent of participants reported they had used illicit morphine in the six months prior to interview on a median of ten days (range 1-180); this was similar to participant reports in 2010.
- The majority of morphine users (82%, n=18) 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 2011, with eleven participants reporting that they had recently used illicit methadone syrup on a median of four days (range 1-48) in the last six months.
- Compared to 2010, the number of participants reporting recent use of illicit buprenorphine remained stable, whereas the frequency of use halved.
- The proportion of participants reporting recent use of illicit oxycodone increased slightly in 2011, whilst the frequency remained stable.

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 2011 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 2011 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 (59%), followed by either licit or illicit methadone (39%), licit or illicit oxycodone (26%), licit or illicit morphine (23%), licit or illicit Suboxone® (11%) 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 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, 84% 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, 78% had used any of these substances in that time. Excluding heroin and licit use (of methadone, morphine, buprenorphine, Suboxone® or oxycodone), 53% 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, 11% reported it as the drug most often injected in the last month, and 9% as the last drug they injected (see Figure 1, Figure 2 & Table 3).

Twenty percent of participants reported they had used illicit morphine in the six months prior to interview on a median of ten days (range: 1-180); this was similar to 2010. Four participants reported daily use of illicit morphine in the six months prior to interview.

The majority of all morphine users (82%, n=18) 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 MS Contin® (50%, n=10) and Kapanol® (35%, n=7).

4.5.3 Use of illicit methadone

2011 was the ninth year that IDRS survey participants were asked to provide separate information on the use of licit and illicit methadone syrup and Physeptone® tablets.

Eleven participants reported having recently used illicit methadone syrup on a median of four days (range 1-48) in the last six months. Of those, nine reported injecting illicit methadone syrup on a median of four days (range: 1-48), and four participants reported use by swallowing during that period. This was largely stable from 2010.

Five participants reported having used illicit Physeptone® tablets on a median of two days in the last six months (range: 1-5). Of those, only one participant reported use of illicit Physeptone® tablets by injecting and this was done on one day; two participants reported use by swallowing during that period and one reported use by smoking.

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 7 days (range: 1-36) in the six months prior to interview. Half of the participants who reported use of illicit buprenorphine did so by injection (n=4), and they had done so on a median of 14 days (range: 1-24). Five participants reported use of illicit buprenorphine by swallowing and one participant reported use by smoking.

4.5.5 Use of illicit oxycodone

Twenty-three participants reported recent use of illicit oxycodone on a median of 7 days (range: 1-180) in the six months prior to interview. Of those, 19 reported injecting illicit oxycodone on a median of six days (range: 1-180) and nine participants reported use by swallowing during that period. Compared to 2010, there was a slight increase in the number of participants who had used illicit oxycodone; although due to small numbers no real comparisons can be drawn.

4.5.6 Use of illicit Suboxone®

Four participants reported recent use of illicit Suboxone® on a median of four days (range: 1-10) in the six months prior to interview. Of those, only one participant reported use of illicit Suboxone® by injecting and they had done so on six days. Three participants reported use by swallowing.

KE comments

- Over half of the KE noted there had been an increase in the use of other opioids; particularly oxycodone. It was suggested that this may be indicative of heroin being of low purity, or not easily accessible.
- One KE reported that oxycodone costs $20-50 for a tablet.
- It was noted by a number of KE that governmental health departments have tightened regulations surrounding the prescription of opioids; as a result general practitioners are not prescribing these drugs as often. This is problematic for those who have a legtimiate need for such medication, and means that most people are seemingly obtaining pharmaceutical opioids from the street market.
- In terms of route of administration, it is believed that most users of these drugs are swallowing, rather than injecting, them.

4.6 Other drugs

Key findings

- Eighteen percent of IDRS participants had used ecstasy and 6% had used some type of hallucinogen in the six months prior to interview; this remained stable from 2010.
- In 2011, there was a significant increase in the recent use of illicit benzodiazepines.
- The proportion of participants who reported recent use of cocaine remained stable from 2010, and frequency remained low.
- There was a significant increase in the use of OTC codeine within the preceding six months, from 22% in 2010 to 50% in 2011.
- Tobacco remains highly prevalent among PWID, with 94% reporting use within the six months preceding interview. Eighty-eight 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 (59%) and hallucinogens (57%) within their lifetime. Eighteen percent of the sample had used ecstasy and 6% 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 three days (range: 1-90) and hallucinogens on a median of four days (range: 1-14). The use and frequency of both ecstasy and hallucinogens remained stable when compared to 2010. Both ecstasy and hallucinogens had mainly been consumed orally (ecstasy: 89%; hallucinogens: 100%), although six percent of participants also reported that they had injected ecstasy on a median of 2 days (range 1-90) during the past six months. Other parameters of use for these two drug classes were very similar to those reported in 2010. The main forms of hallucinogens used by PWID were LSD/trips (n=4), followed by mushrooms (n=3).

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 2011, participants were asked to distinguish between their use of alprazolam (xanax) and other benzodiazepines. Twenty three percent of PWID reported illicit use of alprazolam on a median of 3 days; and 19% reported illicit use of other benzodiazepines on a median of 10 days within the preceding six months.

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 3 days. In 2011, a larger proportion of participants (34%) reported recent use of any illicit benzodiazepines compared to participant reports in 2010 (17%).

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

Twelve participants reported use of cocaine on a median of two days (range: 1-48) in the six months prior to interview; this remained stable from 2010. Fifty percent of these participants reported that they had injected cocaine on a median of two days (range: 1-48) 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 2011, twenty-three percent of the sample reported using illicit pharmaceutical stimulants at least once in their lifetime (17% in 2010) and 9% reported use within the preceding six months (4% in 2010). The frequency of use decreased substantially, from 26 days in 2010 (range: 1-60) to 4 days (range 1-24 days) in 2011. Recent injection of illicit pharmaceuticals was reported by only 1% of the sample, on a median of 3 days.
Among those who had used illicit pharmaceutical stimulants, the most common form used was Dexamphetamine® (n=4). Two participants were not sure what brand they had used. Interestingly, no participants had used licit pharmaceutical stimulants within the preceding six months.

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 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 2011, sixty-six percent of participants reported ever using OTC codeine, representing a significant increase from 2010 (39%; $p<0.001$; 95% CI: -0.13 – -0.39). The proportion of participants who had recently used OTC codeine also increased significantly, from 22% in 2010 to 50% in 2011 ($p<0.001$; 95% CI: -0.15 – -0.4). The median days of use within a six month period was 9 (range 1-180), with two participants reporting daily use. Swallowing was the only ROA reported by recent OTC codeine users, and the main brands used were Nurofen Plus® (n=19), followed by Panadeine® (n=11).

Further details regarding the use of OTC codeine, including a comparison with national figures, can be found in section 9.4.

4.6.6 Alcohol

Not surprisingly, almost all participants reported that they had consumed alcohol within their lifetime (95%). Over half the sample (54%) had used alcohol in the six months preceding interview; and they had done so on a median of 14 days (range 1-180). Eight participants reported daily use of alcohol.

4.6.7 Tobacco

Tobacco remains highly prevalent among PWID, with 96% of the sample reporting lifetime use and 94% reporting use in the six months preceding interview. The median days of use, among those who had recently used tobacco, was 180 days (range 48-180). More specifically, 88% of PWID (or 94% of those who had recently used tobacco) reported daily use of tobacco.

4.6.8 Seroquel

In 2011, participants were asked about their use of seroquel; an antipsychotic which is used to treat major psychotic and depression disorders. Five percent of the sample reported lifetime use of licit seroquel, whilst 12% reported lifetime use of illicit seroquel. Just two percent of participants had used licit seroquel in the preceding six months; and they had done so on a median of 138 days (range 96-180). Seven percent had used illicit seroquel on a median of one day (range 1-3). Swallowing was the only ROA for both licit and illicit seroquel, with no participants reporting injection within the preceding six months.

KE comments

- Second only to amphetamines, alcohol was considered to be the drug of greatest concern. This was due to the widespread prevalence, availability and social acceptability of alcohol consumption. The issue of binge drinking was considered to be an issue of particular concern, especially among younger users.
- A couple of KE expressed concern regarding the increasing use of alprazolam (otherwise known as xanax). This was considered to be problematic due to the effects of the drug, which are apparently very similar to Rohypnol (including disinhibition, memory loss, and an increased risk of overdose, crime and violence). One KE believed that alprazolam should go down the same path as Rohypnol and be prescribed only by psychiatrists.
- One KE reported that analyses of cocaine seizures have revealed that levamisole is starting to be added to cocaine at the point of manufacture. Levamisole is a pharmaceutical drug which can reduce blood pressure, and it was hypothesised that perhaps it is being added to counteract the increased blood pressure that accompanies cocaine use. However, this is extremely problematic with studies in the US attributing several cocaine related fatalities to the presence of this drug.

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 medium, with approximately a third of participants reporting that purity had fluctuated 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-thirds of the sample scored heroin from a 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=$50-100, n=19), which was stable from 2010 ($100, range=$50-150, n=20). The median price at last purchase for a gram of heroin was $400 (range=$380-1,100, n=8), which was higher than reported in 2010 ($360, range $350-400; n=3); however, due to the small numbers no real comparisons can be made.

Of those participants who were confident to report on the current price of heroin (n=51), 84% reported the price as stable over the last six months (see Table 9). This has remained stable from 2010.

Table 9: Change in price of heroin over last six months, 2010-2011

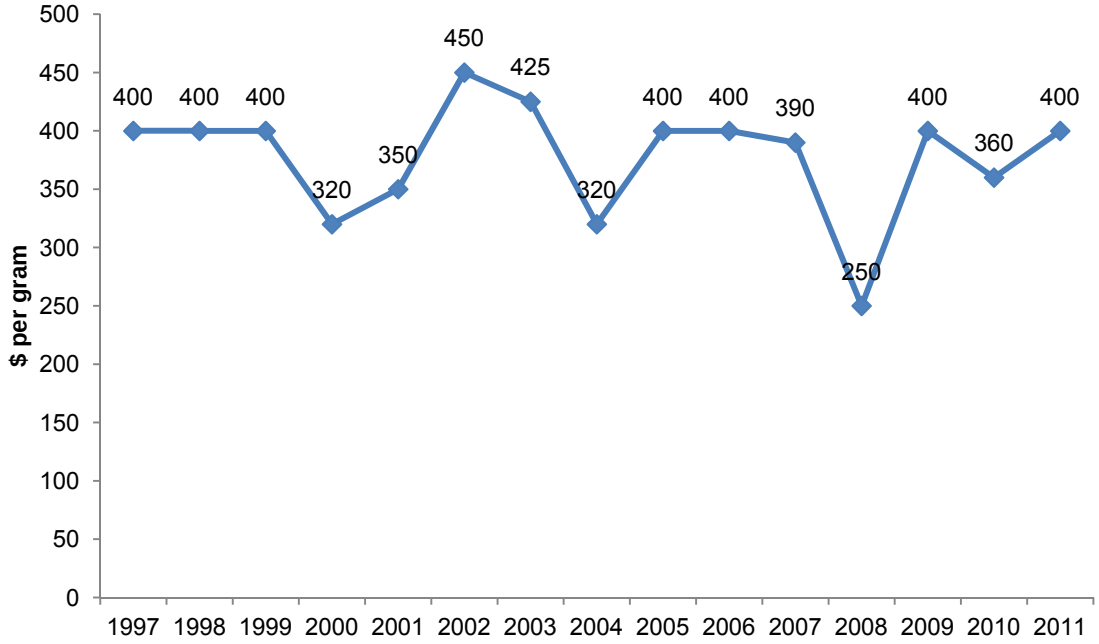
Reported price status	% able to answer	
	2010 (n=52)	**2011 (n=51)**
Increasing	12	**12**
Stable	87	**84**
Decreasing	2	**2**
Fluctuating	0	**2**

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, 1997-2011



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

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 2011, the majority of those able to answer (51%) reported that the current purity of heroin was medium; this was an increase (albeit non-significant) from 2010 in which 37% of the sample perceived purity as medium. About a third of the sample (37%) reported that the purity was low, a slight decrease from 2010. Thirty-nine percent of those able to answer reported that the purity of heroin had remained stable over the preceding six months, with an additional 31% reporting that it had fluctuated. A quarter (24%) believed that the purity of heroin had decreased and only 6% reported it to have increased.

Table 10: Current purity/strength of heroin, 2010-2011

How pure would you say heroin is at the moment?	% able to answer	
	2010 (n=52)	**2011 (n=51)**
High	10	**6**
Medium	37	**51**
Low	42	**37**
Fluctuates	11	**6**

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

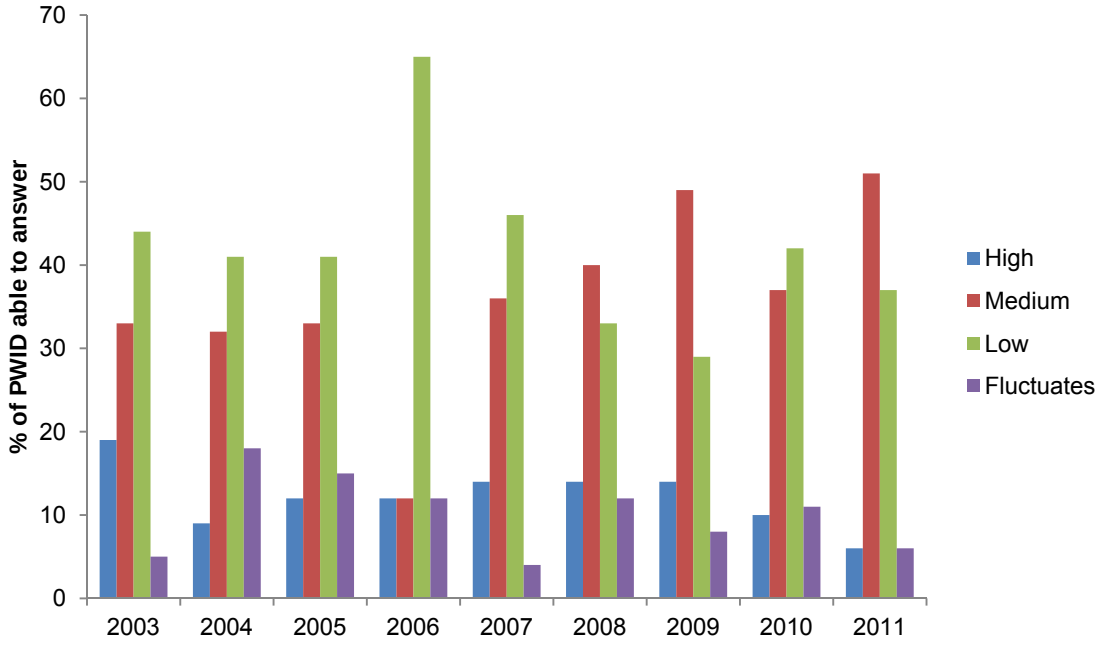
Table 11: Change in purity/strength of heroin in last six months, 2010-2011

Has the purity of heroin changed in the last 6 months?	% able to answer	
	2010 (n=50)	**2011 (n=51)**
Increasing	6	**6**
Stable	38	**39**
Decreasing	30	**24**
Fluctuating	26	**31**

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, 2003-2011

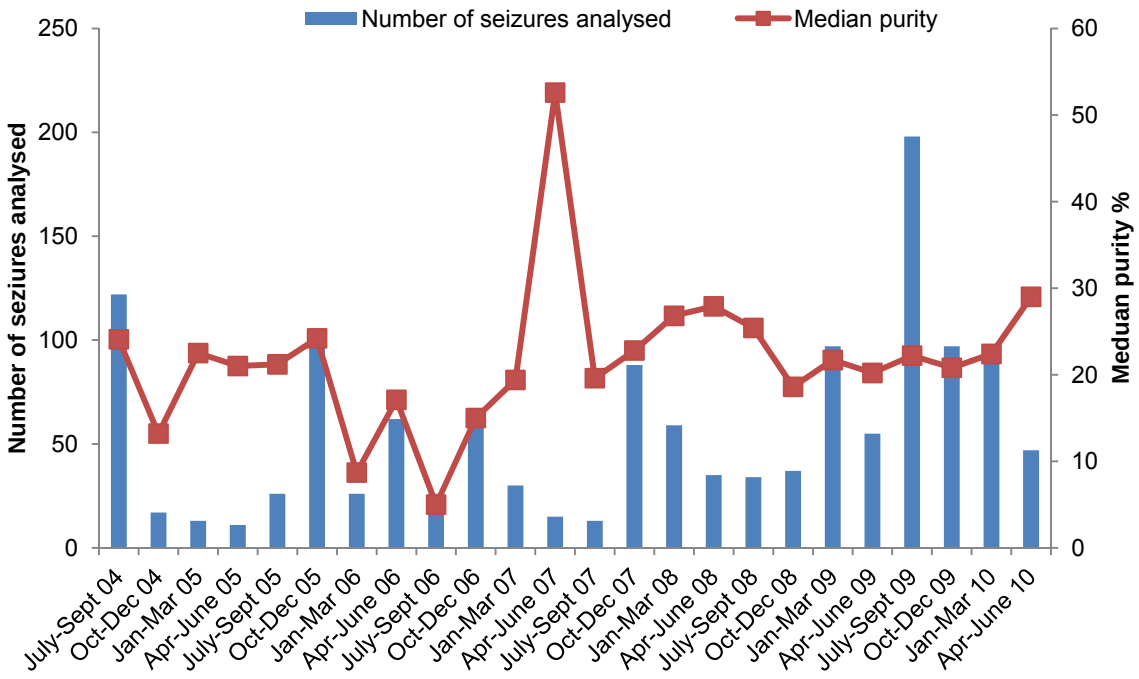


Source: IDRS participant interviews
Note: The category 'fluctuates' was not included in 2000; Note: 'Don't know' was excluded from 2009 onwards

ACC data were unavailable for 2010/11 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: 2009/10 (Australian Crime Commission, 2011). 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 2009/10.

Despite quarterly variation, and variation in the number of seizures, the median purity of SAPOL heroin seizures remained stable in 2009/10 at 22.1% (compared to 21.8% in 2008/09). 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 doubled in 2009/10, from 223 in 2008/09 to 436 in 2009/10 (see Figure 12). The vast majority of SAPOL seizures analysed (n=421) were less than two grams.

Figure 12: Number of heroin seizures analysed and median heroin purity in SA 2004/05-2009/10



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

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 (98%), with only 2% reporting that it was difficult to obtain (down from 21% in 2010; p=0.006; 95% CI: 0.316 – 0.0684). Four-fifths (80%) of those able to answer perceived that heroin availability had remained stable in the six months preceding interview, an increase from 2010. Inversely, there was a significant decrease in the proportion of participants who reported that heroin was more difficult to obtain, from 21% in 2010 to 4% in 2011 (p=0.019; 95% CI: 0.304 – 0.044).

Table 12: Availability of heroin currently, 2010-2011

How easy is it to get heroin at the moment?	**% able to answer**	
	2010 (n=53)	**2011 (n=52)**
Very easy	30	**48**
Easy	47	**50**
Difficult	21	**2**
Very difficult	2	**0**

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

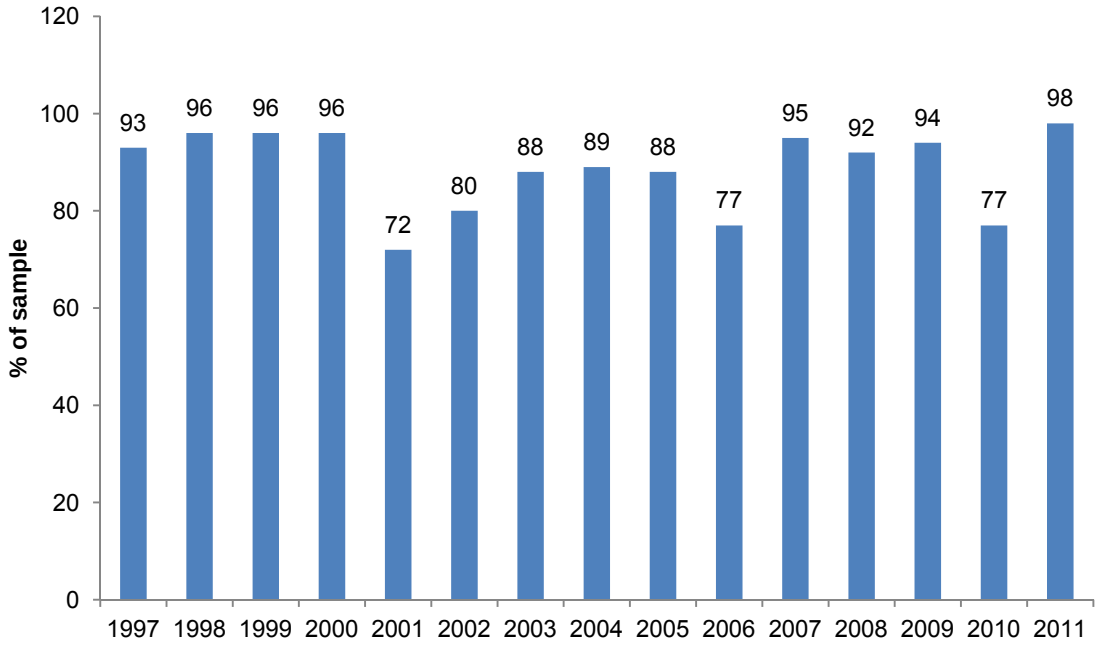
Table 13: Change in availability of heroin over the last six months, 2010-2011

Has [availability] changed in the last 6 months?	% able to answer	
	2010 (n=52)	**2011 (n=51)**
More difficult	21	**4**
Stable	69	**80**
Easier	10	**6**
Fluctuates	0	**10**

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 2011, ninety-eight percent of participants able to answer reported that heroin was easy or very easy to obtain, a significant increase from 2010 (p=0.003; 95% CI: -0.084 – -0.337).

Figure 13: Availability of heroin as 'easy' or 'very easy' in the last six months, 1997-2011



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 majority of participants who provided information on the source of their heroin in the six months prior to interview (n=51), reported they usually obtained heroin from a known dealer (63%). Less than a third of

the participants who had recently used heroin bought their heroin at an agreed public location (29%), which represented a significant decrease from 2010 (52%; p=0.034; 95% CI: 0.39 – 0.035). Inversely, there were (non-significant) increases in the number of participants obtaining heroin through home delivery (24%); from a dealer's home (22%) and from a friend's home (16%).

Table 14: Source person and source venue last time obtained heroin in the last six months, 2010-2011

Last source person and venue	2010 (n=52)	**2011 (n=51)**
Person		
Street dealer	14	**6**
Known dealer	46	**63**
Friends	23	**18**
Acquaintances	4	**8**
Mobile dealer	10	**4**
Unknown dealer	4	**2**
Venue		
Home delivery	15	**24**
Dealer's home	15	**22**
Friend's home	6	**16**
Acquaintance's home	6	**0**
Agreed public location	52	**29**
Street market	4	**8**
Other	2	**2**

Source: IDRS participant interviews

KE comments

- Reports surrounding the price, purity and availability of heroin were very mixed. In relation to use, four KE reported that the prevalence of heroin had increased; of these, two reported that there had been a gradual increase in use, one reported that availability had only very recently increased and one reported that there had been an increase in seizures. On the other hand, one KE reported that seizures remained low and sporadic, and another reported that availability remained low.
- It was generally thought that although purity had remained relatively stable over the past 12 months, there had been a very recent increase in purity. More specifically, in the 2-3 months preceding interview there had been a spate of heroin overdoses, in which 2-3 people died. This was perceived to be due to a batch of high purity heroin and 'corruption factors' (being cut with adulterants).
- The price of heroin was thought to have remained stable; fluctuating between $50-100 for a cap.

5.2 Methamphetamine

Key findings

- Reports regarding the price of methamphetamine varied according to type. More specifically, the price of powder doubled to $100 for a point, the price of base decreased to $75 for a point and the price of crystal methamphetamine remained stable at $75 a point.
- Reports regarding the purity of methamphetamine were extremely mixed. The purity of powder methamphetamine was largely reported to be fluctuating, whilst the purity of base and crystal was reported 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 or a known dealer for all forms of amphetamine.

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=13), double that reported in 2010 ($50; range=$35-100; n=11). No participants commented on the price for a gram of powder, and only one participant commented on the price for a half weight ($400).

5.2.1.2 Methamphetamine – Base

The last reported price paid for a point of base was $75 (range: $25-150, n=18), representing a slight decrease from 2010 ($100; range: $40-100; n=16). 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 $200 (range: $150-350; n=3) and $700 (range: $250-800; n=3) respectively (see Table 15).

5.2.1.3 Methamphetamine – Crystal

The last reported price paid for a point of crystal was $75 (range: $30-100; n=28), stable from 2010 ($75; range: $50-100; n=9). The median price for a ½ weight of crystal was $250 (range: $200-350; n=4), whilst the last reported price paid for a gram of crystal increased dramatically to $575 (range=$300-800, n=8); 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, 2010-2011

	2010	**2011**
Price ($) SPEED		
Per point	50	**100**
Per gram	400^	**-**
Price ($) BASE		
Per point	100	**75**
Per gram	210^	**700^**
Price ($) ICE/CRYSTAL		
Per point	75	**75**
Per gram	260^	**575^**

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

Whilst Table 15 shows comparisons between 2010 and 2011, 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 2011, the majority of participants answering this section reported the price of all forms of methamphetamine to be stable. Interestingly, across all three forms of methamphetamine, there was an increase in the proportion of participants who reported that the price had remained stable and a decrease in those who reported that the price had increased (significant for base only; p=0.017; 95% CI: 0.497 – 0.0844).

Table 16: Change in price of methamphetamine over last six months, 2010-2011

Reported price status	**Powder**		**Base**		**Crystal**	
	% able to answer					
	2010 (n=19)	**2011 (n=33)**	2010 (n=35)	**2011 (n=28)**	2010 (n=37)	**2011 (n=37)**
Increasing	47	**30**	46	**14**	32	**16**
Stable	42	**67**	46	**71**	57	**76**
Decreasing	5	**0**	0	**7**	0	**5**
Fluctuating	5	**3**	9	**7**	11	**3**

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 a decrease in the proportion of participants who perceived current purity as high, and an increase in those who perceived it as fluctuating. In regards to crystal methamphetamine there was a similar increase in those who described current purity as fluctuating, whilst there was a decrease in those who reported it as low.

Table 17: Purity/strength of methamphetamine currently, 2010-2011

How pure would you say [powder/base/crystal] is at the moment?	Powder		Base		Crystal	
	% able to answer					
	2010 (n=19)	**2011 (n=31)**	2010 (n=35)	**2011 (n=28)**	2010 (n=39)	**2011 (n=37)**
High	37	**23**	51	**32**	46	**43**
Medium	26	**26**	20	**21**	21	**24**
Low	21	**23**	9	**18**	18	**5**
Fluctuates	16	**29**	20	**29**	15	**27**

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 remained stable over the preceding six months (37%), whilst for base and crystal participants largely reported that the purity had fluctuated over this time (48% and 34% respectively).

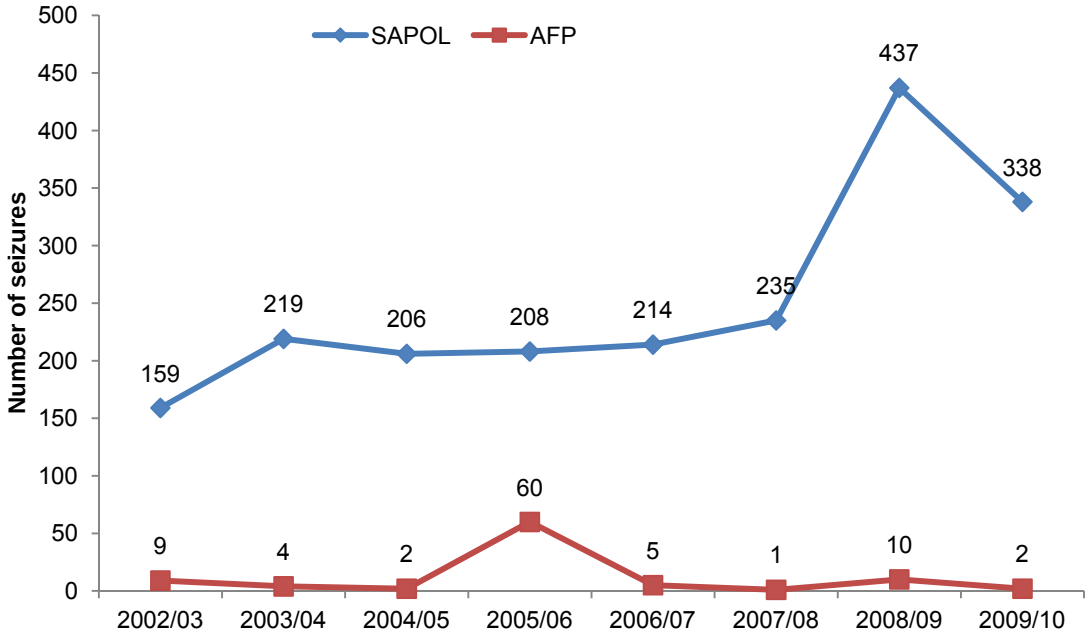
Table 18: Change in purity/strength of methamphetamine in last six months, 2010-2011

Has the purity of [powder /base/crystal] changed in the last 6 months?	Powder		Base		Crystal	
	% able to answer					
	2010 (n=19)	**2011 (n=30)**	2010 (n=34)	**2011 (n=27)**	2010 (n=39)	**2011 (n=35)**
Increasing	16	**13**	24	**7**	10	**20**
Stable	42	**37**	44	**22**	44	**31**
Decreasing	21	**20**	3	**22**	26	**14**
Fluctuating	21	**30**	29	**48**	21	**34**

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

The Australian Crime Commission (ACC) data were unavailable for 2010/11 at the time of publication. As such, data provided by the ACC relates to methamphetamine seizures in SA during the last financial year: 2009/10 (Australian Crime Commission, 2011). Figure 14 shows the number seizures for amphetamine-type stimulants, by South Australia Police (SAPOL) and the Australian Federal Police (AFP). As can be seen, there was a considerable drop in SAPOL seizures in 2009/10, although the number of seizures remained higher than those observed from 2002/03-2007/08.

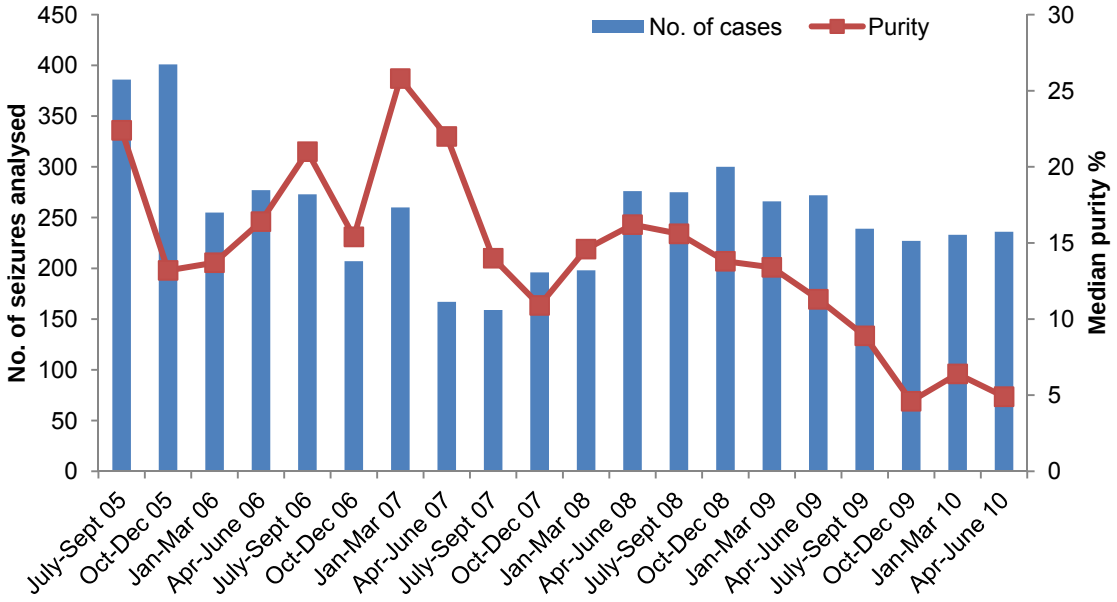
Figure 14: Number of seizures: amphetamine-type stimulants, 2002/03-2009/10



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

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 2009/10. The total number of SAPOL methamphetamine seizures analysed from July 2009 to June 2010 was 935, which was a slight decrease from the 2008/09 financial year (1,113). The overall median purity of the seizures analysed was 6.9%, which was almost half of that reported in 2008/09 (13.3%). 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, 2005/06-2009/10



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

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, 2010-2011

How easy is it to get [powder/base/crystal] at the moment?	Powder		Base		Crystal	
	% able to answer					
	2010 (n=21)	**2011 (n=32)**	2010 (n=34)	**2011 (n=28)**	2010 (n=38)	**2011 (n=38)**
Very easy	38	**31**	35	**39**	32	**29**
Easy	48	**50**	47	**46**	53	**58**
Difficult	14	**13**	12	**14**	13	**13**
Very difficult	0	**6**	6	**0**	3	**0**

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

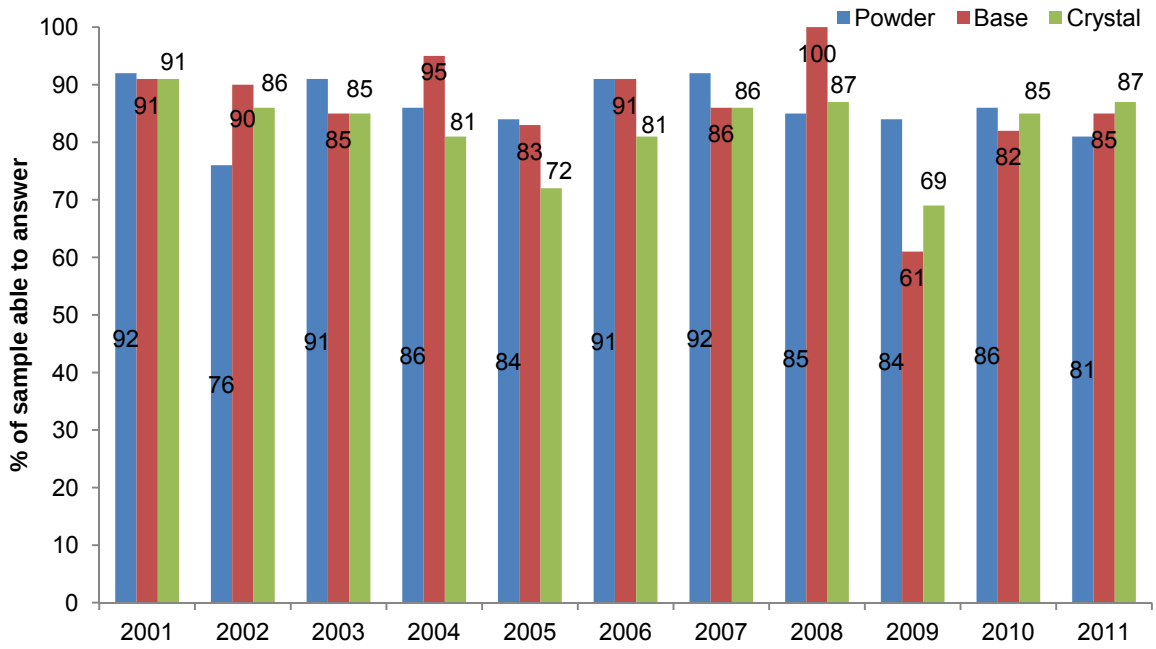
Table 20: Change in availability of methamphetamine over the last six months, 2010-2011

Has [availability] changed in the last 6 months?	Powder		Base		Crystal	
	% able to answer					
	2010 (n=21)	**2011 (n=31)**	2010 (n=34)	**2011 (n=28)**	2010 (n=38)	**2011 (n=38)**
More difficult	5	**10**	21	**4**	11	**13**
Stable	81	**61**	71	**79**	74	**61**
Easier	5	**13**	6	**11**	16	**18**
Fluctuates	10	**16**	3	**7**	0	**8**

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, 2001-2011



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 dealers.

The locations/venues from which participants most commonly obtained base were as follows: a friend's home or agreed public location (equally), a dealer's home, an acquaintances home or home delivery. Powder was most commonly scored through home delivery, closely followed by an agreed public location. Crystal was equally obtained from a friend's home or agreed public location, followed by home delivery.

Table 21: Last usual source person and venue used for obtaining various forms of methamphetamine in the last six months, 2011

Usual source person and venue of those able to answer (%)	Powder (n=28)	Base (n=27)	Crystal (n=34)
Person			
Street dealer	7	4	0
Friend	46	44	44
Known dealer	21	33	38
Workmates	4	0	3
Acquaintances	11	11	12
Unknown dealer	4	4	0
Other	7	4	3
Venue			
Home delivery	29	11	24
Dealer's home	11	22	12
Friend's home	18	26	27
Acquaintance's home	7	11	6
Street market	4	0	3
Agreed public location	25	26	27
Other	7	4	3

Source: IDRS participant interviews

KE comments

- The majority of KE reported that, to their knowledge, the availability of methamphetamine had remained stable and was easily accessible.
- Four KE reported that the price of crystal methamphetamine had increased, with one KE reporting that it currently cost between $75-100 for a point. The remaining KE reported that, to their knowledge, the price of the various forms of methamphetamine had remained stable.
- Reports regarding the purity of methamphetamine were mixed. Most KE believed the purity hadn't changed over the past 12 months; two KE reported that the purity of ice had declined and one KE reported that the purity of speed had increased.
- It is important to keep in mind that a substantial number of the KE do not distinguish between the various forms of methamphetamine.

5.3 Cannabis

Key findings

- The price for both hydro and bush cannabis remained stable in 2011.
- 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 $210/ounce for hydro (range: $120-250, n=22) and $220/ounce for bush (range: $150-250, n=15). 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: $20-40, n=31) and bush (range: $20-25, n=18). 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, 2010-2011

	2010	2011
Price ($) HYDRO		
Per gram	25^	**25^**
Per quarter ounce	60^	**60**
Per ounce	220	**210**
Per bag	25	**25**
Price ($) BUSH		
Per gram	25^	**25^**
Per quarter ounce	-	**60^**
Per ounce	200^	**220**
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, with less participants reporting that prices had increased compared to 2010 (see Table 23).

Table 23: Change in price of cannabis over the last six months, 2010-2011

Reported price status	% able to answer			
	2010		2011	
	Hydro (n=38)	Bush (n=27)	**Hydro (n=60)**	**Bush (n=47)**
Increasing	37	15	**12**	**11**
Stable	58	82	**75**	**79**
Decreasing	3	4	**5**	**6**
Fluctuating	3	0	**8**	**4**

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 2011, 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, 2010-2011

How strong would you say cannabis is at the moment?	% able to answer			
	2010		2011	
	Hydro (n=41)	Bush (n=28)	**Hydro (n=60)**	**Bush (n=48)**
High	63	39	**60**	**29**
Medium	34	46	**23**	**56**
Low	2	11	**5**	**4**
Fluctuates	0	4	**12**	**10**

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, 2010-2011

Has the strength of cannabis changed in the last 6 months?	% able to answer			
	2010		2011	
	Hydro (n=40)	Bush (n=27)	**Hydro (n=60)**	**Bush (n=48)**
Increasing	5	7	**15**	**4**
Stable	65	67	**63**	**83**
Decreasing	10	19	**3**	**4**
Fluctuating	20	7	**18**	**8**

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 2011, the majority of participants reported both types of cannabis as easy or very easy to obtain; 92% for hydro and 65% for bush. Over three-quarters of those able to answer (79%) 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 (64%).

Table 26: Availability of cannabis currently, 2010-2011

How easy is it to get cannabis at the moment?	% able to answer			
	2010		2011	
	Hydro (n=40)	Bush (n=26)	**Hydro (n=61)**	**Bush (n=48)**
Very easy	30	19	**43**	**17**
Easy	60	58	**49**	**48**
Difficult	10	19	**8**	**29**
Very difficult	0	4	**0**	**6**

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

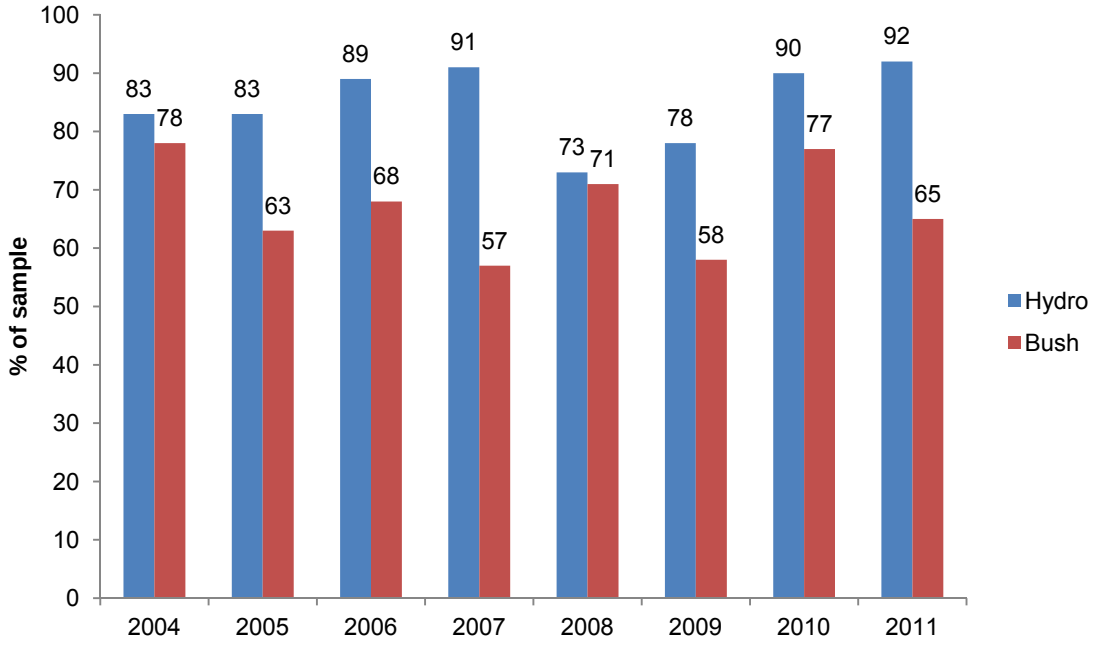
Table 27: Change in availability of cannabis over the last six months, 2010-2011

Has [availability] changed in the last 6 months?	% able to answer			
	2010		2011	
	Hydro (n=40)	Bush (n=26)	**Hydro (n=61)**	**Bush (n=48)**
More difficult	18	12	**8**	**26**
Stable	70	73	**79**	**64**
Easier	8	0	**7**	**4**
Fluctuates	5	15	**7**	**6**

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 2011, virtually the entire sample reported that hydro was easy or very easy to obtain; stable from 2010. In regards to bush cannabis, there was a non-significant decrease in the perceived ease of accessibility.

Figure 17: Availability of cannabis in the last six months, easy or very easy, 2004-2011



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 2011, the majority of participants who were able to comment reported that they usually obtained cannabis from a friend (64% for hydro and 76% 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: 42%; bush: 60%).

Table 28: Source person and source venue of last purchase of hydro and bush cannabis, 2011

Usual source or method of obtainment	Hydro (n=53)	Bush (n=37)
Person[#]		
Street dealer	4	3
Friend	64	76
Known dealer	17	5
Workmates	4	0
Acquaintances	8	11
Unknown Dealer	2	0
Mobile dealer	0	3
Other	2	3
Venue[#]		
Home delivery	23	19
Dealer's home	17	5
Friend's home	42	60
Acquaintance's home	6	8
Street Market	2	0
Agreed public location	6	5
Work	6	0
Other	0	3

Source: IDRS participant interviews
#Only one response allowed

KE comments

- Virtually all KE reported that there had been no change in the cannabis market over the preceding 12 months. One KE reported that a bag of cannabis costs $25 (consistent with participant reports), and one reported that it costs between $2,200-3,600 for a pound of cannabis.
- A couple of KE noted that although the cannabis market was stable, there were continuing problems surrounding the mental health of regular cannabis users; drug induced psychosis was viewed as a particular concern.
- Two KE noted that outdoor crops were not very common, with hydro being the preferred form of cannabis. However, one KE reported that people still prefer buds.

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 2010 data.
- Illicit morphine was largely reported as easy to obtain, although almost a third perceived availability as difficult.
- Participants obtained morphine equally through friends or known dealers.

5.4.1 Price

In 2011, the median price paid by participants at last purchase was $40 for 100mg of Kapanol®, lower than what was reported in 2010 ($50). The median price paid for 100mg of MS Contin® at last purchase was $40, which was slightly higher than the median price reportedly paid by participants in 2010 (see Table 29). Readers should note the small number of participants commenting on prices.

Table 29: Price of morphine at last purchase by participants, 2010-2011

Amount bought	Median price paid, $ (range)	
	2010	**2011**
MS Contin® – 60mg	30^	**20^ (no range)**
MS Contin®– 100mg	35^ (20-50)	**40^ (30-70)**
Kapanol® – 50mg	22.5 (15-25)	**25^ (20-50)**
Kapanol®– 100mg	50^ (30-50)	**40 (20-50)**

Source: IDRS participant interviews
^ n<5

Twenty participants were able to comment on whether the price of morphine had changed in the six months prior to interview: half (n=10) reported that the price had increased and half (n=10) reported that it had remained stable. Comparisons were not made with 2010 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, 62% reported illicit morphine as easy to obtain; a non-significant increase from 2010. Inversely, there was a decrease in the proportion of participants who reported that morphine was difficult to obtain, although again this was not significant. Almost two-thirds reported that the availability of morphine had remained

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

Table 30: Availability of illicit morphine currently, 2010-2011

How easy is it to get morphine at the moment?	% able to answer	
	2010 (n=13)	**2011 (n=21)**
Very easy	15	**10**
Easy	31	**62**
Difficult	54	**29**
Very difficult	0	**0**

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

Table 31: Change in availability of illicit morphine over the last six months, 2010-2011

Has [availability] changed in the last 6 months?	% able to answer	
	2010 (n=13)	**2011 (n=20)**
More difficult	23	**30**
Stable	62	**60**
Easier	0	**10**
Fluctuates	15	**0**

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=14), equal proportions (43%) stated that they had obtained morphine from a friend or a known dealer. Participant reports regarding the venue from which they had obtained morphine were largely consistent with 2010 reports, with the main locations being a dealer's or 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, 2010-2011

Usual source person and venue	% able to answer	
	2010 (n=13)	**2011 (n=14)**
Person		
Street dealer	0	**7**
Friend	46	**43**
Known dealer	39	**43**
Acquaintance	15	**7**
Unknown dealer	0	**0**
Mobile dealer	0	**0**
Other	0	**0**
Venue		
Home delivery	15	**7**
Dealer's home	23	**29**
Friend's home	23	**29**
Acquaintance's home	15	**7**
Street market	0	**7**
Agreed public location	23	**21**
Other	0	**0**

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.
- Illicit methadone was largely reported as easy (59%) or very easy (12%) to obtain.
- Participants obtained methadone primarily through friends.

As with other drug types, all participants were asked about the illicit methadone market. Eighteen 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 $0.75-5; n=10). No participants were able to comment on the price of Physeptone® tablets.

In response to the question 'has the price of illicit methadone changed in the past six months?' the majority of those commenting (75%; n=9) reported that the price had remained stable during this time. Two participants reported that prices had increased, whilst one reported that prices had decreased.

With regard to the current availability of street methadone, 71% of those who commented said that it was 'very-easy' (12%) to 'easy' (59%) to obtain. Twenty-nine percent thought it was 'difficult' to obtain. When asked whether availability had changed over the preceding six months, the majority of those commenting (94%; n=16) reported that it had remained stable. One participant (6%) reported that illicit methadone had become more difficult to obtain in the preceding six months.

Among those that had recently bought illicit methadone, it was most commonly purchased from friends (50%), followed by street dealers (17%), known dealers (17%) or acquaintances (17%). The most commonly reported locations of purchase were a friend's home (50%), followed by home delivery (17%), an agreed public location (17%) or a street market (17%).

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.
- Illicit oxycodone was largely reported as easy (63%) or very easy (16%) to obtain.
- Participants obtained oxycodone equally through friends or known dealers.

In 2011, one-fifth (20%) 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: $20-40; n=9); and 40mg tablets (OxyContin®), bought for a median of $20 each (range: $10-20; n=8). There were insufficient purchases of Endone® to report on prices.

The overall price for oxycodone was reported as having been stable over the past six months (79% of those commenting), whilst 21% reported that prices had increased. In regards to availability, 79% of those who commented said that it was 'very-easy' (16%) or 'easy' (63%) to obtain. Twenty-one percent thought it difficult to obtain. Availability was reported by the majority of those commenting (74%) to have remained stable over the preceding six months, while 16% reported it had become more difficult and 11% reported that it had fluctuated.

Oxycodone was most commonly purchased from friends or known dealers (29% each), followed by street dealers (21%), acquaintances (14%) and workmates (7%). The most commonly cited locations for purchase were a friend's home (29%), the street market or an agreed public location (21% each), followed by work, a dealer's home, an acquaintance'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.

6 HEALTH RELATED TRENDS ASSOCIATED WITH DRUG USE

Key findings

- The proportion of participants reporting an overdose in the previous 12 months increased slightly in 2011, from 17% to 21% of heroin users. Five participants reported that they had accidentally overdosed on another drug within the preceding 12 months, stable from 2010.

Health service use

- Telephone calls to ADIS decreased for cannabis, and increased for opioids and amphetamines. Calls relating to alcohol 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 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.
- Forty percent of the IDRS sample reported currently being in treatment, for a median of 22 months; this was predominantly methadone maintenance.

Mental health

- There was a significant decrease in self reported mental health problems among PWID in the six months preceding interview. However, among those who had suffered from a mental health problem, depression continued to be the most commonly reported disorder.
- Just under half of participants were assessed as having high to very high levels of psychological distress; this was much higher than reported among the general population.

6.1 Overdose and drug-related fatalities

6.1.1 Heroin and other opioids

6.1.1.1 Non-fatal overdose

Of the 79 participants who reported lifetime use of heroin, 38 (48%) also reported that they had overdosed on heroin on a median of one occasion (range: 1-12). Ninety-seven percent (n=37) had overdosed six times or less, with the majority reporting that they had overdosed once (n=20; 43%), twice (n=8, 19%), or three times (n=4, 11%). The number of overdoses experienced across lifetime was stable from 2010 (see Table 33).

Eight (21%) of those participants who had ever overdosed on heroin had done so in the past 12 months, and 2 had done so in the past month (5%).

Table 33: Lifetime experience of heroin overdose reported by participants who had ever used heroin, 2003-2011

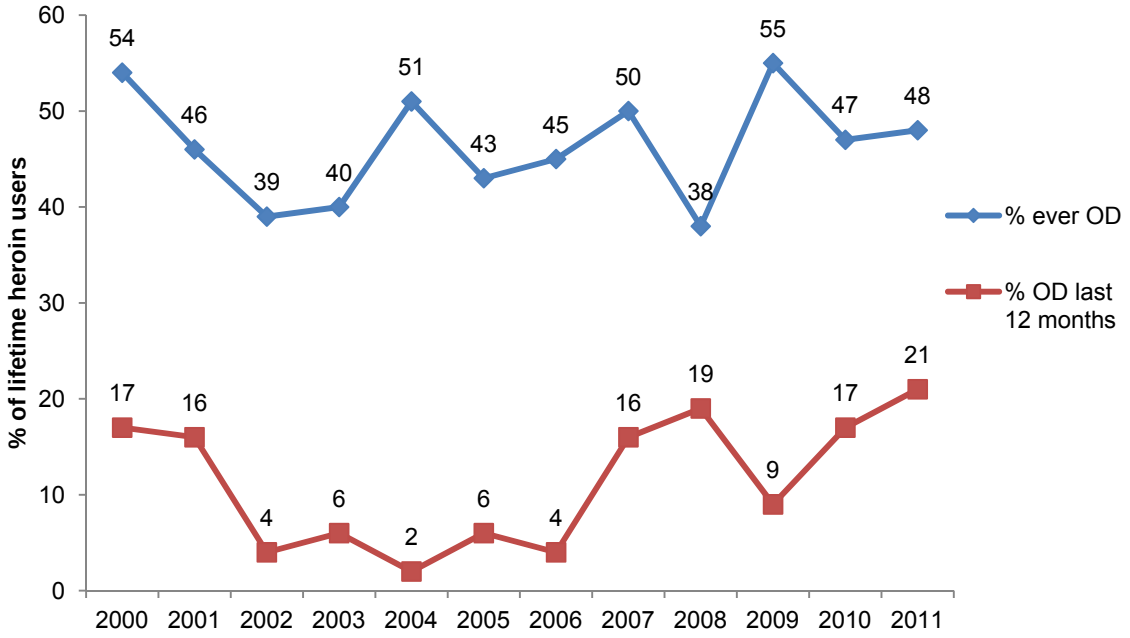
Heroin overdose variable	2003 (n=42)	2004 (n=42)	2005 (n= 41)	2006 (n=43)	2007 (n=45)	2008 (n=33)	2009 (n=44)	2010 (n=79)	**2011 (n=38)**
Overdosed once (%)	38	36	32	37	33	58	46	43	**53**
Overdosed twice (%)	14	21	22	19	16	15	14	19	**21**
Overdosed 3 times or more (%)	48	43	46	44	51	27	40	38	**26**

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 2007-2008. Overdoses declined in 2009, before increasing again in 2010-2011. 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 2011 it remained stable at 48%. In 2011, the median amount of time between interview and last overdose was 66 months (range: 1-300 months; n=38), representing a non-significant decrease from 2010 (120 months).

Figure 18: Experience of lifetime and past 12 month heroin overdose, as a proportion of participants that had ever used heroin, 2000-2011



Source: IDRS Participant interviews

In 2011, questions relating to the use of Narcan® again referred only to the last time the participants overdosed. Twenty participants (53% 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), 25% (n=2) reported receiving Narcan®. Other immediate treatments received included oxygen (n=3), ambulance attendance (n=3), attendance from a friend (n=2) and CPR (n=1). Most participants did not receive any treatment or information as a result of such overdose (n=6; 75%), although two participants did attend a drug health service and one participant attended counselling.

6.1.2 Fatal opioid overdose

The Australian Bureau of Statistics (ABS) has changed the way they collate deaths data, making comparisons to earlier overdose bulletins published by the National Drug and Alcohol Research Centre (Degenhardt & Roxburgh, 2007a; 2007b) difficult. Since 2003, the ABS has progressively ceased visiting jurisdictional coronial offices to manually update causes of death that had not been loaded onto the computerised National Coronial Information System (NCIS). It was in 2006 that the ABS began to rely solely on data contained on NCIS at the time of closing the deaths data file. Given that coronial cases can take to some time to complete, this is likely to have an impact on the number of opioid-related deaths recorded. 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. The following data represent findings from preliminary data for 2009. The ABS will be releasing two subsequent revisions of the 2009 deaths data in March 2012

and March 2013 respectively. Accordingly, these figures may represent an underestimate of opioid-related deaths.

In 2009, there were 433 accidental deaths due to opioids at a national level. Most of these deaths occurred in NSW and QLD (108 and 105 respectively), with 48 deaths being recorded in SA (11% of the total number of deaths). This represents a slight increase from 2008, in which SA recorded 34 deaths due to accidental opioid overdose (Roxburgh & Burns, in press). It should be noted that the deaths reported are opioid-related and not necessarily heroin overdose deaths

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. Twenty-four 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: 1-7). The median period of time since last overdose was 66 months (or 5.5 years; range 3-276 months). Five participants had accidentally overdosed within 12 months of interview. Of these participants, one reported overdosing on alcohol, one on methadone, one on Suboxone®, one on morphine, one on benzodiazepines, one on speed, one on tramadol and one on Phenobarbital®. Only two participants received immediate treatment as a result of such overdoses; both of which were attended to by an ambulance and admitted to a hospital emergency department. One participant also received help post-overdose from a user group organisation.

6.2 Drug treatment

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.

6.2.1 Heroin and other opioids

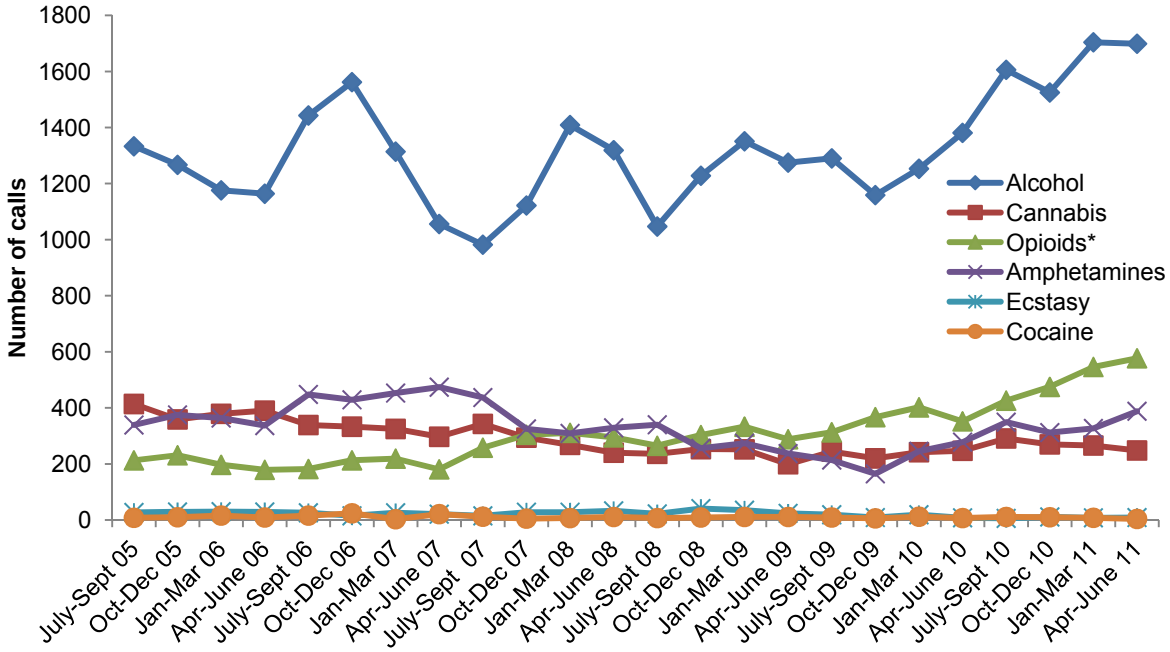
6.2.1.1 Treatment services – ADIS

Telephone calls to ADIS regarding any opioid substance accounted for 12.50% of the total coded telephone contacts (drug-related) in the 2010/11 financial year (n=16,191). This is an increase from 2009/10 (10.92% of 13,120 calls) and represents the highest number of opioid-related calls over the period June 2006-June 2011. Since 2004, the breakdown of number of calls per opioid substance category (e.g. heroin, methadone) has been unavailable.

Figure 19 depicts the number of opioid-related calls, per quarter, for the last five 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, and that there has been a steady increase in such calls since October-December 2009. 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 amphetamine-related calls have remained relatively steady. In 2010/2011, opioid-related calls continued to surpass amphetamine-related calls. Calls relating to ecstasy or cocaine have constituted less than one percent of the total coded calls to SA ADIS across all years depicted.

Figure 19: Number of drug-related calls to ADIS per quarter, by selected drug type, July 2006-June 2011



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

6.2.1.2 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 2010/11, the proportion of clients nominating heroin as their primary drug of concern (8.73%) remained stable from 2009/10 (8.57%). In addition, the proportion of total DASSA clients nominating heroin as their primary drug of concern continued to be higher than that for opioid analgesics (6.92%), lower than that for amphetamines (15.95%) and substantially less than that for alcohol (54.71%).

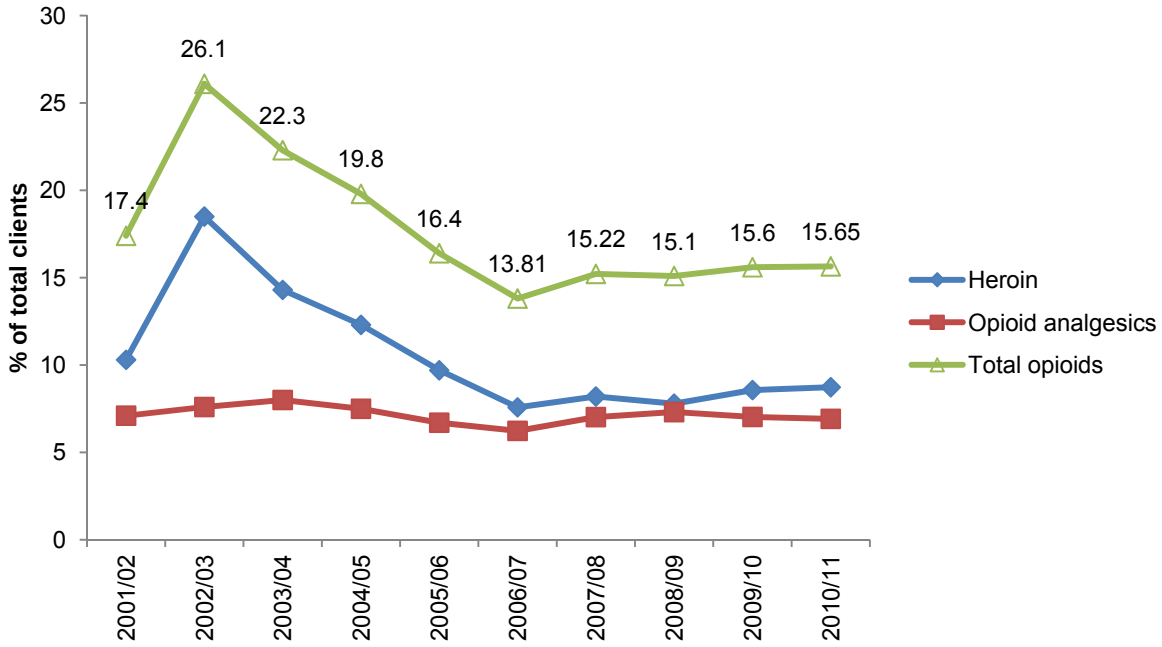
Table 34: Primary drug of concern nominated by clients of DASSA as a percentage of total number of clients, 2001/02-2010/11

Drug type (%)	2001/02	2002/03[#]	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	**2010/11 (n=5,430)**
Alcohol	42.0	44.6	47.7	48.3	51.8	52.09	55.91	57.46	57.10	**54.71**
Amphetamines	14.5	19.3	18.5	20.0	18.8	21.71	16.28	15.15	13.30	**15.95**
Heroin	10.3	18.5	14.3	12.3	9.7	7.58	8.20	7.79	8.57	**8.73**
Opioid analgesics	7.1	7.6	8.0	7.5	6.7	6.23	7.02	7.31	7.03	**6.92**
Cannabis	10.7	10.6	13.1	12.8	13.2	11.28	11.48	10.30	10.81	**11.42**
Benzodiazepines	1.9	2.6	2.3	2.4	2.3	2.02	2.25	2.01	1.92	**1.92**
Ecstasy	0.12	0.38	0.74	0.63	1.1	0.94	1.33	1.98	1.61	**0.99**
Cocaine	0.3	0.3	0.1	0.4	0.4	0.41	0.35	0.48	0.42	**0.20**
Tobacco	0.2	0	0.2	0.2	0.3	0.31	0.53	0.43	0.63	**0.72**
Unknown	6.1	0	0.1	0.2	0.2	0.39	0.30	0.17	0.07	**0.11**
Buprenorphine	-	0.4	1.2	1.0	1.06	1.21	1.34	1.10	1.28	**1.40**
Other	6.8	1.6	1.5	1.8	1.3	2.46	2.20	1.70	2.48	**2.08**

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 20 the percentage of DASSA clients nominating another opioid substance (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 6.92%. In 2010/11, the proportion of clients nominating 'any' type of opioid substance as their primary drug of concern was 15.65%, compared to the 'peak' of 26.1% in 2002/03. This was stable from 2009/10 (15.6%).

Figure 20: Percentage of total DASSA clients with opioid as the primary drug of concern, 2000/01-2010/11



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 10 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 2010/11 the greatest number of clients attended inpatient detoxification services for treatment related to cannabis, followed by amphetamines and then heroin and opioid analgesics. Interestingly, in 2010/11 the number of people entering treatment for amphetamines overtook those entering treatment for heroin.

Table 35: Number of clients to DASSA inpatient detoxification treatment services, by primary drug of concern, 2001/02-2010/11

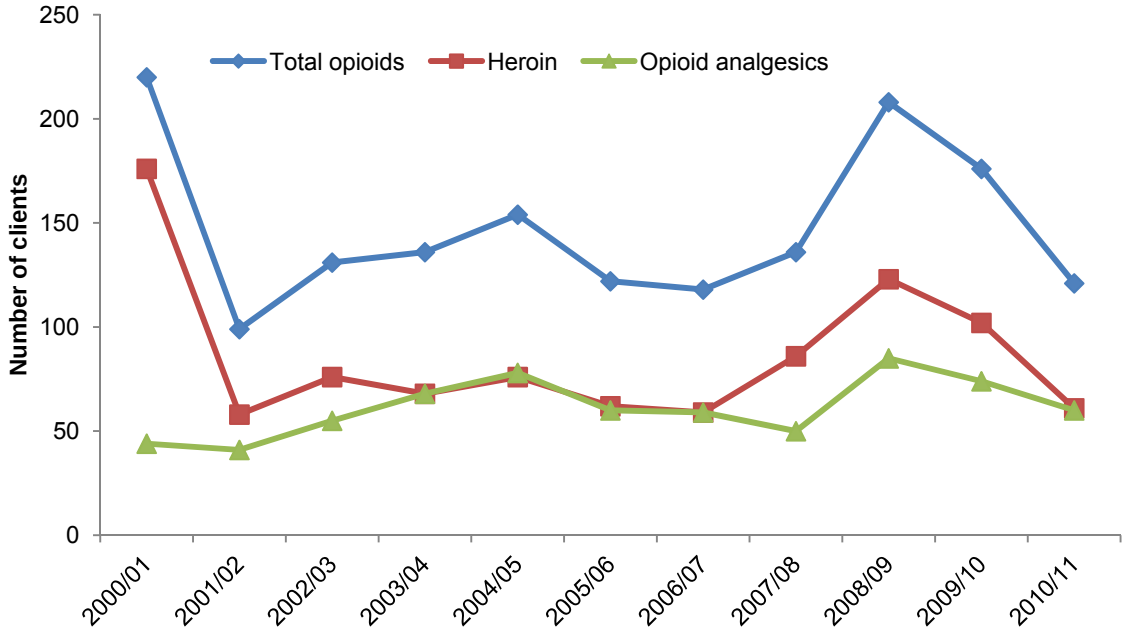
Drug type	2001 /02	2002 /03#	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	**2010 /11**
Alcohol	357	365	318	358	410	454	487	522	503	**524**
Amphetamines	156	154	138	130	118	150	130	92	65	**83**
Heroin	58	76	68	76	62	59	86	123	102	**61**
Opioid analgesics	41	55	68	78	60	59	50	85	74	**60**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

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 21 presents the number of clients admitted to DASSA's in-patient detoxification treatment services for heroin or opioid analgesics, from 2000/01 to 2010/11. As can be seen, there was quite a substantial decline in the number of clients nominating heroin as their primary drug of concern, dropping from 102 in 2009/10 to 61 in 2010/11. There was also drop in the number of clients nominating other opioid analgesics as their primary drug of concern, although this was a more modest decrease (from 74 in 2009/10 to 60 in 2010/11). This continues a downward trend (for all opioids) that has been occurring since 2008/09.

As mentioned above, for the first time since 2007/08, the number of in-patient admissions for amphetamines (83) exceeded that for heroin (61). 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 (121) was higher than that for amphetamines (83).

Figure 21: Number of clients to DASSA inpatient detoxification treatment services per year, with heroin or other opioid as the primary drug of concern, 2000/01-2010/11



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

6.2.2 Methamphetamine

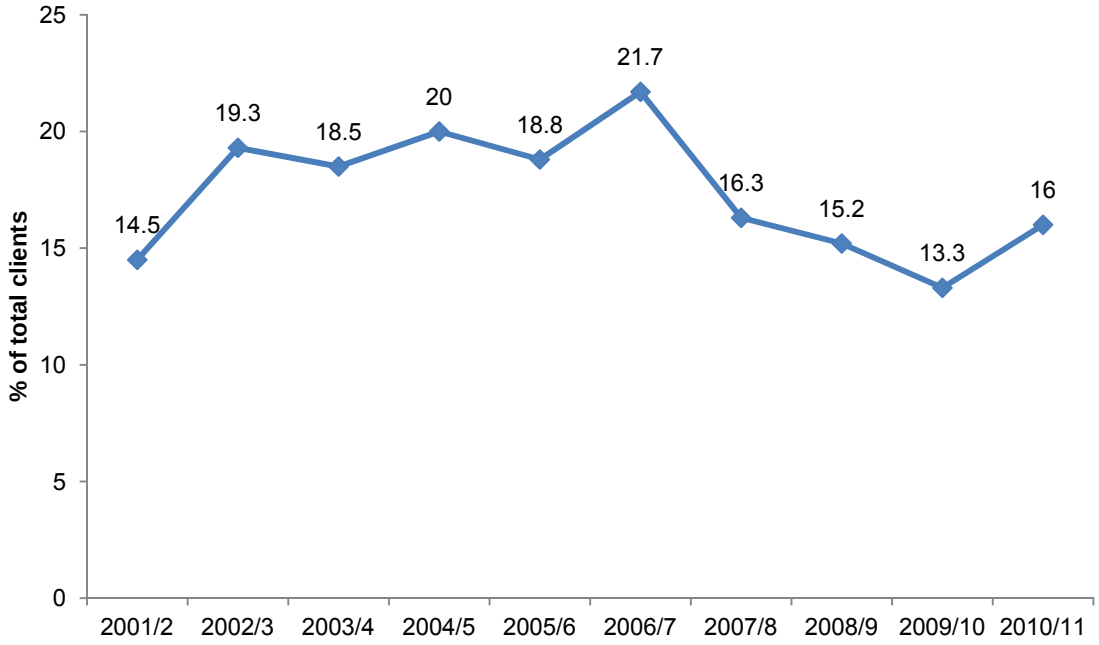
6.2.2.1 Treatment services – ADIS

Telephone calls to ADIS regarding amphetamines accounted for 8.50% (n=1,376) of the 16,191 total drug related calls in the 2010/11 financial year. This was higher than recorded in the previous financial year (6.87% of a total 13,120 calls), and represents a continuing upward trend since October-December 2009. Figure 19 depicts the number of amphetamine-related calls, per quarter, for the last five financial years compared to calls relating to other drug types. As can be seen, calls relating to methamphetamine have overtaken those for cannabis.

6.2.2.2 Treatment services – DASSA

The proportion of clients nominating amphetamines as their primary drug of concern increased in 2010/11, returning to similar levels observed in 2008/09 (see Table 34 and Figure 22). In 2010/11, amphetamines (15.95%) 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 (11.42%).

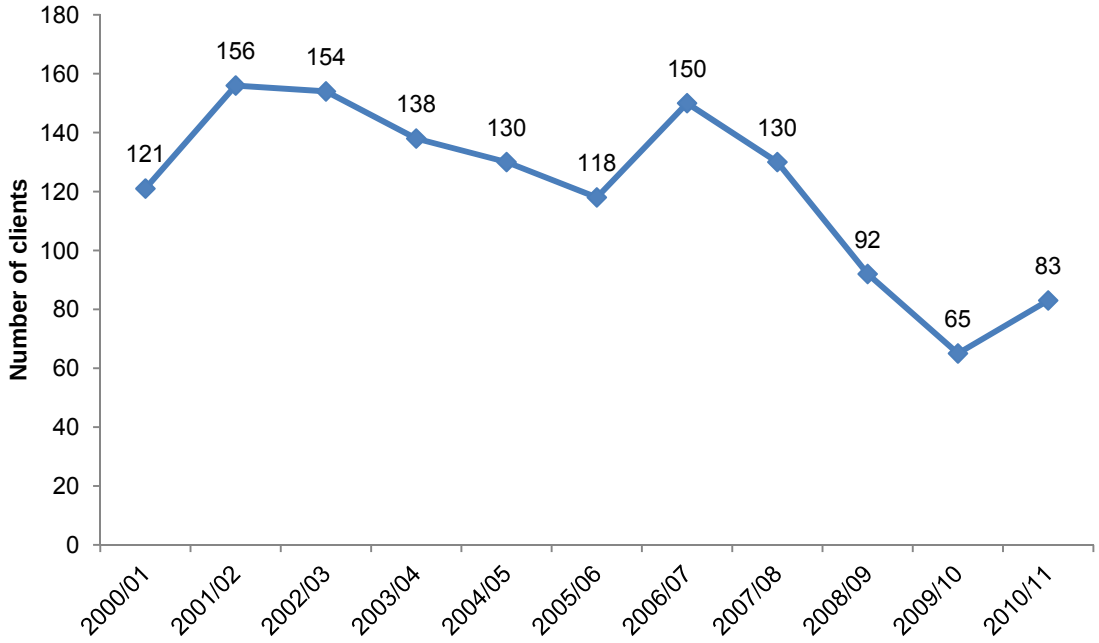
Figure 22: Percentage of total DASSA clients with amphetamines as the primary drug of concern, 2001/02-2010/11



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

Figure 23 presents the number of clients attending DASSA's in-patient detoxification treatment services for amphetamines, from 2000/2001 to 2010/11. 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 65 in 2009/10 to 83 in 2010/11.

Figure 23: Number of clients to DASSA in-patient detoxification treatment services, with amphetamines as the primary drug of concern, 2000/01-2010/11



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

6.2.3 Cocaine

6.2.3.1 Treatment services – ADIS

Telephone calls to ADIS regarding cocaine accounted for only 0.20% (n=33) of total drug related telephone calls in 2010/11. This remained stable from 2009/10, with cocaine-related calls being consistently low over the years. More specifically, cocaine accounted for 0.25% (n=34) of all drug related calls in 2009/10; 0.28% (n=38) of all drug related calls in 2008/09; 0.24% (n=35) in the 2007/08 financial year; 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 19 depicts the number of cocaine-related calls, per quarter, for the last five financial years compared to calls related to other drug types.

6.2.3.2 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 2010/11, 0.20% (n=11 of 5,430 individuals) nominated cocaine as their primary drug of concern.

6.2.4 Cannabis

6.2.4.1 Treatment services – ADIS

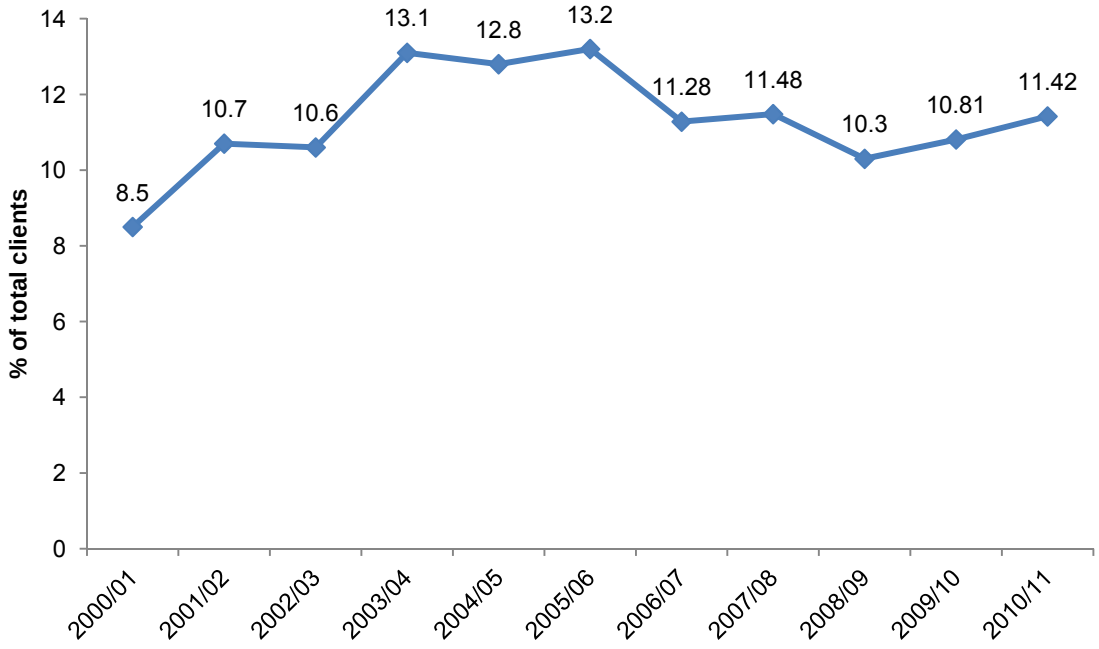
Telephone calls to ADIS regarding cannabis accounted for 6.6% (n=1,075) of the total coded telephone contacts (drug-related) in the 2010/11 financial year, and this represents a slight decrease from 2009/10 (7.26%; n=953). Indeed, it appears that across the years there has been an overall downward trend in the number of cannabis related calls. More specifically, in the 2008/09 financial year, cannabis accounted for 7.03% (n=940) of all drug-related calls; in 2007/08 that was 8.13% (n=1,145); 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 2010/11, the number of enquiries regarding cannabis (6.6% of total) was lower than for both amphetamines (8.5% of total) and opioids (12.50% of total). Figure 19 depicts the number of cannabis related calls, per quarter, for the last five financial years compared to calls related to other drug types.

6.2.4.2 Treatment services – DASSA

The proportion of clients nominating cannabis as their primary drug of concern increased slightly in 2010/11 (11.42% compared to 10.81% in 2009/10). However, as can be seen in Table 34 and Figure 24, the proportion of clients nominating cannabis as a drug of concern has remained relatively stable over the past decade, hovering at around 10%-13%.

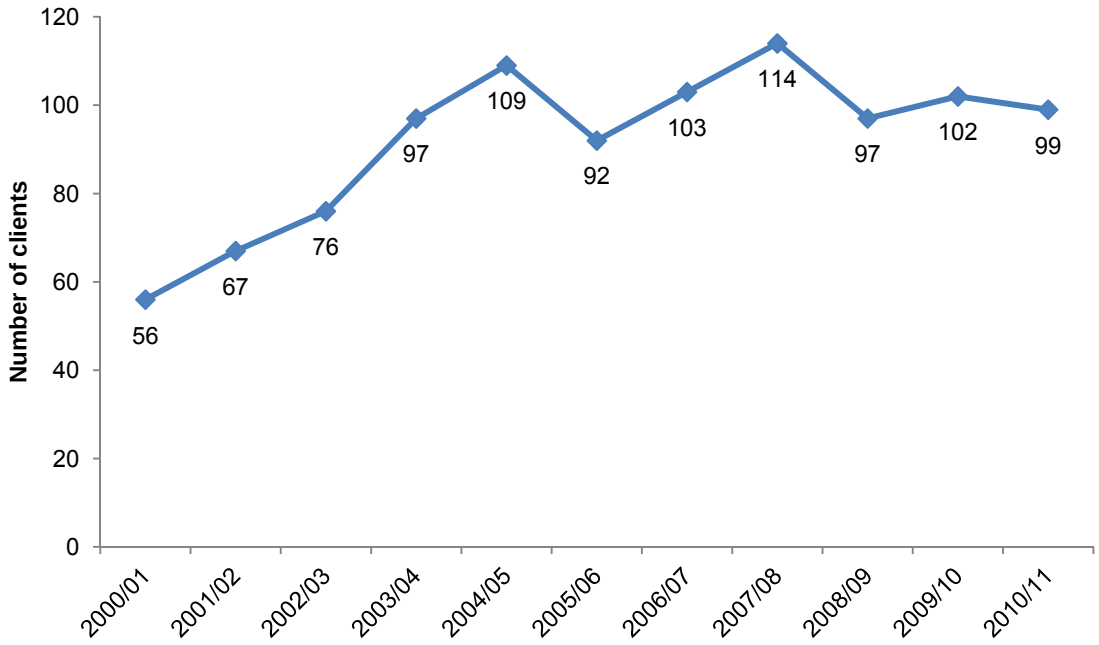
Figure 24: Percentage of total DASSA clients with cannabis as the primary drug of concern, 2000/01-2010/11



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

Figure 25 presents the number of DASSA clients attending in-patient detoxification treatment services for cannabis, from 2000/01 onwards. In 2010/11, the number of cannabis-related clients attending in-patient detoxification remained stable at 99. Interestingly, the number of clients entering treatment for cannabis overtook those entering treatment for heroin; with the number of cannabis-related admissions coming second only to alcohol.

Figure 25: Number of admissions to DASSA in-patient detoxification treatment services, with cannabis as the primary drug of concern, 2000/01-2009/10



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

6.3.1 Hospital admissions

An analysis of data from the National Hospital Morbidity Dataset (provided by the AIHW for the period 1997/98 to 2008/09) 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

[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.

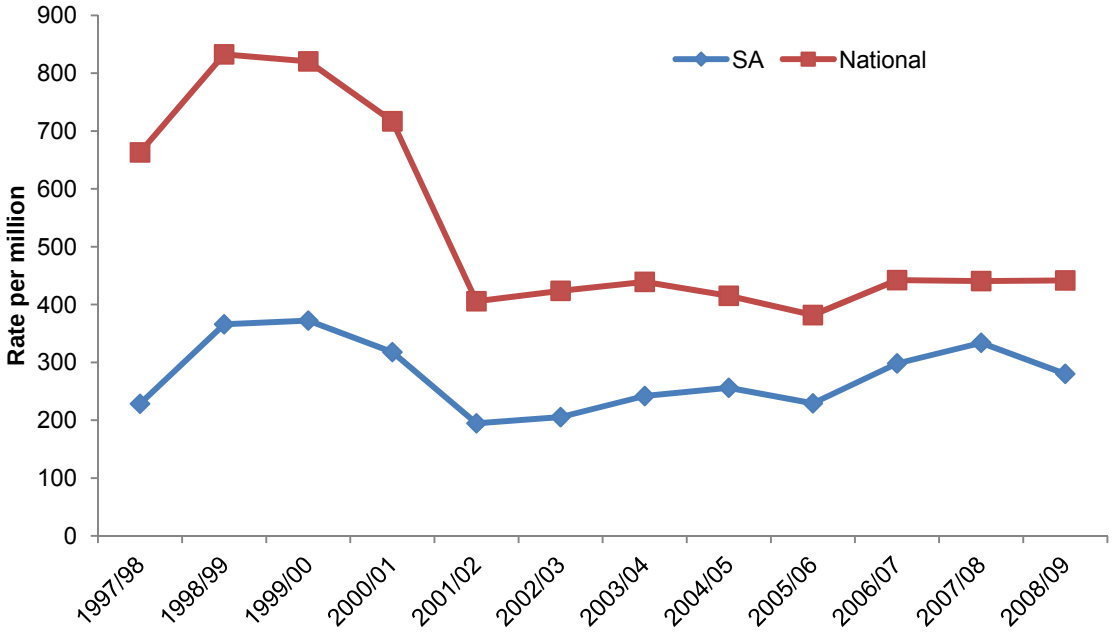
lag behind other indicators by one year. At the time of printing, data was not available for 2009/2010.

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: 280.24 vs. National 441.62), cocaine-related admissions (SA: 5.65 vs. National: 14.79), and cannabis-related admissions (SA: 63.28 vs. National: 155.37), whilst having a higher rate (per million) of amphetamine-related admissions (SA: 178.54 vs. National: 157.06).

6.3 Opioid-related hospital admissions

Figure 26 shows the rates of opioid-related admissions from 1997/98 onwards. In 2008/09, there was a slight decline in admissions; from 333.92 in 2007/08 to 280.24. At the national level, opioid-related admissions have remained relatively stable over the past eight years.

Figure 26: Rate of opioid-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/1998-2008/09

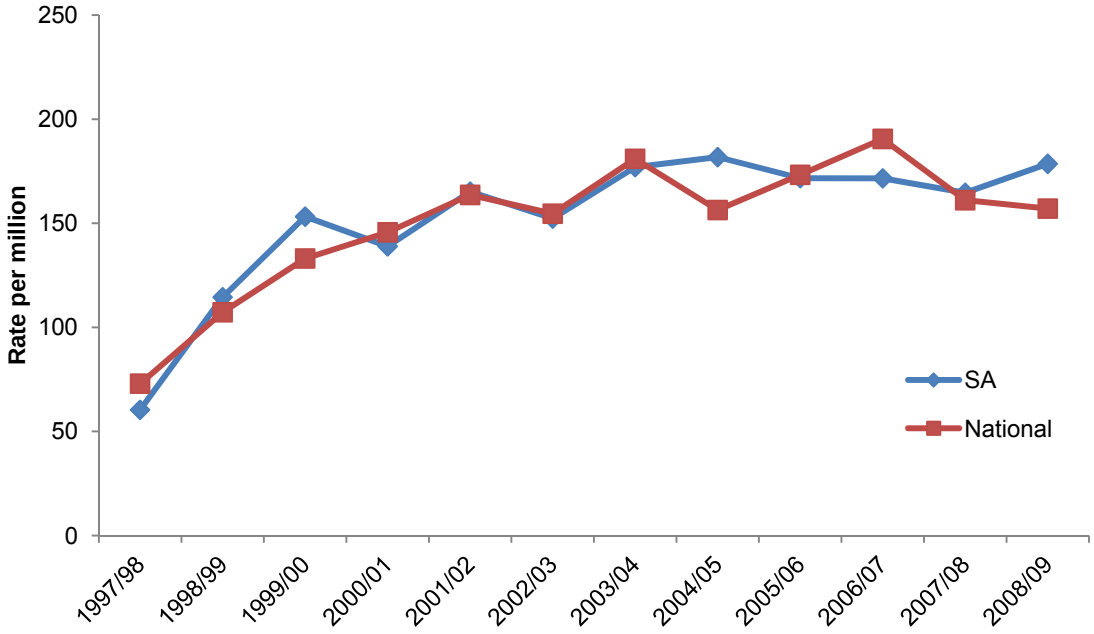


Source: Australian Institute of Health and Welfare
Note: Results are for persons aged between 15 and 54 years, excluding opioid withdrawal and psychosis admissions. A 'primary diagnosis' was given when opioids were considered chiefly responsible for the patient's episode of care in hospital

6.3.1 Amphetamine-related hospital admissions

Figure 27 shows the long-term trend of amphetamine-related hospital admissions, from 1997/98 onwards. Admissions with amphetamines as a primary diagnosis increased slightly in 2008/09 (to 179 per million), although it should be noted that such rates have remained relatively stable since 2003/04 (177 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 27: Rate of amphetamine-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/98-2008/09

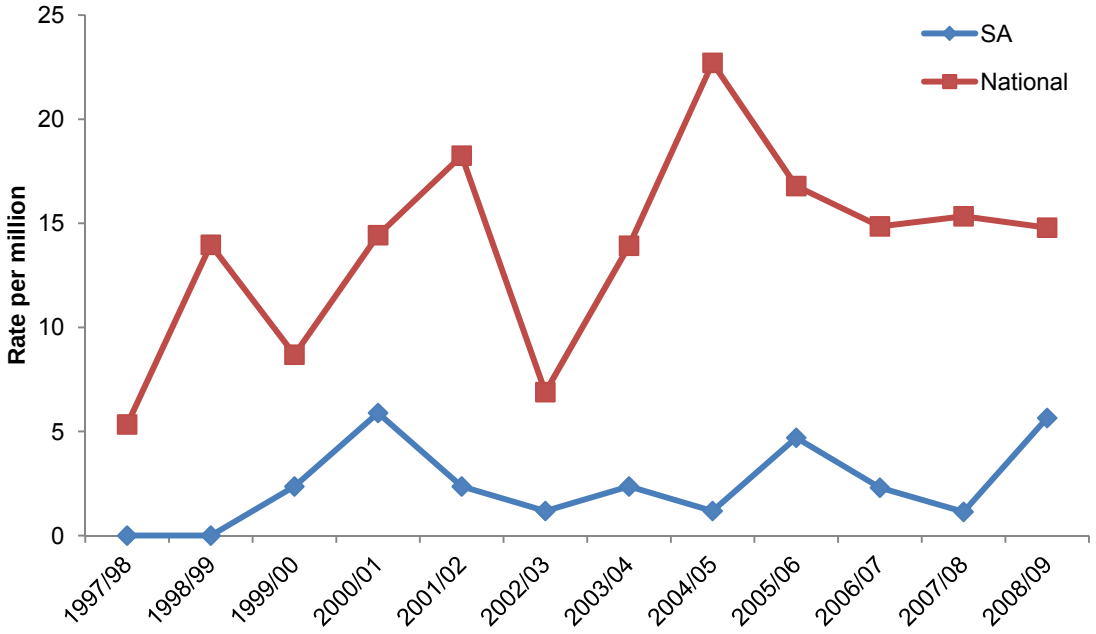


Source: Australian Institute of Health and Welfare
Note: Results are for persons aged between 15 and 54 years, excluding amphetamine withdrawal and psychosis admissions. A 'primary diagnosis' was given when amphetamines were considered chiefly responsible for the patient's episode of care in hospital

6.3.2 Cocaine-related hospital admissions

Figure 28 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. In addition, the rates of admissions observed at the national level have been relatively stable since 2006/07, whilst in SA there was a notable increase in admissions in 2008/09 (from 1.14 per million to 5.65 per million).

Figure 28 Rate of cocaine-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/98-2008/09

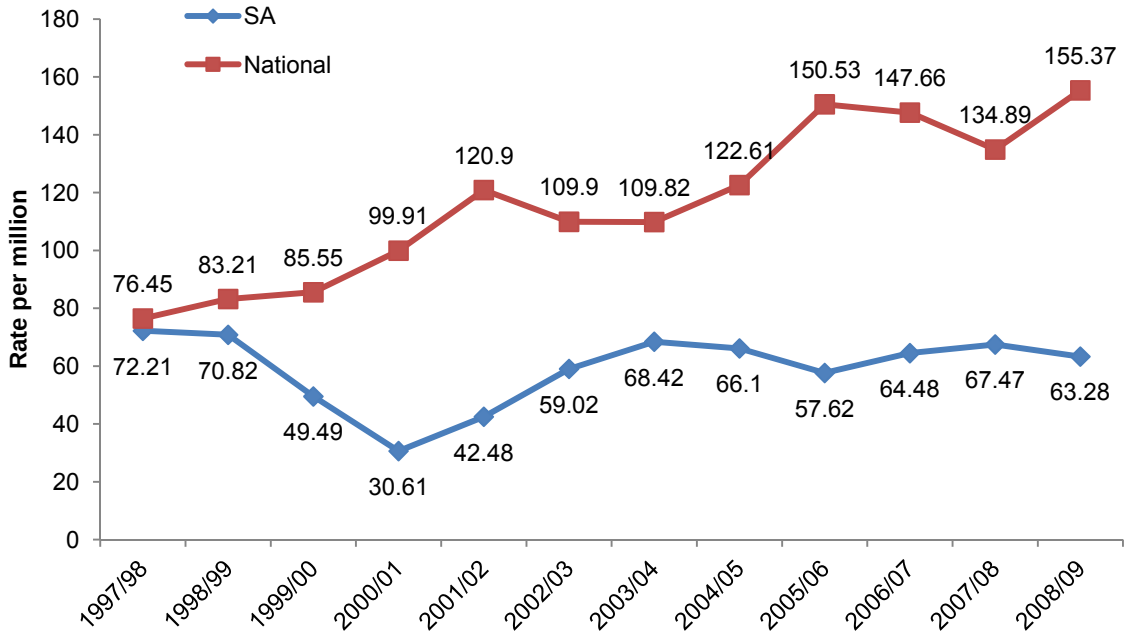


Source: Australian Institute of Health and Welfare
Note: For persons aged between 15 and 54 years, excluding cocaine withdrawal and psychosis admissions. A 'primary diagnosis' was given when cocaine was considered chiefly responsible for the patient's episode of care in hospital

6.2.3 Cannabis-related hospital admissions

Figure 29 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; however, ever since then admissions have remained relatively stable. More specifically, the cannabis-related admission rate to SA hospitals was 63 per million in 2008/09 compared to 68 per million in 2003/04. Readers are reminded that this figure does not include cannabis-related psychosis or withdrawal admissions.

Figure 29: Rate of cannabis-related admissions (primary diagnosis) to hospital in SA and nationally, per million people, 1997/98-2008/09



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, with alcohol-related attendances continuing to rise in 2010/11. Attendances regarding heroin have also continued to rise somewhat across the years depicted, and in 2010/11 attendances for heroin-related issues increased from 51 to 66 attendances. Heroin accounts for the most common illicit drug-related attendances, with amphetamines now the second most common illicit drug-related attendances at the RAH. 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 2008/09-2010/11. 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 2001/02-2010/11 (per drug or diagnosis)

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	**2010/11**
Amphetamines	76	65	81	91	61	82	67	58	61	**61**
Cocaine	2	0	1	4	6	4	1	4	5	**1**
LSD	2	1	2	6	3	2	3	7	7	**3**
GHB	48	28	28	48	38	14	15	15	17	**20**
Alcohol	1,118	994	1,106	1,465	1,409	1,559	1,554	1,585	2,078	**2,119**
Cannabis	16	9	11	15	13	15	15	13	11	**14**
Heroin	30	38	25	30	32	39	44	66	51	**66**
Other opioid**	45	64	57	70	68	59	28	38	36	**38**
Benzodiazepines	170	138	138	141	122	174	145	151	169	**162**
Antidepressants	104	79	80	87	55	74	78	67	58	**71**
Drug addiction[#]	27	38	20	37	28	17	8	1	0	**0**
Drug-induced psychosis[#]	67	52	44	89	31	37	28	0	0	**0**
Drug Withdrawal[#]	35	26	24	26	19	20	0	0	0	**0**
Other[##]	533	434	442	434	360	579	528	464	480	**471**
TOTAL	2,273	1,966	2,059	2,543	2,245	2,675	2,514	2,469	*2,973*	***3,026***

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 2011, thirty-four percent of participants reported experiencing a mental health problem (other than drug dependence) in the six months preceding interview. This was a significant decrease from 2010 (60%; p=0.0006; 95% CI: 0.382 – 0.116). Among those who had experienced a mental health disorder, depression continued to be the most commonly reported problem, followed by anxiety (see Table 37).

Table 37: Mental health problem reported by participants, 2010-2011

Mental health problem (%)	2010 (n=94)	2011 (n=100)
Depression	38	**24**
Mania	0	**0**
Manic depression	7	**4**
Anxiety	25	**15**
Phobias	2	**0**
Panic	3	**3**
Obsessive Compulsive Disorder (OCD)	1	**0**
Paranoia	2	**0**
Personality disorder	1	**0**
Drug-induced psychosis	0	**4**
Other psychosis	3	**2**
Schizophrenia	6	**4**
Post Traumatic Stress Disorder (PTSD)	1	**3**
Other	4	**3**

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, over three-quarters (77%; n=26) reported that they had attended a professional for such problems; this was stable from 2010 (71%). Twenty-two participants (85%) reported that they had been prescribed medication for their mental health disorder in the preceding six months; predominantly an antidepressant (68%; n=15), followed by benzodiazepines (36%; n=8) and antipsychotics (27%; n=6).

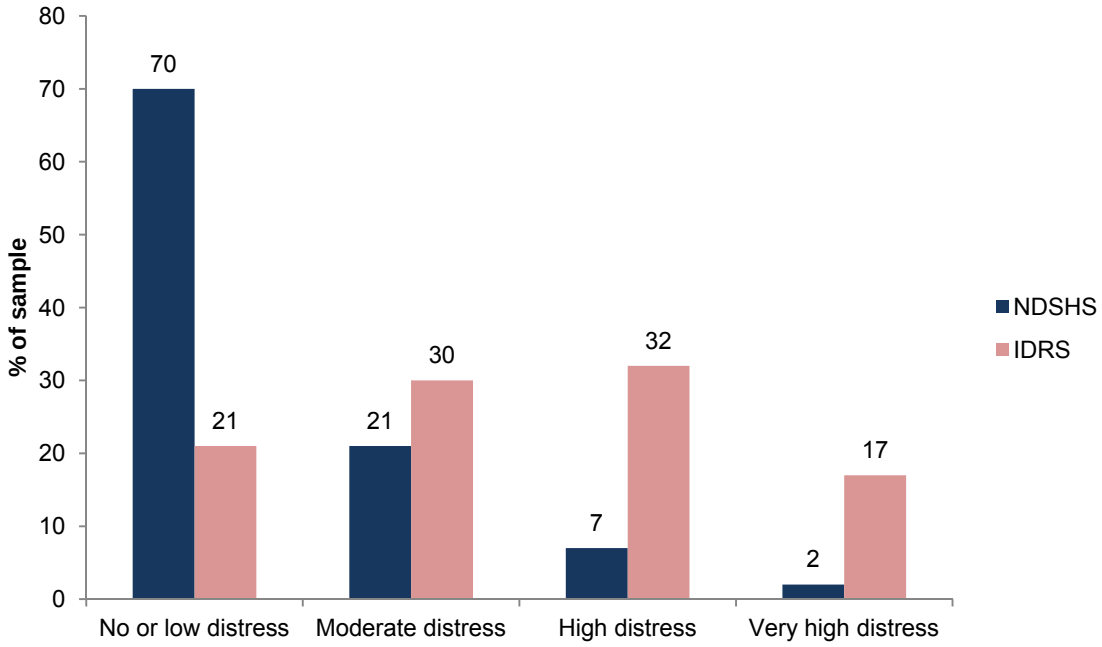
6.5.2 Psychological distress

The Kessler 10 (K10) was administered to participants for the fourth 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 30).

Figure 30: **K10 scores in the NDSHS (2010) and the SA IDRS interviews, 2011**



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

Twenty-one (21%) participants had scores between 10 and 15 on the K10 (low risk), 29 (30%) scored between 16 and 21 (moderate distress), 31 (32%) participants scored from 22 to 29 (high distress), and 17 (17%) scored from 30-50 (very high distress). The median total score for the sample was 21 (range: 10-50) indicating that half of the sample was at high or very high risk of psychological distress as measured by the K10.

7 RISK BEHAVIOURS

Key findings

- Receptive sharing (borrowing) of needles/syringes was reported by 6% of participants in the month preceding interview, typically after a partner or close friend. Sharing of injecting equipment such as filters, water and mixing containers (e.g. spoons) was more common.
- Over half 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 two weeks preceding interview (range: 1-6; n=86). In addition, the median number of needles and syringes obtained within the same time frame was 40 (range 3-1,000; n=86), with participants reporting that they had given away or sold a median of 17.5 needles or syringes (range 1-198; n=60). Fifteen 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 (96%), followed by friends (10%) and NSP vending machines (10%). As can be seen in Table 38, a range of other sources were also used.

Table 38: Main sources of needles and syringes in the preceding six months, 2011

Accessing from (%)	2011 (N=98)
NSP	**96**
NSP vending machine*	**10**
Chemist	**5**
Partner	**0**
Friend	**10**
Dealer	**2**
Hospital	**1**
Outreach/peer worker	**1**

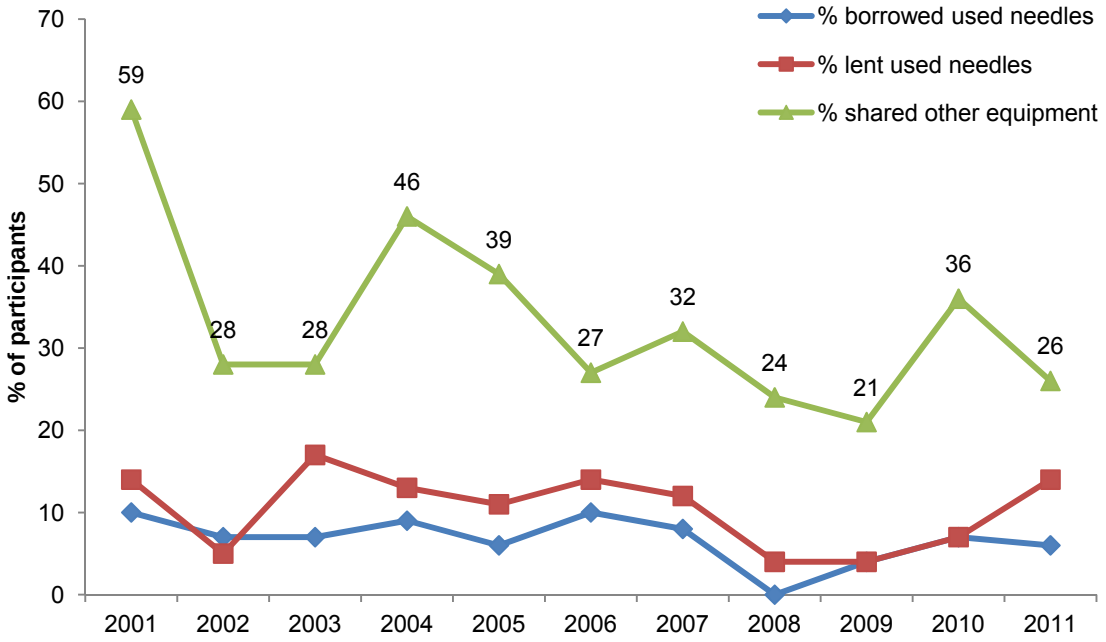
Source: IDRS participant interviews
* Vending machines not available in all jurisdictions
Note: Multiple responses allowed

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 2011, six participants reported that they had used a needle after someone else ('borrowed'). This was stable from 2010 (n=7). Among those who had borrowed a needle in the preceding month, the majority reported doing so on 1-2 occasions (n=4; 67%). One participant reported using a needle after someone between 3-5 times in the preceding month, and one 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=4), followed by a close friend (n=2).

In comparison, fourteen participants reported that they had used a needle *before* someone else in the month prior to interview ('lent'); this was double the number reported in 2010 (n=7). Again, most participants reported lending needles on just one occasion (n=7); 5 participants reported lending needles on two occasions and two participants had done so 3-5 times.

Figure 31: Sharing of needles and injecting equipment by participants in the month preceding interview, 2001-2011



Source: IDRS participant interviews

Twenty-six percent of the sample reported that they had shared injecting equipment in the preceding month, the details of which are displayed in Table 39. As can be seen, the sharing of spoons/mixing containers and filters remained relatively stable. However, there was a significant decline in those who reported sharing tourniquets (22% in 2010 vs. 10% in 2011; p=0.04; 95% CI=0.219 – 0.014) and water (21% in 2010 vs. 5% in 2011; p=0.002; 95% CI: 0.25 – 0.064).

Table 39: Sharing of injecting equipment (other than needles) among participants in the month preceding interview, 2010-2011

Injecting equipment	2010 (N=97) %	**2011 (N=100) %**
Spoons/mixing container	19	**18**
Filters	9	**5**
Tourniquet	22	**10**
Water	21	**5**
Swabs	2	**0**
Other	3	**0**

Source: IDRS participant interviews
Note: Multiple responses allowed

Re-use of one's own needles (55%) and equipment (54%) 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=42) and tourniquets (n=31), followed by filters (n=6) and water (n=6). Among participants who had cleaned their own needles/equipment, the most common method used was to rinse/flush more than once (91%). The most common substances used were boiling water (43%), hot water (32%), cold water (30%), bleach (13%) and swabs (13%).

7.1.3 Location of injecting

In 2011, the majority of participants reported that the last location in which they had injected drugs was a private home (81%), with small proportions reporting use in public locations (see Table 40). The last location of injecting was unchanged compared to 2010.

Table 40: Location when last injected in the month preceding interview, 2010-2011

Location when injecting	2010 (n=96) %	**2011 (n=98)** %
Private home	83	**81**
Street/car park/beach	2	**1**
Car	10	**13**
Public toilet	4	**4**
Other	0	**1**

Source: IDRS participant interviews

Not surprisingly, the majority of participants reported that their last injection 'site' was their arm (79%), followed by their hand (14%).

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 41). In 2011, seventy-two percent 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 (51%), difficulty injecting (40%) and a dirty hit (34%); all of which were stable from 2010. Eight percent of participants reported experiencing an overdose in the preceding six months, a significant increase from 2010 (p=0.049; 95% CI: -0.009 – -0.14). However, due to the extremely small numbers, this finding should be viewed with caution.

Table 41: Injecting-related health problems experienced in the month preceding interview, 2010-2011

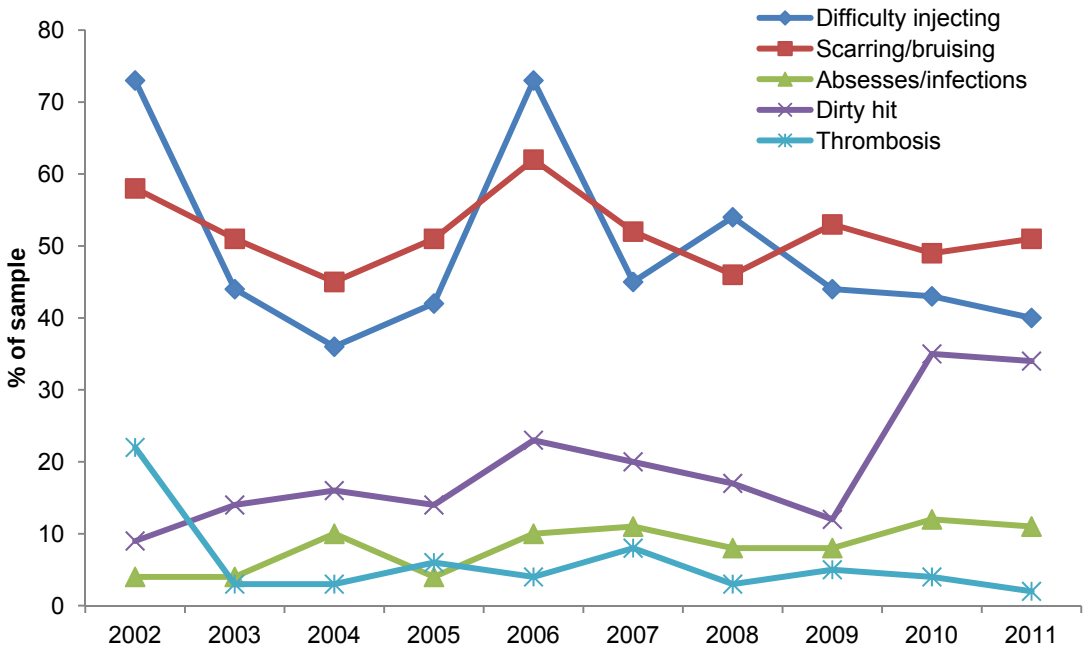
Reported injection related health problems	2010 (n=94) %	**2011 (n=99) %**
Overdose	1	**8**
Dirty hit	35	**34 (n=93)**
Abscesses/infections	12	**11**
Prominent scarring/bruising	49	**51**
Difficulty injecting	43	**40**
Thrombosis	4	**2**
Total problems (%)	69	**72**
Total median score*	2	**2**

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

Among those who had overdosed in the last month (n=8), heroin was most commonly reported as the main drug they had overdosed on (63%; n=5), followed by methamphetamine (25%; n=2) and barbiturates (13%; n=1). Those experiencing a dirty hit (n=34) most commonly attributed it to the injection of heroin (41%), followed by methamphetamine (38%), methadone (9%), morphine (9%) and subutex (3%).

Figure 32 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 2011 reports similar to previous years. Reports of a dirty hit remained stable in 2011 and remains far higher than reported throughout 2002-09.

Figure 32: Experience of injection-related problems by participants in the month preceding interview, 2002-2011



Source: IDRS participant interviews

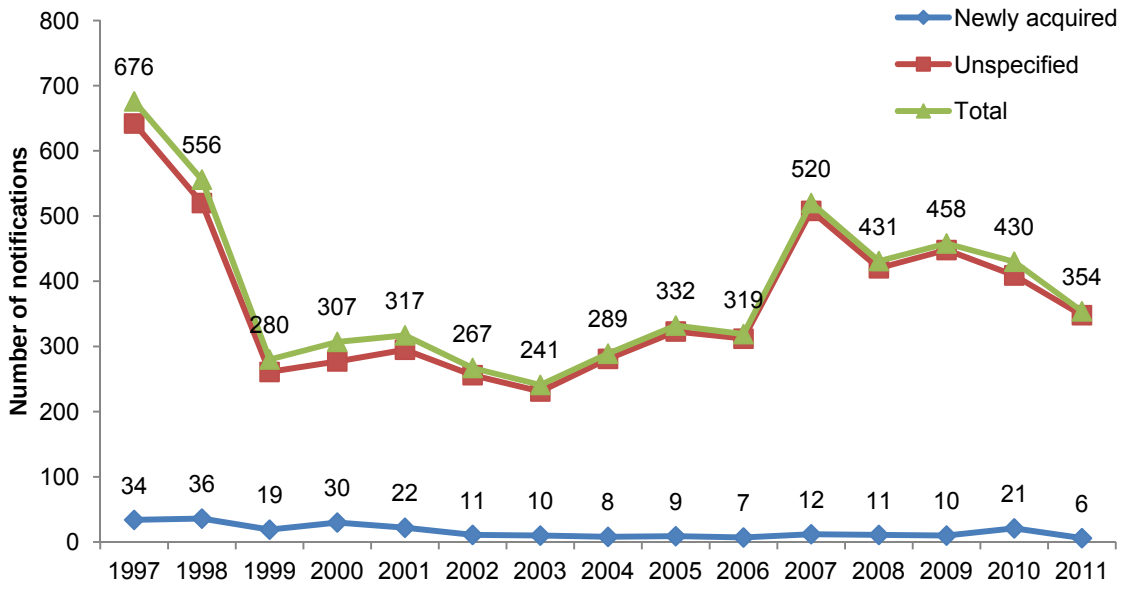
7.2 Blood Borne Viral Infections (BBVI)

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 33 and Figure 34 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 2011, HCV continued to be more commonly notified than HBV, although the gap between the two is narrowing. In 2011, there was a decline in HBV notifications, continuing a downward trend that has been observed from 2007-2011. HCV notifications are also continuing to decrease, with 2011 marking the lowest number of HCV infections ever recorded.

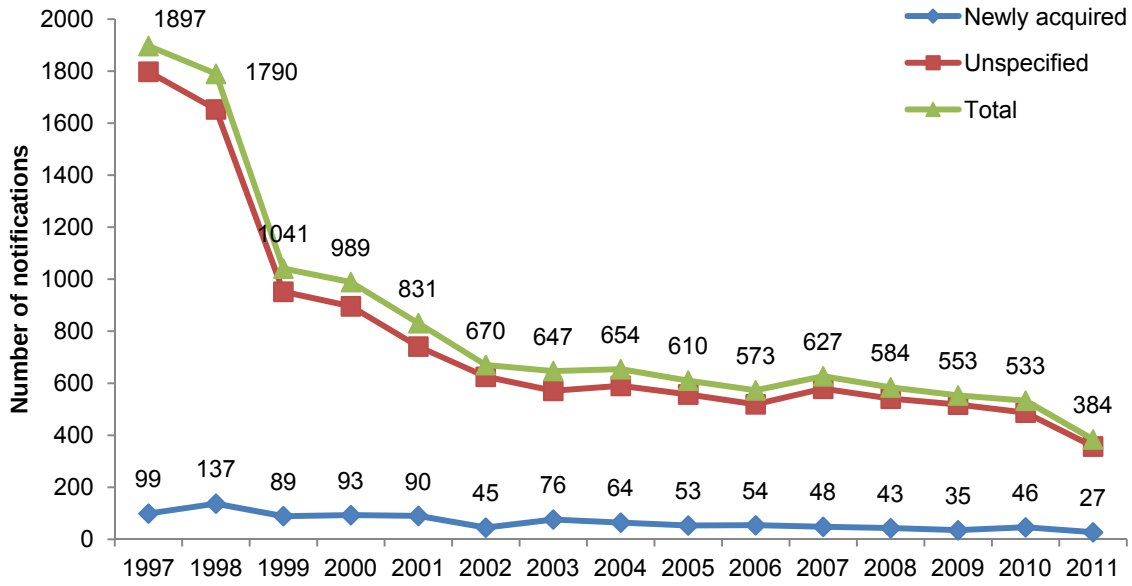
[4] HCV antibody testing has only been available since 1990.

Figure 33: Notifications for HBV infections, South Australia, 1997-2011



Source: National Notifiable Diseases Surveillance System – NNDSS

Figure 34: Notifications for HCV infections, South Australia 1997-2011

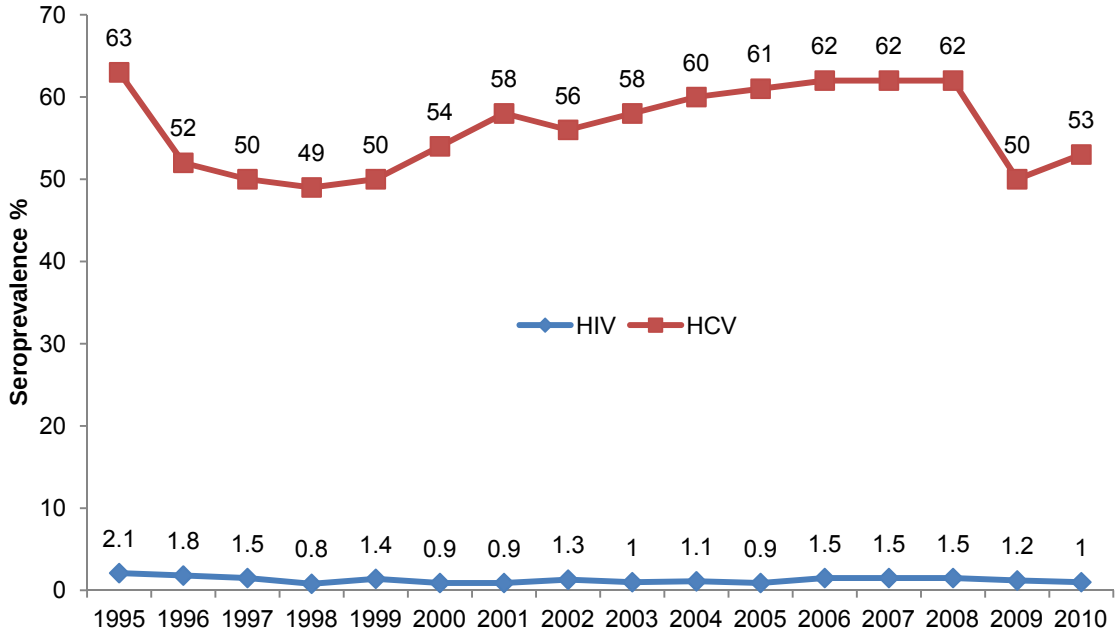


Source: National Notifiable Diseases Surveillance System – NNDSS [5]
Note: Data accessed on 31 January 2011. Figures are updated on an ongoing basis

[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.

In 2010, the prevalence of HIV among PWID in Australia continued to be low at 1.0%. This has remained stable over the past decade (Figure 35). HCV prevalence among this group was much higher at 53%. This was a very slight increase from 2009, however, it remains substantially lower than found in 2008.

Figure 35: HIV and HCV seroprevalence among participants recruited for the Australian NSP Survey, 1995-2010



Source: Australian NSP survey (Kirby Institute 2011; National Centre in HIV and Epidemiology Clinical Research, 2007, 2009[6])

KE comments

- Although not specifically asked about any of the risk behaviours mentioned above, one KE took the opportunity to express their concern about the increasing injection of steroids. This population was considered to be in its early 20s, male, Caucasian and mainly students. They had no apparent contact with the criminal justice system, no mental health problems and no prior history of injecting drug use. Although this is not the kind of population that would be captured by the IDRS it is always important to take note of such populations – especially if it appears that they have little knowledge about how to inject, and the harms that it may entail.

[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 2011, with drug dealing being the most commonly reported crime.
- The proportion of the sample who had been arrested in the preceding 12 months remained stable at 38%.
- The median expenditure on illicit drugs the day before interview was $100.
- Driving a car while under the influence of alcohol was reported by 12% of participants who had driven in the preceding six months. Eighty-five percent reported driving under the influence of an illicit drug during that time, mainly cannabis, heroin and methamphetamines.

8.1 Reports of criminal activity among participants

In 2011, approximately one-third of the sample (32%) reported involvement in any type of crime during the last month, stable from 2010 (29%). Similarly, the proportion of participants who reported being arrested in the 12 months prior to interview also remained relatively stable at 38% – compared to 32% in 2010 (see Table 42). The most commonly reported types of crime were the same as for 2010, with participants primarily reporting involvement in drug dealing (21%), followed by property crime (19%) and, to a lesser extent, fraud (2%) and violent crime (6%). The number of participants who reported having ever been in prison remained stable compared to 2010 (48% and 43% respectively). Those with a prison history reported that they had been in prison on a median of 2 occasions (range 1-30) and that it had been a median of 60 months (5 years) since they were last imprisoned (range 2-324 months).

Table 42: Criminal activity as reported by participants, 2010-2011

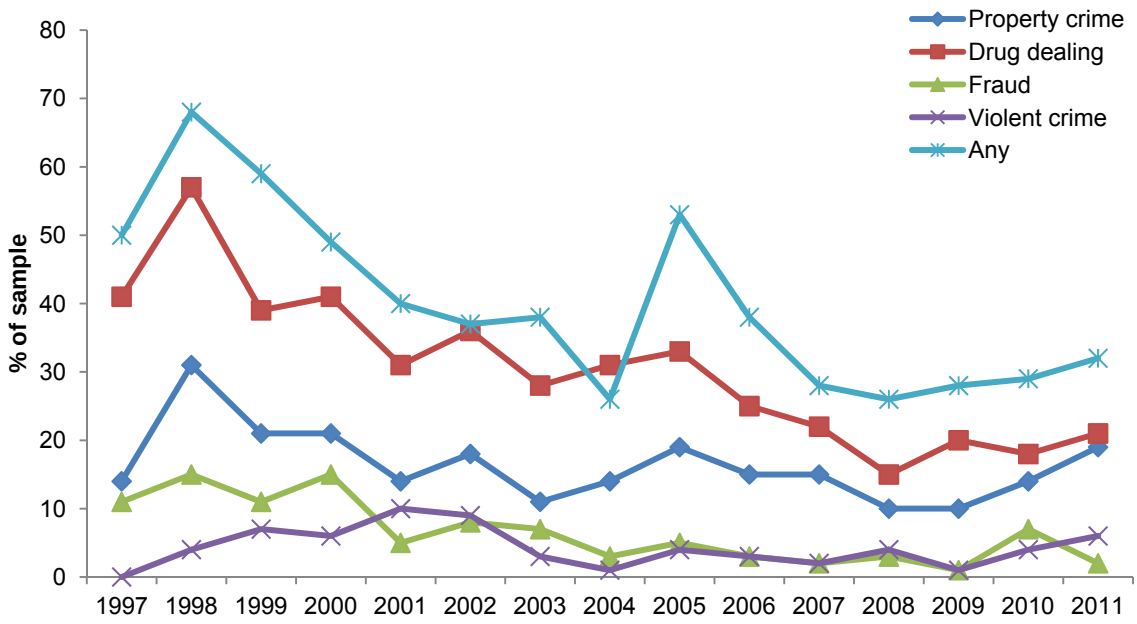
Criminal behaviour (%)	2010 (n=95)	**2011 (n=100)**
Criminal activity in last month		
Property crime	14	**19**
Drug dealing	18	**21**
Fraud	7	**2**
Violent crime	4	**6**
Any crime	*29*	***32***
Arrested in last 12 months	32	**38**
Ever in prison	43	**(n=82) 48**

Source: IDRS participant interviews

Of the 38 participants who had been arrested in the preceding 12 months, the most common reason for arrest was a driving offence (34%, n=13). Small numbers reported being arrested for a violent crime (n=5), property crime (n=4), use/possession of drugs (n=3), dealing/trafficking (n=2) and breaching an Apprehended Violence Order (AVO) (n=1).

Figure 36 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 2007-2011. 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 and almost reached equality in 2011 (property 19% vs. dealing 21%). Fraud and violent crime remain low.

Figure 36: Self-reported involvement in crime, by offence type, in the month prior to interview, 1997-2011



Source: IDRS participant interviews

Of those who had committed a property crime (n=18), the large majority (78%; n=14) reported that they were under the influence of drugs and/or alcohol at the time of offence. This was usually alcohol (50%), followed by methamphetamine powder (29%), crystal methamphetamine (29%) and heroin (29%). Shoplifting was the most common last property offence that was committed.

All participants (n=6) who had committed a violent offence in the preceding month, reported that they were under the influence of drugs and/or alcohol at the time of their last offence. The most commonly used drugs were crystal methamphetamine (67%; n=4), powder methamphetamine (33%; n=2) and alcohol (33%; n=2). The most common violent crime that was committed was assault.

8.1.1 Heroin

Thirty-five percent of participants who had recently used heroin (n=54) reported being arrested in the 12 months prior to interview. Approximately one-third of recent heroin users reported that they had engaged in criminal activity in the month preceding interview, with the most common offences being property crime (21%) or dealing for cash profit (21%), followed by fraud (2%; n=1) and violent crime (2%; n=1).

8.1.2 Methamphetamine

Forty-nine percent of participants who had recently used methamphetamine (n=66) reported being arrested in the 12 months prior to interview. Thirty-nine 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 (26%), closely followed by a property offence (24%), violent crime (9%) and fraud (2%).

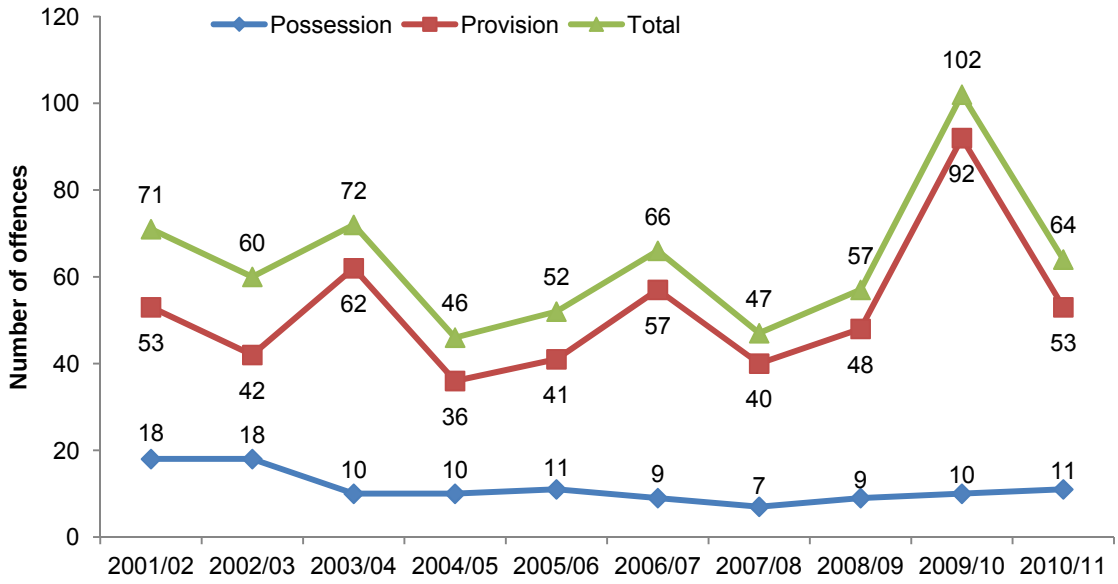
8.2 Arrests

8.2.1 Heroin

The total number of illicit drug-related possession and provision offences for 2010/11 was 3,068 which represents a slight increase from 2009/2010 (total 2,869), (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). 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 2010/11 (as reported by SAPOL) is presented in Figure 37. As can be seen, there was a decrease in the number of provision offences for heroin from 2009/10 to 2010/11 (from 92 to 53 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 2.1% of the total number of illicit drug possession and provision offences in 2010/11, which indicates a decrease compared to 2009/10 (3.6%).

Figure 37: Number of heroin-related offences reported by SAPOL, 2001/02-2010/11

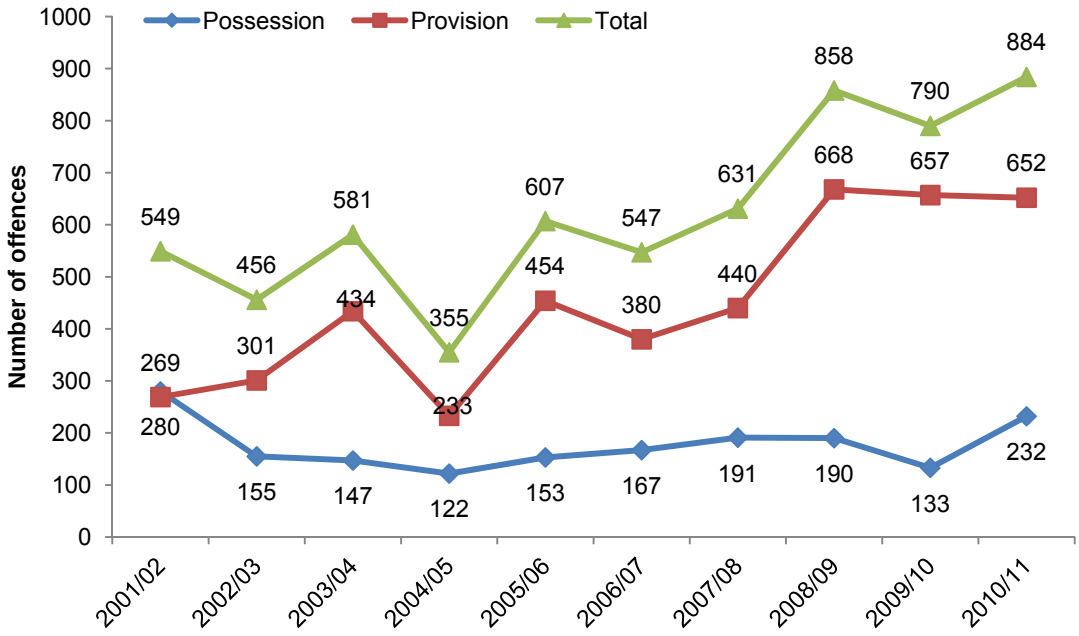


Source: South Australia Police, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011

8.2.2 Methamphetamine

Figure 38 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 2010/11 (South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011). As can be seen, in 2010/11 the number of amphetamine possession offences recorded (232) increased compared to 2009/10 (133), whilst the number of provision offences remained stable (from 657 in 2009/10 to 652 offences in 2010/11). Amphetamine possession and provision offences made up 29% of the total number of illicit drug possession and provision offences in 2010/11, compared to 27% in 2009/10, 30% in 2008/09, 25% in 2007/08, 23% in 2006/07, 23% in 2005/06 and 15% in 2004/05.

Figure 38: Number of amphetamine-related offences reported by SAPOL, 2001/02-2010/11



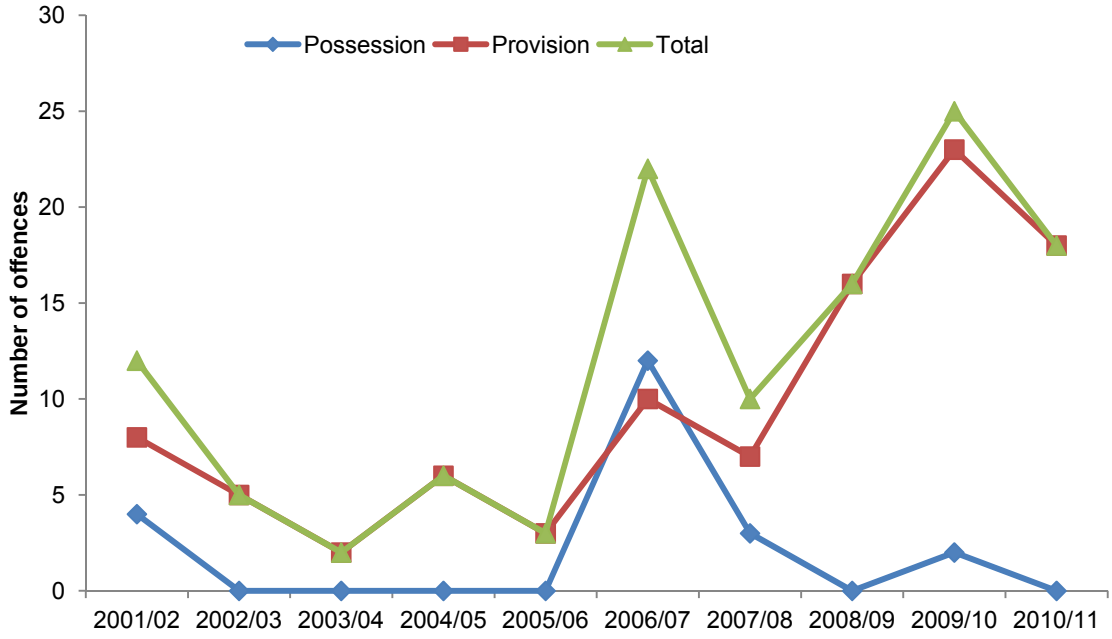
Source: South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011
Note: SAPOL Annual Reports only refer to amphetamines and do not distinguish between amphetamine and methamphetamine

8.2.3 Cocaine

Figure 39 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 2010/11 (South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011). As can be seen, there were no cocaine possession offences in 2010/11. The number of provision offences decreased to 18, down from 23 in 2009/10. Cocaine possession and provision offences in 2010/11 again exceeded the numbers seen in 2001/02; however,

cocaine continued to make up less than 1% of all offences, as has been the case in all years depicted.

Figure 39: Number of cocaine-related offences reported by SAPOL, 2001/02-2010/11

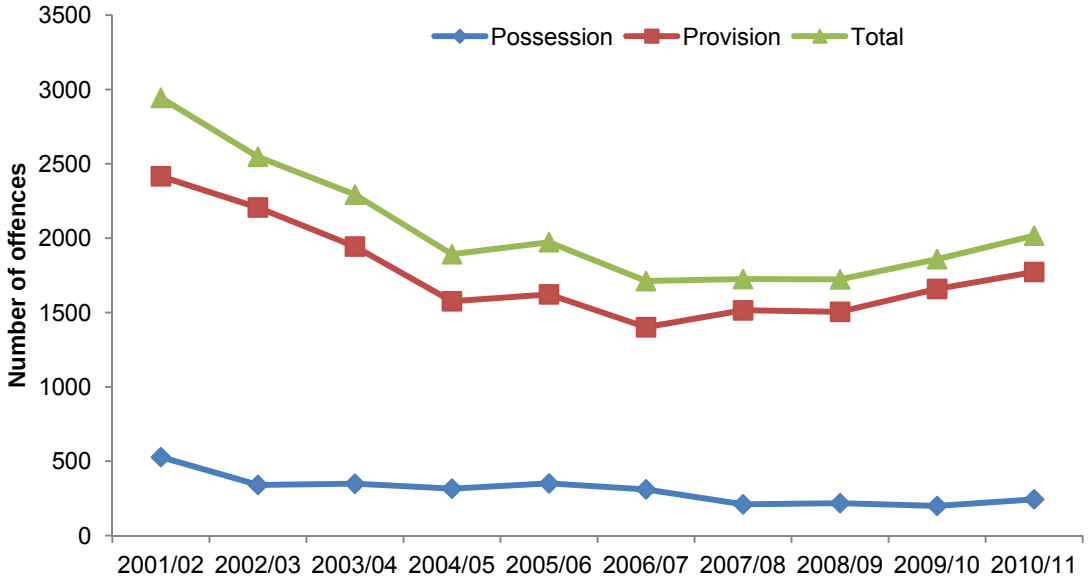


Source: South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011

8.2.4 Cannabis

Figure 40 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 2010/11 (South Australia Police, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011). As can be seen, the number of cannabis possession offences increased slightly in 2010/11 (244 vs. 200 in 2009/10); as did the number of provision offences (from 1,659 offences in 2009/10 to 1,773 offences in 2010/11). Historically, cannabis-related offences have made up the majority of illicit drug possession and provision offences and they continued to do so in 2010/11, with 66% of the total number of offences being cannabis-related. This proportion remained stable compared to 2009/10 (65%).

Figure 40: Number of cannabis-related offences reported by SAPOL, 2001/02-2010/11



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

8.3 Expenditure on illicit drugs

Fifty participants had purchased illicit drugs on the day prior to interview. Among these participants, the median amount spent on illicit drugs was $100 (range: $5-500; n=50). This was stable from 2010 ($100; range: $20-1,500; n=56).

Table **43** 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 2011.

Table 43: Expenditure on illicit drugs on the day preceding interview, 2010-2011

Expenditure (%)	2010	2011
	(n=91)	(n=100)
Nothing	48	**50**
Less than $20	6	**2**
$20-49	7	**7**
$50-99	10	**12**
$100-199	22	**17**
$200-399	7	**9**
$400 or more	1	**3**
Median expenditure* ($)	$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-eight participants reported that they had driven a vehicle in the six months prior to interview ('recent drivers'). Among these participants, 12% (n=7) reported driving under the influence of alcohol and 7% (n=4) had driven over the blood alcohol concentration limit. Those who reported driving over the limit had done so on a median of 3 occasions (range 1-48).

Eighty-five percent of recent drivers (n=49) reported driving after the consumption of illicit drugs in the six months prior to interview, and they had done so on a median of 24 occasions (range 1-180). In addition, twenty-two percent of drug drivers (n=11) reported driving under the influence of drugs on a daily basis. Heroin was the most common drug involved in drug driving episodes (57%; n=28), followed by 'any' methamphetamine (51%, n=25). About a third of drug drivers reported that they had driven under the influence of cannabis (31%; n=15), with smaller numbers driving under the influence of other substances (see Table 44).

Table 44: **Driving behaviour by jurisdiction, 2010-2011**

	2010 (n=97)	**2011 (n=100)**
Driven in the last six months (n)	76 (n=74)	**58 (n=100)**
Driven under the influence of alcohol last six months* (%)	15	**12**
Driven while over the limit of alcohol# (%)	36	**57**
Driven soon after using an illicit drug(s) last six months* (%)	82	**85**
Drug(s) taken prior to driving (%)**	(n=61)	**(n=49)**
Heroin	43	**57**
Methadone	7	**6**
Buprenorphine	7	**2**
Bup-naloxone	5	**0**
Morphine	13	**6**
Oxycodone	10	**4**
Speed	15	**18**
Base	23	**18**
Ice/crystal	26	**29**
Any methamphetamine	*49*	***51***
Cocaine	2	**0**
Benzodiazepines	10	**4**
Cannabis	41	**31**

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, heroin was the most commonly used drug (55% n=27), followed by any methamphetamine (41%, n=20) and cannabis (22%, n=11) (see Table 45). The median amount of time between consumption and operation of a motor vehicle was 20 minutes (range=0-360 minutes), with the majority (74%; n=36) reporting that the use of illicit drugs had had no impact upon their ability to drive. A fifth (20%, n=10) reported that when driving under the influence of drugs they felt their driving ability was impaired, whilst 6% (n=3) reported that their driving had improved as a result of using illicit drugs.

Table 45: Illicit drugs involved in most recent drug driving episode, 2010-2011

DRUG (%)	2010 (n=61)	**2011 (n=49)**
Cannabis	34	**22**
Heroin	33	**55**
Methadone**	5	**2**
Buprenorphine**	3	**0**
Morphine**	8	**2**
Benzodiazepines**	3	**2**
Methamphetamine – powder	7	**14**
Methamphetamine – base	18	**10**
Methamphetamine – crystal	11	**25**
*Any methamphetamine^*	*49*	***41***
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

Heavy Smoking Index for nicotine dependence

- Among those who smoked daily, half had had their first cigarette within five minutes of waking up.
- Forty-nine percent of daily smokers reported smoking between 11-20 cigarettes a day.
- Of daily smokers the mean HSI score was 4.
- Approximately one-quarter of daily smokers scored 5 or above indicating high nicotine dependence.

Alcohol use disorders identification test

- Among those who drank alcohol recently the mean score on the AUDIT-C was 4.3.
- Forty-eight percent of males and 36% of females scored 5 or more, indicating the need for further assessment.

Pharmaceutical opioids

- Approximately one-quarter of the sample recently used pharmaceutical opioids, which is considerably lower than the national average of 53%.
- Of those who had recently used pharmaceutical opioids, 41% reported using them for pain relief and almost one-third to treat self-dependence.
- Nineteen percent of those who commented reported being refused pharmaceutical medications due to their injecting history.
- Of those who commented, two-thirds were prescribed pharmaceutical opioids by their general medical practitioner.

Over the counter codeine

- Two-thirds of the sample reported the use of OTC codeine in their lifetime. Fifty percent reported use within the preceding six months on a median of 8.5 days.
- Almost half of the sample reported using OTC codeine for medical purposes. The main type of medical purpose was acute/short-term pain (69%).
- Only 8% of the sample reported the use of OTC codeine for non-medical purposes.

Injecting equipment use

- Ninety-five percent of the sample reported the use of 1ml needle and syringes in the last month, followed by a 3ml syringe (13%) and detachable needle (12%).
- The re-use of 1ml needle and syringes was reported by 50% of the sample.
- Of those who commented, two-thirds reported cleaning 1ml needle/syringes, with 89% reporting last cleaning a 1ml needle/syringe.

Mental and physical health problems (SF12)

- IDRS participants scored a mean of 40 for the mental component score and 43 for the physical component score.
- IDRS participants had substantially lower scores compared to the Australian population, indicating that they have poorer mental and physical health than the general population.

Health Service Access

- The majority of participants (n=57) reported visiting a GP in the last four weeks, on a median of one occasion (range 1-8). Of those, three-quarters reported visiting a GP once in the last four weeks and one-quarter reported the visit was substance use related.

Online activities

- Over half of the sample reported that they had never used the internet in the last month, while 17% reported daily internet use.
- Of those who had used the internet in the last month, around one-third reported going 'online' to get information about drugs.
- Of those who commented, 14% altered their drug dose due to information found online.
- Of those who had used text messaging in the preceding six months, 40% reported that it was their preferred medium to obtain drugs.

Policy

- Ninety-eight percent of the sample supported needle and syringe programs to reduce problems associated with heroin use. The majority also supported methadone/buprenorphine maintenance programs, treatment with drugs (not including methadone) and regulated injecting rooms.
- The majority of the sample also supported the legalisation of cannabis (84%) for personal use, and just over half (56%) supported the legalisation of heroin for personal use.
- Small numbers supported the increased penalties for sale and supply of cannabis (7%). Around one-quarter supported the increased penalties for sale or supply of methamphetamine or heroin.

9.1 Heavy Smoking Index nicotine dependence

For the first time, in 2011 participants who smoked daily were asked two questions from the Fagerstrom test for nicotine dependence, known as the Heavy Smoking Index (HSI) (n=86). These questions included 'How soon after waking do you smoke your first cigarette?' and 'How many cigarettes a day do you smoke?'. The responses were then scored between zero and six. A score of zero is 'no dependence', 1-2 is 'very low dependence', 3 is 'low to moderate dependence', 4 is 'moderate dependence' and 5 or above is 'high dependence' (Heatherton et al., 1989).

As seen in Table 46, half of the participants who commented reported smoking their first cigarette within five minutes of waking (52%) and one-third between five to 30 minutes of waking (30%). Forty-nine percent of daily smokers reported smoking between 11-20 cigarettes a day and 23% between 10 or less cigarettes a day. The mean HSI score was 4. One-third of daily smokers scored four, indicating moderate nicotine dependence.

Table 46: Heavy Smoking Index for nicotine dependence, 2011

	2011 (n=86)
Time till first cigarette after waking (%)	
Within 5 minutes	**52**
5-30 mins	**30**
31-60 mins	**5**
60 mins	**13**
Number of cigarettes smoked a day (%)	
10 or less	**23**
11-20	**49**
21-30	**22**
31 or more	**6**
Nicotine dependence (%)	
No dependence	**8**
Very low	**16**
Low to moderate	**22**
Moderate	**33**
High	**21**
Mean Score	**4 (range 0-6)**

Source: IDRS participant interviews

9.2 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 2009 (n=2,697) 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. In 2010 & 2011, participants of the IDRS were 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 2011, the overall mean score on the AUDIT-C was 4.3 (SD=3.3, 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-third (43%) of the sample scored five or more on the AUDIT-C, a slight increase from 2010. There was also an increase in the proportion of males who scored 5 or more (48% vs. 36%), whilst for females the proportion remained stable at 36% (Table 47).

Table 47: AUDIT-C among PWID, 2010-2011

	2010 (n=96)	**2011 (n=72)**
Mean AUDIT-C score, SD (range)	3.4, 3.5 (0-12)	4.3, 3.3 (1-12)
Score of 5 or more (%)	35	43
Males (%, n=44)	36	48
Females (%, n=28)	35	36

Source: IDRS participant interviews

9.3 Pharmaceutical opioids

Since the heroin shortage 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, 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 (Hulse et al., 1999, English et al., 1995, Vlahov et al., 2004, Randall et al., 2011) and that prescribers are often reluctant to prescribe opioid analgesics to people with a history of injecting drug use (Baldacchino et al., 2010, Merrill & Rhodes, 2002). This section aimed to examine the complex interplay among PWID, pain management and the extra-medical use of pharmaceutical opioids (PO).

In 2011, participants in the IDRS were asked questions about the use of PO and pain. Pharmaceutical opioids included morphine, oxycodone, and other PO such as fentanyl, pethidine and tramadol. Excluded were methadone, buprenorphine and buprenorphine-naloxone. Over a quarter of the sample (27%) reported the use of PO in the last six months (Table 48). Among those who recently used PO, 41% (n=11) reported using them for pain relief and 30% (n=8) to treat self-dependence. Participants were asked if they were refused PO medications for pain due to injecting history. Of those who commented 19% (n=5) reported 'yes' and 31% 'hadn't sought pain relief' (n=8) (Table 48).

Among those who sought pain relief (n=18), half (50%) reported being prescribed PO for pain relief. Twenty-eight percent reported having trouble obtaining pain relief from their doctor. One quarter reported informing their doctor about their drug use at the time and 13% reported that their doctor already knew about their drug use. Of those who commented (n=9), two-thirds were prescribed PO by their GP, one-third by a pain specialist and 11% by a hospital doctor (Table 48).

Table 48: Pharmaceutical opioids use among people who inject drugs, 2011

	2011
Reason for using pharmaceutical opioids* (%)	**n=27**
Treat self-dependence	**30**
Seek an opioid effect	**19**
Pain relief	**41**
Know what dose to expect	**7**
Cheaper than heroin	**19**
Current heroin purity	**7**
Couldn't score heroin	**3**
Refused pharmaceutical opioids medications for pain due to injecting history (%)	**n=26**
Yes	**19**
Haven't sought pain relief	**31**
Prescribed pharmaceutical opioids[#] (%)	**n=18**
For pain last six months	**50**
Trouble obtaining pain relief from doctor	**28**
Informed doctor about drug use (%)	**n=16**
Yes	**25**
Yes, but not all	**6**
Doctor already knew	**13**
Pharmaceutical opioids prescribed by[##] (%)	**n=9**
Pain specialist	**33**
Hospital doctor	**11**
OST specialist	**0**
GP	**67**

Source: IDRS participant interviews
* Among those who recently used. Multiple responses were allowed
[#] Among those who sought pain relief
[##] Among those who were prescribed PO for pain in the last six months

9.4 Over the counter codeine

In Australia, codeine that is available over the counter (OTC) is combined with simple analgesics including paracetamol and non-steroidal anti-inflammatory drugs (NSAID) such as ibuprofen and aspirin. Prolonged use of codeine has the potential to produce tolerance and create a dependence liability, often leading to dose escalation (Sproule et al., 1999; National Prescribing Service Ltd., 2009).

In 2011, participants in the IDRS survey were asked questions about the use of over the counter (OTC) codeine for medical and non-medical purposes.

Around two-thirds of the sample reported the use of OTC codeine in their lifetime, with 50% using OTC codeine in the last six months on a median of 8.5 days. See section 4.6.5 and Table 5 for further details regarding OTC codeine.

Forty-eight percent of participants reported using OTC codeine for medical purposes in the last six months, and they had done so on a median of 11 days (range: 1-180). The

main type of medical purpose was short-term pain (69%) and this was consistent with the national results. Nurofen Plus® (33%) was reported as the last brand used for medical purposes in the last six months, followed by Panadeine® (21%) and Chemists own strong pain relief® (19%). Participants who had used OTC codeine for medical purposes were asked, on a scale of 0-100% (with 0% being no relief and 100% being complete relief), how effective it had been in alleviating their pain. The median amount of relief received from OTC codeine was 65% (range: 0-100%), and the median amount of tabs/caps taken was two.

Eight percent of the sample reported the use of OTC codeine for non-medical purposes on a median of nine days (range: 2-170). The main reasons for the use of non-medical OTC codeine were: to go to sleep (57%) and as a substitute for heroin (43%). The median amount of tabs/caps taken was three (range: 1-10), whilst the maximum number taken in any one session was four tabs/caps (range 2-10). The most common brand of OTC codeine used in a 'most' occasion for non-medical purposes was Chemists own strong pain relief® (50%; n=4).

Table 49: Over the counter codeine use and pain, 2011

	National n=868	**SA n=100**
Ever used OTC codeine (%)	63	**66**
Recently used OTC codeine (%)	42	**50**
Median days used OTC codeine in the last six months*	10	**8.5**
Use OTC codeine for medical purposes in the last six months (%)	40 (n=339)	**48 (n=48)**
Acute/short-term	71	**69**
Chronic non-malignant	25	**29**
Chronic malignant	2	**2**
Used OTC codeine for non-medical purposes[#] (%)	6 (n=55)	**8 (n=8)**
To feel numb	9	**14**
To go to sleep	36	**57**
Substitute for heroin	39	**43**
Substitute for pharmacotherapy	7	**0**
Supplement pharmacotherapy	6	**0**
Other	26	**13**

Source: IDRS participant interviews
* Among those who recently used
[#] Multiple responses allowed

9.5 Injecting equipment use in the last month

In 2011, participants in the IDRS survey were asked questions about the use of injecting equipment, as well as about the re-use and cleaning of a range of items used for injecting in the last month. These questions were from the 2008 Australian Needle and Syringe Program Survey (ANSPS) conducted by The Kirby Institute, University of New South Wales (National Centre in HIV Epidemiology and Clinical Research, 2009).

Outlined in Table 50, Table 51 and Table 52, are the results from the IDRS survey (SA and National) compared to the NSP survey (National Centre in HIV Epidemiology and Clinical Research, 2009). The IDRS found similar results to the 2008 ANSPS survey.

As shown in Table 50 almost the entire SA sample (95%) reported the use of 1ml needle and syringes in the last month; greater than was reported by both the national sample and the ANSPS survey. This was followed by a 3ml syringe (13%) and a detachable needle (12%). The re-use of 1ml needle and syringes was reported by 50% of the SA sample who commented, again greater than what was reported by the National sample and ANSPS survey (Table 51).

Table 50: Use of injecting equipment in the last month among those who commented, 2011

	Australian NSP Survey*	**National**	**SA**
	2008	**2011**	**2011**
Injecting equipment used in the last month* (%)		**n=842**	**n=100**
1ml needle/syringe	76	**76**	**95**
3ml syringe (barrel)	22	**20**	**13**
5ml syringe (barrel)	17	**16**	**1**
10ml syringe (barrel)	9	**10**	**7**
20ml syringe (barrel)	6	**7**	**1**
50ml syringe (barrel)	n.a	**1**	**2**
Detached needle (tip)	19	**21**	**12**
Winged view infusion set (butterfly)	12	**17**	**7**
Wheel filter	11	**16**	**8**

Source: IDRS participant interviews
* More than one item could be selected

Table 51: Re-use of injecting equipment in the last month among those who commented, 2011

	Australian NSP Survey*	National	SA
	2008	**2011**	**2011**
Injecting equipment reused in the last month* (%)		**n=842**	**n=99**
1ml needle/syringe	32	**39**	**50**
3ml syringe (barrel)	7	**6**	**3**
5ml syringe (barrel)	6	**3**	**1**
10ml syringe (barrel)	4	**3**	**2**
20ml syringe (barrel)	3	**3**	**0**
50ml syringe (barrel)	n.a.	**<1**	**1**
Detached needle (tip)	4	**4**	**0**
Winged view infusion set (butterfly)	5	**6**	**2**
Wheel filter	4	**4**	**3**

Source: IDRS participant interviews
* More than one item could be selected

Of those who commented (n=74), 66% of the SA sample reported cleaning 1ml needle/syringes, compared to 39% at the national level and 30% in the ANSPS survey. Of those who reported cleaning their injecting equipment (n=55), the majority (89%) reported last cleaning a 1ml needle/syringe, again greater than reported at the national level (Table 52).

Table 52: Injecting equipment cleaned in the last month among those who commented, 2011

	Australian NSP Survey*	National	SA
	2008	2011	2011
Cleaning of injecting equipment in the last month* (%)		N=813	n=74
1ml needle/syringe	30	39	66
3ml syringe (barrel)	8	6	1
5ml syringe (barrel)	6	4	1
10ml syringe (barrel)	4	3	3
20ml syringe (barrel)	3	3	0
50ml syringe (barrel)	n.a.	<1	3
Detached needle (tip)	5	4	1
Winged view infusion set (butterfly)	4	7	3
Wheel filter	3	3	5
Last injecting item cleaned (%)**		N=424	n=55
1ml needle and syringe	n.a.	65	89
3ml syringe (barrel)	n.a.	13	5
5ml syringe (barrel)	n.a.	6	0
10ml syringe (barrel)	n.a.	3	4
20ml syringe (barrel)	n.a.	3	0
Detachable needle (tip)	n.a.	1	0
Winged vein infusion set (butterfly)	n.a.	6	2
Wheel filter	n.a.	3	4

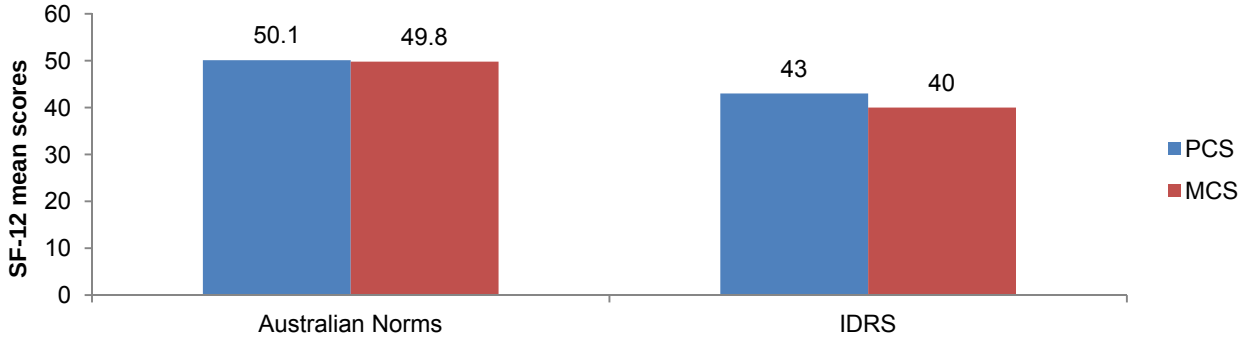
Source: IDRS participant interviews
* More than one item could be selected
** Among those who cleaned equipment in the last month

9.6 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 first time in the IDRS in 2011. 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 2011 IDRS scored a mean of 40 (SD=11.5) for the MCS and 43 (SD=11.5) for the PCS (Figure 41). 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 41: SF-12 scores for SA IDRS participants compared with the general Australian population (ABS), 2011



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

9.7 Health service access

Participants in the 2011 IDRS were asked about access to health services in the previous four weeks. Table 53 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, 11 participants reported visiting a hospital emergency department (ED)/Casualty in the last four weeks on a median of one occasion (range: 1-2 occasions). Of those who had visited a hospital ED/Casualty, 73% had visited on one occasion in the last four weeks and 10% reported the visit was substance use related (Table 53).

The majority of participants (n=57) reported visiting a GP in the last four weeks on a median of one occasion (range: 1-8 occasions). Seventy-seven percent reported visiting a GP once in the last four weeks, of which one quarter reported the visit was substance use related (Table 53).

Table 53: Health service access in the last four weeks, 2011

	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=11) %	1 (1-2)	73	27	0	0	90	10	0	0
Hospital Outpatient (n=6)	1 (1-2)	67	33	0	0	83	17	0	0
Hospital Inpatient (n=6)	1 (no range)	100	0	0	0	60	40	0	0
GP visit (n=57)	1 (1-8)	77	11	4	9	74	25	2	0
Specialist (n=7)	1 (1-2)	71	29	0	0	50	50	0	0
Dentist (n=9)	1 (1-2)	89	11	0	0	89	11	0	0
Other health professional (n=5)	1 (1-3)	80	0	20	0	80	20	0	0
Ambulance (n=3)	1 (1-2)	67	33	0	0	100	0	0	0
Psychiatrist (n=5)	1 (no range)	100	0	0	0	75	25	0	0
Psychologist (n=8)	1 (1-2)	88	13	0	0	63	38	0	0
Social/welfare worker (n=15)	1 (1-5)	80	13	0	7	60	33	7	0
Drug/alcohol counsellor (n=20)	1 (1-3)	90	5	5	0	5	90	0	5
Other (n=6)	1 (no range)	100	0	0	0	83	17	0	0

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

9.8 Online activities

The use of the internet has become part of everyday life. The internet is used to find out information, communicate with others, and to undertake commercial transactions. Those who use illicit drugs may undertake these types of activities in respect to their drug use, and subsequently there may be a huge potential for the internet and other electronic mediums to be used as a way of relating health and safety messages (Belenko et al., 2009). The success of such messages will rely heavily on an increased understanding of the online drug market.

Therefore, a set of one-off questions about online activity were asked in the 2011 IDRS. Among participants who commented (n=99), 55% reported that they never used the internet (went 'online') in the last month, whilst 17% reported daily internet use and 15% reported at least weekly use (Table 54).

Of those who had used the internet in the last month, around one-third reported going 'online' to get information about drugs. Small numbers went 'online' to post information about drugs, to buy drugs or ingredients or to sell drugs (Table 54).

Participants were then asked about their favourite drug site. Of those who commented (n=13), 23% said they don't use drug websites, while 23% reported Erowid and 8% reported Pill Reports as their favourite site (Table 54).

Of those who commented (n=14), 14% altered drug dose, 7% stopped using a drug, and 7% used a new drug combination or route of administration (ROA) due to information they had found 'online'.

Forty percent of those who commented (n=52) reported using text messaging as the preferred medium to obtain drugs.

Only three participants answered questions regarding the purchase of substances sold as 'legal highs', and of those two reported that they had purchased such substances in the last six months.

Participants in the EDRS were also asked questions about online activity related to drug use. For a comparison please refer to the SA EDRS report 2011 (Sutherland & Burns, 2012) available through the NDARC website (www.ndarc.med.unsw.edu.au/).

Table 54: Proportion of PWID that online activity related to drug use, 2011

	National	SA
How often did you go online last month (%)	**N=788**	**n=99**
Never	**61**	**55**
Daily	**13**	**17**
At least weekly	**15**	**15**
At least fortnightly	**4**	**4**
At least monthly	**7**	**9**
In the last six months did you go on line to (%)	**N=305**	**n=45**
Get information about drugs	**30**	**33**
Post information about drugs	**3**	**4**
Buy ingredients to make drugs	**1**	**4**
Buy drugs	**3**	**7**
Sell drugs	**1**	**4**
Didn't go online for these activities	**N=265**	**n=44**
	75	**66**
Favourite drug site* (%)	**N=97**	**n=13**
Don't use websites	**41**	**23**
Pill reports	**3**	**8**
Erowid	**10**	**23**
Wikipedia	**11**	**0**
Actions taken due to information found online (%)	**N=88**	**n=14**
Tried new drug	**5**	**0**
Altered drug dose	**14**	**14**
Used new drug combination or ROA	**8**	**7**
Stopped using a drug	**15**	**7**
Other	**8**	**0**
Text messaging as preferred medium for obtaining drugs (%)	**N=282**	**n=52**
	45	**40**
Bought substances sold as 'legal highs' in last six months (%)	**N=74**	**n=3**
	55	**67**

Source: IDRS participant interviews
*Websites listed are the three highest proportions reported

9.9 Policy

Public opinion can play an important role in determining social policy and informing political processes (Matthew-Simmons, Love & Ritter, 2008). However, the vast majority of public opinion data regarding attitudes towards Australia drug policy is collected at the broader population level. In 2011, additional questions were added to the IDRS in order to gather data about how PWID themselves perceive drug policy in Australia. This is intended to be a starting point for further investigation, and will form part of the Drug Policy Modelling Program (DPMP) project entitled "*Public opinion and drug policy: engaging the 'affected community'".*

The policy questions were drawn from the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2011a) to ensure comparability with general population responses. Participants in the 2011 IDRS were asked three policy questions: (1) Thinking about the problems associated with heroin use, to what extent would you support or oppose measures such as....., (2) To what extend would you support or oppose the personal use of the following drugs being made legal? and (3) To what

extent would you support or oppose the increased penalties for sale or supply of the following drugs?. Table 55 presents the 'support' response findings from participants in the IDRS. Looking at the SA IDRS sample, it can be seen that the overwhelming majority of PWID (98%) supported the use of needle and syringe programs to reduce problems associated with heroin use. The majority of participants also supported methadone/buprenorphine maintenance programs, treatment with drugs (not including methadone) and regulated injecting rooms.

The majority of the sample (84%) also supported the legalisation of cannabis for personal use and just over half (56%) supported the legislation of heroin for personal use. This was consistent with results found at the national level.

Small numbers of the SA IDRS sample supported the increased penalties for sale or supply of cannabis (7%). Around one-quarter of the SA IDRS sample supported the increased penalties for sale or supply of heroin or methamphetamine (22% and 24% respectively) (Table 55).

Table 55: Support for measures to reduce problems associated with heroin, for legalisation of illicit drugs and the increase of penalties for illicit drugs, 2011

	National	SA
Support measures to reduce problems associated with heroin use (%)	**n=837**	**n=99**
Needle syringe programs	**97**	**98**
Methadone/Buprenorphine maintenance program	**86**	**84**
Treatment with drugs (not methadone)	**83**	**82**
Regulated injecting room	**81**	**77**
Trial of prescribed heroin	**75**	**69**
Rapid detoxification therapy	**55**	**55**
Use of naltrexone	**53**	**54**
Support legalisation (personal use) of (%)	**n=836**	**n=99**
Cannabis	**87**	**84**
Heroin	**55**	**56**
Methamphetamine	**29**	**39**
Cocaine	**27**	**30**
Ecstasy	**25**	**29**
Support for increased penalties for sale or supply of illicit drugs (%)	**n=831**	**n=98**
Cannabis	**9**	**7**
Heroin	**26**	**22**
Methamphetamine	**33**	**24**
Cocaine	**28**	**16**
Ecstasy	**29**	**19**

Source: IDRS participant interviews;

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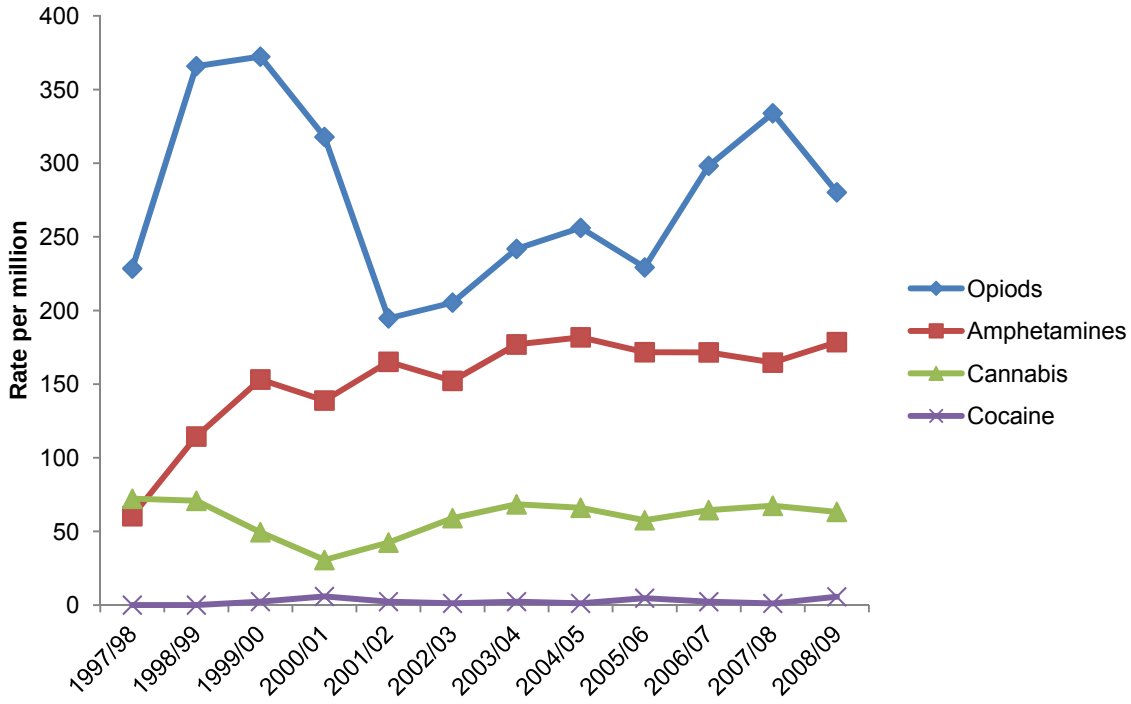
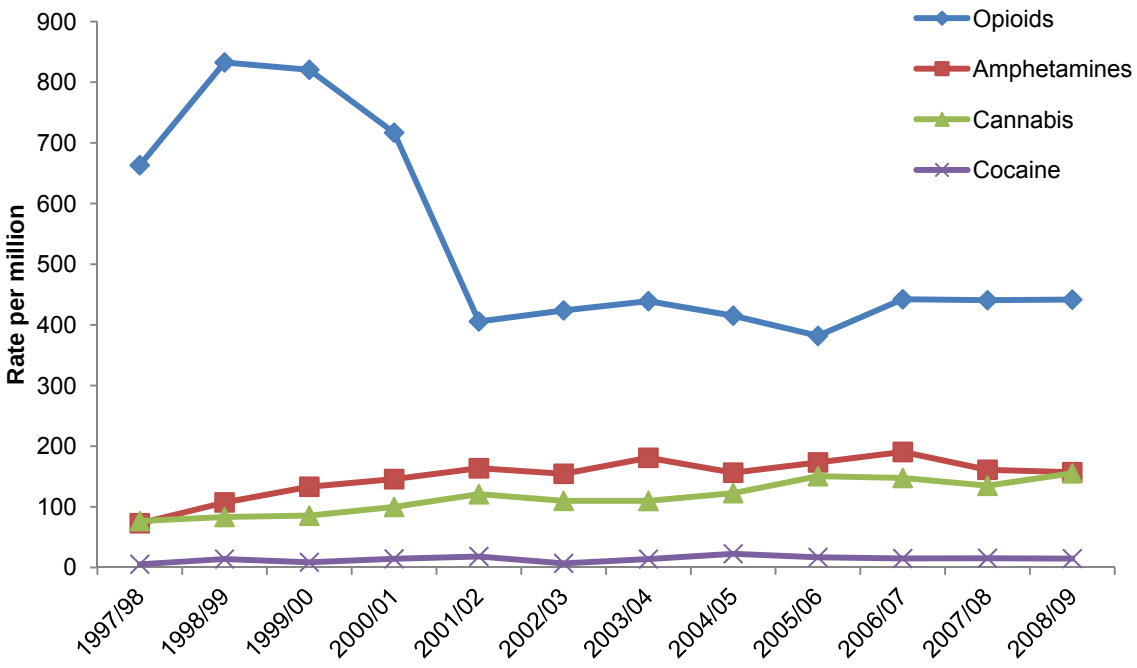
APPENDIX: SUBSTANCE-RELATED ADMISSIONS TO HOSPITALS IN SOUTH AUSTRALIA AND AUSTRALIA

Appendix 1: Rate of substance-related admissions (primary diagnosis) to hospital in South Australia, 1997/98-2008/09



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, 1997/98-2008/09



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