Western Australia

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

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Please note that as with all statistical reports there is the potential for minor revisions to data in this report over its life. Please refer to the online version at www.ndarc.med.unsw.edu.au

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ADHD	Attention deficit hyperactivity disorder
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH&A	Australian Government Department of Health and Ageing
AIHW	Australian Institute of Health and Welfare
ATS	Amphetamine-type stimulant
ATSI	Aboriginal or Torres Strait Islander
AUDIT-C	Alcohol Use Disorders Identification Test/Consumption
BBVI	Blood-borne viral infections
BPI	Brief Pain Inventory
CI	Confidence interval
CIDI	Composite International Diagnostic Interview
DPMP	Drug Policy Modelling Program
ED	Emergency department
EDRS	Ecstasy and related Drugs Reporting System
GP	General practitioner(s)
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HDWA	Health Department of Western Australia
HIV	Human immunodeficiency virus
HSI	Heavy Smoking Index
Hydro	Hydroponically grown cannabis
IDRS	Illicit Drug Reporting System
PWID	Injecting drug user(s)
K10	Kessler Psychological Distress Scale
KE	Key expert(s)
LSD	Lysergic acid diethylamine
MCS	Mental Component Score
MDMA	3, 4-methylenedioxymethamphetamine
N (or n)	Number of participants
NCHECR	National Centre in HIV Epidemiology and 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
NSP	Needle and Syringe Program(s)
OTC	Over the counter
PCS	Physical Component Score
Pharm. Stim.	Pharmaceutical stimulants
PTSD	Post traumatic stress disorder

PWI	Personal Wellbeing Index
ROA	Route of administration
SF-12	Short Form 12-Item Health Survey
SD	Standard deviation
SDS	Severity of Dependence Scale
SPSS	Statistical Package for the Social Sciences
WA	Western Australia
WAPS	Western Australian Police Service
WASUA	Western Australian Substance Users Association

GLOSSARY OF TERMS

Cap	Small amount, typically enough for one injection
Compared	Not statistically significant (p=>0.05)
Eight ball	Weighs an eighth of an ounce
Half weight	0.5 gram
Illicit	Illicit refers to drugs prohibited under law (e.g. heroin) and to pharmaceuticals obtained from a dealer, or by theft, or from a prescription in someone else's name, e.g. through buying them or obtaining them from a friend or partner
Indicator data	Sources of secondary data used in the IDRS (see Method section for further details)
Key expert(s)	Also referred to as KE; persons participating in the Key Expert Survey component of the IDRS (see Method section for further details)
Licit	Licit 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
Participant	In the context of this report, refers to persons who participated in the users survey (does not refer to KE participants unless stated otherwise)
People who inject drugs	Also referred to as PWID. In the context of the IDRS, refers to persons participating in the users survey component of the IDRS (see Method section for further details)
Point	0.1 gram although may also be used as a term referring to an amount for one injection (similar to a 'cap'; see above)
Recent injection	Injection (typically intravenous) in the six months preceding interview
Recent use	Use in the six months preceding interview via one or more of the following routes of administration: injecting, smoking, snorting and/or swallowing
Use	Use 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

Common terms used throughout the report

Regular injection: Injected a drug on six or more separate occasions in the previous six months

Recent use: Used at least once in the previous six months

Sentinel group: A surveillance group that point towards trends and harms

Median: The middle value of an ordered set of values

Mean: The average

Frequency: The number of occurrences within a given time period

Throughout this executive summary comparisons to the previous year have only been made when changes of statistical significance were found.

Demographic characteristics of injecting drug user participants

In 2012, 100 participants were recruited for the 2012 WA IDRS participant survey, which was the standard amount. Demographic characteristics of the sample were broadly comparable to those of the previous year. The mean age was 41 years, with 68% male. Almost the entire sample (98%) reported that English was the main language spoken at home and only one respondent identified as Aboriginal or Torres Strait Islander (ATSI). Most (79%) were unemployed and, on average, had 11 years of schooling compared with a mean of 10 in 2011, and 72% reported having some form of post-high school education. Currently being in drug treatment was reported by 41% compared with 59% in 2011 and a history of prison by 54% compared with 36% the previous year. Methadone remained the most common form of drug treatment. The majority of respondents in 2012 were recruited via a Needle and Syringe Program.

Patterns of drug use among the PWID sample

Mean age of first injection was 19 years. Amphetamines remained the drug most commonly reported as first injected by 52%, up from 47% the previous year. Heroin remained the prime drug of choice in the sample reported by 74%. This figure represents the highest number of PWID nominating heroin as their drug of choice since the IDRS commenced in Western Australia. Injecting was most commonly reported on a 'more than weekly but not daily' basis by 37%. Heroin was both the drug most injected in the past month (53%, compared with 32% the previous year) and the principle drug most recently injected (46%).

The greatest proportion of respondents nominated heroin (46%) as the drug most recently injected for the fourth year running. This figure was significantly higher than the 32% of PWID who reported this in 2008. As in 2011, methamphetamines remained the class of drugs least likely to have been the most recently injected, nominated by just 18% of respondents. Other opiates were nominated by 35%.

Injecting 'more than weekly but less than daily' remained the most common frequency of injection, reported by 37% of PWID in 2012. Numbers reporting injecting weekly or less fell from 24% in 2011 to 12% in 2012.

In 2011, over half the sample reported use of tobacco, alcohol, cannabis, any form of methamphetamine, any form of benzodiazepines and heroin in the last six months.

Heroin

Lifetime use of heroin was reported by 96% of PWID and recent use by 80%. Of these recent users, 98% had injected the drug. Average days of use in the last six months was 94 compared to 72 days in 2011. Daily use of heroin was reported by 20% of the sample. Recent use of homebake was reported by 42% with a mean of 39 days of use compared to 20 days in 2011. Powder remained the most commonly reported form of heroin used, reported by 41%.

The median price of recent purchases of one gram of heroin was $600. The greatest proportion of participants reported on the price of a one-quarter gram which had a median price of $200; consistent with prices reported the previous year. Availability was reported as either 'easy' or 'very easy' by 92% of PWID in 2012, and was generally reported as having been stable. Current heroin purity was generally described as 'medium' by 35% of those responding, and 44% reported that this level of purity had remained stable over the previous six months.

Methamphetamine

The IDRS distinguishes between methamphetamine powder ('speed'), methamphetamine base, and crystal methamphetamine ('ice' or 'crystal').

Lifetime use of any form of methamphetamine was reported by 96% of the sample and recent use by 72%. Lifetime use of speed powder was reported by 92% and recent use by 45%. Lifetime use of base or paste methamphetamine was reported by 27% and recent use by six percent. Lifetime use of crystal methamphetamine was reported by 87% and recent use by 64%. Use of liquid amphetamine remained uncommon. Mean days of use of any form was 26.

The median price of a point of speed remained $100, and a gram as $700 although this data was provided by very small numbers of respondents. Only one respondent spoke about the price of base, citing a cost of $100 for a point. The median price of a point of crystal was $100 and a gram was $750. Prices for methamphetamine were generally agreed to have remained stable. Availability of speed and crystal were both rated as 'very easy' by 59% of those responding. Only one respondent talked about availability of base, describing it as 'easy'. The availability of all forms was reported as being stable. Purity of both speed and crystal were generally reported as being 'high'. Purity of both forms was reportedly stable over the previous six months. Just one respondent talked about purity of base, indicating that it had tended to fluctuate.

Cocaine

Lifetime history of coke use was reported by 80% of the sample and recent use by 15%. Mean days of use in the last six months remained low at four. The most commonly used form as reported by 80% of those responding was powder. Only one PWID reported on the price of cocaine, citing $150 for a quarter of a gram. Availability was only reported by two PWID with irreconcilable responses. Similarly, just two PWID commented on purity, one describing it as 'medium' and the other as 'low'. These extremely small numbers of respondents both in the current sample and in previous years make it impossible to draw firm conclusions as to the state of the cocaine market in Western Australia.

Cannabis

A lifetime history of cannabis use was reported by 97% and recent use by 79%. Mean days of use in the past six months was 107 with use on a daily basis reported by 31%. Hydroponic cannabis remained the most commonly used form, reported by 96% of those responding.

The median price of an ounce of hydro remained stable at $350 for an ounce and $25 for a gram. The price of bush was reportedly $300 an ounce, up from $250 the previous year, but the small number of PWID providing this information makes it difficult to determine if this is a significant change. Prices of both forms were generally regarded as having been stable. Both forms were generally regarded as 'very easy' to obtain by those who responded, with 74% reporting this for hydro compared to 46% the previous year. This level of availability was largely agreed to have remained stable over the previous six months. Potency of hydro was described by 69% of those commenting as 'high' while potency of bush was described as 'medium' by 79% of those commenting compared with 50% in 2011. Potency of both forms was widely held to be stable.

Illicit use of pharmaceuticals

Methadone

Lifetime illicit use of methadone was reported by 57% and recent use by 22%. Average days of use was 14 compared with 25 days in 2011. Use of illicit Physeptone was less common with lifetime use reported by 44% and recent use by 15%. The average days of use during the last six months was six. The reported price remained one dollar per one millilitre, which has been comparable to previous years. Of those responding, 40% described obtaining illicit methadone as 'easy'.

Buprenorphine and buprenorphine-naloxone

Lifetime use of illicit buprenorphine (Subutex) was reported by 44% and recent use by 15% with a mean of 34 days of use. Lifetime use of illicit buprenorphine/naloxone (Suboxone) was reported by 33% and recent use by 16% with a mean of 47 days of use. Lifetime use of Suboxone film was reported by 20% and recent use by 18% with a mean of 28 days of use. Median price for an 8mg pill of Subutex was reported as $35 with its availability generally described as 'very easy'. The median price for an illicit pill of Suboxone was $45 with availability reportedly 'easy'. The median price of Suboxone film was reportedly $38 and its availability generally described as 'easy'.

Morphine

Lifetime use of illicit morphine was reported by 82% and recent use by 43% with a mean of 40 days of use compared to 22 days in 2011. As in previous years, MS Contin remained the most common form of morphine with a 100mg tablet carrying a median price of $70. Of those responding, 56% reported that illicit morphine was currently 'very easy' to obtain. It was generally agreed that this availability had remained stable over the last six months.

Oxycodone

Lifetime use of illicit oxycodone was reported by 76% and recent use by 48% with a mean of 35 days of use. The proportion reporting use in the last six months was 48% in 2012, which was a significant increase from 30% in 2011. As in previous years, the most commonly reported brand was Oxycontin. The median price of an 80mg tablet was $80. Availability of illicit oxycodone was reported as 'very easy' by 49% of those responding. Availability was widely perceived as having remained stable.

Over the counter codeine

Lifetime use of OTC codeine was reported by 27% and 13% reported consuming them in the last six months compared to 34% in 2011. Given the popularity of preparations such as Panadeine, Neurofen and Mersyndol in Australia, these figures seem implausibly low and it would seem advisable to interpret this data with caution.

Other opioids (not elsewhere specified)

Lifetime history of using of other miscellaneous opioids was reported by 43% and recent use by 25% with a mean of 39 days. The most commonly reported form was Panadeine Forte with very small numbers also mentioning fentanyl, tramadol, minor analgesics and opium.

Other drugs

Benzodiazepines

A lifetime use of any benzodiazepine was reported by 90% of the sample and recent use by 82% which was significantly higher than the 61% reported in 2011 and was the highest level of use recorded since the IDRS commenced data collection in Western Australia. Mean days of use was 117 compared to 99 days in 2011, with 31% reporting consumption on a daily basis. Mean days of use of illicit benzodiazepines was 34 compared to 12 in 2011.
Diazepam remained the most commonly reported form of benzodiazepine. Illicit alprazolam (Xanax) was specifically asked about and had been recently used by 46% for a mean of 34 days. While most alprazolam use in the sample appeared to be illict, most use of other benzodiazepines appeared to be prescribed.

Pharmaceutical stimulants

Lifetime prevalence of pharmaceutical stimulants (licit or illicit) by the WA PWID sample was 65% compared to 50% the previous year, and recent use by 23% with an average of 13 days of use. Only one of these respondents had a valid prescription, with all other use being illicit.

Hallucinogens and ecstasy

Lifetime use of hallucinogens was reported by 84% and recent use by 11% for a mean of four days. The most commonly reported hallucinogen was LSD (n=7) followed by DMT (n=2).

A lifetime history of having consumed ecstasy was reported by 77% and recent use by 12% compared to one respondent the previous year. Ecstasy was taken on a mean of eight days of use. Almost all of this ecstasy was in pill form, with just one respondent reporting consuming the drug in capsule form.

Inhalants

Lifetime use of inhalants was reported by 31% of the WA PWID and recent use by 4% on a mean of five days of use in the past six months. In 2011, the average number of days inhalants were used was one day and no respondents reported using inhalants daily. Inhalants used included amyl nitrate, nitrous oxide and ether.

Alcohol and tobacco

Lifetime use of alcohol was reported by 100% of the WA PWID sample and recent use was reported by 67%. The average number of days used in the last six months was 47. There were nine respondents who reported drinking on a daily basis. Use of the AUDIT-C screen revealed 45% of male drinkers and 53% of females were either hazardous drinkers or have an active alcohol use disorder.

A lifetime history of having smoked tobacco was reported by 97% and recent use by 91%. Virtually all of these respondents smoked on a daily basis with 177 average days of use.

Seroquel (Quetiapine)

A lifetime history of illicit Seroqual was reported by 42% and recent use by 19%. Mean days of use was 13. There was also 14% of the sample who reported having a valid prescription for Seroqual who consumed the drug much more regularly on a mean of 98 days. There were no reports of injecting Seroqual.

Health-related harms

A lifetime history of heroin overdose was reported by 47% compared to 64% in 2011. The median number of overdoses was three times. A heroin overdose in the past year was reported by 16% and there were no reports of overdose in the month proceeding the survey. There were 359 narcotic overdoses attended by ambulance in the 2011/12 period compared with 323 the previous year.

Overdose on drugs other than heroin was reported by 24% of the 2012 sample with seven non-heroin related overdoses in the past twelve months. Drugs involved included crystal methamphetamine, ecstasy, alcohol, oxycodone and other opioids.

Calls to ADIS

Data from the Alcohol and Drug Information Service revealed a decline in the 2011/12 financial year in calls with heroin as the primary drug of concern, but a substantial increase in those relating to amphetamines. Numbers of calls dealing with cocaine remained stable and uncommon. Although calls with cannabis as the primary drug of concern appear to have increased, this is actually a reflection of the ADIS cannabis data now including calls to the Cannabis Intervention Requirement Scheme (CIRS).

Hospital admissions

Numbers of opioid hospital admissions have continued to increase over the 2009/10 financial year with WA having an admission rate of 627.51 per million compared to the national rate of 465.45. Amphetamine-related hospital admissions have remained relatively stable with WA continuing to exhibit much higher rates than nationally (252.06 per million vs. 136.41). Hospital admissions for cocaine remained uncommon with just 11 admissions in 2009/10 and a WA rate of 8.33 per million compared with the national rate of 19.63. Cannabis related admissions climbed steeply for reasons that are not clear. In 2009/10 WA rates for the first time narrowly exceeded national rates (168.04 per million vs 163.71).

Injecting risk behaviours

In 2012, the vast majority (91%) reported that they had not used a needle after someone else in the last month. Of the remainder that did report using a needle after someone else, common frequencies were using a needle once (n=5), twice (n=2), three to five times (n=1) and more than 10 times (n=1) in the last month. Of these respondents, 88% (n=8) reported that only one person had used the needle before them and one individual reported two other people having used the needle before them. Reporting the use of other equipment after someone else was reported by 17% of respondents. There were 14 respondents who reported that someone else had used a needle after them in the last month. That this had happened once was reported by four respondents, twice by two, three to five times by four, six to ten times by two and two respondents said it had happened on more than ten occasions. There were 14 respondents who reported that someone else had used a needle after them in the last month. Sharing of other equipment was reported by 17%, unchanged from 2011.

In WA, the hepatitis C virus (HCV) continues to be more commonly notified than the hepatitis B virus (HBV). The prevalence of human immunodefiency virus (HIV) among those people who inject drugs in Australia has also remained stable at relatively low rates over the past decade, with HCV more commonly reported. Data on notifiable diseases shows a slight increase in numbers of unspecified cases of both HBV and HCV while numbers of incident cases remain low and stable.

With regards to blood-borne viruses, 52% of the sample reported being positive for HCV and 11% for HBV. Just one individual was positive for HIV/AIDS. Virtually all of the PWID sample

had been tested for blood-borne viruses at some stage, and around one third had been tested in the past three months.

Among the PWID sample interviewed as part of the IDRS, the most commonly reported injection-related problems were scarring/bruising and difficulty injecting, both reported by 38% The proportion reporting a dirty hit did not change significantly, being 16% in 2012 compared to 15% in 2011 with the most commonly implicated drug being oxycodone. A wide range of other injecting-related complications were also reported among the sample.

Mental health problems and psychological distress
Mental health problems were reported by 42% of PWID in 2012. As in previous years, the most commonly reported problems were depression and anxiety. Of those that self-reported a mental health problem, 62% reported attending a professional in relation to the problem.

According to the Kessler Scale of Psychological Distress, 47% of PWID in 2012 were at high or very high risk of psychological distress.

PWID also completed the Short Form 12 Item Health Survey measuring physical functioning and psychological distress. PWID scored more poorly in terms of both domains than the mainstream Australian population with 43.4 vs 50.1 on the physical domain (PCS) and 35.8 vs 42.4 on the mental health domain (MCS).

Driving risk behaviours
Of those PWID who had driven a vehicle in the last six months, 22% reported driving without a license and 12% driving while under the influence of alcohol. In contrast, 86% of PWID reported driving after consuming illicit drugs. Of these PWID, 49% believed that consuming illicit drugs had no impact on their driving ability.

Law enforcement trends

In 2012, 25% of respondents reported that they had been arrested in the past 12 months. Involvement in any criminal activity in the past month was reported by 47% compared with 30% in 2011. As in previous years, the most common form of criminal activity was dealing drugs.

In 2009/10, law enforcement data for WA as a whole indicated that the number of drug arrests for heroin, amphetamine-type stimulants, cocaine and cannabis have all declined.

Special topics of interest

Fagerstrom test for nicotine dependence
Use of the Fagerstrom nicotine test showed that more than half (52%) of those daily smokers responding were heavily nicotine dependent.

Pharmaceutical opioids
The consumption of any pharmaceutical opioid in the six months prior to the survey was reported by 80% of the WA user sample. The most common reasons given for using pharmaceutical opioids were ‘to treat self-dependence’, ‘seeking an opiate effect’, ‘pain relief’, ‘can’t score heroin’, ‘cheaper than heroin’, and ‘knowing what dose to expect’.

Asked if they had ever been prescribed pharmaceutical opioids for pain relief revealed that 40% of these respondents had been. There were also 23% who indicated that they had been refused a script for pain relief. Having ever sold, traded or given away their pharmaceutical opiate script was reported by 21%. Asked if they had ever sought

information regarding the filtering of these preparations for injection, 55% (n=39) indicated that they had not.

Brief Pain Inventory
PWID also completed the Brief Pain Inventory used for the assessment of pain. Pain other than 'everyday pain' (e.g. headaches) was reported by 30% on the day of the interview, primarily 'chronic non-cancer pain'. The pain severity score ranged from 1.3 to 8.5 with a mean of 5.3, indicating typically mid-range pain. Of those receiving medication for this pain, 26% reported receiving no relief and 33% of those reporting pain were not receiving any medication. Experience of trouble accessing pain relief from a doctor was reported by 69% of PWID experiencing pain. Asked about the degree to which this pain interfered with daily activities revealed a mean score of 5.5 indicating moderate levels of interference.

Opioid and stimulant dependence
Participants in user interviews completed the Severity of Dependence Scale (SDS) to screen for dependence upon opioids and stimulants. There were 85% of the 2012 sample found to be dependent on opioids and 28% found to be dependent on stimulants.

Opioid substitution medication injection
Of the WA PWID sample, 17% of participants reported recently injecting methadone, 11% reported recently injecting buprenorphine, 13% buprenorphine-naloxone 'tablet' and 11% buprenorphine-naloxone 'film'. For the most part, these medications were either the respondents' own script or obtained from a friend or partner.

Injection related injuries and diseases
In 2012, IDRS participants were asked if they had ever and recently (last six months) experienced any injection-related injuries or diseases (IRID) from the list used in the IRID project. The most common recent problems were redness near the injection site and swelling near the injection site, both reported by 28% of respondents. A dirty hit in the last six months was reported by 16% of all respondents, but had ever been experienced by 57%. Other common events or symptoms recently experienced included thrombosed veins by 22%, thrombophlebitis by 21%, nerve damage by 20%, hives by 19%, pitting oedema by 18%, accidental injection in an artery by 12%, and lymphoedema by 10%.

Neurological history
There were six respondents who had ever been diagnosed with epilepsy and two respondents had ever been diagnosed with diabetes. There were no respondents who reported having ever been diagnosed with stroke or hypoxic brain damage.

A history of having ever been knocked unconscious was reported by 47% of PWID a median of two times. The median duration of being unconscious was five minutes and 81% of instances were less than half an hour. Being under the influence of alcohol or drugs at the time of the most recent incident were each reported by 34% of those responding. Asked if they had experienced symptoms following the incident, 72% of these PWID reported that they had, most commonly poor concentration, memory loss, and problems with coordination or balance.

Possession laws
PWID were asked about the quantities of drugs they could be in possession of to avoid a sell or supply offence if caught by the police. Although 90% correctly believed that the quantity of drugs could affect the type of charge received, knowledge of what these actual threshold quantities were was often poor.

1. INTRODUCTION

The Illicit Drug Reporting System (IDRS) aims to provide a national co-ordinated approach to monitoring data on the use of opioids, cocaine, methamphetamine and cannabis. It is intended to act as a strategic early warning system that identifies emerging drug problems of state and national concern. Rather than describe such phenomena in detail, the IDRS is designed to be timely and sensitive to emerging drug trends, thereby providing direction for more detailed data collection.

The IDRS is funded by the Australian Government Department of Health and Ageing (AGDH&A). The project is coordinated at the national level by the National Drug and Alcohol Research Centre (NDARC) at the University of New South Wales, thereby ensuring that comparable data is collected in every jurisdiction in Australia.

The IDRS commenced in New South Wales (NSW) in 1997 and has been conducted in Western Australia (WA) since 1999, with the full PWID interview component introduced the following year. This report presents the findings of the last 13 years of data collection in WA. Results are summarised according to the four main drug types, with the use of other drugs also reported. Additionally, this report continues the initiative commenced in 2003 when the IDRS attempted to collect more detailed information on the illicit markets for pharmaceutical drugs. A separate study monitoring trends in ecstasy and related drug use (the Ecstasy and related Drugs Reporting System, or EDRS, formerly known as the Party Drugs Initiative, or PDI) commenced in NSW in 2000 and has been conducted nationally since 2003. The findings from this study are reported elsewhere in Grigg and Lenton (2013).

Both IDRS and EDRS jurisdictional and national reports can be downloaded from the NDARC website: http://ndarc.med.unsw.edu.au

1.1 Study aims

As in previous years, the specific aims of the WA component of the 2012 IDRS were:

- to document the price, purity, availability and patterns of use of the four main illicit drug classes in Perth, WA, primarily focusing on heroin, methamphetamine, cocaine and cannabis;
- to document risks and harms associated with drug use; and
- to detect and document emerging drug trends of national and state significant findings that require further and more detailed investigation.

2. METHOD

Three data collection methods are used in the IDRS:

- a quantitative survey of people who regularly inject drugs (PWID);
- a semi-structured interview with key experts (KE) who worked with illicit drug users; and
- analyses of indicator data sources related to illicit drug use.

These methods provide effective means to determine drug trends, and the triangulation of data sources allows for validation of observed trends across the different sources. People who regularly inject drugs (injecting drug users or PWID) are surveyed because they are regarded as a sentinel group for detecting illicit drug trends due to their increased exposure to many types of illicit drugs. Irrespective of their drug of choice, PWID often have firsthand knowledge of the price, purity and availability of the other illicit drugs under study. KE are interviewed because they provide contextual information on drug use patterns and other drug-related issues, including health. Indicator data are collected to provide quantitative support for the trends in drug use detected by the other methods.

2.1 Survey of PWID

The user survey consisted of face-to-face interviews with regular PWID from Perth between June and August 2012. In 2012, the full target of 100 regular PWID were recruited for the WA IDRS compared to 70 user interviews in the previous year's WA sample. Subjects were recruited through flyers distributed at pharmacies throughout the Perth metropolitan region and recruitment at central Needle and Syringe Programs (NSP). Snowballing techniques were also utilised. Potential participants were screened upon contact with researchers to ensure they fulfilled the participation criteria. Criteria were: having injected at least monthly in the six months prior to interview, having been resident in the Perth metropolitan area for no less than 12 months prior to interview; and being a minimum of 16 years of age. Ethics approval was granted from the Curtin University Human Research Ethics Committee (HR28/2012). This sampling strategy has produced demographic characteristics comparable to PWID interviewed in preceding years.

The interview schedule included sections on demographics; drug use history; the price, purity and availability of illicit drugs; criminal activity; injection risk-taking behaviour; health-related issues; driving risk behaviour; and experiences with law enforcement. Interviews took approximately an hour to complete and participants were reimbursed $40 for their time and travel expenses. Descriptive analyses of the quantitative data derived from the PWID survey were conducted using IBM SPSS Statistics 19.0 for Windows. Confidence intervals (CI) were calculated using an Excel spreadsheet available at http://www.cebm.net/index.aspx?o=1023 (Tandberg).

2.2 Survey of KE

In 2012, 13 KE interviews were conducted. Eligibility for participation in the study was having at least weekly contact with illicit drug users in the six months prior to interview and/or contact with 10 or more illicit drug users in that time. KE interviews were either conducted in person or over the telephone in accordance with convenience and availability. Interviews took approximately 20-30 minutes, with KE invited to comment on drug use patterns, drug availability, criminal behaviour, health and other issues affecting the illicit drug users with whom they had contact. KE in 2011 consisted of needle exchange workers, drug treatment workers, counsellors, outreach workers, crowd controllers, emergency department workers, law enforcement workers and drug analysts for the WA Police and Customs.

2.3 Other indicators

Secondary data sources were examined to complement and validate the data collected from both the PWID and KE surveys. Data were utilised that provided indicators of illicit drug use and related harms, and included law enforcement data, national survey data and health data.

The selection criteria to determine what sort of indicator data should be included in the IDRS were developed in the pilot study (Hando et al., 1997b). Where possible, information is provided in financial year format to cover the same time period as that covered by the study. A number of sources provided indicator data for the 2012 IDRS:

- Australian Crime Commission (ACC) for information on drug seizures and arrests;
- Australian Institute of Health and Welfare (AIHW) for treatment data obtained from the National Minimum Data Set and National Opioid Pharmacotherapy Statistics;
- telephone advisory service data from the Alcohol and Drug Information Service (ADIS);
- Australian Bureau of Statistics (ABS) for overdose data;
- overdose-related calls attended by the WA St John Ambulance Service provided by St John Ambulance Australia WA Inc;
- data on needle and syringe distribution, provided by the Sexual Health Branch, Health Department of Western Australia (HDWA) and;
- rates of unspecified and incident cases of the hepatitis B virus (HBV) and the hepatitis C virus (HCV) from the Communicable Diseases Network, Australia, National Notifiable Diseases Surveillance System database

2.4 Data analysis

The PWID participant survey results are used as the primary basis on which to estimate drug trends. These participants provide the most comparable information on drug price, availability and use patterns in all jurisdictions and over time. However, purity of drug seizures data provided by the ACC is an objective indicator of drug purity, and such data are also presented in this report. Other indicator data are reported to provide a broader overview and a basis against which trends in PWID participant data may be contextualised. KE data are discussed within the individual jurisdictional reports to provide a context around the quantitative data from the PWID surveys.

All data were analysed using SPSS Statistics 19.0 for Windows. Chi square analysis was employed for categorical variables. Further analysis was conducted on the main drugs of focus in the IDRS to test for significant differences between 2011 and 2012 for drug of choice, last drug injected, drug injected most often in the last month, recent use, purity and availability. Confidence intervals (CI) were calculated using an Excel spreadsheet available at http://www.cebm.net/index.aspx?o=1023 (Tandberg). Higher and lower CI results which crossed over the value of zero were not significant. Confidence intervals were only included in the report if findings were statistically significant (p=<.05). This calculation tool was an implementation of the optimal methods identified by Newcombe (Newcombe, 1998).

More detailed analyses on specific issues may be found in other literature, including quarterly bulletins and peer-reviewed articles produced by the project, details of which may be found on the NDARC website, www.ndarc.med.unsw.edu.au.

3. DEMOGRAPHICS

3.1 Overview of the PWID participants

Demographic characteristics of the 100 PWID interviewed in 2012 were largely unchanged from the 70 interviewed in 2011. The mean age of the sample was 41 and 68% were male. English was the principal language of 98%. Just one respondent identified as Aboriginal or Torres Strait Islander (ATSI) and 87% identified as heterosexual. The majority (79%) were unemployed and the mean weekly income of the sample was $414. There were no reports of having received any income from sex work. Having completed some form of tertiary education after school was reported by 72%. Most commonly this was a trade or technical qualification, reported by 48% of the sample. Just 28% had not completed any post-school qualifications. This data and that from previous years' samples is displayed in Table 1.

Of the few significant differences that were identified, the 2012 sample on average had more years of schooling than the previous year with a mean of 11 years up from 10 in 2011 ($t=4.130$, $df=99$, $p<.001$). A significant decrease was also observed in the proportion of the sample currently engaged in treatment for their drug use, falling from 59% in 2011 to 41% in 2012 (95% CI, -0.02, -0.32). A history of having ever been in prison was reported by 54% of the 2012 sample which was significantly higher than the 36% in 2011 (95% CI, 0.32, 0.03). However it, should be noted that this figure may have been affected by the unusually high number of respondents (14%, n=10) in 2011 who did not answer this question.

Table 1: Demographic characteristics of PWID participants, 2008-2012

	2008 N=100	2009 N=100	2010 N=100	2011 N=70	**2012 N=100**
Age (mean years, range)	37 (19-61)	35 (18-62)	37 (18-63)	40 (21-63)	**41 (18-65)**
Sex (% male)	62	60	65	57	**68**
Employment (%):					
Not employed	61	71	77	70	**79**
Full time	13	6	3	6	**6**
Part time/casual	19	12	14	13	**12**
Home duties	1	2	1	0	**0**
Student	2	5	1	1	**2**
Other	4	4	4	1	**2**
Received income from sex work last month	0	3	1	3	**0**
Aboriginal and/or Torres Strait Islander (%)	3	4	9	4	**1**
Heterosexual (%)	89	81	88	83	**87**
Bisexual (%)	6	7	7	6	**7**
Gay or lesbian (%)	4	8	5	6	**3**
Other (%)	1	4	0	6	**3**
School education (mean no. years, range)	10 (7-12)	10 (7-12)	10 (6-12)	10 (7-12)	**11 (6-12)***
Tertiary education (%):					
None	38	37	53	37	**28**
Trade/technical	42	54	34	36	**48**
University/college	20	9	13	27	**24**
Average weekly income	-	$304	$348	$465	**$414**
Currently in drug treatment^ (%)	37	30	47	59	**41***
Prison history (%)	45	49	46	36#	**54***

Source: IDRS user interviews

^Refers to any form of drug treatment, including pharmacotherapies, counselling, detoxification, etc

#Incorrectly reported as 42% in WA Drug Trends 2011.

* Significant at alpha level .05

3.1.1 Current and previous treatment

Some 59% of the 2012 PWID sample were not currently receiving any treatment for their drug use. Methadone remained the most commonly reported treatment by 21% and 15% were on Suboxone. Smaller proportions reported drug counselling and naltrexone (2% each). There were also 2% of respondents who were currently engaged in drug counselling. The mean duration in current treatment was 52 months (range=1-240). The vast majority of those who responded (69%, n=27) reported that they had been able to start treatment immediately. There were twelve respondents (31%) who reported that they had to wait, a third (n=4) of these waiting one to two weeks to commence treatment, 25% (n=3) waiting less than one week, 25% (n=3) waiting 3-4 weeks and 17% (n=2) waiting from five weeks to two months. Asked if they had ever been turned away for treatment, 34% said that they had, with the vast majority of these (65%, n=22) reporting that this had occurred over a year ago.

3.1.2 Recruitment

Participants were asked if they had participated in the IDRS or EDRS in previous years, as shown in Table 2. More than one-third of the current sample (34%) had previously participated in the IDRS and a minority (4%) had participated in the EDRS. Approximately three-quarters (76%) of current PWID were recruited via a NSP 22% through word of mouth. Current sources of recruitment were comparable to the proportions of those in the 2011 sample. Similar to 2008, 2009 and 2010 IDRS recruitment methods, IDRS advertising was conducted in WA Needle and Syringe Program (NSP) sites.

Table 2: Source of recruitment and previous participation in IDRS and EDRS, 2012

Characteristic	2012 N=100
Participated in IDRS in previous years (%)	34
Where found out about IDRS survey (%):	
NSP	76
Word of mouth	22
Chemist	0
Other	2
Participated in EDRS in previous years (%)	4

Source: IDRS user interviews

3.2 Drug use history and current drug use

Table 3 presents injection history, drug preferences and polydrug use of PWID in 2012. The mean age of first injection among current PWID was 19 years, which was comparable to 20 years reported in 2011.

In 2012 a significant increase was observed in numbers reporting amphetamines as the drug first injected with 52% reporting this, up from 47% in 2011 (95%CI 0.30, 0.01) and thereby returning to figures seen in previous years.

Heroin remained the most commonly reported drug of choice as nominated by 74% of PWID in 2012, which was not significantly different from the 66% in 2011 (Figure 1). There was no significant change in the proportion reporting methamphetamine (speed, base and crystal) as the drug of choice, which was 14% in 2012 compared to 12% in 2011.

Injecting ‘more than weekly but less than daily’ remained the most common frequency of injection, reported by 37% of PWID in 2012. In most respects, frequency of injecting remained relatively unchanged from frequencies reported in 2011 with the exception of a significant fall in numbers reporting injecting on a ‘weekly or less’ basis down from 24% in 2011 to 12% in 2012 (95%CI -0.01, -0.25).

Table 3: Injection history, drug preferences and polydrug use of participants, 2007-2012

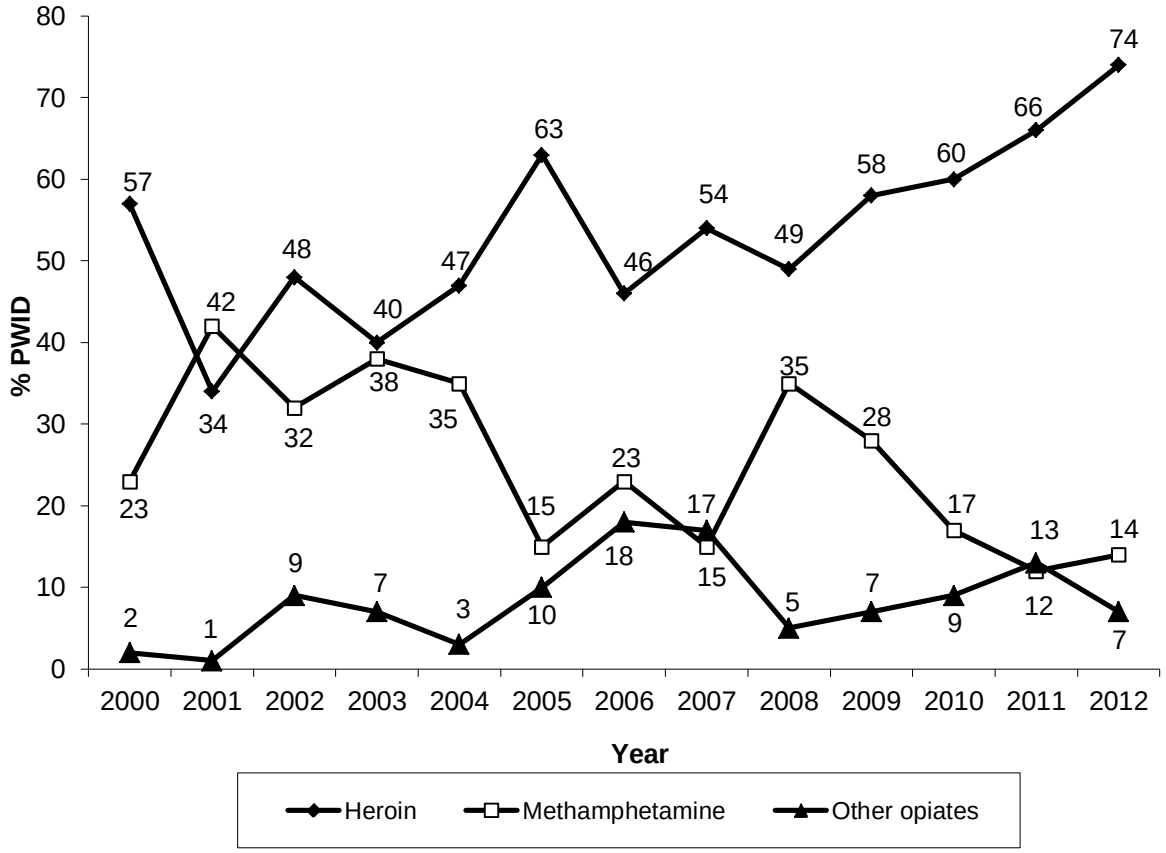
	2007 N=80	2008 N=100	2009 N=100	2010 N=100	2011 N=70	**2012 N=100**
Age first injection (mean years)	19	19	19	19	20	**19**
First drug injected (%)						
Heroin	44	38	34	39	47	**36**
Amphetamines	43	51	56	53	36	**52***
Morphine	10	5	5	3	6	**4**
Drug of choice (%)						
Heroin	54	49	58	60	66	**74**
Cocaine	1	1	1	0	1	**0**
Methamphetamine (any form)	15	35	28	17	12	**14**
Speed	*13*	*11*	*17*	11	3	**5**
Base	*3*	*0*	*0*	0	0	**1**
Crystal methamphetamine (ice)	*0*	*24*	*11*	6	9	**8**
Cannabis	8	7	4	11	7	**3**
Drug injected most often last month (%)						
Heroin	38	32	50	47	54	**52**
Cocaine	0	0	1	0	0	**0**
Methamphetamine (any form)	33	43	32	25	21	**17**
Speed	*24*	*19*	*24*	17	7	**4**
Base	*3*	*0*	*0*	0	0	**0**
Crystal methamphetamine (ice)	*6*	*24*	*8*	8	14	**13**
Most recent drug injected (%)						
Heroin	36	34	46	38	50	**46**
Cocaine	0	0	1	1	0	**1**
Methamphetamine (any form)	29	42	30	25	19	**16**
Speed	*21*	*17*	*22*	18	4	**7**
Base	*3*	*0*	*0*	0	0	**0**
Crystal methamphetamine (ice)	*5*	*25*	*8*	7	14	**11**
Frequency of injecting in last month (%)						
Not injected in last month	*1*	*1*	1	0	0	**1**
Weekly or less	11	38	16	21	24	**12***
More than weekly, but less than daily	31	31	33	35	44	**37**
Once per day	29	17	19	10	11	**15**
2-3 times a day	18	8	26	27	16	**27**
>3 times a day	10	5	5	7	4	**8**

Source: IDRS user interviews

* Significant at alpha level .05

As seen in Figure 1, numbers of PWID nominating heroin as their drug of choice continued to increase for the fourth year running with 74% reporting this which was a significant increase from the 49% reported in 2008 (95%CI 0.37, 0.12).This figure represents the highest number of PWID nominating heroin as their drug of choice since the IDRS commenced in Western Australia. Numbers nominating methamphetamines and other opiates as their drug of choice remained low at 14% and 7% respectively.

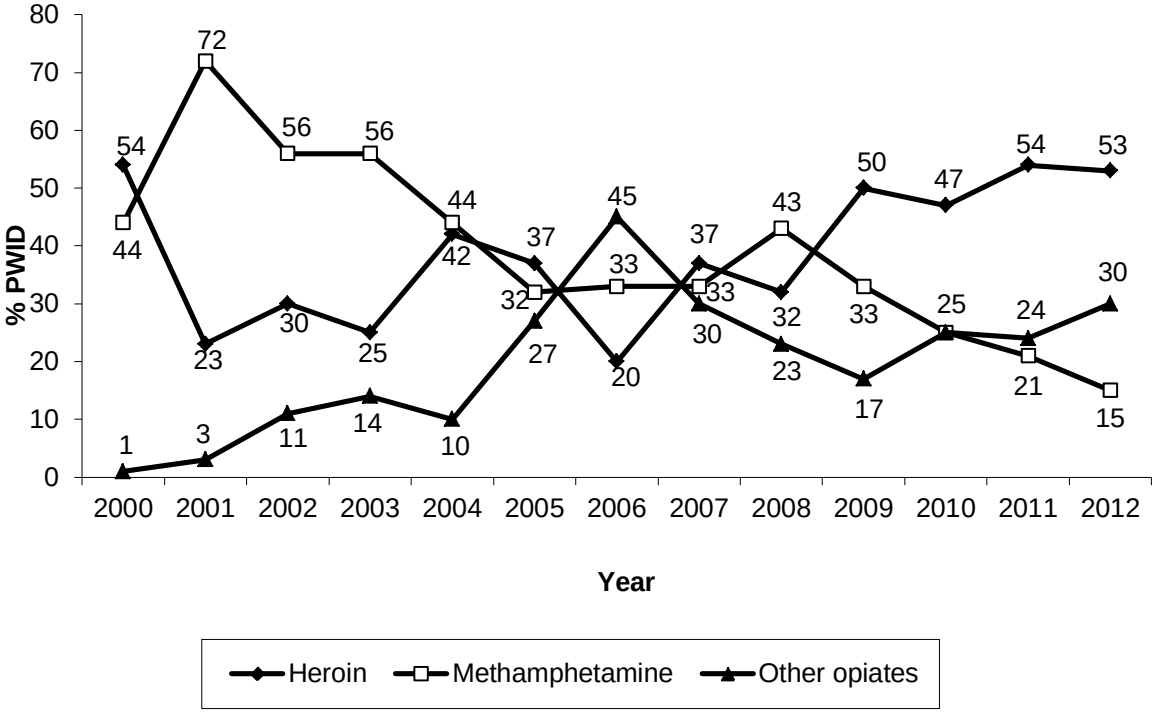
Figure 1: Drug of choice, 2000-2012



Source: IDRS user interviews

Similarly, heroin remained the drug most injected in the month prior to interview for the fourth year running with 53% of PWID reporting this compared with just 32% in 2008 (95%CI 0.37, 0.07). As in 2011, methamphetamines remained the least injected class of drug, reported by just 15% of the PWID sample in 2012. Other opiates were reported as the most injected class of drug by 30% (Figure 2). More detail of drugs most injected in the month prior to interview are provided in Table 4 below.

Figure 2: Drug injected most last month, 2000-2012



Source: IDRS user interviews

Table 4: Drug injected most often in the last month 2010-2012

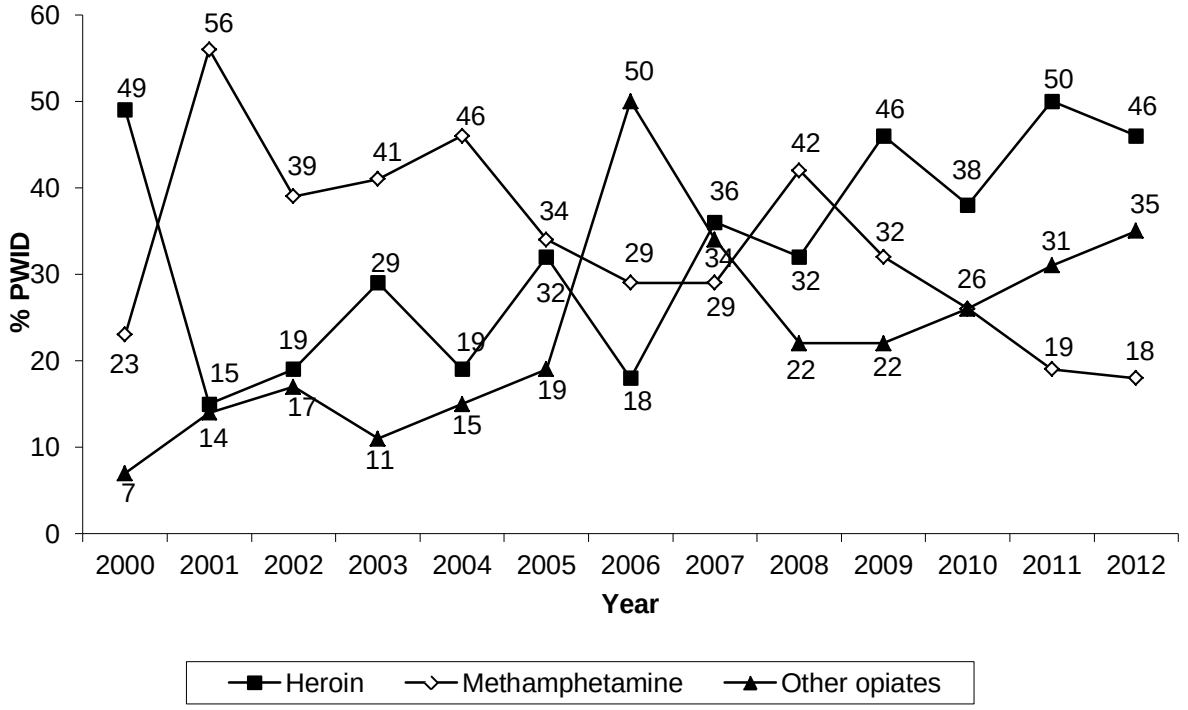
Drug	2010 N=100	2011 N=70	2012 N=100
Heroin	47	54	53
Methamphetamine			
Speed	17	7	4
Ice/crystal	8	14	13
Buprenorphine**	12	10	5
Morphine	5	6	12
Oxycodone	1	4	8
Cocaine	0	0	0
Other opiates	1	0	5
Other	6	0	0

Source: IDRS user interviews

** Includes buprenorphine-naloxone (Suboxone)

In 2012, the greatest proportion of respondents nominated heroin (46%) as the drug most recently injected for the fourth year running. This figure was significantly higher than the 32% of PWID who reported this in 2008 (95%CI 0.27, 0.00). As in 2011, methamphetamines remained the class of drugs least likely to have been the most recently injected, nominated by just 18% of respondents. Other opiates were nominated by 35% (Figure 3).

Figure 3: Drug last injected prior to interview 2000-2012



Source: IDRS user interviews

Locations of injection

Participants were asked about the location of last injection (Table 5). The most commonly nominated last location of injection among those who responded (n=94) was at a private home, reported by 79% in 2012, which was not significantly different to 75% in 2011. Much smaller numbers of PWID nominated other locations.

Table 5: Proportion of participants reporting the last location for injection, 2010-2012

Location	2010	2011	2012
Private home	80	75	79
Street/car park/beach	6	2	5
Car	11	11	9
Public toilet	3	6	4
Other	0	6	3

Source: **IDRS user interviews**

Asked how much money they had spent on drugs yesterday produced responses from 91 PWID, ranging from none through to $650. Of those who had spent any money, the average amount was $145 which was not significantly different from the 2011 average of $125.

Drug use history of the PWID sample, 2011

The drug use histories of PWID participants in the WA IDRS in 2012, including route of administration (ROA), are presented in Table 6. Over one-half of the 2012 sample had used the following drugs in the last six months: tobacco (91%), benzodiazepines (82%), heroin (80%), cannabis (79%), methamphetamines (72%), alcohol (67%), and oxycodone (53%). Further discussion of the use and market characteristics of each drug type can be found under the relevant section heading in the report.

Table 6: Drug use history of the PWID sample, 2012

Drug class	Ever used %	Ever injected %	Injected last 6 mths %	Mean (median) days injected in last 6 mths*	Ever smoked %	Smoked last 6 mths %	Ever snorted %	Snorted last 6 mths %	Ever swallowed %	Swallowed last 6 mth[$] %	Used^ last 6 mths %	Mean (median) days in treatment* last 6 mths	Mean (median) days used^ in last 6 mths*
Heroin	96	96	78	93 (90)	59	5	31	1	26	2	80		94 (90)
Homebake heroin	83	83	42	39 (10)	1	0	0	0	3	1	42		39 (10)
Any heroin (inc. homebake)	*97*	*97*	*84*	*103 (98)*	*59*	*5*	*31*	*1*	*27*	*3*	*84*		*104 (100)*
Methadone (prescribed)	63	25	9	29 (24)					59	25	25	161 (180)	153 (180)
Methadone (not prescribed)	57	44	16	16 (6)					38	12	22		14 (4)
Physeptone (prescribed)	13	8	0	-	0	0	0	0	8	1	1	Not reported	2 (2)
Physeptone (not prescribed)	44	38	12	6 (4)	0	0	1	1	15	5	15		6 (3)
Any methadone (inc. physeptone)	*83*	*64*	*29*	*20 (5)*					*70*	*34*	*45*		*88 (74)*
Buprenorphine (prescribed)	32	18	1	100 (100)	1	0	0	0	30	1	1	180 (180)	180 (180)
Buprenorphine (not prescribed)	44	40	15	34 (2)	2	1	0	0	16	3	15		34 (5)
Any buprenorphine (exc. buprenorphine-naloxone)	*61*	*50*	*16*	*38 (5)*	*3*	*1*	*0*	*0*	*38*	*4*	*16*		*43 (6)*
Buprenorphine-naloxone (prescribed)	31	10	3	180 (180)	0	0	0	0	31	9	9	155 (180)	110 (96)
Buprenorphine-naloxone (not prescribed)	33	23	13	53 (24)	1	0	1	0	15	4	16		47 (24)
Any buprenorphine-naloxone	*51*	*28*	*15*	*79 (30)*	*1*	*0*	*1*	*0*	*38*	*11*	*22*		*78 (72)*
Suboxone film (prescribed)	*14*	*2*	*1*	*5 (5)*	*0*	*0*	*0*	*0*	*13*	*11*	*11*	*104 (120)*	*65 (72)*
Suboxone film (not prescribed)	*20*	*15*	*14*	*31 (5)*	*0*	*0*	*0*	*0*	*7*	*7*	*18*		*28 (4)*
Any suboxone film	*32*	*17*	*15*	*30 (5)*	*0*	*0*	*0*	*0*	*20*	*18*	*28*		*45 (11)*
Morphine (prescribed)	32	28	10	82 (75)	1	0	0	0	19	10	13	139 (180)	107 (107)
Morphine (not prescribed)	82	80	42	40 (20)	0	0	0	0	30	8	43		40 (16)
Any morphine	*87*	*84*	*47*	*53 (24)*	*1*	*0*	*0*	*0*	*40*	*15*	*49*		*60 (30)*
Oxycodone (prescribed)	21	14	7	69 (72)	1	0	2	1	18	7	10	150 (180)	59 (61)
Oxycodone (not prescribed)	76	74	46	36 (14)	0	0	2	1	26	10	48		35 (12)
Any oxycodone	*80*	*76*	*48*	*43 (18)*	*1*	*0*	*3*	*2*	*32*	*16*	*53*		*41 (12)*
OTC Codeine	27	3	1	5 (5)	0	0	0	0	27	13	13		75 (20)

Table 6: Drug use history of the PWID sample, 2011 (continued)

Drug class	Ever used %	Ever injected %	Injected last 6 mths %	Mean (median) days injected in last 6 mths*	Ever smoked %	Smoked last 6 mths %	Ever snorted %	Snorted last 6 mths %	Ever swallowed %	Swallowed last 6 mths+ %	Used^ last 6 mths %	Mean (median) days in treatment* last 6 mths	Mean (median) days used^ in last 6 mths*
Other opioids	43	9	1	10 (10)	2	1	0	0	39	25	25		39 (10)
Speed powder	92	87	41	11 (4)	35	6	48	4	41	2	45		13 (4)
Base/point/wax	27	23	6	4 (3)	6	1	3	0	3	0	6		4 (3)
Ice/shabu/crystal	87	84	61	20 (7)	51	20	23	3	21	7	64		20 (8)
Amphetamine liquid	*16*	*15*	*2*	*4 (4)*					3	0	*2*		*4 (4)*
Any form methamphetamine#	*96*	*95*	*70*	*24 (12)*	*59*	*25*	*52*	*7*	*46*	*7*	*72*		*26 (12)*
Pharmaceutical stimulants (prescribed)	7	4	1	3 (3)	0	0	2	1	7	1	1	180 (180)	180 (180)
Pharmaceutical stimulants (not prescribed)	65	31	10	4 (2)	0	0	2	0	52	15	22		4 (2)
Any form pharmaceutical stimulants	*67*	*32*	*11*	*4 (2)*	*0*	*0*	*4*	*1*	*54*	*16*	*23*		*13 (2)*
Cocaine	80	56	12	4 (3)	19	4	58	5	12	0	15		4 (2)
Hallucinogens	84	18	3	2 (1)	5	3	0	0	84	11	11		4 (3)
Ecstasy	77	36	6	8 (4)	4	0	14	0	72	11	12		8 (5)
Other benzodiazepines (prescribed)	71	3	1	1 (1)	1	0	0	0	71	56	56		123 (180)
Other benzodiazepines (not prescribed)	61	2	0	-	0	0	1	0	60	47	47		34 (20)
Alprazolam (prescribed)	*33*	2	*2*	*2 (2)*	*1*	*0*	*0*	*0*	*33*	*26*	*26*		*86 (66)*
Alprazolam (not prescribed)	*59*	7	*5*	*3 (1)*	*0*	*0*	*0*	*0*	*58*	*45*	*46*		*34 (10)*
Any form benzodiazepines	*90*	11	*6*	*2 (1)*	*2*	*0*	*1*	*0*	*90*	*82*	*82*		*117(127)*
Seroquel (prescribed)	*32*	*0*	*0*	-					*32*	*14*	*14*	*154 (180)*	*98 (105)*
Seroquel (not prescribed)	42	0	0	-					42	19	19		13 (3)
Any Seroquel	*65*	*0*	*0*	-					*65*	*31*	*31*		*54 (10)*
Alcohol	100	10	2	2 (2)					99	67	67		47 (12)
Cannabis	97				96	79			64	12	79		107 (120)
Inhalants	31										4		5 (4)
Tobacco	97										91		177 (180)

Source: IDRS PWID interviews

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

Category includes speed powder, base, ice/crystal and amphetamine liquid; does not include pharmaceutical stimulants

4 HEROIN

4.1 Use

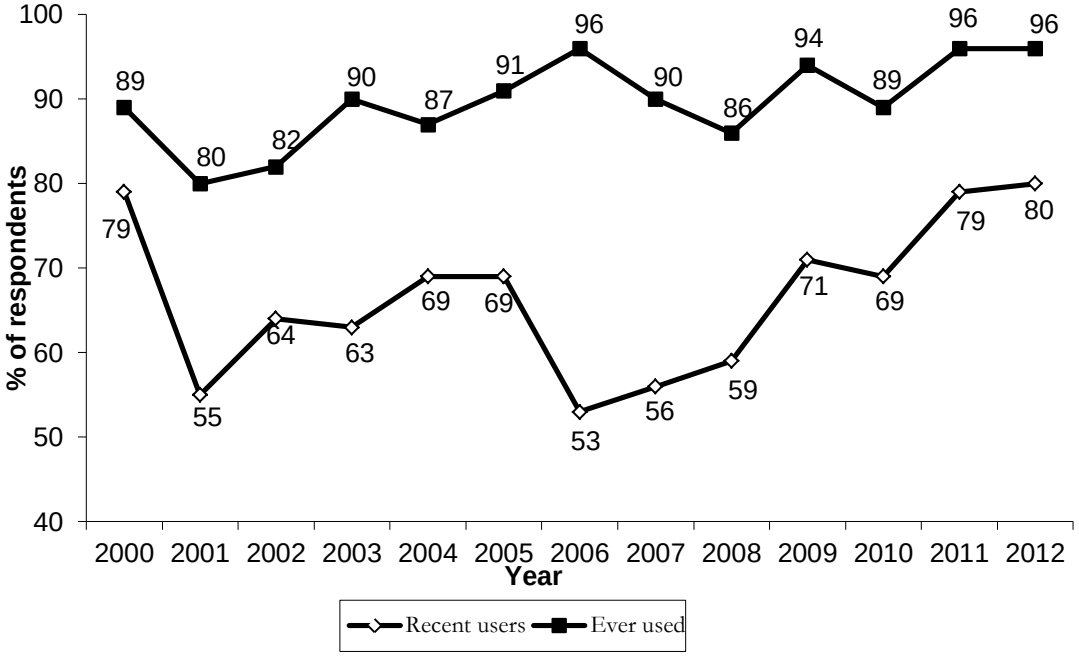
4.1.1 Lifetime history of heroin use among PWID participants

A lifetime history of heroin use was reported by 96% of the 2012 PWID sample which was identical to the figure reported in 2011 (Figure 4). A lifetime history of use of homebake heroin was reported by 83% of PWID in 2012 which was not significantly different from the 90% who reported a history of lifetime use in 2011.

4.1.2 Current patterns of heroin use

Use of heroin in the six months prior to interview was also comparable to last year, with 80% of the current PWID sample reporting recent heroin use compared to 79% in 2011 (Figure 4). It should be noted however, that recent use of heroin has generally been trending upwards since 2006, with the 2012 figure of 80% of PWID reporting recent use being significantly greater than the 2006 low of 53% (95%CI 0.39, 0.14). Of PWID who had used heroin in the last six months, 98% (n=78%) had injected heroin with reports of other routes of administration being relatively rare.

Figure 4: Lifetime and recent use of heroin 2000-2012

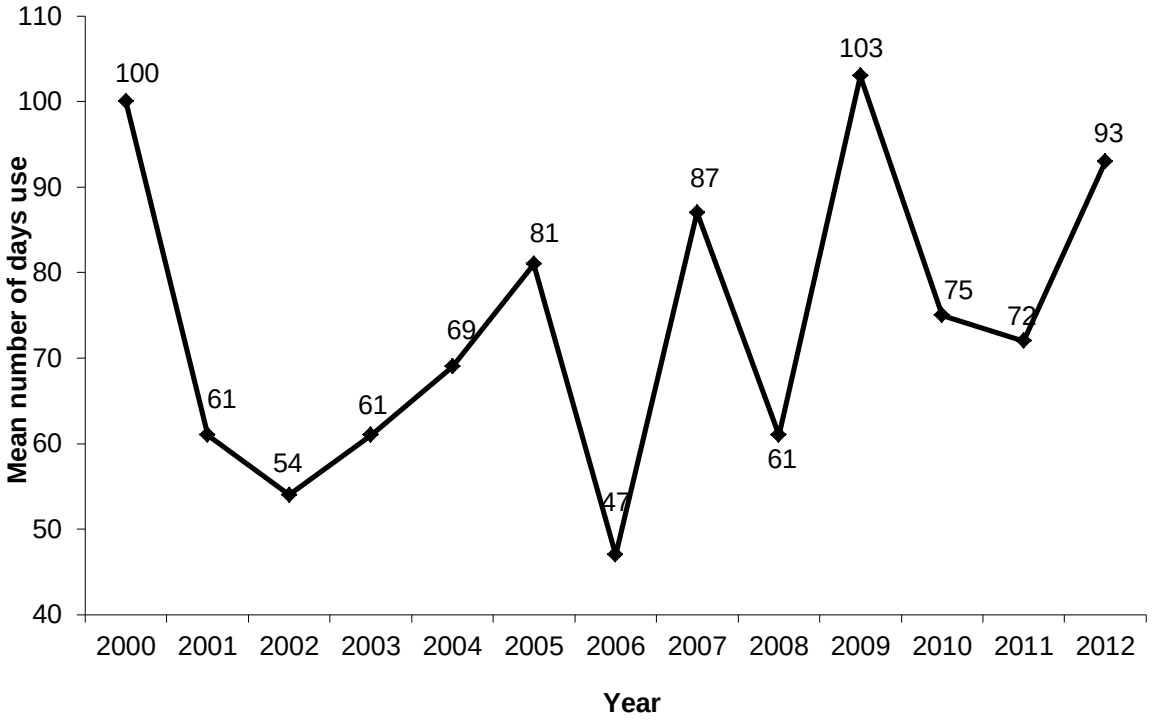


Source: IDRS user interviews

Days of use in the last six months ranged from one to 180 days, with a mean of 94, which was a significant increase from the 2011 average of 72 days (t=2.833, df=77, p=.006).

Although mean days of use tend to fluctuate across years, on the whole, since 2006 the trends has generally been upward (Figure 5).

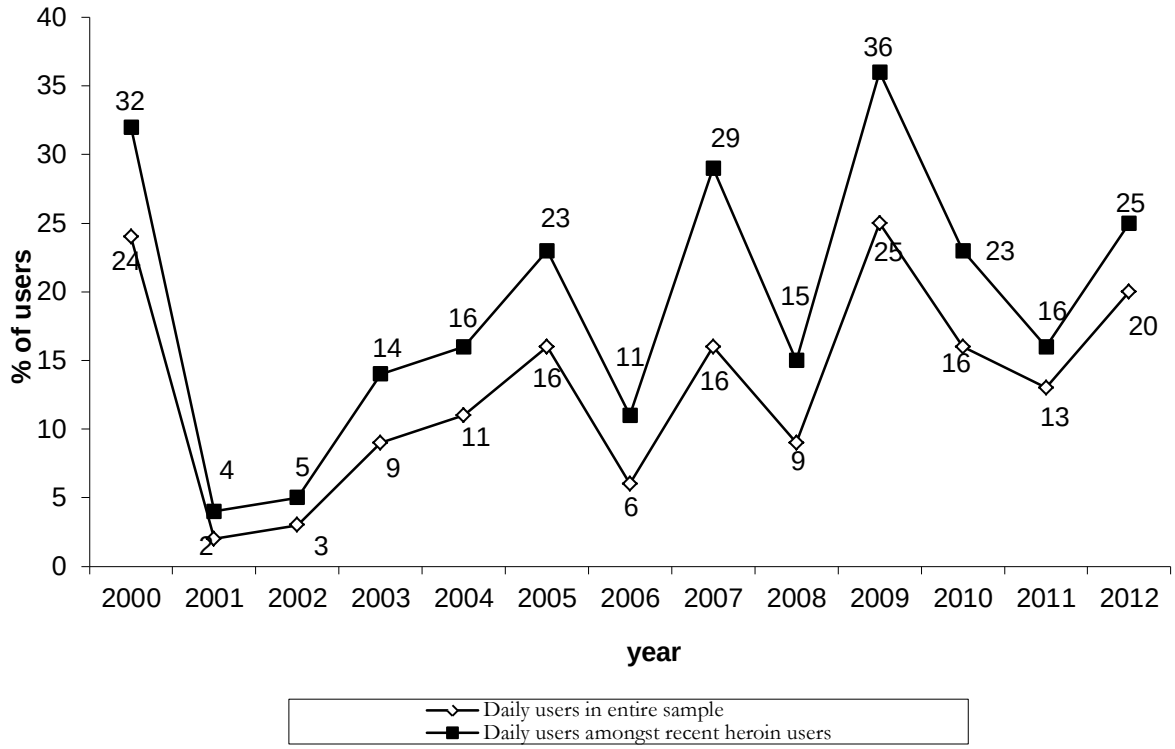
Figure 5: Mean days of heroin use 2000-2012



Source:IDRS user interviews

The number of daily users of heroin among the entire sample remained comparable, from 13% in 2011 to 20% in 2012. The number of recent heroin users reporting daily use was also comparable from 16% in 2011 to 25% (n=20) in 2012 (Figure 6).

Figure 6: Daily heroin users, 2000-2012



Source: IDRS user interviews

The proportion reporting recent use of homebake was 42% in 2012, which was not significantly greater than 39% in 2011. All of these users reported injection of homebake, with other routes of administration being extremely uncommon. The mean days of use reported was 39 days which was significantly greater than the 20 days reported in 2011 (t=-2.137, df=41, p=.039).

Of the total PWID sample, 84% reported use of any form of heroin (including homebake) in the last six months. Of these participants, 100% reported injection as a ROA for any heroin used in the last six months.

In 2012, 75 PWID provided information pertaining to the forms of heroin they had most used in the last six months. Powder was the most common form used, with 41% (n=31) reporting use of white/off white powder, followed by 19% (n=14) reporting use of brown rock, then 13% (n=10) reporting use of homebake, 13% (n=10) reporting the use of white or off-white rock and 12% (n=9) reporting brown powder.

Typical amounts of heroin reported used in a session were a quarter of a gram. The largest amount reported was two and a half grams.

There were 85 respondents who answered the Opioid Short Dependency Scale. Of these, 85% (n=72) scored above the cut-off for opioid dependency. By gender, 96% (n=25) of females and 79 % (n=46) of males were found to have some level of opioid dependency.

One KE suggested that heroin was readily available, with ready availability and reasonable purity leading to less use of homebake. Another KE also noted the decline of homebake,

reporting a steady increase in heroin availability and purity, although not yet back to levels seen in the late 90s. They also observed more people citing heroin as their principal drug with a corresponding increase in non-fatal overdoses.

4.1.3 Heroin preparation before last injection

In 2012, PWID participants were asked questions about the preparation of heroin for last use. Asked if they had heated the heroin mix before injecting, 76 PWID responded with 42% (n=32) reporting that they had. Asked if they had used citric acid to mix up with, 73 PWID responded with just 3% (n=2) reporting that they had done so. There were 31 PWID who reported on the colour of the heroin last time they had employed these preparation methods, the vast majority of which (71%, n=22) indicated that the heroin had been brown/beige, followed by 29% (n=9) who described it as white or off-white.

4.2 Price

The prices of most recent heroin purchases reported by PWID in the 2012 survey for the most part remained substantively unchanged from those reported in 2011, although it should be noted that only small numbers of PWID reported on prices for caps and points of heroin in 2012. A quarter gram remained the most commonly purchased quantity with a median price of $200. The median price of a gram was $600 compared to $650 in 2011. However, this was not tested for significance due to the low number of reports in the 2011 sample. Median prices of most recent heroin purchases are presented in Table 7.

Table 7: Price of most recent heroin purchases by PWID participants, 2011-2012

Amount	Median price* $	Range	Number of purchasers*
Cap	100^ (100^)	100-100	3(4)
Point	100 ^(100)	100-100	9(13)
Quarter gram	200 (200)	100-250	49(25)
Half gram (Half weight)	350 (350)	100-500	23(10)
Gram	600 (650^)	500-1000	17 (7)

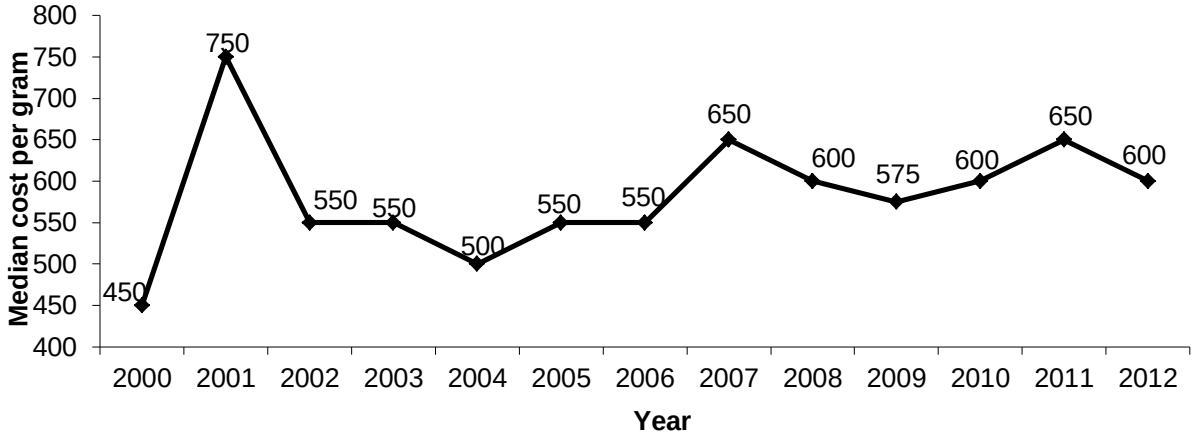
Source: IDRS user interviews

* 2011 data are presented in brackets

^ figures based on less than 10 reports

The median price of one gram of heroin in Perth across IDRS surveys is shown in Figure 7. In 2000, the median price was $450, which increased to $750 the following year, likely in response to the disruption of the heroin supply that occurred that year. Since then, it stabilised to around $550 per gram through to 2006, before rising to prices ranging from $575 to $650 with the median price of a gram of heroin standing at $600 in 2012.

Figure 7: Median price of one gram of heroin estimated from PWID purchases, 2000-2012



Source: IDRS user interviews

Participants were also asked whether the price of heroin had changed in the last six months. In 2012, 71 PWID responded to this item, with more than two-thirds (68%, n=48) reporting the price as 'stable'. There was also 24% (n=17) who believed the price had been 'increasing', and small numbers who thought the price had fluctuated (6%, n=4) or decreased (3%, n=2).

Asked whether they tended to purchase heroin by weight or by dollar amount the majority (52%, n=36) of the 69 PWID who responded said that they preferred to buy by weight, with the most common quantity being a quarter of a gram nominated by 67% (n=29). The most common dollar amount was $150, nominated by 37%, n=10) of the 27 PWID who provided this information.

For the first time in 2012, PWID were asked whether they preferred to purchase heroin by weight or by dollar amount. Of the 69 who responded, the majority (52%, n=36) indicated that they preferred to buy by weight while 29% (n=20) preferred to buy by dollar amount and the remaining 19% (n=13) had no preference. The most common weight amount purchased was a quarter gram, while the most common dollar amount purchased was $150. There were 66 PWID who responded to the question of why they typically purchased this amount. The most common reason given for making this choice was that it was 'enough for me' (82%, n=54).

KEs who commented on the current price of heroin suggested figures of $50 per point and $600 per gram, generally corresponding well with information provided by users.

4.3 Availability

Participants were asked about the current availability of heroin and any change in availability over the last six months (Table 8). In 2012, 71 PWID commented on this area. The most common response remained that acquiring heroin in Perth was currently 'very easy', reported by 59% (n=42), which was not a significant increase from the 46% in 2011. Other

findings were also compatible with 2011, with 32% (n=23) reporting heroin availability as 'easy', 6% (n=4) reporting it as 'difficult' and just 3% (n=2) describing it as 'very difficult'.

Asked whether the availability of heroin in Perth had changed in the previous six months, 75% (n=53) indicated that this had been 'stable'. Other responses were much less common and are displayed in Table 8.

Table 8: Participants' reports of heroin availability in the past six months, 2010-2012

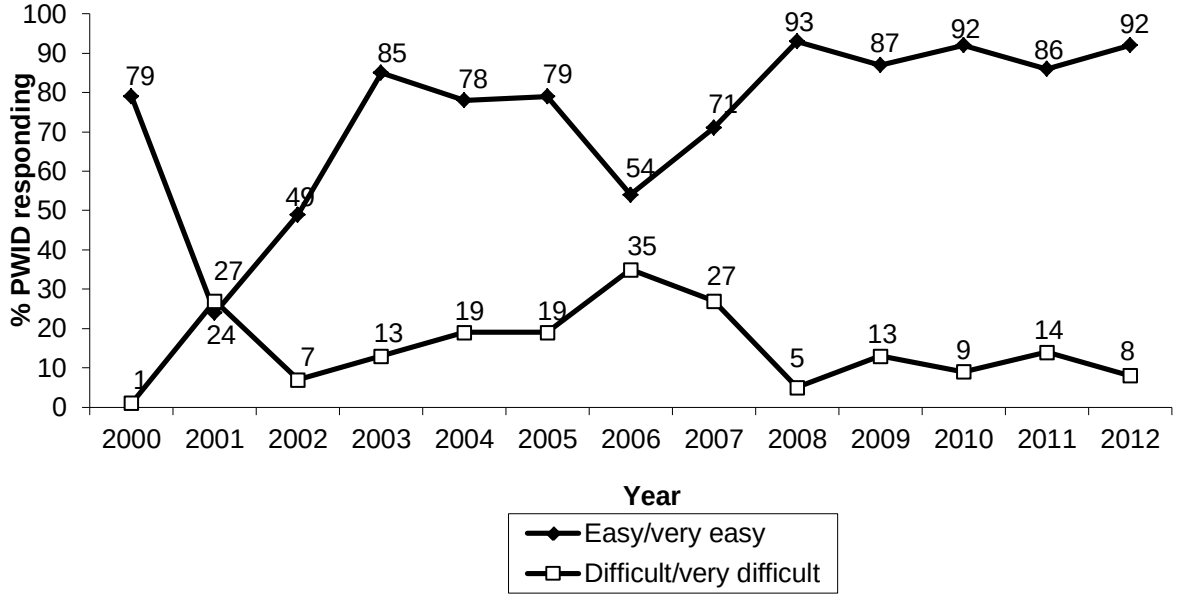
	2010 (N=100)	2011 (N=70)	**2012 (N=100)**
Current availability			
Did not respond*	41	18	**29**
Did respond	59	52	**71**
Of those who responded:			
Very easy (%)	53	46	**59**
Easy (%)	39	40	**32**
Difficult (%)	7	6	**6**
Very difficult (%)	2	8	**3**
Availability change over the last six months			
Did not respond* (%)	43	22	**29**
Did respond (%)	57	48	**71**
Of those who responded:			
More difficult (%)	12	17	**10**
Stable (%)	67	69	**75**
Easier (%)	16	13	**9**
Fluctuates (%)	5	2	**6**

Source: IDRS user interviews

* 'Did not respond' refers to participants who did not feel confident enough in their knowledge of the heroin market to respond to survey items

Reports of current availability of heroin across surveys are shown in Figure 8 and illustrate a trend towards increased self-reported availability from 2006 to 2008 followed by stable availability.

Figure 8: PWID reports of current heroin availability, 2000-2011



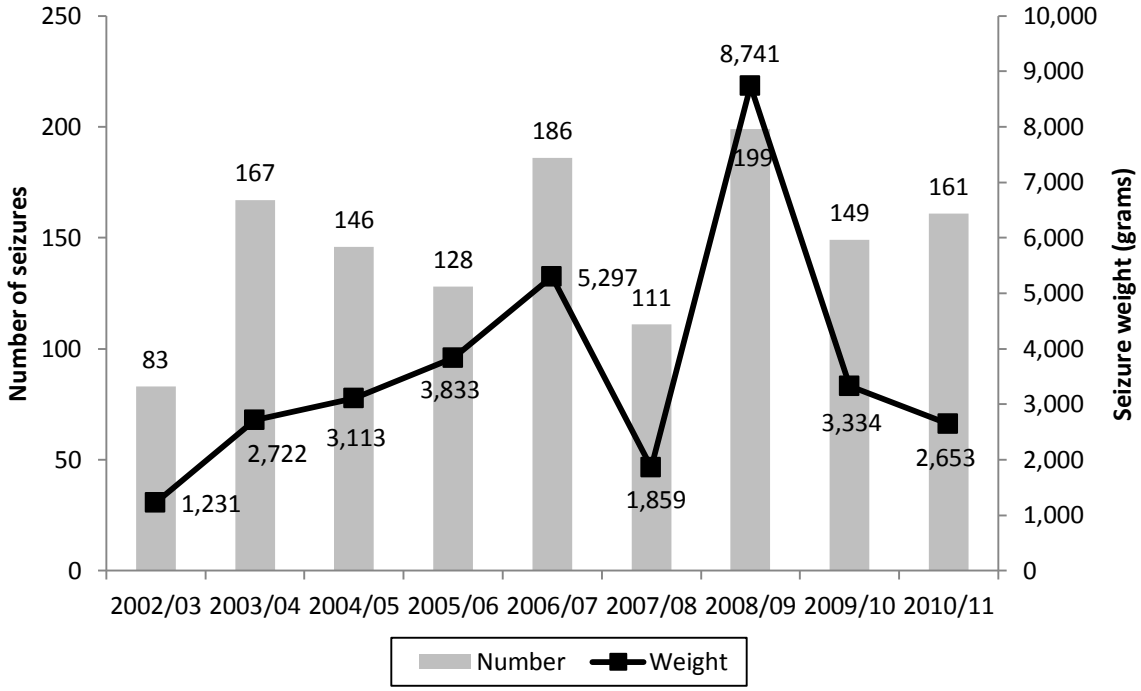
Source: IDRS user interviews

In 2012, 69 PWID responded to questions about persons and locations for last sourcing heroin. The most commonly nominated sources of heroin of last purchase remained friends (49%, n=34), followed by known dealers (38%, n=26). These proportions were comparable to 2011. Acquaintances were nominated by 9% (n=6) and individual respondents mentioned street dealers and unknown dealers in this regard.

In 2011, the most commonly nominated last location for obtaining heroin was at a friend's home (36%) whereas in 2012 the most commonly reported last location for obtaining heroin was at an agreed public location (45% (n=31)) which was also the most nominated location in 2010. A friend's home was nominated by 19% (n=13), a dealer's home by 17% (n=12), home delivery by 12% (n=8) and an acquaintance's house by 4% (n=3). A street market was also mentioned by one individual respondent.

Figure 9 presents the total number and combined weight of heroin seizures made by the West Australian Police Service (WAPS) and the Australian Federal Police (AFP) in WA from 2002/03 to 2010/11. In 2010/11 the number of heroin seizures in WA increased from 149 to 161. However, the total weight of seizures fell from 3,334 to 2,653.

Figure 9: Number and weight of heroin seizures by WAPS and AFP, WA 2002/03-2010/11



Source: **ACC**

4.4 Purity

Participants were asked to comment on their perception of the purity of heroin and any change in purity over the last six months (Table 9). In 2012, 71 participants commented on current levels of purity. In 2012, the greatest proportion reported current purity of heroin as 'medium' (35%, n=25), which was comparable to 29% in 2011. Proportions reporting heroin purity as 'high' or 'low' also remained substantially unchanged. Proportions reporting that purity had tended to 'fluctuate', however, were significantly lower in 2012 (13%, n=9) than the 27% reporting this in 2011, suggesting that the purity of the heroin supply in Perth may be becoming more stable.

Similarly, that the purity of heroin in Perth had remained stable for the six months prior to the survey was the most commonly nominated response in 2012 (44%, n=31). Other responses were substantially less common and are displayed in Table 9.

Table 9: Participants' perceptions of heroin purity in the past six months, 2010-2012

	2010 (N=100)	2011 (N=70)	**2012 (N=100)**
Current purity			
Did not respond*	40	22	**29**
Did respond	60	48	**71**
Of those who responded:			
High (%)	20	23	**20**
Medium (%)	40	29	**35**
Low (%)	30	21	**30**
Fluctuates (%)	10	27	**13**
Purity change over the last six months			
Did not respond* (%)	44	24	**30**
Did respond (%)	56	46	**70**
Of those who responded:			
Increasing (%)	30	24	**14**
Stable (%)	27	41	**44**
Decreasing (%)	18	7	**16**
Fluctuating (%)	25	28	**20**

Source: IDRS user interviews

* 'Did not respond' refers to participants who did not feel confident enough in their knowledge of the heroin market to respond to survey items

Figure 10 presents reports of current purity across IDRS surveys from 2000 to 2012. The trend for most PWID respondents to nominate heroin purity as 'medium' since 2008 continues. However, numbers describing purity as 'high' remain low, and suggests that heroin purity appears to remain modest in WA.

Figure 10: Proportion of PWID reporting current heroin purity as 'high', 'medium' or 'low', 2000-2012

Source: IDRS user interviews

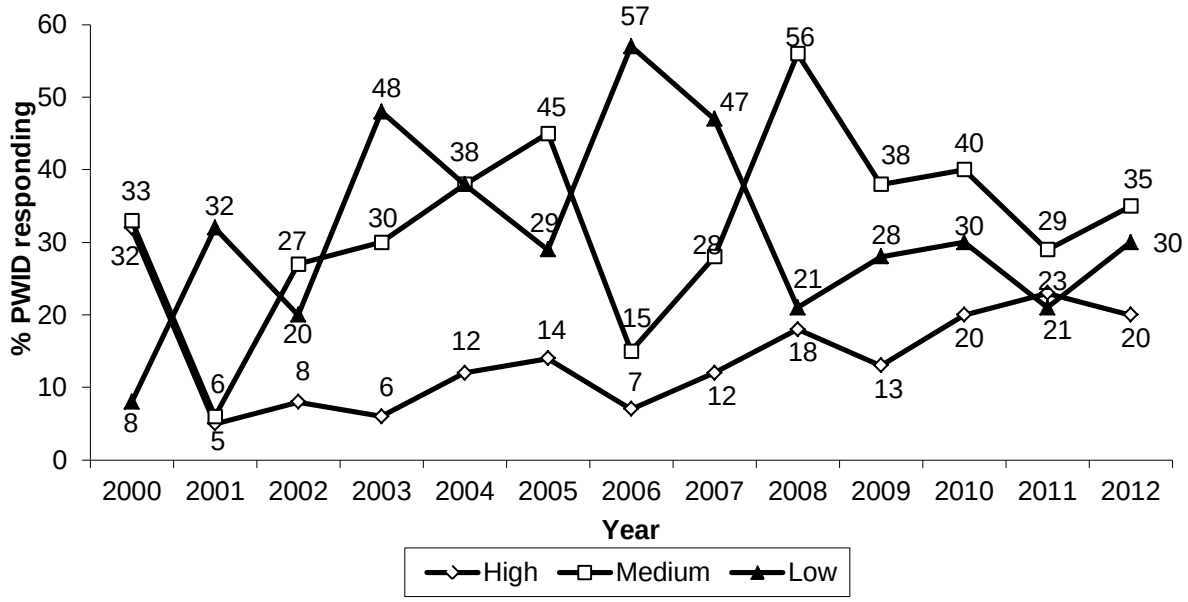
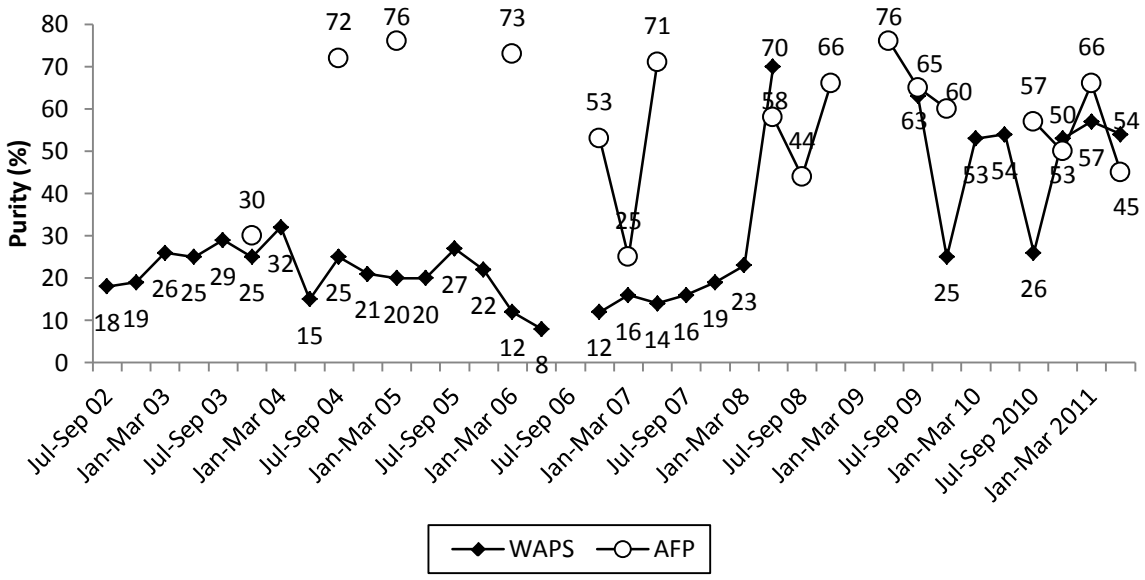


Figure 11 shows the median purity of heroin seizures made by WAPS and the AFP. Out of 161 seizures, 41 were analysed to assess purity. From July 2010 to June 2011, the median purity across all WAPS seizures analysed was 32% compared to 51% in the previous period and for AFP seizures analysed was 52% compared to 60% in the previous period.

It must be noted that the seizures and accompanying purity data reported here is not a truly random sample of all seizures made by these agencies as they make operational decisions about which seizures they will subject to analysis to determine purity. As a result it is not possible to say the extent to which the purities reported here are representative of all seizures made by these law enforcement agencies in WA. This suggests that there has been a recent decrease in heroin purity in WA although, on the whole, purity remains higher than levels seen prior to 2008.

Figure 11: Purity of heroin seizures analysed in WA, by quarter, 2002/03-2010/11



Source: ACC
Note: Where there are no data points, no seizures were analysed

4.5 Summary of heroin trends

- Lifetime and recent use of heroin has remained stable.
- Frequency of recent use has significantly increased with 94 mean days of use up from 72 days in 2011.
- Number of daily users has remained stable.
- The median reported price for one gram of heroin was $600 in 2012 compared to $650 in 2011. The majority of those who responded reported the price of heroin as 'stable' over the last six months.
- Current availability of heroin was rated as 'very easy' or 'easy' by 91% in 2011, which was comparable to 86% of participants in 2011. Respondents generally reported heroin availability had remained stable.
- Current purity was generally rated as 'medium' by 35% in 2012, compared with 22% in 2011. Proportions reporting purity as 'high' or 'low' remained relatively unchanged. In regards to changes in purity over the last six months, it was generally agreed that purity had remained stable.

5. METHAMPHETAMINE

For the purposes of the IDRS and in response to emerging methamphetamine markets, data are collected for three different forms of methamphetamine: methamphetamine powder (referred to as speed); methamphetamine base (referred to as base or paste); and crystal methamphetamine (referred to as ice or crystal). Speed is typically a white or off white fine-grained powder; base is typically of a brown, waxy form; and crystal may be translucent or white crystals of varying size. Another less common form of methamphetamine is liquid amphetamine (referred to as 'ox blood'), which is typically red/brown in colour. PWID were asked about their use of this form, but due to its rarity were not questioned about its market. For the other forms, PWID were asked if they were able to comment on market aspects such as price, purity and availability.

5.1 Use

5.1.1 Methamphetamine use among PWID participants

In 2012, lifetime use of any form of methamphetamine was reported by 96%, which was identical to the figure reported in 2011. Of these participants, 99 (n=95)% had ever injected, 61% (n=59)% had ever smoked, 54% (n=52)% had ever snorted and 48% (n=46) had ever swallowed a form of methamphetamine.

With regards to lifetime use by methamphetamine form, lifetime use of speed powder was reported by 92% of the 2012 PWID sample, lifetime use of base by 27% and lifetime use of crystal by 87%. Patterns of lifetime and recent use of methamphetamine across years are shown in Table 10.

Table 10: Patterns of methamphetamine use in the last six months by form, 2010-2012

Form used (%)	2010 (N=100)	2011 (N=70)	**2012 (N=100)**
Speed			
Ever used	91	86	**92**
Used last six months	51	43	**45**
Base			
Ever used	29	23	**27**
Used last six months	8	6	**6**
Crystal			
Ever used	80	81	**87**
Used last six months	40	46	**64***
Liquid			
Ever used	19	9	**16**
Used last six months	1	1	**2**
Any methamphetamine			
Ever used	99	96	**96**
Used last six months	64	64	**72**

Source: IDRS user interviews

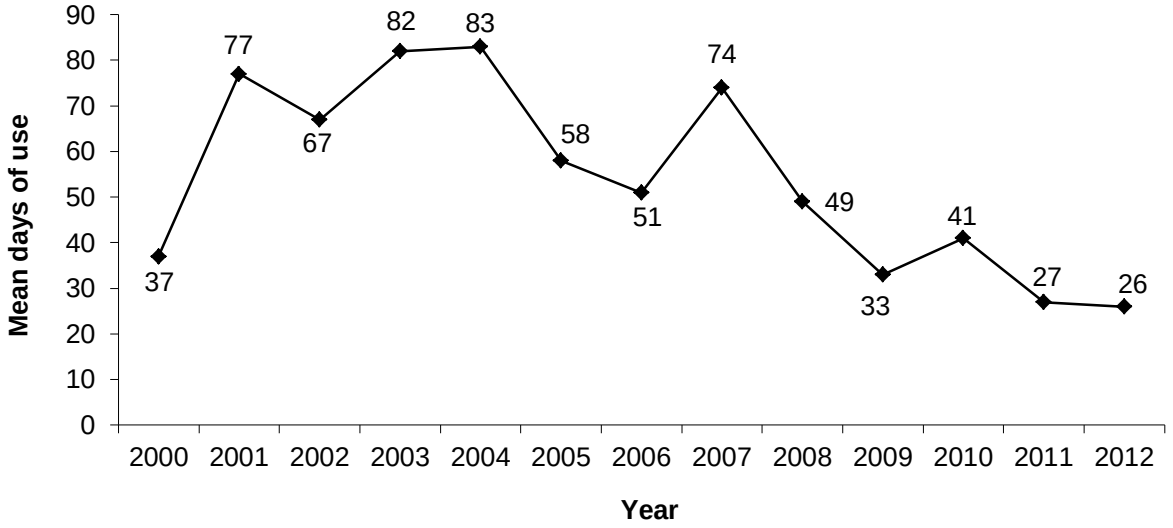
* Significant at alpha level .05

5.1.2 Current patterns of methamphetamine use

In 2012, 72% of PWID reported use of any form of methamphetamine in the last six months, which was not significantly different from the 64% reported in the 2011 sample. Of these participants, 97% (n=70) injected a form of methamphetamine during this period and 35% (n=25) reported having smoked it. Other routes of administration were uncommon.

As shown in Figure 12, the average number of days any form of methamphetamine was used during the last six months by these participants was 26 days (median of 9 days). This was not significantly changed from the 2011 mean of 27 days.

Figure 12: Mean days of use for any methamphetamine by WA PWID 2000-2012



Source: IDRS user interviews

In 2012, recent use of speed (powder) was reported by 45% of the sample, which was not significantly different to the 43% who did so in 2011. In 2012, 91% (n=41) of these participants reported injecting speed in the last six months. Days of use in the last six months ranged from one to 10 days, with no reports of use of powder methamphetamine on a daily basis. Mean days of use was 13, which was not significantly different from the 2011 average of 14 days. The typical amount of speed powder used in one session was one point. The largest amount used in one session was generally five points although one individual reported having used 12 points.

Recent use of base was reported by 6% of PWID in 2012, a finding identical to that of 2011. All (100%) reported injection of base in the previous six months. Days of use ranged from two to 35; no respondents reported using base on a daily basis, which was comparable to 2010 findings. Mean days of use was four compared to 10 days in 2011. However, the small number of base users in both years do not allow for meaningful analysis of statistical significance to be made. Only three respondents reported on typical amounts of base methamphetamine consumed in a session, mentioning one to two points. The largest reported amount consumed in a single session was three and a half points.

Recent use of crystal was reported by 64% of PWID, which was significantly greater than the 46% reported in 2011 (95%CI 0.32, 0.18). The majority of recent crystal users (95%, n=61) reported injecting crystal in the last six months and 31% (n=20) reported having smoked it. Other routes of administration were relatively uncommon. Days of use ranged from one to 180, with just one respondent reporting use of crystal on a daily basis (compared to none in

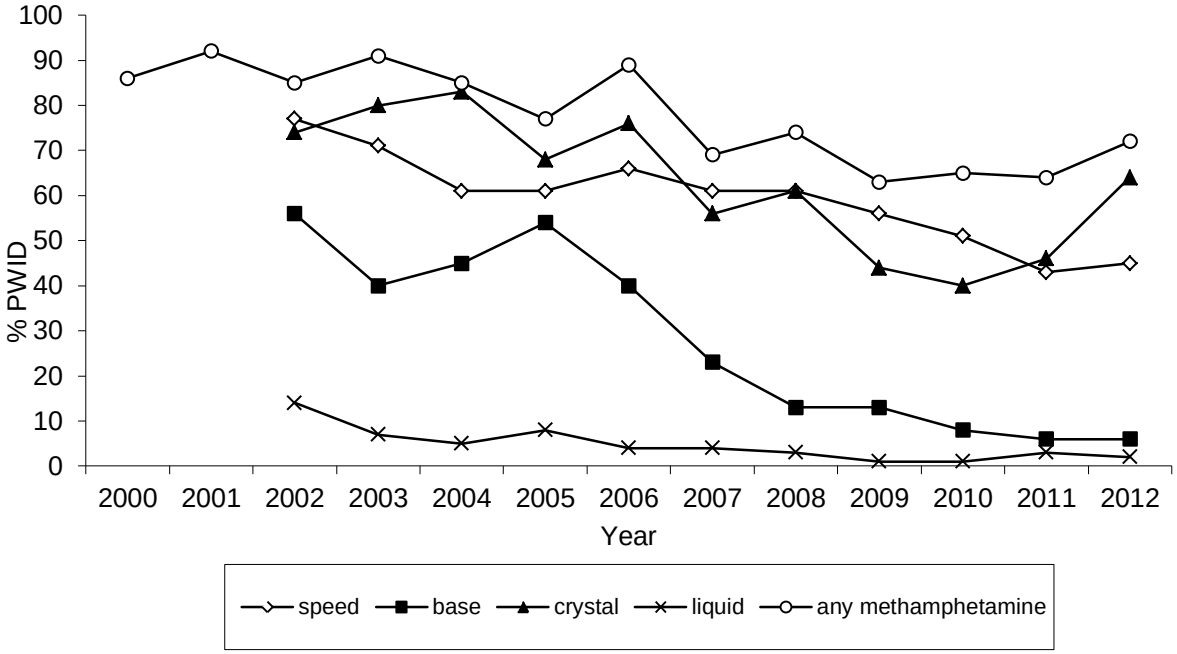
2011). The mean days of use was 20, which was not a significant change from the mean of 23 days reported in 2011. The most common amount of methamphetamine reportedly consumed in a session was one point. The largest amount of crystal methamphetamine reportedly consumed in one session was one and a half grams.

Recent use of liquid methamphetamine remained uncommon; with only 2% of PWID reporting this in 2012 compared with 3% in the previous year. Both of these respondents reported injection as the sole route of administration. Mean days of use remained low at four.

Of the 70 PWID who responded to the form of methamphetamine they had most commonly used, crystal remained the most frequently nominated by 66% (n=46), followed by 33% (n=23) who nominated powder.

Figure 13 shows the relative proportions of PWID in Perth reporting use of the various forms of methamphetamine in the last six months across IDRS surveys.

Figure 13: Proportion of PWID reporting methamphetamine use in the last six months, 2000-2012



Source: IDRS user interviews
Note: Prior to 2006, 'any methamphetamine' included pharmaceutical stimulants

There were 61 PWID who answered the stimulant Short Dependency Scale. Of these, 28% (n=17) had some level of dependency on stimulant drugs. By gender, 33% (n=5) of females and 24% (n=11) of males responding were dependent upon stimulants.

One KE reported that crystal was bought in varying amounts from one or two points up to buying in grams. A dependent user might consume a gram over one to two days. Another noted that there was lots of amphetamine use in the South West of WA, possibly attributable to "*high levels of bikie activity*", and also that amphetamines appeared to be popular among the fly-in, fly-out (FIFO) culture of mine workers in WA.

5.2 Price

Participants in the WA IDRS were asked what different amounts of the various forms of methamphetamine cost and how much they paid for their most recent purchase. The latter is presented in Table 11 and median prices for one gram of each form of methamphetamine are presented in Figure 14. In many instances, the very small numbers of PWID providing this information necessitate caution in the interpretation of this data.

In 2012, 23 participants reported on the price of one point of speed with a median of $100, which was unchanged from the 2011 median price. The median price of a half-weight was reported as $350 by five respondents compared with $400 the previous year, but numbers of respondents reporting this do not allow for meaningful analysis of statistical significance. Similarly, the median price of a gram of speed was reported as $700, but by only two respondents, while the median price of an eightball was reported as $650 but by only one respondent.

Only one respondent in 2012 provided information on the price of a point of base methamphetamine, indicating a median price of $100. There were no reports of purchases of any other amounts of base. There were no purchases of base reported in 2011 to allow any comparisons to be made.

Prices for a point of crystal methamphetamine in 2012 were provided by 33 PWID with a median price of $100 which was unchanged from the 2011 median price. The median price of a half weight of crystal was reported as $400 and of a gram as $750, but in both cases the numbers of PWID responding were too small to allow formal analysis of significance to be carried out. The median price of $1,400 for an eight ball was provided by only three PWID, but appeared unchanged from the 2011 median price.

Table 11: Price of most recent methamphetamine purchases by PWID participants, 2012

Amount	Median price* $	Range	Number of purchasers*
Speed			
Point (0.1 gram)	100 (100)	50-100	23 (12)
Half weight (0.5 grams)	350^ (400^)	300-400	5 (1)
Gram	700^ (550^)	600-800	2 (3)
Eight ball (3.5 grams)	650^ (-)	650-650	1 (0)
Base			
Point	100^ (-)	100-100	1 (0)
Half weight (0.5 grams)	- (-)	-	0 (0)
Gram	- (-)	-	0 (0)
Eight ball (3.5 grams)	- (-)	-	0 (0)
Crystal			
Point (0.1 gram)	100 (100)	50-100	33 (15)
Half weight (0.5 grams)	400^ (300^)	300-400	9 (7)
Gram	750^ (600^)	700-800	4 (5)
Eight ball (3.5 grams)	1400^ (1400^)	950-2000	3 (1)

Source: IDRS user interviews

* 2011 data are presented in brackets

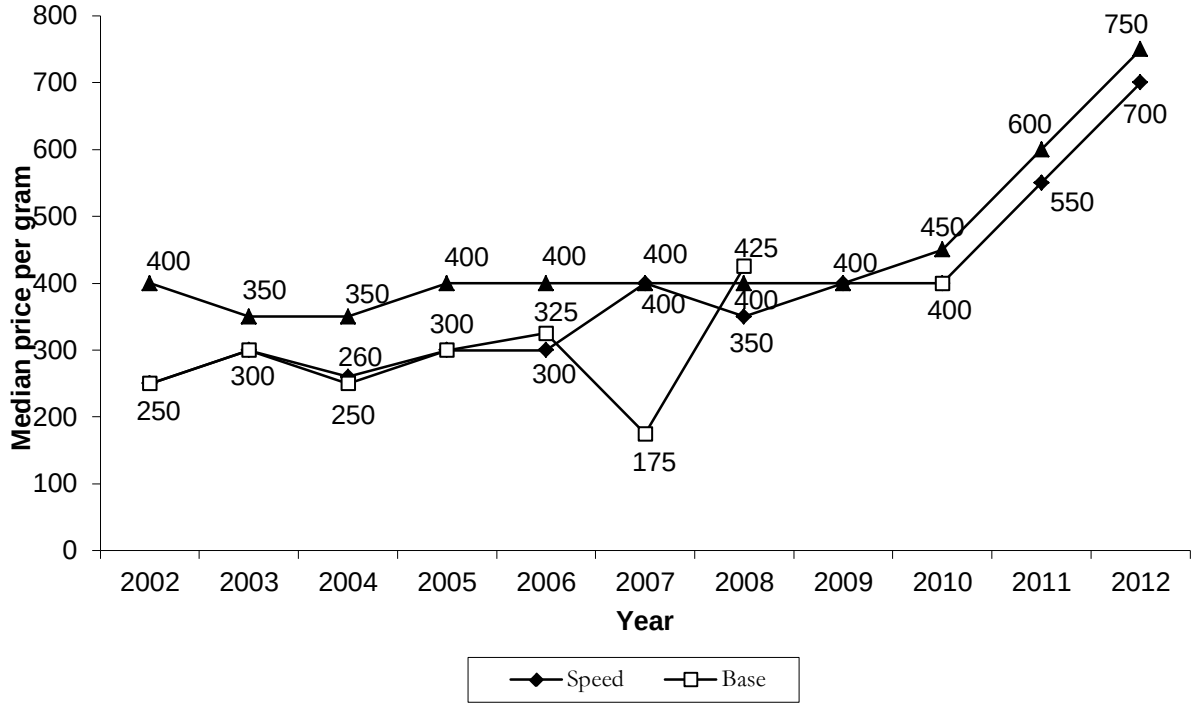
^ Based on small (<10) purchases

* Significant at alpha level .05

Figure 14 presents the median prices per gram of most recent purchase for each methamphetamine form across years. Despite the superficial appearance of large increases

in the median prices of speed and crystal in recent years, this needs to be viewed in light of the fact that these figures are based on very small numbers of reports. (See Table 11 above). Similarly, there are several years when no respondents at all provided prices for base methamphetamine. As such, some scepticism is advised when considering if these apparent increases in price of amphetamines are in fact genuine trends.

Figure 14: Median prices of methamphetamine per gram estimated from PWID purchases, 2002-2012



Source: IDRS user interviews

Participants were asked if they perceived any changes in the price of methamphetamine over the last six months. With regards to speed or powder methamphetamine, there were 29 PWID who responded, the majority (69%, n=20) reporting that the price of speed had remained stable. This was followed by 28% (n=8) who thought it may have increased. There was only one respondent who commented on base methamphetamine who reported it as increasing. Price changes to crystal were reported on by 39 PWID, the majority (72%, n=28) describing it as stable, followed by 21% (n=8) who believed it may have increased.

Respondents were asked whether they preferred to purchase methamphetamine by weight or dollar amount. With regards to speed powder, 28 PWID responded with 46% (n=13) preferring to buy by weight and 36% (n=10) preferring to buy by dollar amount. The most commonly purchased weight was a point and the most commonly purchased dollar amount was $50. The most commonly provided reason for purchasing these amounts was 'it's all I need'. In the case of crystal methamphetamine, the situation was less clear. Of the 40 PWID who responded, 43% (n=17) indicated a preference for purchase by weight and 40% (n=16) for purchase by dollar amount with the remainder either having no preference or not having made a recent purchase. The most commonly purchased weight was a point and the most commonly purchased dollar amount was $100. The most commonly cited reason for purchasing in this way was that 'it's all I need'. There was only one respondent who provided this information for base methamphetamine, indicating that they preferred to buy by weight, typically purchasing a point because it was 'all I need'.

One KE described the price of methamphetamine as consistent. Others who provided actual prices suggested $500 per gram, with the proviso that "*it depends on who you know*", $100-$150 for 100-200mg, while also noting that a gram could be purchased for $250, but for much better "*pharmaceutical quality*" for $550.

5.3 Availability

PWID were asked about the current availability of each form of methamphetamine and any changes in availability over the last six months (Table 12). Of the 27 participants who commented on speed, the majority (59%, n=16) rated current availability as 'very easy' followed by 33% (n=9) who rated it as 'easy'. Availability of crystal was rated as 'very easy' by 59% (n=24) of the 41 PWID who responded, followed by 'easy' by 32% (n=13). Only one respondent provided information about availability of base methamphetamine, describing it as 'easy'. For all forms of methamphetamine, the vast majority reported that stability had remained stable in the preceding six months.

Table 12: Participants' reports of methamphetamine availability in the past six months, 2011-2012

	Speed		Base		Crystal	
	2011 (N=70)	**2012 (N=100)**	2011 (N=70)	**2012 (N=100)**	2011 (N=70)	**2012 (N=100)**
Current availability						
Did not respond*	56	**73**	70	**99**	49	**59**
Did respond	14	**27**	0	**1**	21	**41**
Of those who responded:						
Very easy (%)	43	**59**	0	**0**	52	**59**
Easy (%)	43	**33**	0	**100^**	38	**32**
Difficult (%)	7	**7**	0	**0**	10	**10**
Very difficult (%)	7	**0**	0	**0**	0	**0**
Availability change over the last six months						
Did not respond*	56	**73**	70	**99**	50	**59**
Did respond	14	**27**	0	**1**	20	**41**
Of those who responded:						
More difficult (%)	29	**11**	0	**0**	15	**12**
Stable (%)	57	**85**	0	**100^**	55	**76**
Easier (%)	7	**4**	0	**0**	25	**12**
Fluctuates (%)	7	**0**	0	**0**	5	**0**

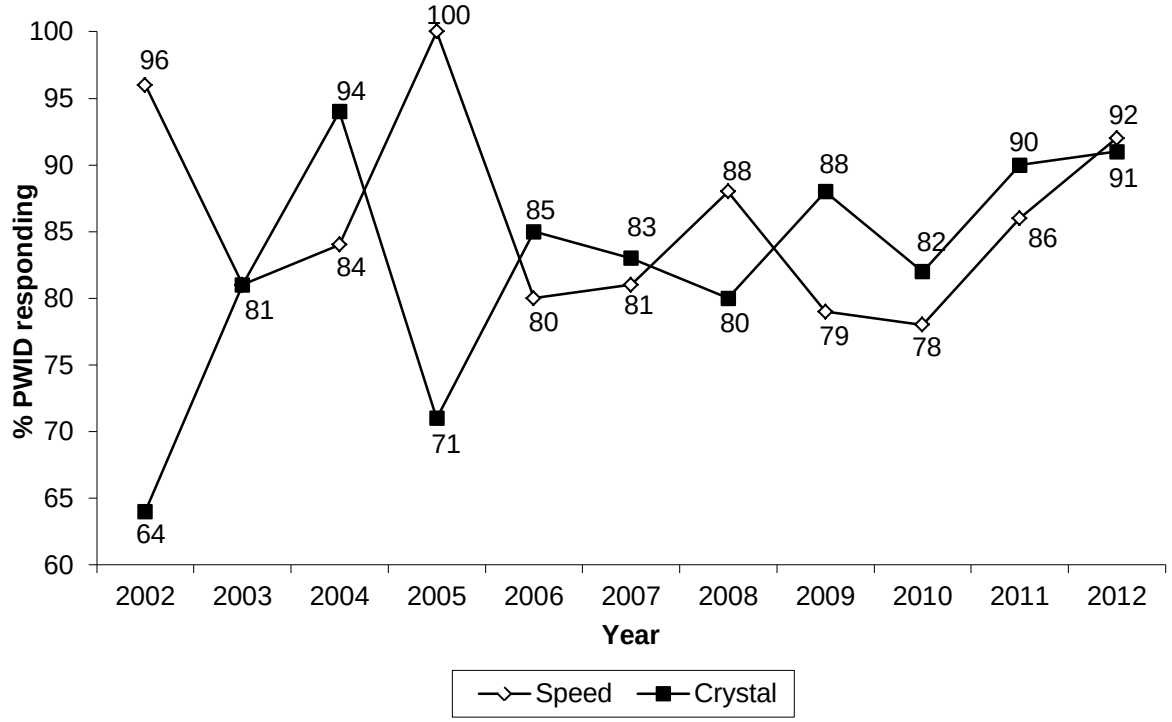
Source: IDRS user interviews

* 'Did not respond' refers to participants who were not confident in their knowledge of the market

^ Based on very small numbers of reports (<10)

The proportion of PWID who rated current availability as 'easy' or 'very easy' for each form of methamphetamine across IDRS surveys is presented in Figure 15. While availability of crystal appears to have remained relatively unchanged since 2011, availability of speed has continued to trend upwards from 78% in 2010 to 92% in 2012 (95% CI 0.24, 0.04). Base has been excluded from this figure due to the lack of available data in recent years.

Figure 15: PWID reporting 'easy' or 'very easy' availability of methamphetamine by form in WA 2002-2012



Source: **IDRS user interviews**

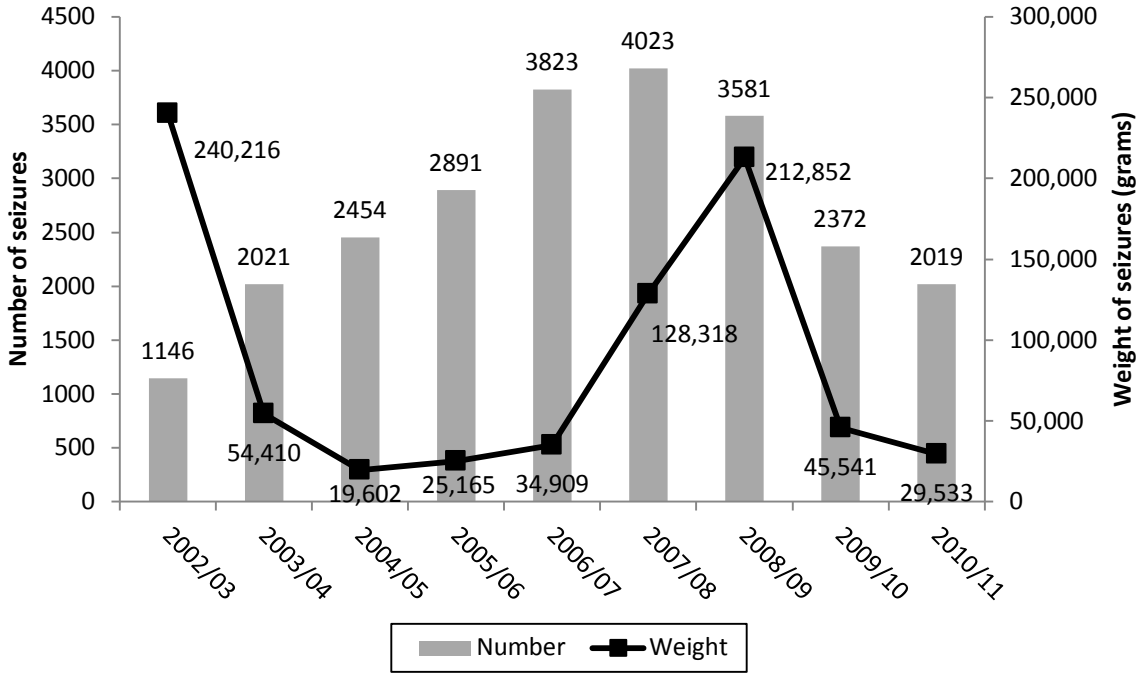
PWID were asked about sources of each form of methamphetamine. Of the 28 participants who reported on speed, 64% (n=18) reported that the most recent source of speed had been from friends. This was followed by 18% (n=5) who had sourced from known dealers. Other sources reported by very small numbers of PWID (i.e. one or two) were street dealers and acquaintances. The most common venue for obtaining speed powder at the most recent occasion was an 'agreed public location' (46%, n=13), followed by a 'friend's home' (29%, n=8). Other venues mentioned by very small numbers of PWID included 'home delivered', 'dealer's home', and 'acquaintance's house'.

With regards to crystal methamphetamine, 39 PWID provided information concerning their most recent source. As with speed powder, the most commonly reported source was 'friends' (69%, n=27), followed by 'known dealers' (15%, n=6) and acquaintances (10%, n=4). Very small numbers of PWID also mentioned 'unknown dealers' and 'neighbour'. The most commonly reported venue for obtaining crystal methamphetamine was an 'agreed public location' (36%, n=14) followed by 'friend's home' (31%, n=12) and 'home delivered' (28%, n=11). Other venues mentioned by very small numbers of PWID included 'acquantaince's house' and 'neighbour's house'. Only one PWID provided this information for base methamphetamine, reporting that he had last obtained it from a 'known dealer' at an 'agreed public location'.

Figure 16 presents the total number and combined weight of amphetamine-type stimulants (ATS) (i.e. amphetamines, metamphetamine and phenythalamines) seizures made by WAPS and AFP in WA from 2002/03 to 2010/11. It is evident that the number and weight of seizures have continued to decrease since 2008/09 with 2,019 ATS seizures in 2010/11 compared with 2,372 in the previous period and a total seizure weight of 29,533 grams in 2010/11 compared with 45,541 grams in the previous period. However, these findings

include only those seizures for which a drug weight was recorded and counting rules applied in WA have changed across years, therefore these findings should be interpreted with caution.

Figure 16: Number and weight of amphetamine-type stimulant seizures by WAPS and AFP, WA 2002/03-2010/11



Source: **ACC**

One KE reported that speed powder had become more available. Another reported that methamphetamine availability remains high.

5.4 Purity

PWID were asked about the current purity of each form of methamphetamine and perceived changes in purity over the last six months (Table 13). Of the 29 participants who responded regarding speed, the greatest proportion (45%, n=13) rated current purity as 'high', followed by 24% (n=7) who reported that it tended to fluctuate. A further 21% (n=6) rated it as low and 10% (n=3) thought it medium. With regards to current purity of crystal methamphetamine, of the 40 PWID who responded, 48% (n=19) reported current purity as high, followed by 28% (n=11) who described it as medium. There were also 20% (n=8) who reported it as fluctuating and 5% (n=2) who described it as low.

Asked about changes to the purity of speed powder in the six months before the interview, produced responses from 28 PWID with 39% (n=11) indicating that it had remained stable. This was followed by reports that it had either been increasing or fluctuating, both reported by 21% (n=6). The remaining 18% (n=5) believed it had been decreasing. Changes to the purity of crystal methamphetamine were reported by 40% (n=16%) that it had been stable, followed by 30% (n=12) that it had been fluctuating. There were also 18% (n=7) who believed it had been increasing and 13% (n=5) who reported that purity had been decreasing.

There was only one respondent who provided information on the purity of base methamphetamine, reporting that current purity was fluctuating and that purity in the six months before the survey had similarly tended to fluctuate.

Table 13: Methamphetamine purity by user report 2011-2012

	Speed		Base		Crystal	
	2011 (N=70)	**2012 (N=100)**	2011 (N=70)	**2012 (N=100)**	2011 (N=70)	**2012 (N=100)**
Current purity						
Did not respond*	56	**71**	70	**99**	49	**60**
Did respond	14	**29**	0	**1**	21	**40**
Of those who responded:						
High (%)	50	**45**	0	**0**	43	**48**
Medium (%)	21	**10**	0	**0**	19	**28**
Low (%)	7	**21**	0	**0**	5	**5**
Fluctuates (%)	21	**24**	0	**100^**	33	**20**
Purity change over the last six months						
Did not respond*	57	**72**	70	**99**	55	**60**
Did respond	13	**28**	0	**1**	15	**40**
Of those who responded:						
Increasing (%)	23	**21**	0	**0**	20	**18**
Stable (%)	31	**39**	0	**0**	40	**40**
Decreasing (%)	15	**18**	0	**0**	10	**13**
Fluctuating (%)	31	**21**	0	**100^**	30	**30**

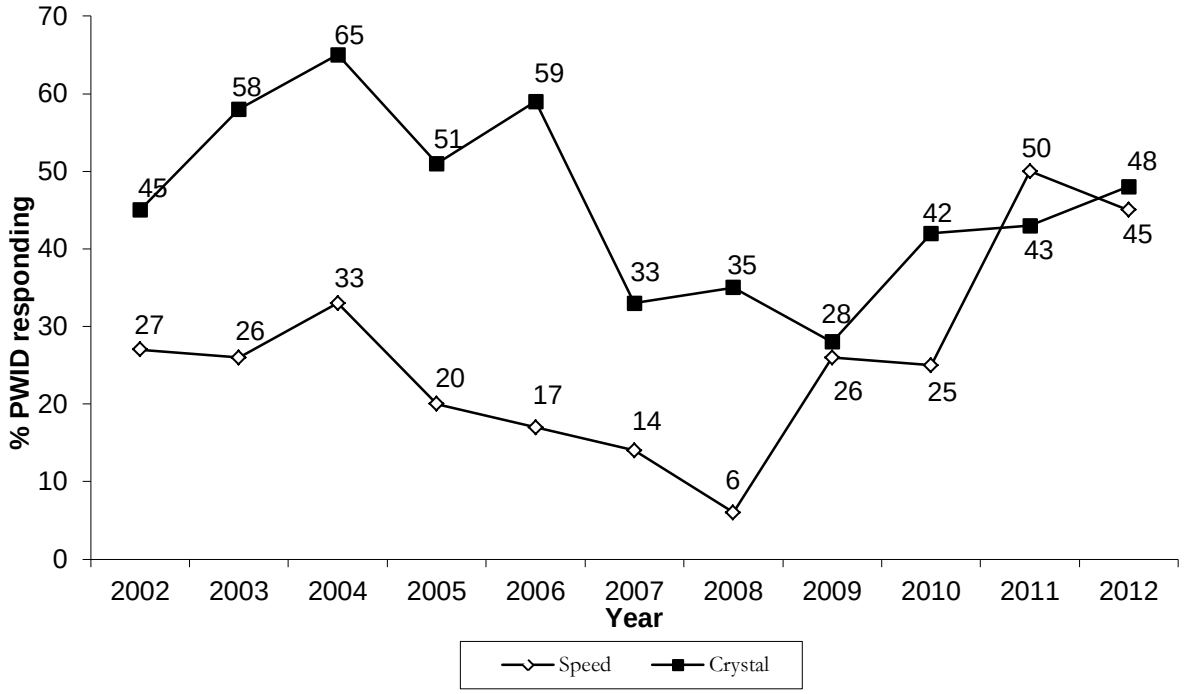
Source: IDRS user interviews

* 'Did not respond' refers to participants who did not feel confident in their knowledge of the market to respond to survey items

^ Based on very small number of responses (<10)

Figure 17 presents the proportion of PWID commenting on methamphetamine who rated each form as 'high' purity across IDRS surveys. Since 2009, numbers of PWID reporting high purity of both speed powder and crystal methamphetamine have tended to increase. Base has been excluded from this graph due to the lack of data in the last few years.

Figure 17: Proportion of PWID reporting each methamphetamine by form as 'high' purity, 2002-2012

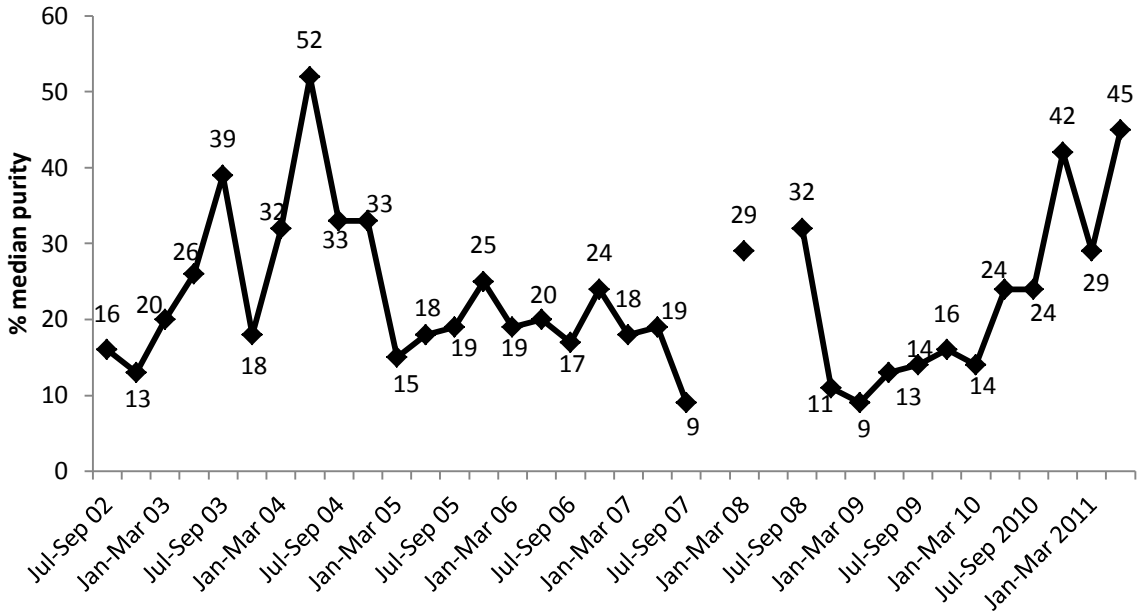


Source: IDRS user interviews

Figure 18 shows the median purity of methamphetamine seizures by WAPS since 2002/03. Of 2,019 seizures in WA, WAPS analysed 505. The AFP have not analysed any methamphetamine seizures in WA since 2008. It is evident that the median purity of methamphetamine seizures has generally been climbing since the start of 2009. The total median purity of all methamphetamine seizures in 2010/11 was 32% compared to the overall median for 2009/10 of 17%. The median purity detected in the second quarter of 2010 was 45% representing the highest levels detected since the second quarter of 2004.

It must be noted that the seizures and accompanying purity data reported here is not a truly random sample of all seizures made by these agencies as they make operational decisions about which seizures they will subject to analysis to determine purity. As a result it is not possible to say the extent to which the purities reported here are representative of all seizures made by these law enforcement agencies in WA.

Figure 18: Purity of methamphetamine seizures analysed by WAPS in WA, by quarter, 2002/03-2010/11



Source: ACC

One KE reported that purity of crystal had improved. Another suggested that it tended to vary widely from "*really good gear*" to "*paying too much for shit*." A third described the quality as "*stable and reasonably high", some being around 70% and straight from the lab*". This KE also described the crystal that was around as being "*quite clear looking with no discolouration*".

A KE from the law enforcement sector reported that methamphetamine purity had increased from 25% to 35% and now made up the biggest number of seizures. Laboratories in Perth tended to be small scale operations, continuing to favour the "Nazi" method involving liquid ammonia and lithium extracted from batteries. A second KE from law enforcement reported that while the purity of methamphetamines tended to fluctuate, that had been no substantive changes. This KE also noted the trend of clandestine laboratories towards small operations by groups of users, and that the dangers associated with dismantling these improvised laboratories caused significant drain on police resources.

5.5 Summary of methamphetamine trends

- There was no significant change in lifetime or recent use of all forms of methamphetamine from 2011 to 2012, with the exception of the proportion of the sample who used crystal recently (in the past six months), which significantly increased from 46% in 2011 to 64% in 2011.
- Among those who had used methamphetamine in the last six months, the average days used for all forms of methamphetamine was 26 days, which was consistent with 27 days in 2011. Days of use of speed and crystal remained unchanged. There was insufficient data to draw conclusions on days of use of base.
- The median price for one point for any form of methamphetamine remained $100. The median price for one gram of speed was $700. The median price for a gram of crystal was $750 in 2011. No participant reported on price of base in 2012. In regards to changes in price for crystal and speed, the greatest proportions perceived price change of speed and crystal as 'stable'.
- 92% of those who commented on speed and 91% for crystal rated current availability as 'very easy' or 'easy'. Only one respondent reported on the availability of base in 2012 rating it as 'easy'. The greatest proportion of PWID reported availability for all forms was stable in the last six months.
- Current purity was rated as 'high' by the greatest proportion of those who responded for speed (45%) and crystal (48%). No participants commented on the purity of base.

6. COCAINE

6.1 Use

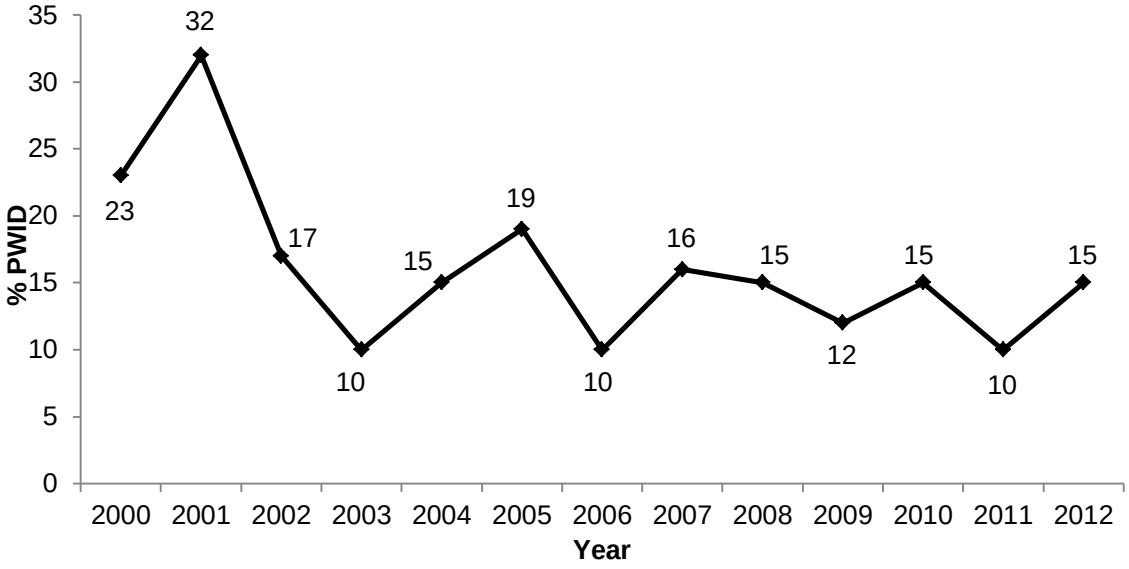
6.1.1 Cocaine use among PWID participants

In 2012, lifetime use of cocaine was reported by 80% of PWID, which was not significantly different to the 67% reported in 2011. Of these PWID, A lifetime history of having injected cocaine was reported by 70% (n=56), snorting by 73% (n=58), smoking by 24% (n=19) and swallowing by 15% (n=12).

6.1.2 Current patterns of cocaine use

Use of cocaine in the six months preceding interview was reported by 15% of the 2012 sample, which was not significantly different to the 10% who reported recent use in 2011. Of these participants, 80% (n=12) reported injecting cocaine in the last six months, 33% (n=5) reported snorting and 26% (n=4) reported smoking. There were no reports of recent oral ingestion of cocaine. Days of use ranged from one to 20, with an average of four days of use in the last six months, which was a significant decrease from the 2011 mean of nine days (t=-3.908, df=14, p=.002). Recent cocaine use by PWID across IDRS surveys is presented in Figure 19 and shows that it has remained at low prevalence since 2002.

Figure 19: Cocaine use in the past six months, 2000-2012



Source: IDRS user interviews

Of the PWID who provided information on the forms of cocaine most used, 80% (n=12) reported that the form most used was powder cocaine and the remaining 20% (n=3) reported rock as the form most used. There were just seven respondents who provided information on the amount of cocaine used in a single session. The most commonly mentioned amount used was half a point. The largest amount reported was three grams.

Very few KE commented on cocaine, one noting that there wasn't much use among low socioeconomic street-based drug users, although it may occasionally be seen on the gay

rave scene. This was contradicted to some extent by another KE who stated that there was quite a lot more cocaine around and it had been getting cheaper over the last two years.

6.2 Price

In 2012, there was only one PWID who provided data on the price of cocaine, citing $150 for a quarter of a gram. This respondent believed that the price of cocaine in Perth had been increasing over the past six months. With only one PWID responding, and no PWID responding at all to compare with in the 2011 sample, this data needs to be interpreted with great caution. Numbers reporting in previous years' WA IDRS studies have also been low.

Only one PWID responded to the question of whether they preferred to purchase cocaine by weight or dollar amount, stating that they preferred to buy by weight, typically one quarter of a gram because it was "what I'm used to buying".

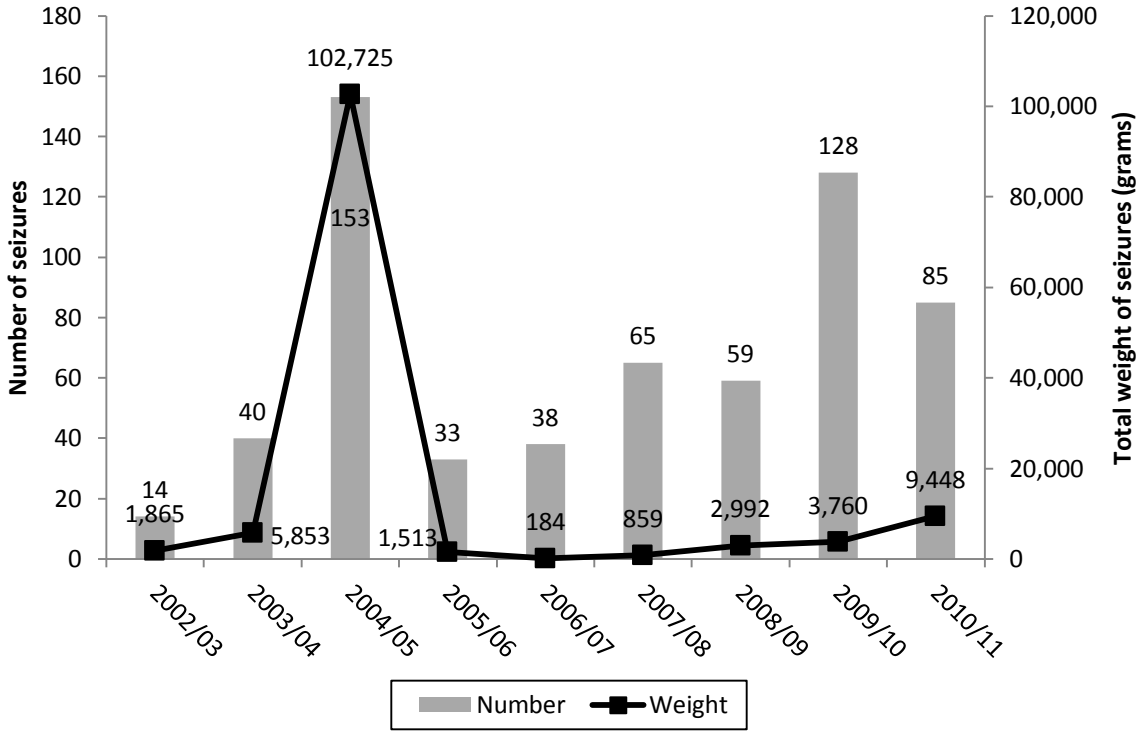
6.3 Availability

Only two participants commented on availability of cocaine in 2012, with one participant reporting the current availability of cocaine as 'easy' and one participant reporting availability as 'difficult'. In terms of numbers of PWID responding and the data obtained in 2011, these findings are unchanged. With regards to changes in cocaine availability in the last six months, one respondent reported it as being 'stable' and one as having become 'more difficult'. Due to the extremely small number of respondents that reported, these findings should be interpreted with caution.

Only one respondent commented on source of cocaine, reporting last purchasing cocaine from unknown dealers from an agreed public location.

Figure 20 presents the total number and combined weight of cocaine seizures made by WAPS and AFP in WA from 2002/03 to 2010/11. The number of seizures fell from 128 in 2009/10 to 85 in 2010/11, although this was relatively high compared to the number of seizures since 2004/05. The total weight of seizures increased from 3,760 in 2009/10 to 9,448.

Figure 20: Number and weight of cocaine seizures by WAPS and AFP, WA 2002/03-20010/11



Source: **ACC**

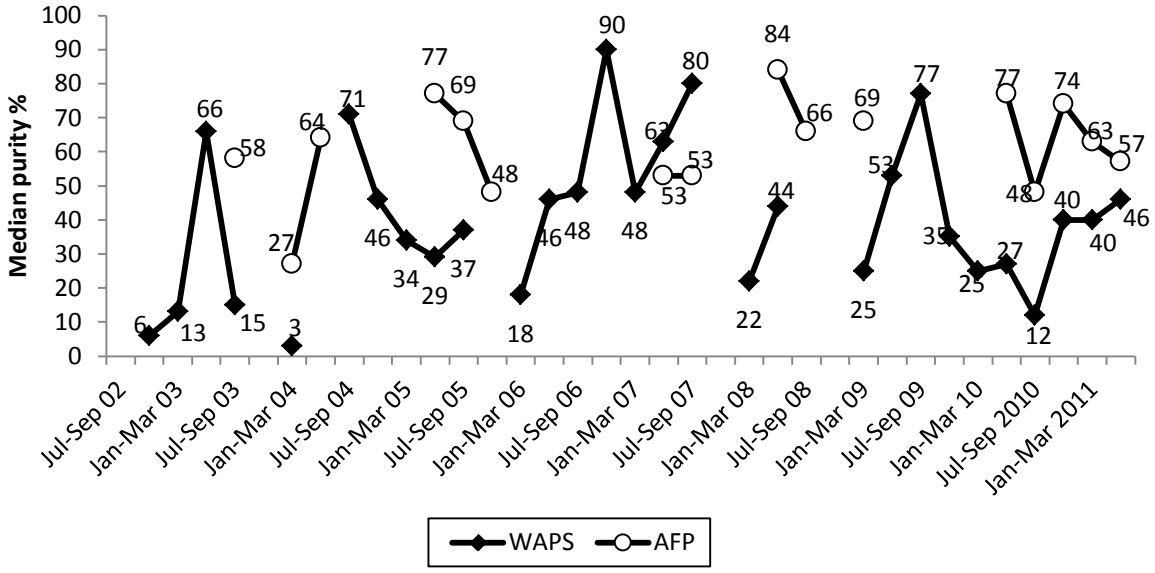
6.4 Purity

As with availability, only an extremely small number of PWID (n=2) commented on purity of cocaine. One of these described current purity as 'medium' while the other described it as 'low'. With regards to recent changes in cocaine purity, one of these PWID believed it to have been 'stable' while the other believed it to have been 'increasing'. Again, due to the small sample reporting on purity, these findings should be interpreted with caution.

Figure 21 shows the median purity of cocaine seizures by both WAPS and AFP has fluctuated over time. In 2010/11 the median purity of cocaine analysed by WAPS was 30% compared to 28% in the previous period and the median purity analysed by AFP was 55%, down from 77%. On the whole, purity of cocaine seizures in WA currently appears to be moderate.

It must be noted that the seizures and accompanying purity data reported here is not a truly random sample of all seizures made by these agencies as they make operational decisions about which seizures they will subject to analysis to determine purity. As a result it is not possible to say the extent to which the purities reported here are representative of all seizures made by these law enforcement agencies in WA.

Figure 21: Purity of cocaine seizures analysed in WA, by quarter, 2002/03-20010/11



Source:ACC

One KE from the law enforcement sector reported that cocaine purity in Perth was currently at around 30%, but added that this was based on limited amounts of data.

6.5 Summary of cocaine trends

- Lifetime use of cocaine by PWID was reported by 80% of the 2011 sample, which was not significantly different from the 67% who reported lifetime use in 2011.
- Recent use was reported by 15% of the 2012 sample, which was not significantly different from the 10% in 2011.
- Frequency of cocaine use was reported to be an average of four days in 2012, compared with three days in 2011.
- Only one respondent commented on the price of cocaine, citing a price of $150 for a quarter of a gram.
- Only two participants reported on availability and purity of cocaine with varying responses, therefore making it difficult to draw conclusions about the cocaine market in WA.

7. CANNABIS

7.1 Use

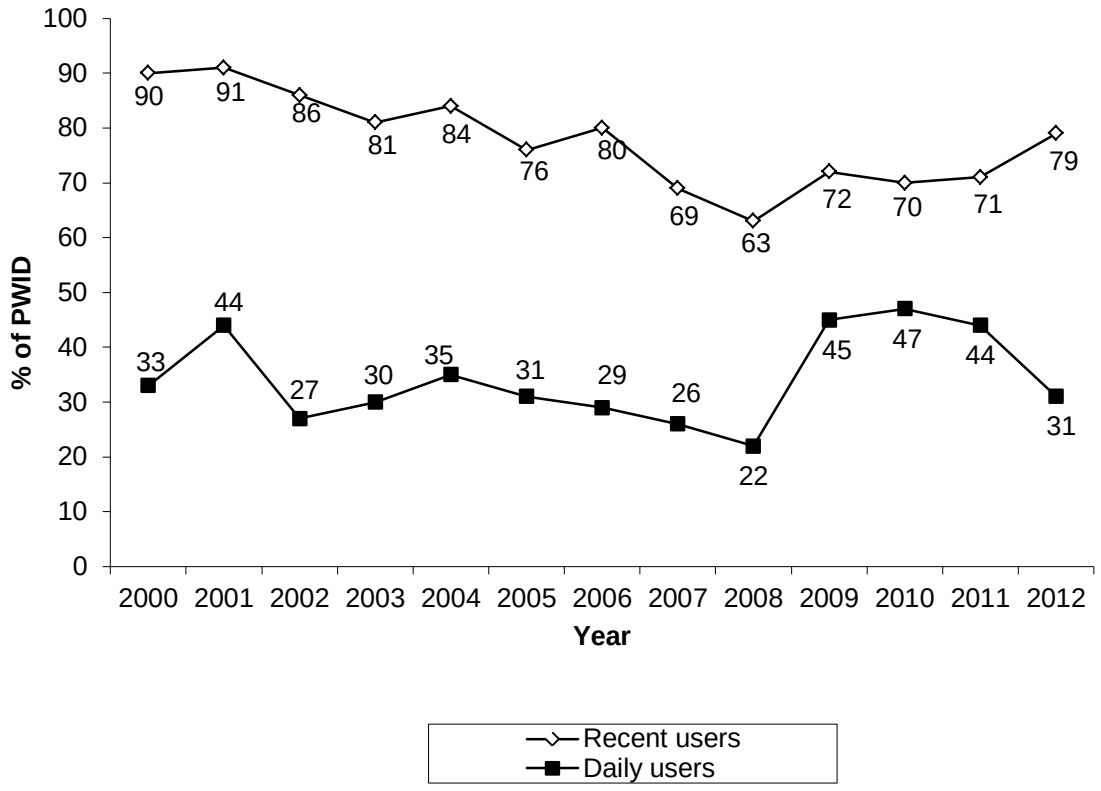
7.1.1 Cannabis use among PWID participants

In 2012, lifetime use of cannabis was reported by 97% of PWID, which was comparable to 99% who reported lifetime use in 2011.

7.1.2 Current patterns of cannabis use

Use of cannabis in the last six months was reported by 79% of PWID in 2012, which was not significantly different from the 71% who reported recent use in 2011. In 2012, days of use ranged from one to 180, with 31% (i.e. 39% of all recent users) of the total PWID sample reporting use of cannabis on a daily basis, which was comparable to the 44% reported in 2011. Mean days of use was 107, which was also comparable to the 104 days reported in the 2011 sample. The proportion of PWID reporting any use and daily use of cannabis in the last six months is presented in Figure 22.

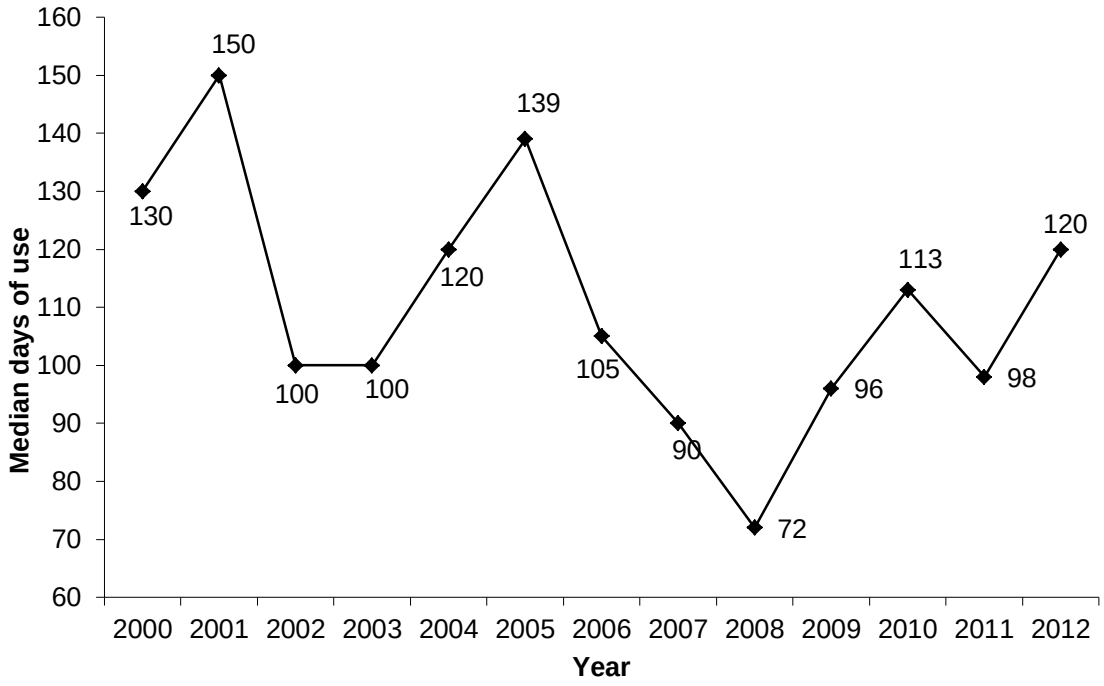
Figure 22: Recent and daily use of cannabis in the past six months, 2000-2012



Source: IDRS user interviews

Figure 23 shows the median number of days cannabis was used among PWID across IDRS surveys. There has been some variation since 2000; however, from 2005 to 2008, the use of cannabis by PWID was steadily decreasing. Since then, recent PWID samples suggest that frequency of cannabis use by PWID has tended to trend upwards.

Figure 23: Median days of cannabis use in the past six months, 2000-2012



Source: IDRS user interviews

PWID who reported use of cannabis were asked about forms of cannabis they had most commonly used in the last six months. As in past years, the vast majority of those responding (96%, n=74) reported that hydroponic cannabis had been the form most commonly used, and just 4% (n=3) nominated bush. There was no mention of hashish or hash oil in this context. The most commonly nominated amounts of cannabis consumed in a single session were one to three cones. Largest reported amounts consumed in a single session was 30 cones, although two respondents mentioned very much larger quantities of 70 and 100 cones respectively; however, this extreme pattern of cannabis smoking is very unlikely to be typical.

Virtually all of those who responded (97%, n=70) reported that the last time they had smoked cannabis it had been in cones. The number of cones smoked at last session ranged from one to twelve with a mean of four.

Several KEs commented on cannabis use, one noting that it was commonly used in conjunction with other opioids, and another observing that cannabis was probably used by 90% of all illicit drug users. This KE also observed that while the amount used was variable, a stick a day was probably typical. Another KE described cannabis use as endemic and they didn't know of any illicit drug users who didn't consume it. One KE observed that positive urine tests for cannabis use was a particular problem for people under court orders despite the fact that their cannabis use wasn't posing any measurable harms.

7.2 Price

PWID were asked to report on the current price of cannabis and how much they paid at their most recent purchase.

Hydro

Prices paid at last purchase are shown in Table 14. Although there were generally a larger number of respondents reporting purchases in 2012 than in the previous year, there were no substantive changes in median prices, suggesting that the price of hydroponic cannabis in Perth has been stable over the last year.

Bush

As in previous years, only a small number of participants reported on price at last purchase of bush (Table 14). Superficially, changes appear to have occurred in the price of a gram ($25 in 2012 vs $20 in 2011) and in the price of an ounce ($250 in 2012 vs $300 in 2011). However, as all these median prices were calculated from 10 or less respondents, caution must be exercised in interpreting these findings.

As in 2011, no respondents reported on prices for hashish or hash oil.

Table 14: Price of most recent cannabis purchases by participants, 2012

Amount	Median price* $	Range	Number of purchasers
Hydro			
Gram	25 (25^)	10-30	25 (8)
Half ounce	170^ (175^)	150-180	5 (2)
Ounce	350 (350)	250-350	25 (18)
Bush			
Gram	25^ (20^)	25-25	6 (1)
Half ounce	-^ (-^)	-	0 (0)
Ounce	250^ (300)	170-300	8(10)

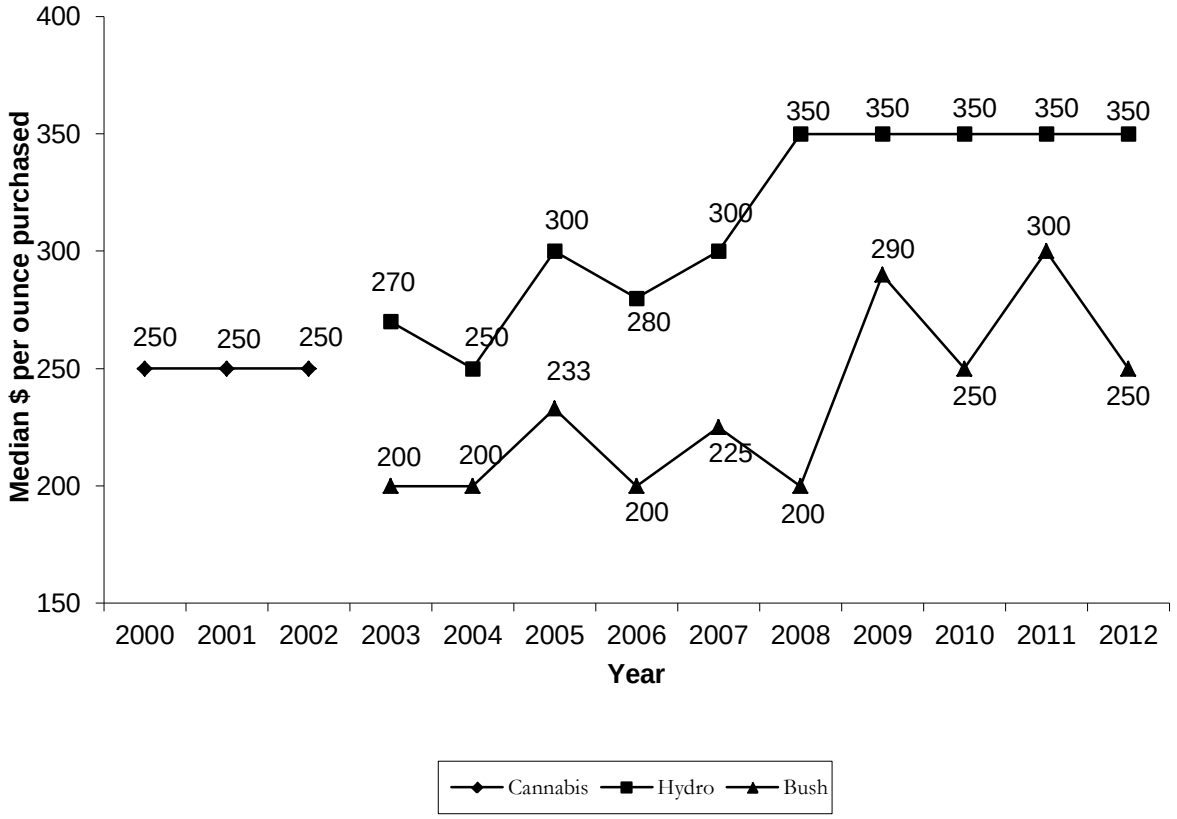
Source: IDRS user interviews

* 2011 data are presented in brackets

^ Based on small (<10) purchases

The median price of one ounce of cannabis as reported by PWID across IDRS surveys is presented in Figure 24. Hydro has consistently been more expensive than bush across time. While the median price of an ounce of hydro has been stable since 2008, the price of an ounce of bush has exhibited considerably more fluctuation. It must be considered, however, that the median price of bush in recent years has only been calculated from small numbers of reports, necessitating some caution in accepting the accuracy of this price data.

Figure 24: Median prices of an ounce of cannabis estimated from PWID participant purchases, 2000-2012



Source: IDRS user interviews
Note: No distinction was made between cannabis forms prior to 2003

With regard to any change in the price of cannabis over the last six months, 61 participants reported on hydro and 22 reported on bush. Regarding the price of hydro, 74% (n=45) reported it as 'stable', and 26% (n=16) reported it as 'increasing'. For bush, 96% (n=21) reported the price as 'stable'.

There were 62 participants who responded to the question of whether they preferred to purchase hydro by weight or dollar amount. Purchasing by dollar amount was the most common response, favoured by 44% (n=27), followed by purchase by weight (36%, n=22). There were also 18% (n=11) who had no preference. The most commonly purchased dollar amount was $25. The most commonly purchased amount by weight was an ounce, followed by a gram.

With regards to bush, 23 PWID responded to the question of whether they preferred to purchase by weight or dollar amounts. Opinion was evenly split, with dollar amount and by weight being nominated by 35% (n=8) and a further 17% (n=4) expressing no preference. The most common dollar amount was $25 and the most common amount by weight was an ounce.

One KE observed that cannabis was less commonly being home grown in favour of commercial production, with an ounce typically being sold for $400-$450 and then on-sold as smaller deals. Another reported that the cost of a bag had recently risen from $25 to $30, although this was not a universal experience. Some people were now buying quarts or ounces, and others were growing their own. Another KE reported that a gram of cannabis was currently selling for $25-$50.

7.3 Availability

PWID were asked about the current availability of cannabis and any perceived changes in availability over the last six months (Table 15).

Hydro

In 2012, there were 62 participants who commented on the current availability of hydro. The majority of these (74%, n=46) reported availability as being 'very easy' which was a significant increase on the 46% who reported this in 2011 (95%CI 0.46, 0.08). This was followed by 23% who described it as 'easy'. With regard to change in availability over the last six months, 87% (n=54) rated it as 'stable'.

Bush

In 2012, 46% (n=11) of those who responded rated current availability of bush as 'very easy', which was not significantly different from the 25% reporting this in 2011, although this may be attributable to the small number of respondents providing this information. This was followed by 29% (n=7) who reported that it was 'easy' and 25% (n=6) who described it as 'difficult'. Asked about changes to availability in the previous six months, 79% (n=19) of those responding reported it had been 'stable' and 13% (n=3) said it had tended to 'fluctuate'.

Table 15: Participants' reports of cannabis availability in the past six months, 2011-2012

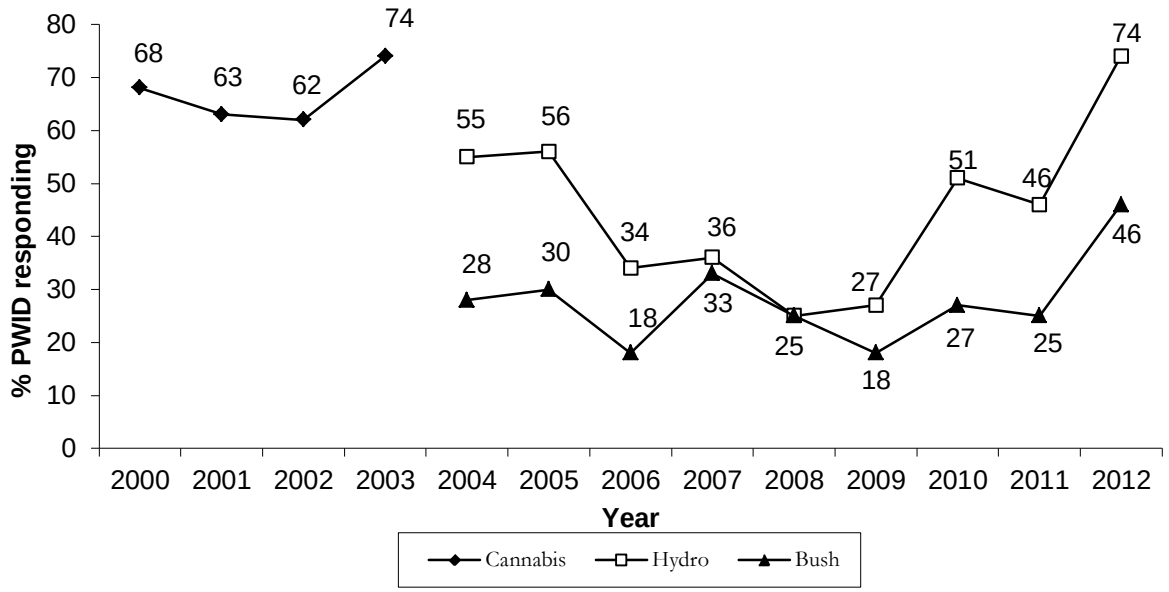
Current availability	Hydro		Bush	
	2011 (N=70)	**2012 (N=100)**	2011 (N=70)	**2012 (N=100)**
Did not respond*	35	**38**	50	**76**
Did respond	35	**62**	20	**24**
Of those who responded:				
Very easy (%)	46	**74**	25	**46**
Easy (%)	37	**23**	50	**29**
Difficult (%)	17	**3**	25	**25**
Very difficult (%)	0	**0**	0	**0**
Availability change over the last six months				
Did not respond*	36	**38**	51	**76**
Did respond	34	**62**	19	**24**
Of those who responded:				
More difficult (%)	12	**5**	21	**8**
Stable (%)	71	**87**	68	**79**
Easier (%)	9	**3**	11	**0**
Fluctuates (%)	9	**5**	0	**13**

Source: IDRS user interviews

* 'Did not respond' refers to participants who did not feel confident enough in their knowledge of the market to respond to survey items

Figure 25 presents the proportion of PWID who commented that rated current availability of cannabis as 'very easy'. In 2012, both hydro and bush appeared to experience an increase in availability, although this was only statistically significant in the case of hydro.

Figure 25: Participant reports of current cannabis availability as 'very easy', 2000-2012



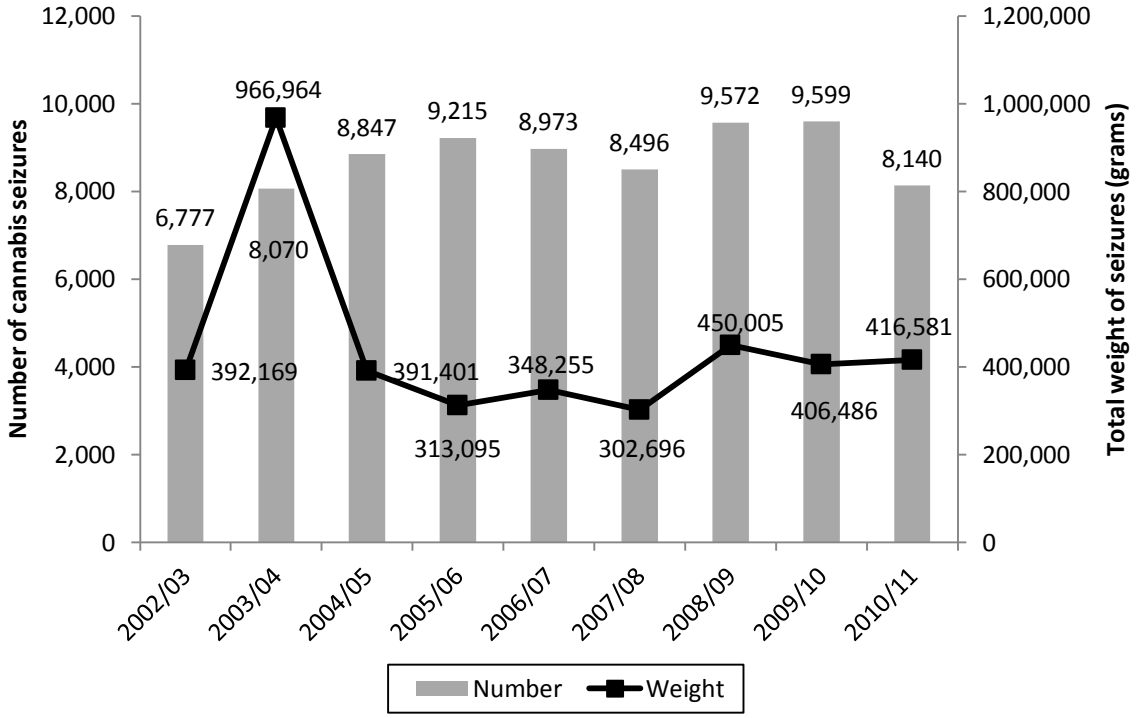
Source: IDRS user interviews
Note: A distinction between hydro and bush cannabis was introduced in 2004; prior to this time, survey items referred to any form of cannabis

Of the 61 PWID responding to questions about who was the last person they obtained hydro from, 66% (n=40) indicated that it came from a friend, which was also the most common response in previous years. This was followed by 26% (n=16) who had last obtained hydro from known dealers and 5% (n=3) who had obtained it from acquaintances. Individual respondents also mentioned street dealers and unknown dealers in this regard. The most common venue for obtaining hydro was 'friend's home' (46%, n=26). Next most commonly mentioned were 'home delivery' and 'dealer's home', both mentioned by 18% (n=11) and 'agreed public location' by 16% (n=10).

There were 23 PWID who provided information concerning where they last obtained bush cannabis from. As with hydro, the most common last source was friends nominated by 70% (n=16), followed by acquaintances (17%, n=4). Small numbers of respondents also mentioned known dealers and a relative. The most common last location for obtaining bush cannabis was at a 'friend's home', nominated by 35% (n=8), followed by 'home delivery' (30%, n=7), 'acquaintance's home' (13%, n=3) and 'agreed public location' (9%, n=2). Individual respondents also mentioned 'dealer's home', 'street market' and 'relative's home'.

Figure 26 presents the total number and combined weight of cannabis seizures made by WAPS and AFP in WA from 2002/03 to 2010/11. The number of seizures made by WAPS fell from 9,599 in 2009/10 to 8,140 in 2010/11 while total weight of seizures remained relatively stable at 416,581 compared to 406,486 during the previous period. There were no cannabis seizures made by AFP in WA during 2010/11.

Figure 26: Number and weight of cannabis seizures by WAPS and AFP, WA 2002/03-2010/11



Source: ACC

With regards to cannabis availability, one KE observed that it was *"very expensive and there was never enough to go around – everybody's always looking"*. Another observed that while cannabis use was commonplace among their client group, the availability continued to worsen and accordingly, the price was higher.

7.4 Potency

PWID were asked about the current potency of cannabis and any change in potency over the last six months (Table 16). Sixty-two PWID commented on hydro, with the majority (69%, n=43) nominating current potency as 'high', which was comparable to last year. This was followed by 18% reporting purity as 'medium', and 11% reporting that potency 'fluctuates'. With regard to changes in potency over the last six months, the greatest proportion (80%, n=49) reported potency as 'stable' followed by 13% (n=8) who reported that it had tended to 'fluctuate'.

Twenty-four PWID responded for bush cannabis; the majority (79%, n=19) nominated its current potency as 'medium', which was a significant increase on the 50% reporting this in 2011 (95%CI 0.52, 0.01). There were 17% (n=4) who reported current potency as 'low' compared with 10% in 2011 and just one individual (4%) who described it as 'high' compared with 30% in the previous year. From this it can be concluded that there has been a significant decline in user perceptions of bush cannabis potency since the 2011 survey. With regard to changes in potency of bush over the last six months, the greatest proportion (83%, n=20) rated it as 'stable' with other opinions being relatively uncommon.
One KE noted that there was currently some very potent sensimilla available.

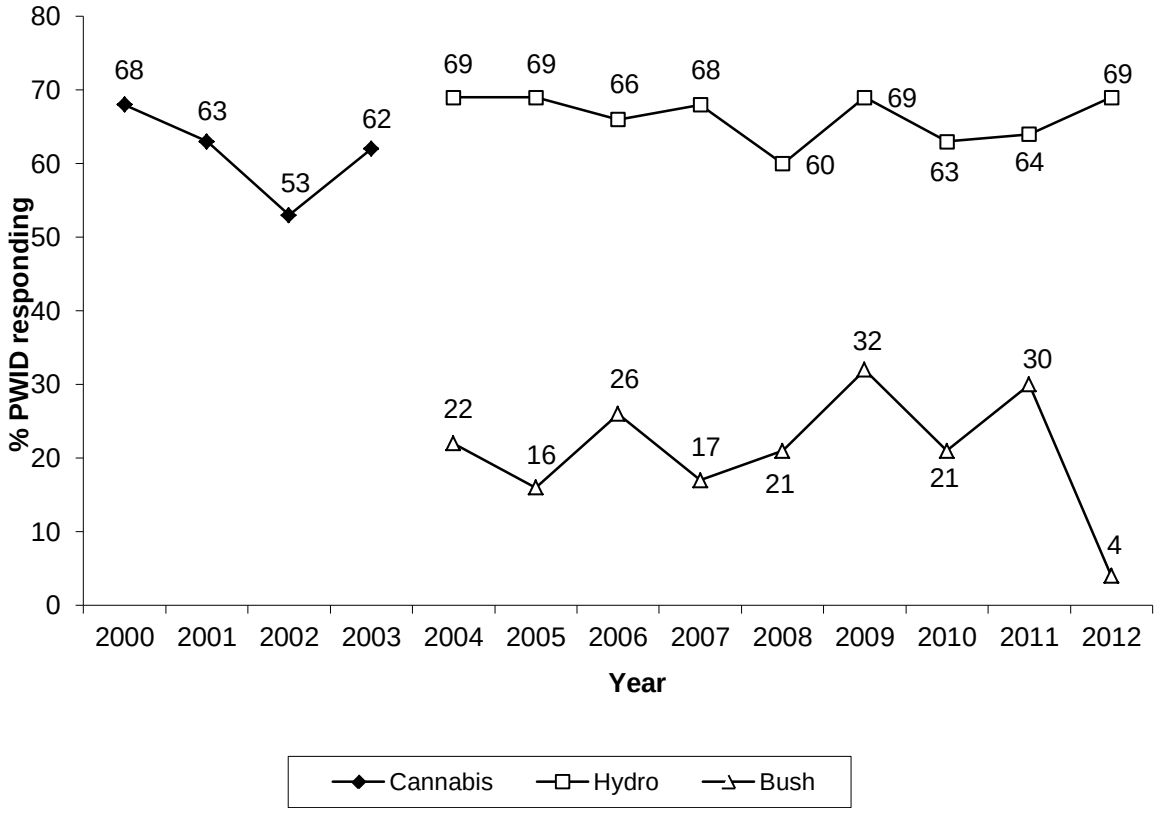
Table 16: Participant estimates of cannabis potency 2011-2012

Current potency	Hydro		Bush	
	2011 (N=70)	**2012 (N=100)**	2011 (N=70)	**2012 (N=100)**
Did not respond*	34	**38**	50	**76**
Did respond	36	**62**	20	**24**
Of those who responded:				
High (%)	64	**69**	30	**4**
Medium (%)	19	**18**	50	**79**
Low (%)	0	**2**	10	**17**
Fluctuates (%)	17	**11**	10	**0**
Potency change over the last six months				
Did not respond* (%)	37	**39**	50	**76**
Did respond (%)	33	**61**	20	**24**
Of those who responded:				
Increasing (%)	9	**7**	5	**4**
Stable (%)	82	**80**	95	**83**
Decreasing (%)	0	**0**	0	**4**
Fluctuating (%)	9	**13**	0	**8**

Source: IDRS user interviews

The proportion of participants who rated the current purity of cannabis as high since 2000 is displayed in Figure 27.

Figure 27: Participant reports of current cannabis potency as 'high', 2000-2012



Source: IDRS user interviews
Note: A distinction between hydro and bush cannabis was introduced in 2004; prior to this time, survey items referred to any form of cannabis.

One KE noted that there was currently some very potent sensimilla available

7.5 Summary of cannabis trends

- Similar to previous years, the vast majority of PWID (97%) reported lifetime use of cannabis.
- Recent use of cannabis was not significantly different to last year: 79% in 2012 and 71% in 2011. Frequency of use among recent cannabis users was 107 days in 2012, which was comparable to 2011. The number of participants reporting daily use of cannabis was also comparable, with 31% in 2012 and 44% in 2011.
- The reported price of hydro was comparable to last year, with the median price for an ounce being $350 since 2008. The median price of one ounce of bush was $250 in 2011, which was comparable to $300 in 2010. However, only a small number of respondents commented on the price of an ounce of bush, making it difficult to draw firm conclusions. Prices for both forms were generally reported as stable.
- Current availability of hydro was rated as 'very easy' or 'easy' by 97% compared with 83% in 2011. Current availability of bush cannabis was reported as 'easy' or 'very easy' by 75% which was unchanged from the previous year. Availability of both forms was reportedly stable.
- Current potency of hydro was rated as 'high' by 69% of those who responded in 2011 (64% in 2011). Current potency of bush was rated as 'medium' by 79% of those who responded in 2012 (50% in 2010). Potency for both forms was generally agreed to be stable.

8. OPIOIDS

The IDRS monitors illicit (non-prescribed) use patterns and market characteristics of opioid pharmaceutical medications. This includes those typically prescribed for opioid substitution treatment (i.e. methadone, buprenorphine, buprenorphine-naloxone) and for pain relief (i.e. morphine, oxycodone, OTC codeine).

There were 77 PWID who responded to the question of what their preferred pharmaceutical opioid was. The most popular was Oxycontin reported by 34% (n=20) followed by MS Contin reported by 25% (n=19), methadone reported by 12% (n=9) and Suboxone reported by 7% (n=5).

One KE observed that with heroin not as available as in the eastern states, users often resorted to prescription opioids if they can't afford heroin or the current purity of heroin was poor, and that polydrug use was the norm for this client group, especially multiple types of opiates. Another observed that the range of pharmaceutical opioids being illicitly used was becoming more diverse, including MS Contin, hydromorphine, propanophine, Suboxone and small but increasing numbers using fentanyl. A third KE also reported that other opioids such as oxycodone were easily accessible, while another noted that while most people were using pharmaceutical opioids as prescribed, some were seeking support to stop.

Of the 45 PWID who reported seeking remedies from pain in the last six months, 40% (n=18) indicated that they had been refused prescription opioids by their doctor because of their history of injecting drugs. A further 8% (n=4) of those seeking prescription opioids indicated that they had been able to obtain pain relief by deliberately not disclosing their injecting drug use to their doctor.

There were 17 respondents who indicated that they had been prescribed any pharmaceutical opioids in the past six months. Asked to describe on a scale of zero (no relief) to 10 (total relief) how effective their prescription had been at alleviating pain yielded a range from zero to 10, but with a median and modal score of 50% relief.

Where respondents indicated that they had injected pharmaceutical opioids in the last six months, they were asked where they had sourced information about filtering. Not having sought any information was reported by 55% (n=39) and the most common locations for obtaining information was a Needle and Syringe Program (34%, n=24) or a peer-run user group (6%, n=4).

One KE expressed great concerns about mismanagement of pain relief medication and patients being cut off from their scripts and "*medically induced dependence"*:

> *"This leads to conflict with doctors over scripts vs pain management. When a patient gets into trouble through being on medication for too long, or too much, they get cut off and have to go on methadone. Waiting to get onto pharmacotherapy can take weeks. Also, it's hard to see a doctor due to the mining boom. Pharmacotherapy regulations are very strict which leads to increased prices for diverted medications. Management of people with drug problems is not well done and often GPs' understanding is poor, resulting in conflict between doctor and patient."*

8.1 Illicit use of methadone

Methadone is prescribed for the treatment of opioid dependence and is usually administered in syrup form or, less commonly, as tablets called Physeptone.

8.1.1 Use patterns

Lifetime illicit use of methadone was reported by 57% of PWID; of these, 77% (n=44) reported ever injecting and 67% (n=38) reported ever swallowing illicit methadone. The proportion reporting illicit use of methadone in the last six months was 22% in 2012, which was not significantly different from the 26% in 2011. Of these participants, 73% (n=16) reported injecting and 55% (n=12) reported swallowing in the last six months. Days of use ranged from one to 72, Mean days of use was 14 which was significantly less than the 2011 mean of 25 days (t=-2.438, df=20, p=.024). Mean days of injection in the last six months was 16 which was comparable to an average of 13 days in 2011.

Lifetime illicit use of physeptone was reported by 44% of PWID; of these, 86% (n=38) reported having ever injected and 34% (n=15) reported having ever swallowed Physeptone. The proportion reporting illicit use of physeptone in the last six months was 15%, which was not significantly different to the 7% in 2011. Of these participants, 80% (n=12) reported injecting and 33% (n=5) reported swallowing in the last six months. There was one individual respondent who reported having snorted physeptone. Days of use ranged from one to 20 days, with a mean of six, which was comparable to the nine days reported in 2010. Mean days of injection in the last six months was comparable to last year, with an average of approximately six days in 2012 compared to seven days in 2011.

PWID were asked about the reasons for illicitly using methadone and 14 PWID responded. The most commonly reported reasons were alleviating withdrawal symptoms (57%, n=8) followed by alleviating pain (14%, n=2).

Respondents who reported recent injection of methadone were asked a series of additional questions. Asked where the injected methadone had come from, 59% (n=10) reported that it had come from a partner or friend and 35% (n=6) said it had been their own dose, with one respondent indicating that they had bought it from a street dealer. Where the dose had been their own, 80% (n=4) of those responding said the dose had been an unsupervised takeaway, and just one respondent indicated that the methadone had already been in their mouth prior to injection. Of those obtaining methadone from a friend or partner, 50% (n=5) said it had been given for free, and 50% (n=5) reported paying for it. Asked on a scale of one to 10 to rate how enjoyable they found the experience of injecting methadone saw 33% (n=6) rating the effect as a five or a six, while 11% (n=4) rating it a 10 (‘like it very much’) and 11% (n=4) rating it a zero (‘no liking’). Asked on a scale of zero to 10 to rate how likely it was that they would inject methadone again saw 44% (n=8) rating it as 10 (‘extremely likely’) followed by 17% (n=3) rating likelihood as seven and just 11% (n=2) rating it as zero (‘not at all likely’).

8.1.2 Market characteristics

Price data per millilitre of methadone syrup was provided by 13 PWID in 2012. The most commonly reported price of illicit methadone remained $1.00 per millilitre, which reflects the findings of previous years. Price changes were commented on by 15 PWID of who 67% (n=10) reported it to have been stable in the previous six months. Only three respondents provided price data for physeptone. All had purchased a 10mg tablet, two reported paying $5 and one reported paying $10.

There were 15 respondents who commented on the current availability of illicit methadone. Of these, 40% (n=6) reported that it was easy, 27% (n=4) that it was very easy and 20% (n=3) that it was difficult. It was generally agreed by 80% (n=12) that availability over the

past six months had remained stable, although 13% (n=2) believed it had become more difficult.

Illicit methadone was primarily obtained from friends (67% , n=10) or from known dealers (20%, n=3). The most common venue for acquiring it was an agreed public location (33%, n=5) followed by a friend's home (27%, n=4) and home delivery (20%, n=3).

8.2 Use of illicit buprenorphine

Buprenorphine is sold under the brand name of Subutex and buprenorphine-naloxone as Suboxone. More recently Suboxone has become available as a film that dissolves on the tongue.

8.2.1 Use patterns

Lifetime illicit use of Subutex was reported by 44% of PWID. Of these participants, 91% (n=40) reported ever injecting and 36% (n=16) reported ever swallowing. Illicit use in the last six months was reported by 15%, which was not significantly different to 11% reported in 2011. Of these participants, 100% (n=15) reported injecting and 20% (n=3) reported swallowing in the last six months. Days of use ranged from one to 180, with a median of five days, compared to three days in 2011. The mean number of days of use was 34 days, which was not significantly different to the nine days reported in 2011. Using heat the last time they injected was reported by 27% (n=4) and 80% (n=12) reported using a filter, nine of these using a cigarette filter and three respondents using a wheel filter.

Those who had recently injected Subutex were asked a series of additional questions. Asked about the source of the injected Subutex, 73% (n=8) reported that it belonged to a friend or partner, and just 18% (n=2) reported that it was their own dose. Of these two respondents, one reported that it had been a supervised dose and had been in their mouth prior to injecting and the other reported that it had been an unsupervised takeaway. Of those who had obtained Subutex from a friend or partner, 56% (n=5) had purchased it and 33% (n=3) had been given it for free. Asked whether injecting Subutex had precipitated withdrawal symptoms, 82% (n=9) said it had not. When asked to rate the level of enjoyment of injecting Subutex on a scale of one to 10, no clear consensus was found with responses distributed roughly evenly across the entire range from zero ('no liking') to 10 ('like it very much'). Asked to rate on a scale of one to 10 how likely it was that they would inject Subutex again saw a range from zero ('not at all likely') up to 10 ('extremely likely'), with the largest group nominating 'extremely likely' (36%, n=4) and with remaining individuals distributed across the lower end of the scale.

Lifetime illicit use of Suboxone was reported by 33% of PWID. Of these participants, 70% (n=23) reported ever injecting and 46% (n=15) reported ever swallowing. Illicit use in the last six months was reported by 16%, which was comparable to 14% in 2011. Of these participants, 81% (n=13) reported injecting and 25% (n=4) reported swallowing in the last six months. Days of use ranged from two to 180, with a median of 24 days use. Mean days of use was 47, which was not significantly different from 28 days in 2011. Using heat the last time they injected was reported by 31% (n=5) and 69% (n=11) reported using a filter, nine of these using a cigarette filter and two using a wheel filter.

Respondents who had injected Suboxone tablets in the last six months were asked some additional questions. Of those who had injected, 77% (n=10) reported that the injected Suboxone had come from a friend or partner. Only 23% (n=3) reported that the prescription had been their own. All (100%, n=3) of those reporting that the Suboxone had been their own script reported that it had been an unsupervised take-away dose. Of these, two respondents reported that the tablet had not been in their mouth prior to injection, and the

third did not answer the question. Asked about the original source of the injected Suboxone, 50% (n=5) of those who were not injecting their own script reported that it had been purchased from friends of partner, and 50% (n=5) reported that they had been given it for free. Asked if injecting Suboxone precipitated withdrawal symptoms, 92% (n=12) of those responding reported that it had not. Asked to rate their liking of injecting Suboxone on a scale of zero to 10 saw a range of responses from zero ('no liking', to 10 ('like it very much') with the modal response being six (n=3). Asked how likely it was that they would inject Suboxone tablets again, 54% (n=7) indicated that it was 'extremely likely'.

Suboxone film was asked about for the first time in 2012. A history of lifetime use of illicit Suboxone film was reported by 20% of respondents. Of these, 75% (n=15) had ever injected illicit film and 35% (n=7) had ever swallowed. Mean days of use was 28 (range 1-180). Use in the last six months was reported by 18% of respondents. Of these, 78% (n=14) had recently injected illicit film and 39% (n=7) reported swallowing it.

Respondents who had recently injected Suboxone film were asked some additional questions. Of those who had injected, 82% reported that the film had come from a friend or partner. The one individual who had injected their own script reported that it had been an unsupervised take away that had not been in their mouth prior to injection. Of those who had acquired the film from their partner, 60% (n=6) reported purchasing it while the remainder were given the film for free. Asked if injecting Suboxone film had precipitated withdrawal symptoms, 73% (n=8) said it had not. Asked to rate on a scale of zero to 10 how enjoyable injecting Suboxone film was saw a range from zero ('no liking') though to 10 ('like it very much') with the most common response being 'no liking' (27%, n=3). Despite this, 55% (n=6) indicated that it was 'extremely likely' that they would inject Suboxone film again. Asked how much liquid they used per strip at the last injection, 50% (n=5) said 2ml or less, 30% (n=3) said between 2 and 5ml and 20% reported injecting more than 10ml. Heating the liquid prior to injection was reported by 36% (n=4). The most common amount of Suboxone film injected at the last occasion was 2 to 4mg (50%, n=5) and the largest amount was 8mg (10%, n=1). Injecting problems with Suboxone film were common and reported by 64% (n=7) of those responding. Problems experienced included blocked veins, clots, destruction of veins, missing the vein resulting in a lump and precipitated withdrawal. Asked to compare these to problems with injecting Suboxone tablets or Subutex resulted in only one respondent mentioning problems with these preparations, reporting that they ruined veins.

8.2.2 Market characteristics

There were five respondents who reported on the illicit price of 8mg of Subutex, reporting a price range of $25-$50 with a median price of $35 which was comparable to last year's median price of $40. Although only four respondents provided information on changes in price, it was unanimously agreed that the price of illicit Subutex had remained stable over the past six months. There were seven respondents who reported on the current availability of Subutex with 43% (n=3) stating that it was 'very easy' and 29% (n=2) stating that it was 'easy'. There were just two respondents describing it as 'difficult' or 'very difficult'. There was little consensus on whether the availability of Subutex had recently changed, with three respondents reporting it as 'stable, two respondents saying it had become 'more difficult', and two saying it had become 'easier'.

The last source of Subutex was reported as 'friends' by 43% (n=3) of those who responded, with individual respondents also mentioning 'street dealers' and 'partner' in this context. Half of these respondents had bought it while the remaining two had been given it for free. The most common source venues were 'home delivery' and 'agreed public location', both reported by two respondents and one other nominated 'friend's home'.

Reasons given for taking illicit Subutex on the last occasion were provided by four respondents and included alleviating withdrawal, treating self-dependence, being safer than heroin or illicit opiates, and losing their own takeaway.

Eight participants reported on the price of 8mg of illicit Suboxone, with a range of $25-$50 and a median of $45 which was unchanged from 2011. Of the nine participants who responded, 67% (n=6) believed the price of illicit Suboxone had been 'stable' over the last six months and a further two respondents reported that it had been 'fluctuating'.

Current availability of illicit Suboxone was reported on by nine respondents. Of these, 44% (n=4) said it was 'easy', 33% (n=3) said it was 'difficult' and 22% (n=2) said it was 'very easy'. As to whether there had been a change in availability in the previous six months, 56% (n=5) reported it as 'stable', 33% (n=3) as 'more difficult' and one respondent said it was 'easier'. The most common source of illicit Suboxone was from 'friends', reported by 78% (n=2), followed by 'acquaintances' reported by 22% (n=2). That it had been purchased was reported by five respondents with the remaining four being given it for free. The most common venue for sourcing illicit Suboxone was from an 'agreed public location', reported by 67% (n=6) followed by a 'friend's home' reported by 33% (n=3). Asked where they believed the original source of the tablet had been, 63% (n=5) believed it to have been 'someone else's take-away dose' and 25% (n=2) didn't know. There was no clear consensus on why respondents had consumed illicit Subutex, with two respondents indicating that it was to alleviate withdrawal, and various individuals giving a range of answers including to alleviate pain, to treat self-dependence, that it was cheaper than heroin, safer than illicit opiates, seeking an opiate effect, lost their own take-away or missed their own dose.

There were five respondents able to comment on the price of illicit Suboxone film, citing a price range of $20-$70 with a median price of $38.

One KE reported on the current price of illicit buprenorphine, citing a price of $40-$50.

Asked about current availability, three respondents reported that illicit Suboxone film was 'easy' to obtain, and two reported that it was 'very easy'. Asked if this availability had changed in the last six months, two respondents reported it had become 'easier', two that it had been 'stable' and one that it had become 'more difficult'. The most commonly reported source was from 'friends' reported by four respondents, with the remaining respondent indicating it had come from 'acquaintances'. Generally, respondents reported being given it for free. The most common venue for sourcing illicit Suboxone film was an 'agreed public location' reported by four respondents and 'home delivery' reported by one. All respondents agreed that the original source was 'somebody else's take-away'. Reasons given for consuming illicit Suboxone film included alleviating withdrawal, treating self-dependence, being safer than heroin or illicit opioids and seeking an opiate effect.

8.3 Morphine

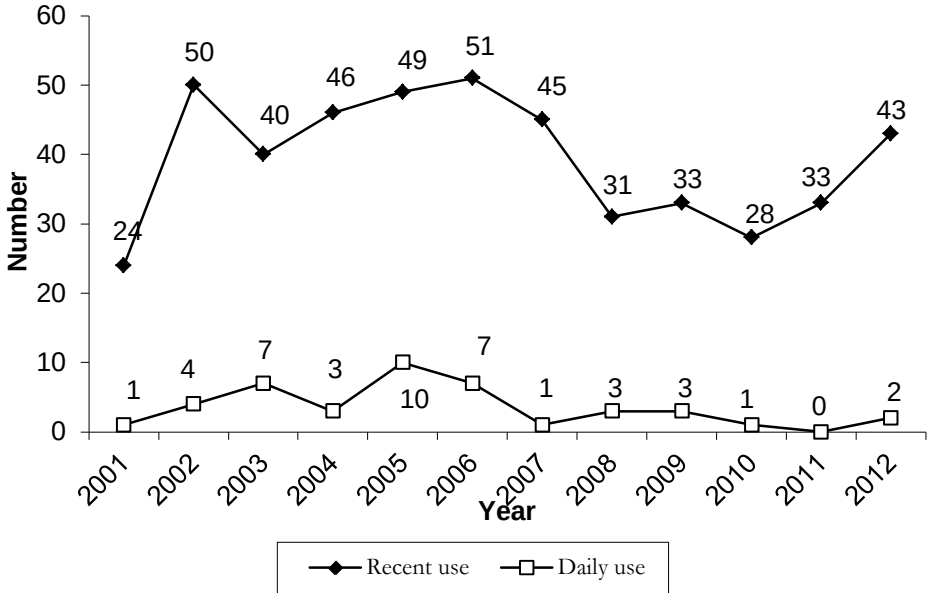
8.3.1 Use patterns

Lifetime illicit use of morphine was reported by 82% of the 2012 IDRS sample, which was not significantly different to the 74% in 2011. Of these, 51% (n=42) reported having ever injected illicit morphine and 37% (n=30) reported having ever swallowed. The proportion reporting illicit use of morphine in the last six months was 43%, which was not significantly different to the 33% reported in 2011. Of these, 98% (n=42) reported having recently injected illicit morphine and 19% (n=8) reported recently swallowing it. Days of use in the last six months ranged from one to 180, with two respondents reporting use on a daily basis.

Mean days of use was 40, which was significantly higher than the 22 days reported in 2011 (t=2.381, df=41, p=.022).

Figure 28 presents the proportion of PWID who reported illicit use of morphine in the last six months and daily illicit use across IDRS surveys. It is evident that the proportion of PWID reporting illicit use of morphine has been increasing in recent years. The proportion reporting daily use has remained low since data collection began in 2001.

Figure 28: Proportion reporting recent and daily illicit morphine use in the past six months 2001-2012



Source: IDRS user interviews

Asked if they had heated the mixture at the most recent injection, 67% (n=29) reported having done so. There were only two respondents who reported not using a filter. Of those who did use a filter, the most common type was a cigarette filter (66%, n=27), followed by wheel filters (14%, n=6) and cotton wool (12%, n=5).

As in previous years, MS Contin remained the most common brand of illicit morphine consumed with 88% (n=37) of those responding reporting this. The only other main brand reported was Kapanol by 12% (n=5) of those responding.

8.3.2 Market characteristics

As in previous years, the most commonly reported form of illicitly purchased morphine was MS Contin. Eighteen participants reported on the price of a 100mg tablet, (range=$50-$100) with a median price of $70 which was unchanged from the median price the previous year. Seventeen participants reported on the price of 60mg (range=$25-$60) with a median of $40 compared with $32 the previous year. There were five respondents who reported having purchased 100mg Kapanol (range $50-$70) with a median price of $70. Purchasing 30mg Anamorph was reported by four respondents (range $20-$30) for a median price of $20. Most (48%, n=13) respondents believed the price of morphine had remained stable in the past six months, although 33% (n=9) believed that it may have increased.

One KE commented on the price of illicit MS Contin, reporting that it was generally $80-$100, but adding that it was *"cheaper if you buy through friends – out on the street you pay through the nose."*

Current availability of morphine was reported on by 27 respondents with more than half (56%, n=15) reporting that illicit morphine was currently 'very easy' to obtain. There were also 22% (n=6) who described it as 'difficult' and 15% (n=4) who described it as 'easy'. The vast majority of those responding (70%, n=19) said availability of morphine had remained 'stable' over the last six months, although 19% (n=5) believed it had become 'more difficult'.

The source person for obtaining illicit morphine was most commonly identified as a 'friend' by 67% (n=18) of respondents. Also common were 'known dealers' (15%, n=4) and 'acquaintances' (11%, n=3). The most common venues for obtaining illicit morphine was 'friend's home' (44%, n=12), 'agreed public location' (26%, n=7) and 'home delivery' (11%, n=3).

8.4 Oxycodone

8.4.1 Use patterns

Lifetime illicit use of oxycodone was reported by 76% of the 2012 IDRS sample, which was comparable to 63% in 2012. Of these, 97% (n= 74) reported having ever injected illicit oxycodone and 34% (n=26) reported having ever swallowed it. The proportion reporting use in the last six months was 48% in 2012, which was a significant increase from 30% in 2011 (95%CI 0.48, 0.30). Of these participants, 96% (n=46) reported recent injection of illicit oxycodone and 21% (n=10) reported recently swallowing it. Days of use ranged from one to 180, with one respondent using on a daily basis. The mean days of use were 35, which was comparable to a mean of 30 days in 2011. The most commonly reported brand used was Oxycontin by 93% (n=40) of respondents.

Asked if they had heated the mix last time they injected illicit oxycodone, 77% (n=30) indicated that they had. Asked if they had used a filter at the last injecting occasion, 100% (n=39) of those responding indicated that they had. This was most commonly a cigarette filter (62%, n=24), followed by cotton wool or a wheel filter, both nominated by 18% (n=7).

8.4.2 Market characteristics

In 2012, 14 participants reported on the price of 40mg of oxycodone, with a median price of $33 (range=$20-$40). There were 25 respondents who reported on the price on an 80mg tablet (range $35-$80) with a median price of $60. Of the 33 participants who were able to comment on any perceived change in price over the last six months, 49% (n=16) described it as 'stable', while 39% (n=13) thought it to have increased.

Only one KE commented on the current price of illicit oxycodone, reporting the price to vary from $30-$50 per mg.

It was generally agreed that the current availability of oxycodone was either 'very easy' (49%, n=16) or 'easy' (36%, n=12). Just 4% (n=4) described it as 'difficult'. Of those commenting, 85% (n=28) said availability of illicit oxycodone had remained 'stable' over the previous six months.

The most common source of illicit oxycodone was 'friends' reported by 59% (n=19). Other common sources were 'acquaintances' (19%, n=6) and 'known dealers (13%, n=4). The

most common source venue was ‘friend’s house’ (42%, n=13), followed by an ‘agreed public location’ (19%, n=6), ‘home delivery’ (16%, n=5) and an ‘acquaintance’s house’ (10%, n=3).

8.5 Use of OTC codeine

In Australia, codeine available over the counter (OTC) is combined with simple analgesics including paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs) 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 2012, 27% of respondents reported a lifetime use of OTC codeine and 13% reported consuming them in the last six months compared to 34% in 2011. Given the popularity of preparations such as Panadeine, Neurofen and Mersyndol in Australia, these figures seem implausibly low and are possibly an artefact of how the question was delivered to respondents. It would seem advisable to interpret this data with caution. All of these respondents reported having swallowed them, with injection being a rare practice with only three respondents reporting having ever done so and just one having done so in the last six months.

Several KEs expressed concern surrounding increased levels of OTC codeine misuse especially with products also containing iboprufen or panadol. One of these described a client consuming 60 Panadeine tablets per day, necessitating being “weaned off” their use by prescription of buprenorphine. It was also noted that many clients were resistant to these types of interventions due to not regarding themselves as “opiate addicts”. Another KE noted the medical complications caused by excessive use of these products including impaired kidney function, impaired liver function and gastrointestinal issues although noting that incidence of these problems appeared to be in decline. One of these KEs added: *“Maybe they don’t realise the medical consequences of using OTCs in that quantity – they are accessing treatment for withdrawal rather than organ failure.”*

8.6 Other opioids (not elsewhere specified)

Other opioids include (but are not limited to) opium, pethidine and fentanyl (and not including OTC codeine). In 2012, lifetime use of other opioids was reported by 43% of the WA IDRS sample. Although this appears to be a substantial decrease on the 61% reported in 2011, this finding has likely been influenced by treating OTC codeine as a distinct category in the 2012 survey, and caution is advised in the interpretation of these findings. Recent use was reported by 25% which was not significantly different from the 30% reported in 2011 and similar caution is advised. Average days of use was 39 which was essentially unchanged from the previous year’s mean of 38. Of those responding, the most common form of other opiate consumed was Panadeine Forte (70%, n=16). There were also very small numbers of respondents reporting the main form consumed as fentanyl (n=2), tramadol (n=2), other minor analgesics (n=2) and opium (n=1).

8.7 Summary of opioid trends

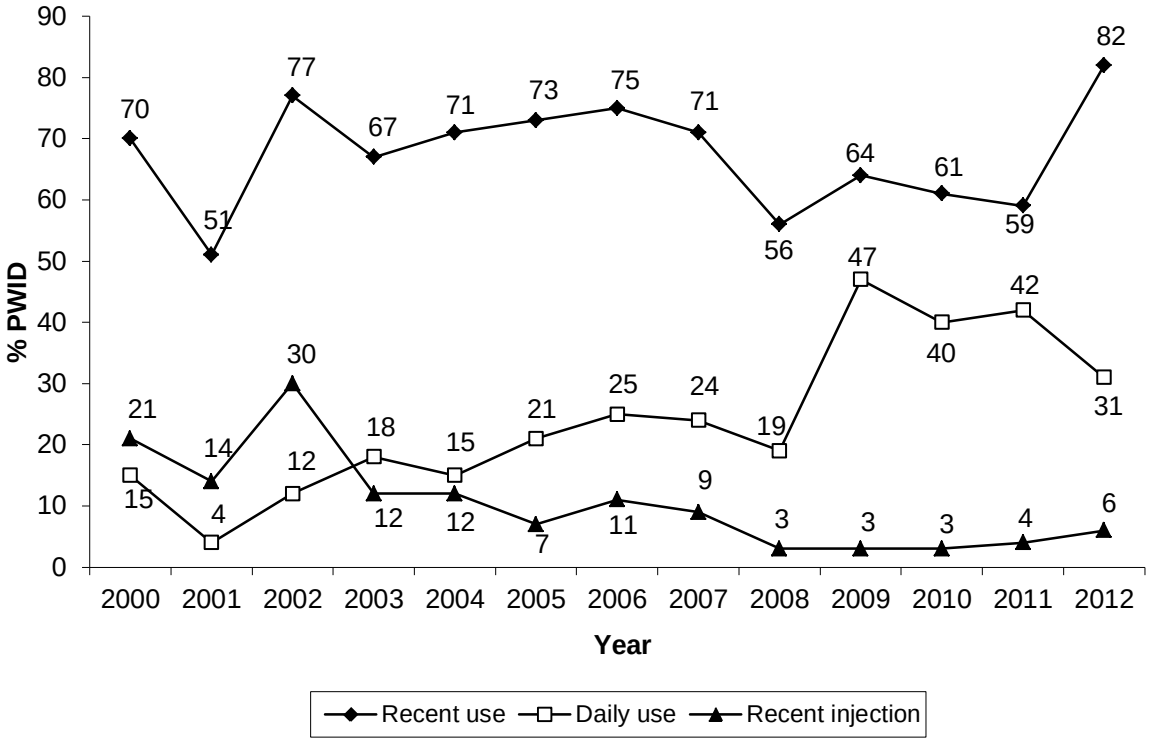
- Recent (last 6 months) illicit use of methadone was reported by 22% which was not significantly different from 26% of the sample in 2011. The average days of use was 14 which was significantly less than 25 days in 2011.
- Recent illicit use of physeptone was reported by 15% which was not significantly different than the 7% of the sample in 2011. The average days of use was six days, which was comparable to nine days in 2011.
- Recent illicit use of Subutex was not significantly different across the last two years: 15% in 2012 compared to 11% in 2011. In 2012, the average days of use was 34 which was not significantly different from 9 days in 2011.
- Recent illicit use of Suboxone was reported by 16% which was compatible to 14% in 2011. The average days of use was 24 which was not significantly different from 28 days in 2011.
- Suboxone film was reported on for the first time in 2012. Recent illicit use was reported by 18%. Mean days of use was 28 days.
- Recent illicit use of morphine was reported by 43% which was not significantly different from 33% of the sample in 2011. In 2012, the average days of use was 40 which was a significant increase on the 22 days reported in 2012.
- Recent illicit use of oxycodone significantly increased from 30% in 2011 to 48% in 2012. The average days of use was 35, which was comparable to 30 days in 2011.
- In 2012, recent use of other opioids was reported by 25% which was comparable to 30% of PWID in 2011. However, this apparently low figure should be treated with caution as it may be in part due to the inclusion of OTC codeine as a separate category in the 2012 questionnaire. The average number of days of other opioid use was 39 days in the last six months compared to 38 days the previous year.

9. OTHER DRUGS

9.1 Benzodiazepines

The majority (90%) of the WA IDRS sample had reported the use of any form (licit or illicit) benzodiazepines at some stage in their lifetime. Recent use of any form was reported by 82% which was significantly greater than the 61% reported in 2011 (95% CI, 0.34-0.06).
Figure 29 presents the proportion of PWID reporting any use of benzodiazepines in the six months preceding interview across IDRS surveys. This data includes both licit and illicit use, which was not explicitly asked about prior to 2007. It is evident that recent use of any benzodiazepine has risen steeply among PWID to the highest level seen since the IDRS commenced in WA. Numbers of daily users remain high, and while numbers of respondents report recent injection remain low, the 2012 sample reports the highest rates since 2007.

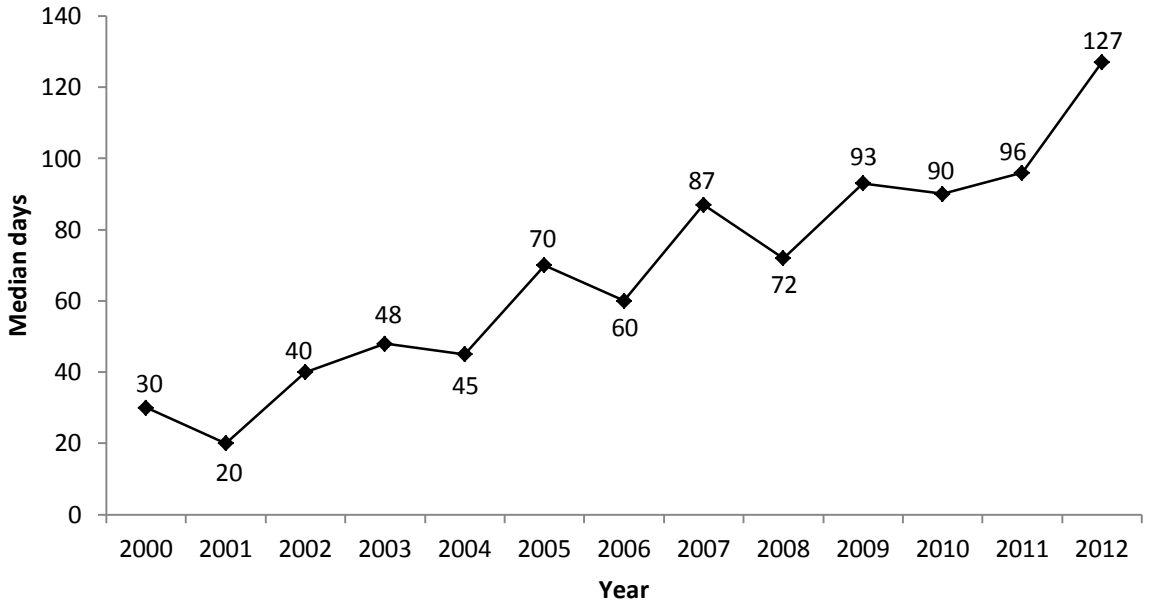
Figure 29: Proportion of PWID reporting any benzodiazepine use (licit and illicit), daily use and injection in the preceding six months, 2000-2012



Source: IDRS user interviews

Days of use ranged from one to 180. Mean days of use of any benzodiazepines was 117 which was significantly greater than the mean of 99 days reported in 2011 (t=2.233, df=74, p=.029). There were 31% of respondents who reported use of any benzodiazepines on a daily basis which was compatible to the 42% who reported daily use in 2011. This data is displayed in Figure 30. The practice of injecting benzodiazepines remained uncommon with just 6% of respondents reporting having recently injected benzodiazepines of any kind, the same figure as reported in 2011, and most of which (n=5) was accounted for by the injection of illicitly obtained alprazolam.

Figure 30: Median days use of any benzodiazepines (licit and illicit) in the past six months, 2000-2012



Source: IDRS user interviews

From 2011, participants were asked separately about the use of alprazolam and other benzodiazepine use.

One KE observed that benzodiazepines like temazepam and alprazolam were commonly used while waiting to score heroin which was then used on top of them.

9.1.1 Alprazolam (Xanax)

Lifetime use of any form of alprazolam was reported by 70% of the 2012 sample (33% licit, 59% illicit). Recent use of any form of alprazolam was reported by 56% (26% licit, 46% illicit) which was not significantly greater than the 41% in 2011. Mean days of use of prescribed alprazolam was 86 and mean days of use of illicitly obtained alprazolam was 34, neither of which were significantly different from days of use reported the previous year.

9.1.2 Other benzodiazepines

Lifetime use of benzodiazepines other than alprazolam was reported by 88% of the 2012 sample (71% licit, 61% illicit). Recent use of other benzodiazepines was reported by 77% (56% licit, 47% illicit) which was significantly higher than the 56% reporting recent use of other benzodiazepines in 2011. Licit benzodiazepines were used on a mean of 123 days which was not significantly greater than the 2011 mean of 119. Illicit benzodiazepines were used on a mean of 34 days which was a significant increase on the 2011 mean of 12 days ($t=3.191$, $df=45$, $p=.003$). By far the most common form of recently used benzodiazepine was diazepam reported by 84% (n=64) of respondents who had recently consumed other benzodiazepines. Much smaller numbers reported the use of oxazepam (5%, n=4) and clonazepam (3%, n=2). There were independent reports of various other forms including clonazepam, temazepam, flunitrazepam and nitrazepam.

9.2 Pharmaceutical stimulants

Pharmaceutical stimulants refer to prescription medication such as dexamphetamine and methylphenidate (Ritalin), commonly prescribed for psychiatric disorders such as attention deficit hyperactivity disorder (ADHD).

Lifetime use of illicit pharmaceutical stimulants was reported by 65% of respondents which was significantly greater than the 50% reported in 2011 (95% CI, 0.29-0.00). Recent use in the last six months was reported by 22% which was not significantly different from the 16% reported in 2011. Of these, 77% (n=17) reported recently swallowing illicit prescription stimulants, 46% (n=10) reported recent injecting and 5% (n=1) reported recently snorting them. Days of use ranged from one to 18 with a median of two days which was unchanged from the median reported in 2011. The main form used remained dexamphetamine (75% (n=12), followed by Ritalin (13% (n=2). Only 25% (n=2) of those responding reported heating at the last injecting occasion. Of the eight respondents who answered the question, all reported using some form of filter at the last injecting occasion. Most commonly, this was a wheel filter (50%, n=4) followed by cotton wool (38%, n=3).

9.3 Hallucinogens

Hallucinogens refer primarily, but not exclusively to drugs such as LSD and psilocybin mushrooms.

Lifetime use of hallucinogens was reported by 84% of PWID. Recent use was reported by 11% which was not significantly different from the 10% reported in 2011. All (100%) of these respondents reported swallowing hallucinogens. Just three respondents reported recent injection and three reported recently smoking hallucinogens. Days of use ranged from one to 20 with a mean of four days which was significantly less than the nine day average reported in 2011. The hallucinogen reported as most used was LSD (n=7), followed by DMT (n=2).

9.4 Ecstasy

“Ecstasy” refers to both MDMA and also to substances sold purporting to be MDMA.

Lifetime use of ecstasy was reported by 77% of respondents which was compatible to 80% the previous year. Recent use in the last six months was reported by 12% which was a significant increase on the one individual reporting recent consumption of the drug in the previous year (95%CI, 0.18-0.03). The most common route of administration was swallowing (92%, n=11) followed by 50% (n=6) who reported having recently injected it. There were no reports of recent smoking or snorting. Days of use ranged from one to 45 with a median of five. Of those responding, the form of ecstasy most used was pills (n=10) and one individual reported their most common form as being capsules.

9.5 Inhalants

Inhalants refers to a variety of substances that are sniffed or ‘huffed’ including, but not restricted to solvents, paint, petrol, butane, amyl nitrate (‘rush’ or ‘poppers’) and nitrous oxide (‘laughing gas’ or ‘nangs’).

Lifetime use of inhalants was reported by 31% of the 2012 sample. Use of inhalants in the last six months was reported by 4%t, which was unchanged from the previous year. Number of days used ranged from one to 10 with a median of four which was not a significant difference from the previous year’s mean of one day. Amyl nitrate was reported as the form

of inhalant most used by two respondents and individual respondents mentioned nitrous oxide and ether in this context.

9.6 Alcohol

Lifetime use of alcohol was reported by 100% of PWID and 67% reported use in the last six months, which was not significantly different from the 70% reporting recent use in the previous year. All respondents who had recent consumed alcohol had swallowed it. There were just two respondents with a history of lifetime or recent injection of alcohol. Days of use ranged from one to 180 with nine respondents consuming alcohol on a daily basis. Median days of use was 12 and mean days of use was 47 which was compatible with the 50 mean days of use reported in the 2011 sample. The AUDIT-C screen was administered to 97 respondents and revealed that, of the 2012 PWID sample, 45% (n=36) of males and 53% (n=16) of females were either hazardous drinkers or have an active alcohol use disorder.

Several KEs made comments about use of alcohol amongst PWIDs, one noting that alcohol was commonly used in conjunction with other drugs, while another observed that alcohol became the default drug of choice when people were unable to access amphetamines or opiates. A third suggested that while there was no change in levels of alcohol use, around 50% of their client base likely had some level of dependency and perhaps 25% were drinking in a binge pattern.

One KE made specific comments to the effect that excessive use of alcohol was particularly destructive in terms of its effect upon personal relationships.

9.7 Tobacco

Lifetime use of tobacco was reported by 97% of the 2012 sample and recent use by 91%, which was not significantly greater than the 83% or recent users in the previous year. Days of use ranged from 60 to 180 with 93% (n=85) of recent smokers reporting smoking on a daily basis. Mean days of use was 177 which was not significantly different from the mean of 174 reported in 2011. Respondents were asked if they planned on quitting smoking. Of the 87 who answered, 2% (n=2) had already quit, 12% (n=10) planned to quit within the next month, 16% (n=14) planned to quit within the next three months, 39% (n=34) planned to quit but not within three months and 31% (n=27) had no plans to stop smoking.

9.8 Seroquel (quetiapine)

Life time use of illicit Seroqual was reported by 42% of the 2012 sample and recent use was reported by 19% which was unchanged from rates of recent use reported in 2011. All reported use was by oral dosing with no injection reported. Days of use for illicit Seroqual ranged from one to 90 with a mean of 13 days which was not a significant increase on the five day average reported in 2011.

9.9 Summary of other drug trends

- Recent use of any form of benzodiazepines (licit or illicit) was reported by 82% which was significantly greater than the 61% in 2011. Mean days of use was 117 which was a significant increase on 99 days the previous year.
- Like in previous year's samples, in 2012 the majority of recent benzodiazepine (any form) use was reported to be licit.
- Recent use of illicit pharmaceutical stimulants was reported by 22% which was not significantly different to 16% of the 2011 sample. Mean days of use was two days which was not significantly different from four days in 2011. Of those that reported recent pharmaceutical stimulant use in 2012, the majority reported illicit use.
- Recent use of hallucinogens was reported by 11% and not significantly different from 10% in 2011. The average number of days hallucinogens were used was four which was significantly less than the 2011 mean of nine days.
- Recent use of ecstasy was reported by 12%, compared to one individual in 2011. Median days of use was five.
- Recent use of inhalants has been uncommon across years with just 4% reporting recent use which was unchanged from the previous year.
- The majority of PWID across years reported lifetime and recent use of alcohol and tobacco.
- The recent use of illicit quetiapine was reported by 19% of the WA sample which was unchanged from 2011. Mean days of use was 13 which was not significantly different from five days the previous year.

10. HEALTH-RELATED HARMS ASSOCIATED WITH DRUG USE

10.1 Health services utilization

Respondents in the 2012 PWID survey were asked how many days in the past month they had accessed various health services and how many of these had been related to their drug use. The most common service accessed were GPs (n=67) for a mean of three days and 58% (n=37) of these respondents reported that they had accessed their GP for reasons associated with their drug use. Indeed, with the exception of psychiatrists, specialist doctors, cancer specialists and dentists, it was apparent that for all services at least half if not all respondents accessing them were doing so for reasons associated with their drug use. A breakdown of these findings is shown in Table 17.

Table 17: Health services accessed by WA PWID in 2012

Service	Number of PWID	Mean number of days (range)	Number of PWID accessing service due to drug use	Mean days related to drug use (range)
GP	64	3 (1-16)	37	2 (1-16)
Emergency department	4	1 (1-1)	3	0.75 (0-1)
Hospital as an inpatient	5	4 (1-16)	3	3.6 (0-16)
Pain specialist	6	1 (1-1)	3	0.5 (0-1)
Cancer specialist	0	-	0	-
Opioid substitution doctor	16	2 (1-16)	16	2 (1-16)
Drug and alcohol counsellor	9	2 (1-4)	9	2 (1-4)
Hospital as an outpatient	3	2 (1-4)	2	2 (1-4)
Specialist doctor	5	1 (1-1)	1	1 (1-1)
Dentist	13	2 (1-10)	8	0.77 (1-2)
Other health professionals	5	5 (1-16)	3	4 (1-16)
Attended by an ambulance	2	1 (1-1)	1	0.5 (1-1)
Psychiatrist	4	1 (1-1)	0	-
Psychologist	6	4 (1-14)	3	3 (1-14)
Social or welfare worker	13	2 (1-4)	7	1 (1-4)
Any other doctors	6	3 (1-8)	3	1(1-4)

Source: WA user interviews

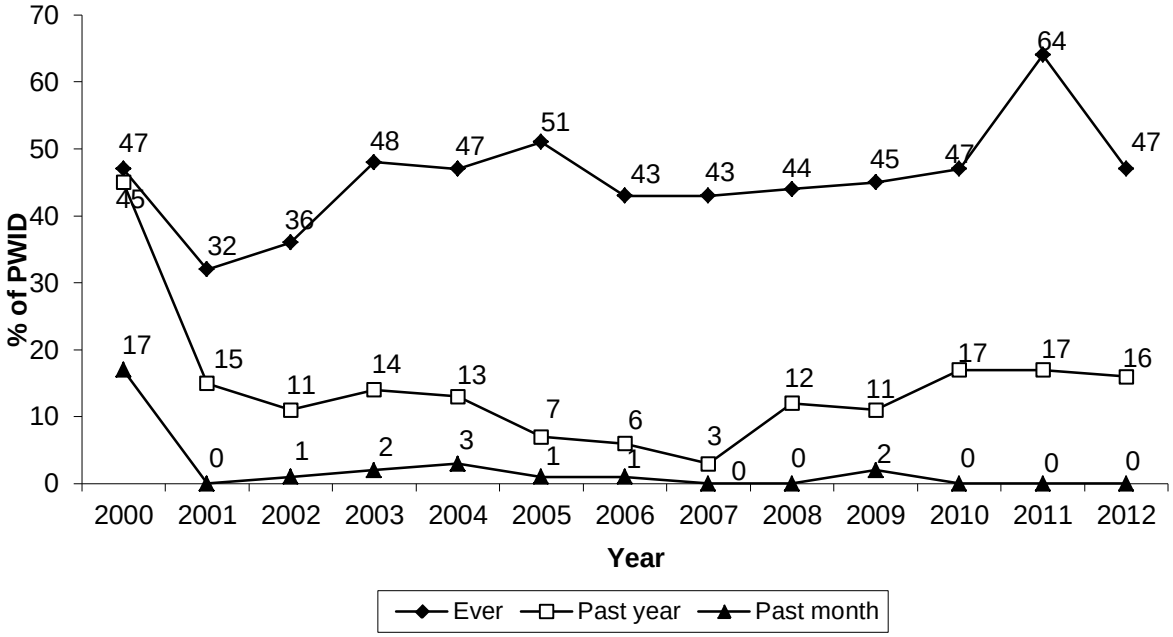
10.2 Overdose and drug-related fatalities

10.2.1 Heroin and other opioids

10.1.1.1 Non-fatal overdose

The IDRS participants were asked how many times they had overdosed on heroin and the length of time since their last heroin overdose. A lifetime history of heroin overdose was reported by 47% of PWID in 2012 which was significantly less than 64% of PWID in 2011 (95% CI, -0.15 - -0.44). The median number of times respondents reported ever overdosing on heroin was three times (range 1-20). Time since the most recent heroin overdose ranged from two months up to 30 years. There were 16% of respondents who had overdosed within the previous twelve months which was not significantly less than the 17% in 2011. Overdose data since 2000 is displayed in Figure 31.

Figure 31: Proportion of WA participants who had ever overdosed, overdosed in the past 12 months and in the past month on heroin, 2000-2011

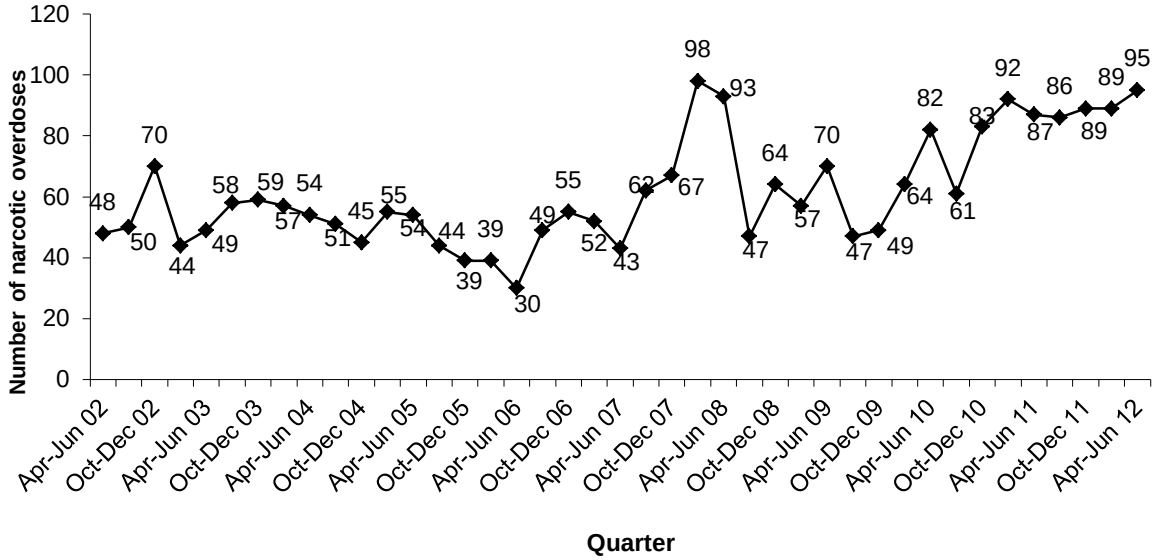


Source: IDRS user interviews

Of the 43 PWID who responded, 42% (n=18) reported having been administered naloxone in response to their most recent heroin overdose.

Figure 32 presents the number of narcotic overdoses attended by St John Ambulance by quarter from April 2002 to June 2012. There were 359 overdoses attributed to narcotic drugs attended by ambulance during the 2011/2012 period compared to 323 in the previous financial year. In the second quarter (April-June) of 2012, there were 95 ambulance callouts which was the highest recorded since the first quarter of 2008.

Figure 32: Number of ambulance callouts to narcotic overdoses, WA, 2nd quarter 2002-2nd quarter 2012



Source: St John Ambulance, WA
Note: Due to missing data for September 2005, that month was allocated a data value equal to the average for the third quarter 2005.

Fatal opioid overdose
Data from NDARC reveals that in 2008 there were 64 fatal overdoses attributable to opioid overdose among persons aged 15-54 in WA. This was the highest figure seen since 72 in 2000. In terms of rates per million, this equates to 51.5 deaths, compared to the 2008 national rate of 41.5.

10.2.2 Other drugs

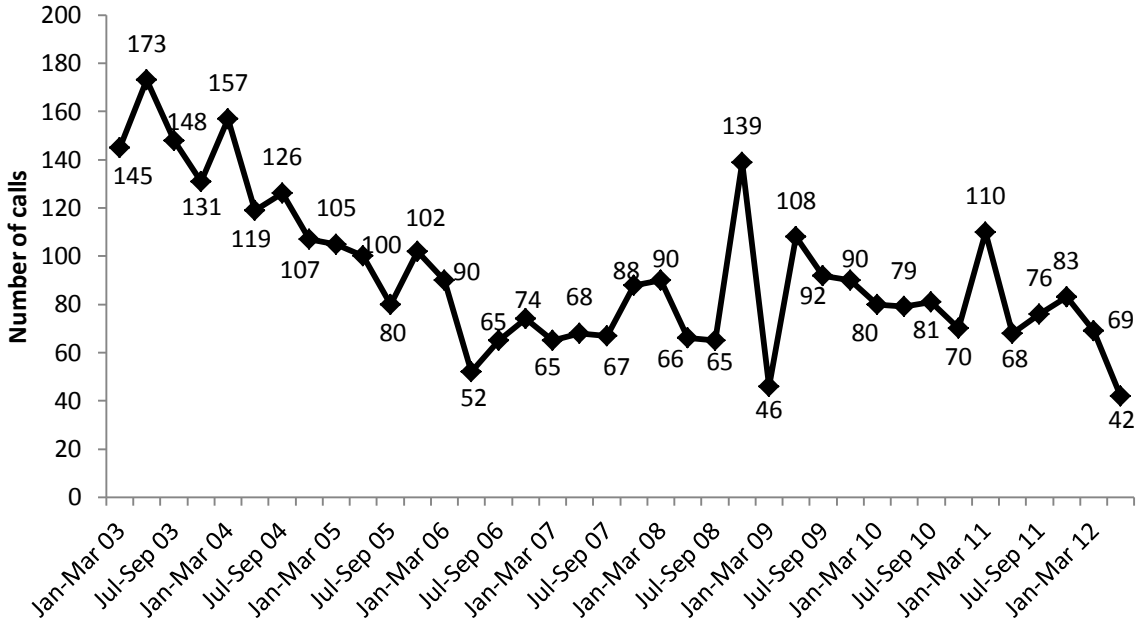
10.1.2.1 Non-fatal overdose
In addition to heroin overdose, participants were asked whether they considered themselves to have ever accidentally overdosed on any other drug(s). A lifetime history of overdose on any other drug was reported by 24% of PWID in 2012 which was comparable to 23% in 2011. Time since the last overdose ranged from two months to 37 years. There were only seven respondents who reported a non-heroin related overdose in the last 12 months. Three of these overdoses were associated with crystal methamphetamine and the remainder with ecstasy, alcohol, oxycodone and other opioids.

Several KE noted that non-fatal overdose was becoming an issue, especially with other drugs like benzodiazepines in concurrent use with opiates. One in particular noted that, as it has been some time since high purity heroin was seen in Perth there was now little knowledge about how to respond to an opiate-related overdose and there was an urgent need to address this.

10.3 Calls to telephone help lines

Figure 33 presents the number of telephone calls to WA ADIS regarding heroin for each quarter from January 2003 to June 2012. It is evident that the number of calls to the service concerning heroin as the primary drug of concern have generally continued to decrease over the past decade. In the financial year 2011/12 there were 270 calls with heroin as the primary drug of concern compared with 329 in the corresponding previous period. The 42 heroin related calls in the second quarter of 2012 represented the lowest number since the IDRS commenced in WA.

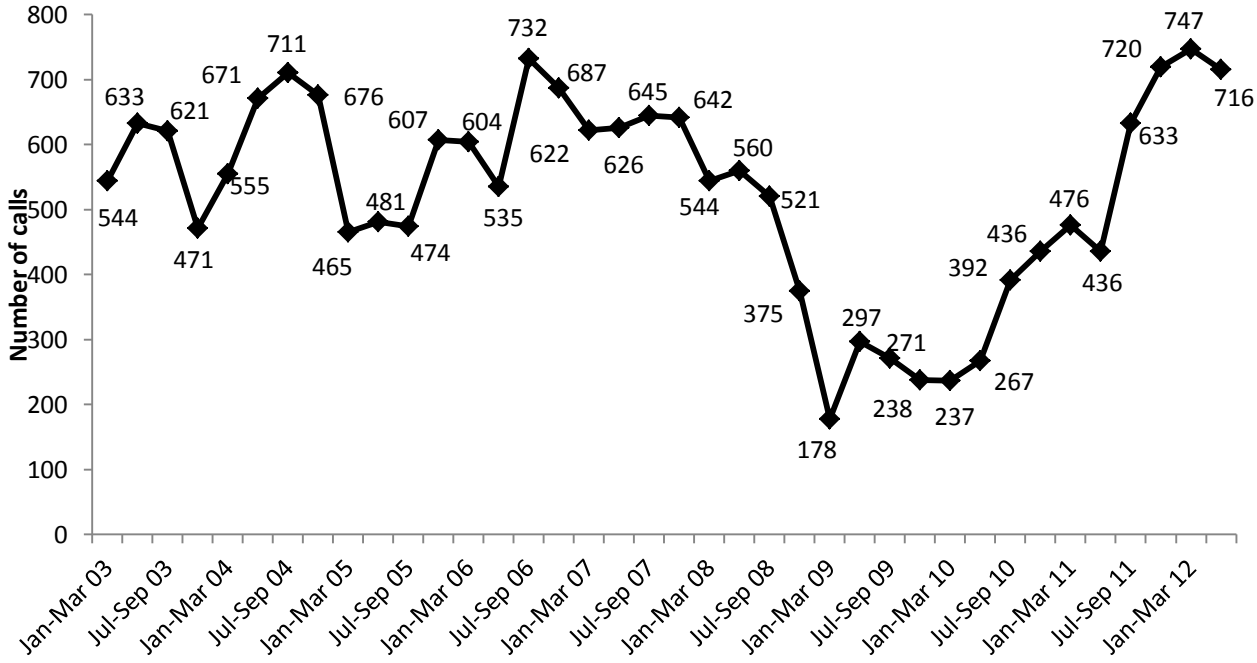
Figure 33: Number of enquiries to ADIS regarding heroin, Jan 2003-Jun 2012



Source: ADIS

Figure 34 presents the number of telephone calls to WA ADIS enquiring about amphetamines for each quarter from January 2003 to June 2012. It is evident that the number of calls regarding amphetamines has increased substantially since the second quarter of 2011. In the last financial year there were 2,816 calls with amphetamines as the primary drug of concern compared to 1,740 in the previous year.

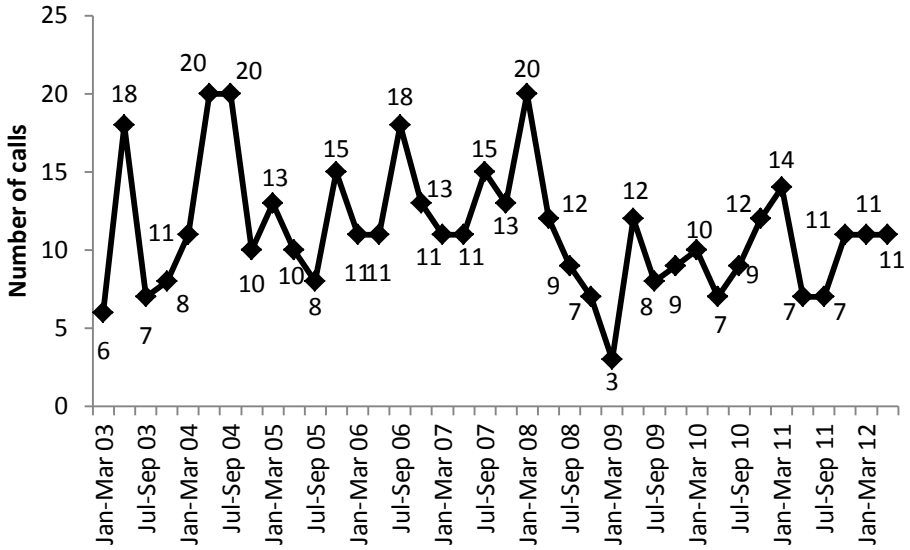
Figure 34: Number of enquiries to ADIS regarding amphetamines, Jan 2003-Jun 2012



Source: ADIS

Calls to WA ADIS concerning the use of cocaine for each quarter from January 2003 to June 2012 are shown in Figure 35. While there has been fluctuation in cocaine-related calls, the numbers remain low. During the last financial year there were 40 calls to ADIS with cocaine as the primary drug of concern compared with 42 in the previous corresponding period.

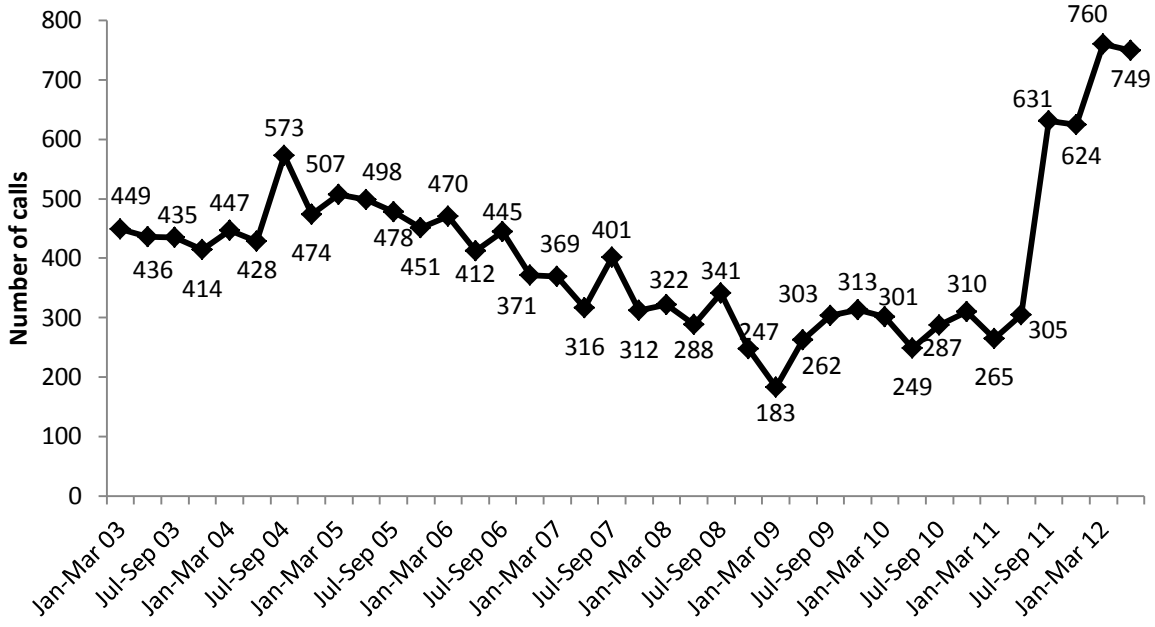
Figure 35: Number of enquiries to ADIS regarding cocaine, Jan 2003-Jul 2012



Source: ADIS

Figure 36 presents the number of cannabis-related calls received by ADIS for each quarter from January 2003 to June 2012. During the 2011/12 financial year there was a substantial increase in calls to ADIS with cannabis as the primary drug of concern. In that year there were 2,764 calls compared to just 1,167 in the corresponding period the previous year. This, however, is likely not to be a reflection of a new trend, but rather of ADIS changing the methods of recording this data which since the last financial year has also included booking calls to the Cannabis Intervention Requirement Scheme (CIRS) which in 2012 accounted for 1,315 booking calls.

Figure 36: Number of enquiries to ADIS regarding cannabis, Jan 2003-Jun 2012



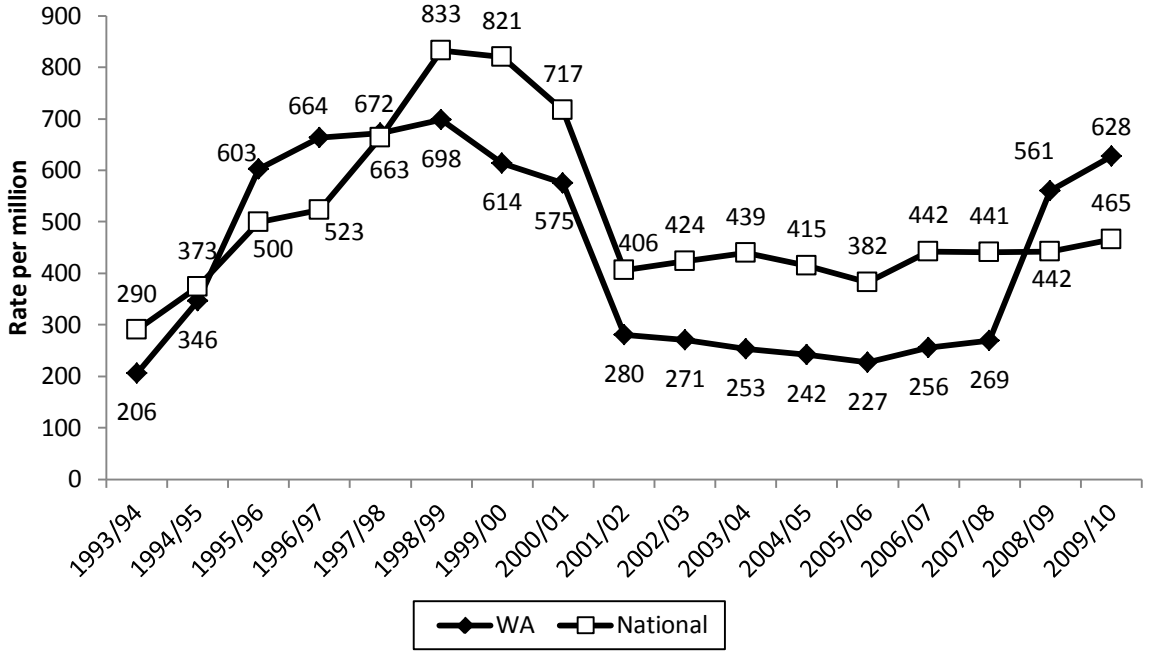
Source: ADIS

10.4 Hospital admissions

10.4.1 Opioids

The rate per million persons aged 15-54 years of hospital admissions in which the principal diagnosis was opioid related is shown in Figure 37. A principal diagnosis that is opioid-related is recorded where opioids are established (after discharge) to be chiefly responsible for occasioning the person's episode of care. Numbers of opioid-related hospital admissions in WA have continued to increase with 829 in 2009/10 compared with 723 in the previous period. WA rates per million in 2009/10 were 627.51 compared to a national rate of 465.45.

Figure 37: Rate per million persons of principal opioid-related hospital admissions among people aged 15-54 years, WA and nationally, 1993/94- 2009/10

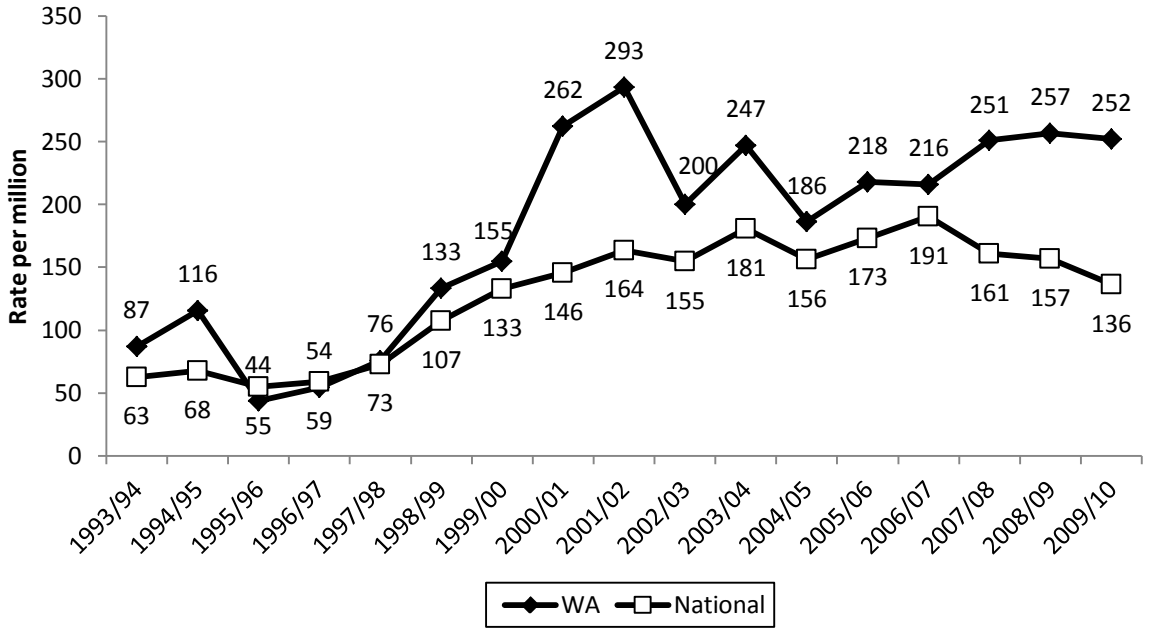


Source: AIHW, 2011b

10.4.2 Amphetamines

The rate per million persons aged 15-54 years of hospital admissions in which the principal diagnosis was amphetamine related is shown in Figure 38. Numbers of amphetamine-related hospital admissions in WA remained relatively unchanged from 331 in 2008/09 to 333 in 2009/10. Compared to the national rate of 136.41 per million, WA continued to exhibit much higher rates at 252.06 per million in 2009/10.

Figure 38: Rate per million persons of principal amphetamine-related hospital admissions among people aged 15-54 years, WA and nationally, 1993/94-2009/10

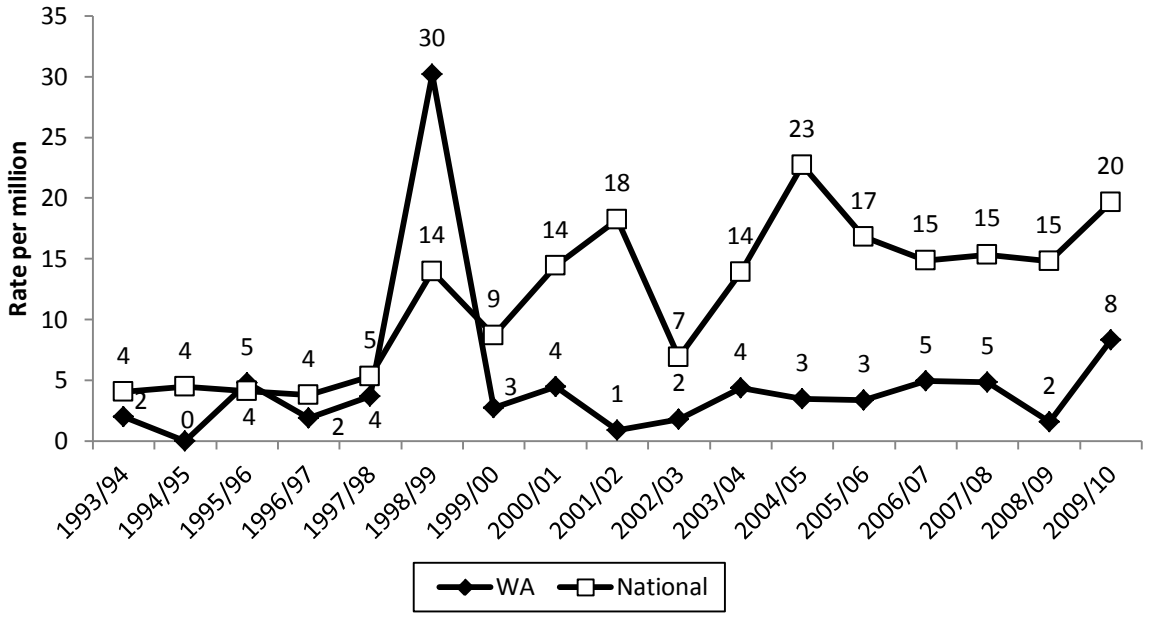


Source: AIHW, 2011b

10.4.3 Cocaine

The rate per million persons aged 15-54 years of hospital admissions in which the principle diagnosis was cocaine-related is shown in Figure 39. WA rates have been consistently low since 1998/99 when the rate peaked at 30. National rates have fluctuated across time and have been consistently higher than WA rates, with the exception of the WA peak in 1998/99. In 2009/10 there were 11 cocaine related hospital admissions in WA and a rate of 8.33 per million compared with the national rate of 19.63 per million.

Figure 39: Rate per million persons of principal cocaine-related hospital admissions among people aged 15-54 years, WA and nationally, 1993/94-2009/10

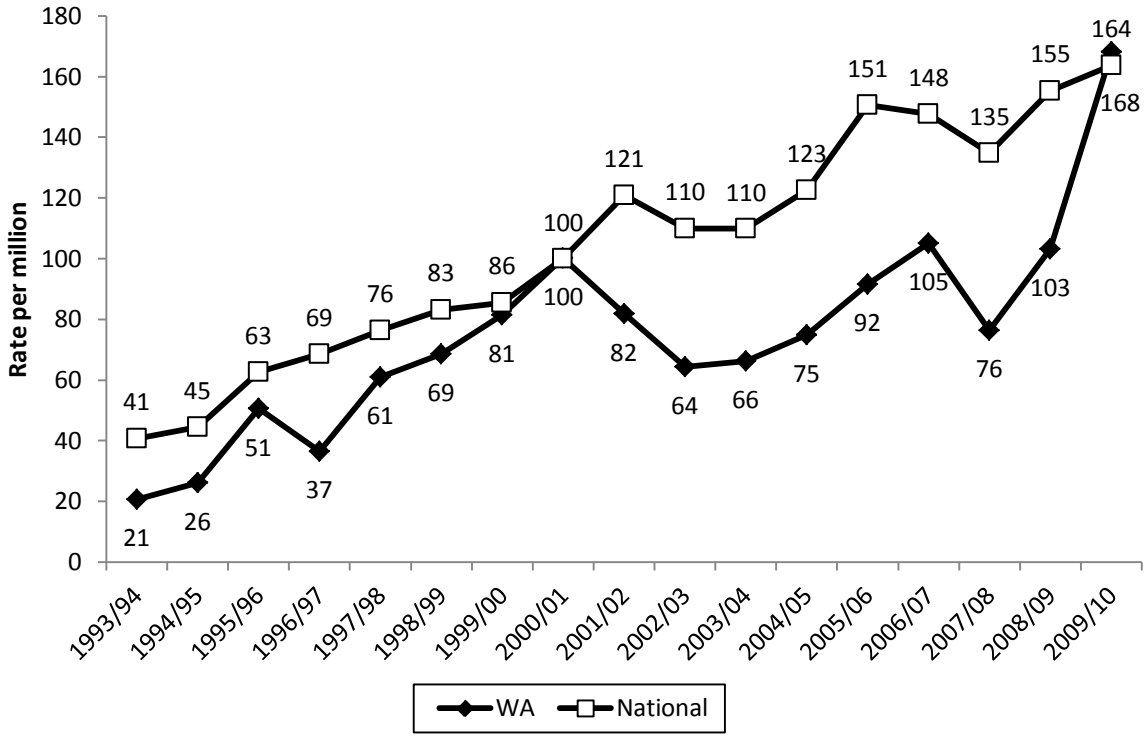


Source: AIHW, 2011b

10.4.4 Cannabis

The rate per million persons aged 15-54 years of hospital admissions in which the principal diagnosis was cannabis related is shown in Figure 40. Numbers of cannabis-related hospital admissions rose substantially from 133 in 2008/09 to 222 in 2009/10. Reasons behind this sudden increase are unclear. In terms of rates per million, WA hospital admissions for cannabis rose to 168.04 per million, narrowly exceeding the national rate of 163.71 per million.

Figure 40: Rate per million persons of principal cannabis-related hospital admissions among people aged 15-54 years, WA and nationally, 1993/94 -2009/10



Source: AIHW, 2011b

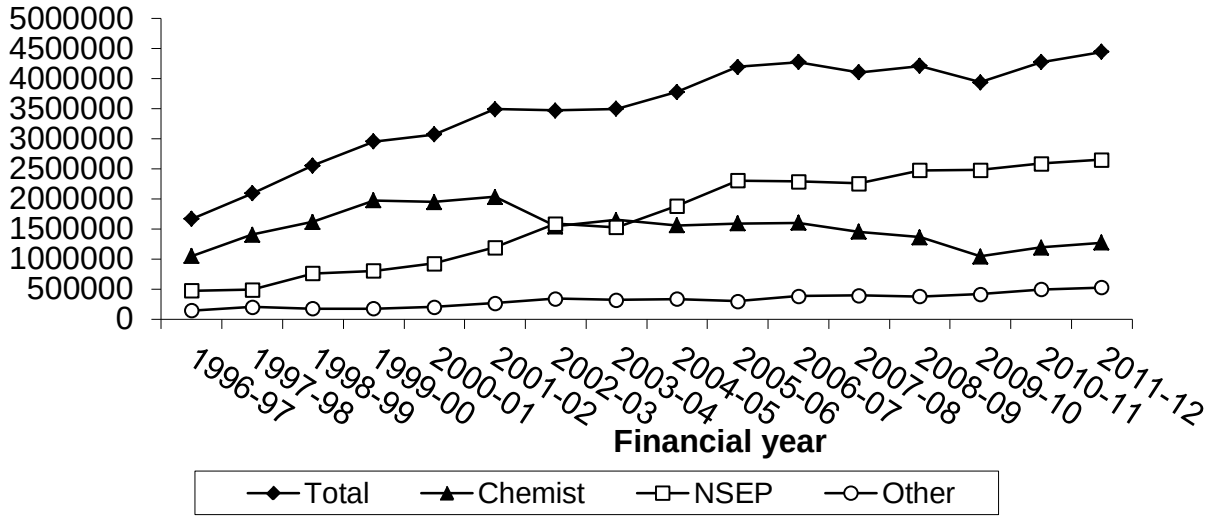
10.5 Injecting risk behaviours

10.5.1 Access to needles and syringes

IDRS participants were asked to report on the frequency of injecting and frequency of obtaining needles and syringes over the month preceding interview. Of the 94 PWID responding, number of injections in the last month ranged from zero to 180 with a median of 30. The number of times in the last month respondents went to obtain new needles and syringes ranged from zero to 30 with a median of two times. The actual number of needles and syringes acquired ranged from zero to 6,000 with a median of 100. Asked how many needles and syringes they had sold or given away in the last month saw a range from zero to 4,500 with a median of 20. Just 11% (n=10) reported experiencing any difficulty accessing needles and syringes in the past month.

Figures from the Sexual Health Branch of the HDWA show that 4,447,483 syringes were distributed in WA during the 2011/12 financial year compared to 4,274,095 in the 2010/11 period. As has been the case since 2003/04, the bulk of these were distributed via NSP, accounting for more than half of all syringes in 2011/12 with 2,650,957 units. Less common sources of syringes were chemists distributing 1,270,829 and other sources such as hospitals and vending machines accounting for 525,697. Data concerning syringe distribution in WA since 1996/97 is portrayed in Figure 41.

Figure 41: Number of syringes by source in WA 1996/1997-2011/12



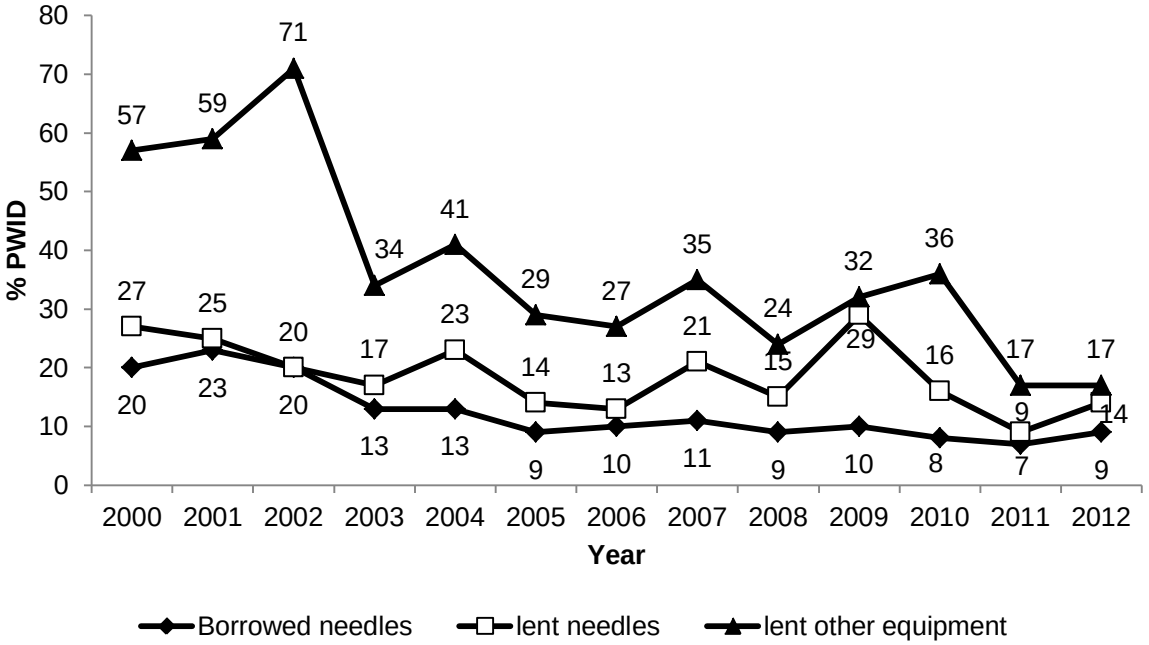
Source: Sexual Health Branch, HDWA

10.5.2 Sharing of needles and equipment by PWID participants

With regard to sharing needles, the vast majority (91%) reported that they had not used a needle after someone else in the last month. Of those that did report using a needle after someone else (n=9), five respondents reported using a needle once, two respondents reported using a needle two times after someone else, one participant reported three to five times after someone else and one participant reported doing so more than 10 times in the last month. Of those who reported using a needle after someone else, eight reported only one person had used the needle before them and one reported that two people had used the needle before them. Reporting the use of other equipment after someone else was reported by 17% of respondents. There were 14 respondents who reported that someone else had used a needle after them in the last month. That this had happened once was reported by four respondents, twice by two, three to five times by four, six to ten times by two and two respondents said it had happened on more than 10 occasions.

Figure 42 presents the proportion of PWID across IDRS surveys that reported sharing needles and injecting equipment in the month before interview. The proportion reporting borrowing a needle since 2005 has remained relatively stable. The practice of lending needles to others has declined since 2009 and has not significantly changed since 2011. Similarly, the sharing of other injecting equipment has substantially declined since 2010 and remained stable over the previous year.

Figure 42: Proportion of PWID reporting sharing injecting equipment in the month preceding interview, 2000-2012



Source: IDRS user interviews

Asked if they had reused their own needles in the last month, 54% (n=51) of those responding indicated that they had not. Having done so once was reported by 10% (n=9), twice by 11% (n=10), three to five times by 16% (n=15), six to ten times by 5% (n=5) and 5% (n=5) reported having reused their own needles more than 10 times.

10.5.3 Blood-borne viral infections

People who inject drugs are at significantly greater risk of acquiring hepatitis B virus (HBV), hepatitis C virus (HCV)[1] and human immunodeficiency virus (HIV), as BBVI can be transmitted via the sharing of needles, syringes and equipment.

Having ever been tested for blood-borne viral infections was reported by the vast majority of respondents in the 2012 PWID sample. Having ever been tested for HBV was reported by 98% (n=91), for HCV by 99% (n=92) and for HIV/AIDS by 97% (n=90). Asked if they had been tested in the last 12 months, 64% (n=58) had been tested for HBV, 67% (n=61) for HCV and 67% (n=60) for HIV/AIDS. Asked if they had been tested in the last three months, 30% (n=27) had been tested for HBV, 32% (n=29) for HCV and 32% (n=28) for HIV/AIDS.

Asked about the results of their most recent test, 11% (n=10) of those responding had tested positive for HBV, 52% (n=48) had tested positive for HCV and just one individual had tested positive for HIV/AIDS.

With regards to HBV vaccination, 65% (n=60) of those responding indicated that they had been and, of these, 83% (n=50) reported having completed the vaccination schedule (i.e. three injections). The most common reason given for undergoing vaccination was a

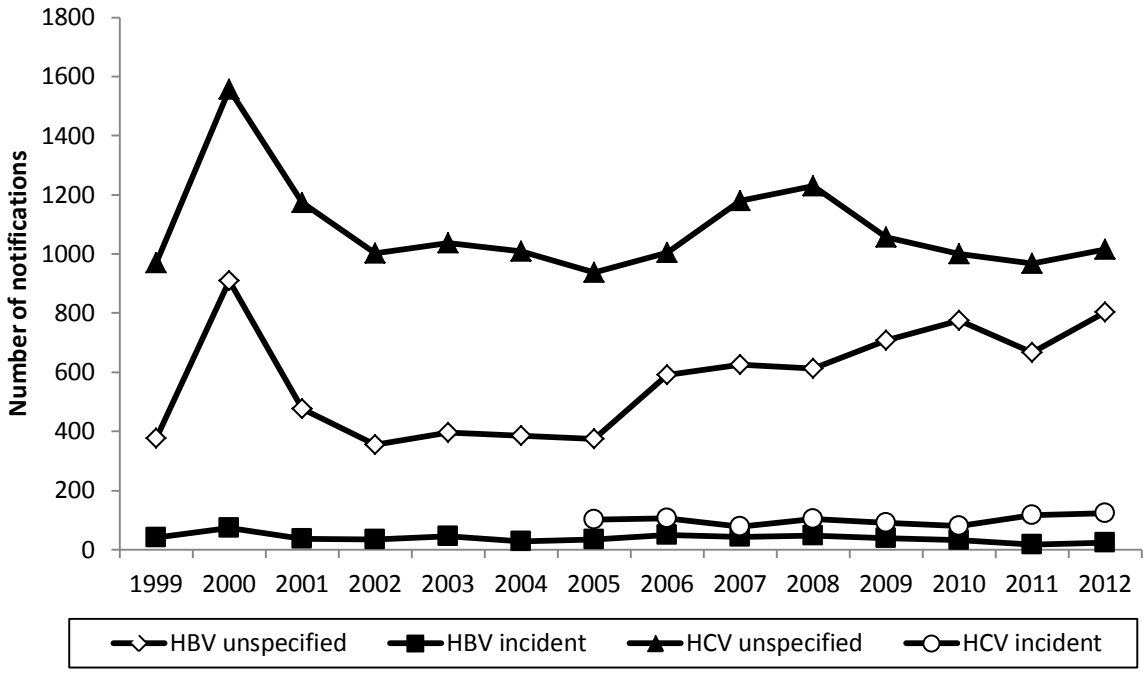
[1] HCV antibody testing has only been available since 1990.

perception that they were at risk of infection due to injecting drug use (41%, n=20). There were also 20% (n=10) who were vaccinated in the course of their employment, 10% (n=5) who had been vaccinated on entry to prison and 6% (n=3) who had been vaccinated as a child. A wide range of other answers were provided by individual respondents.

Having ever been treated for HBV was reported by 8% (n=7) of those responding. There were also 14% (n=13) who had ever been treated for HCV and of these, 46% (n=6) were still in treatment at the time of interview.

Figure 43 presents data from the National Notifiable Diseases Surveillance System (NNDSS) for cases of unspecified and incident HBV and HCV for WA from 1999 to 2012. Incident or newly acquired infections, and unspecified infections (i.e. where the timing of the disease acquisition is unknown) are presented. Notifications of unspecified HBV increased from 666 to 804 in 2012. Similarly, there was an increase in notifications of unspecified cases of HCV from 967 to 1,016. Incident notifications of both viruses remained low and relatively stable with 23 incident cases of HBV and 123 of HCV.

Figure 43: Total notifications for unspecified and incident HBV and HCV infection, WA, 1999-2012



Source: Communicable Diseases Network – Australia – NNDSS[2]
Note: Data for HCV incident for WA was not available prior to 2005

[2] 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 represent only a proportion of the total number of cases that occur, and this proportion may vary between diseases, between jurisdictions, and over time.

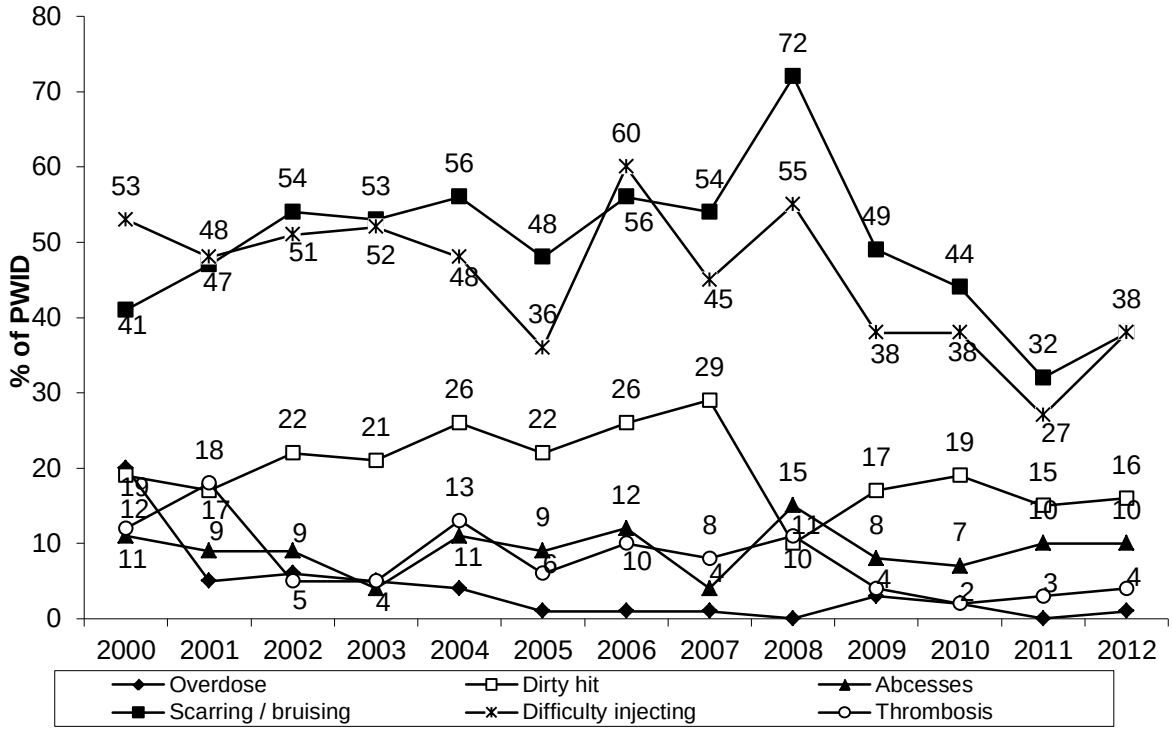
10.5.4 Injection-related health problems

Respondents were asked about the injection site used at the last occasion of injecting. By far the most commonly reported site was the arm, reported by 73% (n=68) of those responding. Other reported sites included the hand or wrist (10%, n=9), the neck (7%, n=6), the foot (4%, n=4), the leg (3%, n=3), the groin (2%, n=2) and the throat (1%, n=1).

Asked where they had been at the time of last injection, the most commonly reported location was a private home given by 79% (n=74) of those responding. Other commonly reported locations were in a car (9%, n=8), in a street or park (5%, n=5) and in a public toilet (4%, n=4).

Participants were asked about injection-related health problems they experienced in the month prior to interview. In 2012, just one reported a heroin-related overdose in the month prior to interview compared with none the previous year. Sixteen per cent of the 2012 sample reported experiencing a dirty hit, which was not significantly different to the 15% in 2011. The drug most commonly implicated in a dirty hit was oxycodone, reported by 42% (n=5). Other drugs mentioned in this context were methadone (25%, n=3), heroin (17%, n=2), methamphetamine (8%, n=1) and morphine (8%, n=1). It should be noted, however, that this is not solely a reflection of these drugs' potential to result in a dirty hit, but also of the frequency with which they are consumed by the 2012 PWID sample. The most commonly reported injection problems were prominent scarring/bruising and difficulty injecting, both reported by 38% (n=27) in 2012. Smaller numbers reported abscesses or infections from injecting (10%, n=7) and thrombosis or blood clots (4%, n=3). The relative incidence of these injection-related problems since 2000 is presented in Figure 44.

Figure 44: Proportion of PWID reporting injection-related problems in past month, by problem type, 2000-2012



Source: IDRS user interviews

10.6 Mental and physical health problems and psychological distress

10.6.1 Self-reported mental health problems

In 2012, 42% of PWID reported experiencing a mental health problem in the last six months, which was not significantly different to the 44% in 2011. As in previous years, the most commonly reported mental health problems were depression, reported by 26% of respondents, followed by anxiety, reported by 20%. Other self-reported problems included bipolar disorder (8%), post-traumatic stress disorder (7%), panic (3%), schizophrenia (3%), personality disorders (3%), paranoia (2%) and obsessive compulsive disorder (2%).

Of those reporting a mental health problem, 62% (n=26) reported attending a professional in relation to the problem. These health professionals were most commonly a general practioner (62%, n=16), a psychologist (39%, n=10) or a psychiatrist (31%, n=8).

10.6.2 The K10 psychological distress scale

The Kessler Psychological Distress Scale or K10 (Kessler & Mroczek, 1994) was designed as a screening tool for assessing psychological distress. It is comprised of 10 items measuring the level of anxiety and depressive symptoms a person may have experienced during the previous four weeks. A five-point Likert scale is used to measure responses from all of the time to none of the time with a maximum possible score of 50. The K10 can be scored according to four distress categories: low=10-15, moderate=16-21, high=22-29, and very high=30-50. The K10 has been shown to have sound psychometric properties and demonstrated validity in identifying anxiety and affective disorders, as assessed by the Composite International Diagnostic Interview or CIDI (Andrews & Slade, 2001).

In 2012, 83 participants completed the K10 and scores are presented by risk category. The median total score in 2012 was 20 (range=8-50). In 2012, 23% (n=19) scored at low risk, 30% (n=25) scored at moderate risk, 24% (n=20) scored at high risk and 23% (n=19) scored at very high risk.

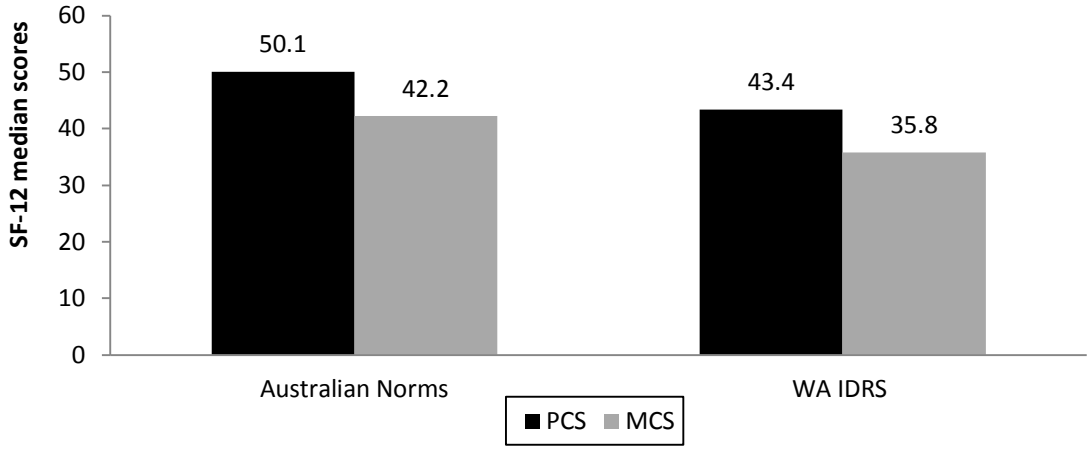
One KE observed that more people were presenting with multiple/complex MH issues, but, while not meeting criteria for involuntary treatment, were nevertheless unwell and not functional either. Greater clinical hours and working with other services were required to assist them adequately. Another suggested that up to 90% of their client load may have had mental health issues at some point, primarily anxiety and depression.

10.6.3 Mental and physical health problems

The Short Form 12-Item Health Survey (SF-12) is a questionnaire designed to provide information on general health and wellbeing and includes 12 questions from the SF-36. The SF-12 was administered for the first time in the IDRS in 2011. The SF-12 includes 12 questions and 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, Ware et al.,1996). A higher score indicates better health.

The SF-12 scoring system was developed to yield a median of 50 and a standard deviation of 10. Participants in the 2012 WA IDRS scored a median of 35.8 (SD=11.4) for the MCS and 43.4 (SD=11.3) for the PCS (Figure 49).

Figure 45: SF-12 scores for WA IDRS participants compared with the general Australian population (ABS), 2012



Source: WA user participant interviews, (Australian Bureau of Statistics, 1995)

Table 18 presents the MCS and PCS for participants interviewed in the IDRS compared with those of the general Australian population[3] from the National Health Survey (Australian Bureau of Statistics, 1995). It appears that WA IDRS participants in 2012 had a significantly lower MCS compared with the Australian population average (35.8% versus 49.8%) (t=-8.426, df=57, p=.000). It was also found that IDRS participants reported a significantly lower PCS score than the Australian population (43.4% versus 50.1%) (t=-5.225, df=57, p=.000). This would indicate that IDRS participants had poorer mental and physical health than the population average.

Table 18: SF-12 Mental and Physical Health Mean Component Scores, WA IDRS, 2012

SF-12 Component scores	SF-36 Australian Population Norms (ABS)	SF-12 Australian Population Norms (ABS)	WA n=23
MCS	49.8	53.70	35.8
PCS	50.1	52.22	43.4

Source: IDRS participant interviews, Australian Bureau of Statistics, 1995-1997

10.7 Driving risk behaviour

10.7.1 Driving and alcohol

In 2012, 51% of the sample reported driving a vehicle in the six months prior to interview. Of these, 22% (n=11) had no current license. Driving while under the influence of alcohol in that time was reported by 12% (n=6), which was not significantly different from the 13% who had done so the previous year. Of these six, 67% (n=4) reported that they had driven while over

[3] The SF-12 scores were transformed into SF-36 scores using weighted syntax to make them comparable with the general Australian population scores.

the limit which was comparable to three respondents in 2011. The number of times they had done this ranged from one to five.

10.7.2 Driving and illicit drugs

In 2012, 86% (n=43) of those who had driven in the past six months reported driving after consuming illicit drugs which was not significantly different from the 76% in 2011. The median number of times they had done so was 11 (range=1-180). Participants were asked how many minutes after consuming drugs they had driven on the last occasion, with a median of 18 minutes (range=1-180 minutes).

Asked if they believed consuming drugs had affected their driving ability, 49% (n=21) believed it had had no impact. That they had been 'slightly impaired' was believed by 35% (n=15) and 'quite impaired' by 5% (n=2). There were also 12% (n=5) who thought their driving was actually 'slightly improved'.

Just seven respondents reported having ever been drug tested between one month and five years ago with a six month median. Just three respondents reported a positive result at their last occasion of roadside drug testing.

11. LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH DRUG USE

11.1 Reports of criminal activity among PWID participants

11.1.1 Criminal activity

In 2012, 25% of respondents reported that they had been arrested in the past 12 months which was not significantly different from the 22% in the previous year. Respondents were asked about the types and frequency of crimes they had been involved in in the month prior to the survey. Involvement in any form of criminal activity was reported by 47% which was significantly higher than the 30% reported in 2011 (95% CI, 0.31-0.02). Involvement in dealing drugs was once again the most common class of crime reported by 31%. Involvement in property crime was reported by 16%, fraud by 4% and violent crime by 5%. None of these crime categories were significantly more common than in 2011 (Table 19).

Table 19: Criminal activity as reported by PWID participants, 2011-2012

Criminal activity (%)	2011 N=70	2012 N=100
Criminal activity in last month:		
Dealing	22	31
Property crime	18	16
Fraud	2	4
Violent crime	5	5
Any crime	30	47
Arrested in last 12 months	22	25

Source: IDRS user interviews

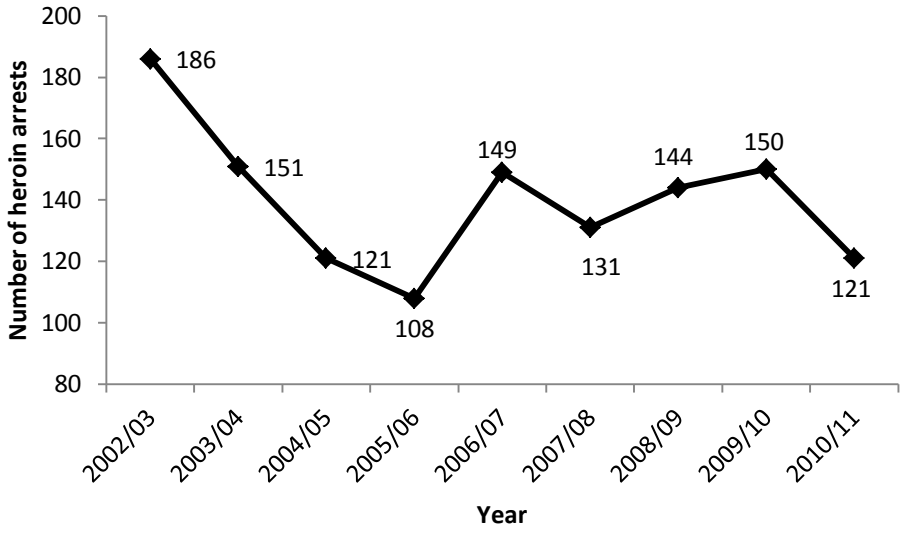
Frequency of criminal acts was analysed by computing a crime total which at a mean score of 1.28 was not significantly different from the 2012 mean of 0.96, indicating that there has not been any significant increase in the frequency of criminal activity by participants in the PWID survey since 2011.

11.2 Arrests

11.2.1 Heroin

The number of heroin arrests made in WA by WAPS and AFP from 2002/03 to 20010/11 is shown in Figure 45. There were a total of 121 heroin-related arrests in WA in 2010/11, which was the lowest level since 2005/06. These included 84 consumer arrests and 37 provider arrests.

Figure 46: Number of heroin consumer/provider arrests, WA, 2002/03-2010/11

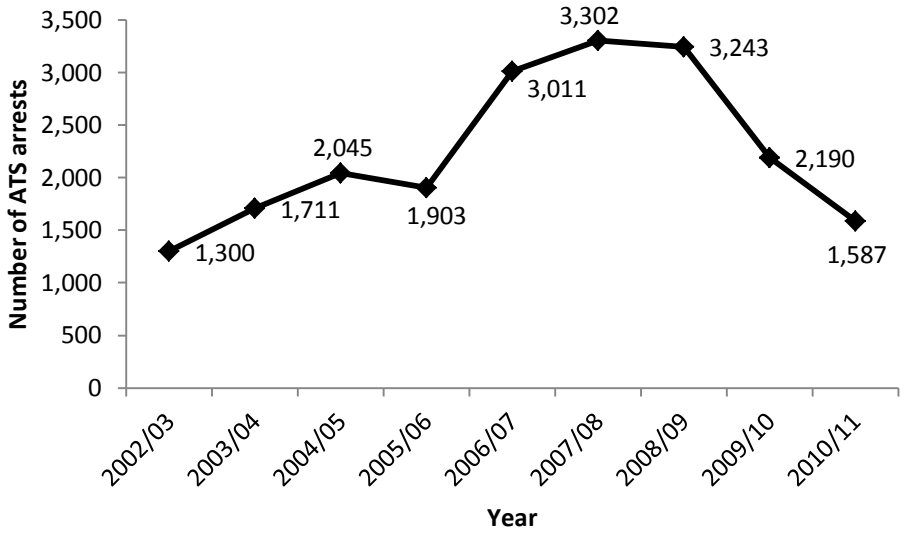


Source: **ACC**

11.2.2 ATS

The number of ATS arrests made in WA by WAPS and AFP from 2002/03 to 2010/11 is shown in Figure 46. It is evident that the number of ATS arrests have continued to decrease from 3,243 in 2008/09 to 1,587 in 2010/11, the lowest recorded since 2002/03. These arrests included 1,130 consumer arrests and 457 provider arrests.

Figure 47: Total (consumer and provider) number of ATS arrests, WA, 2002/03-2010/11



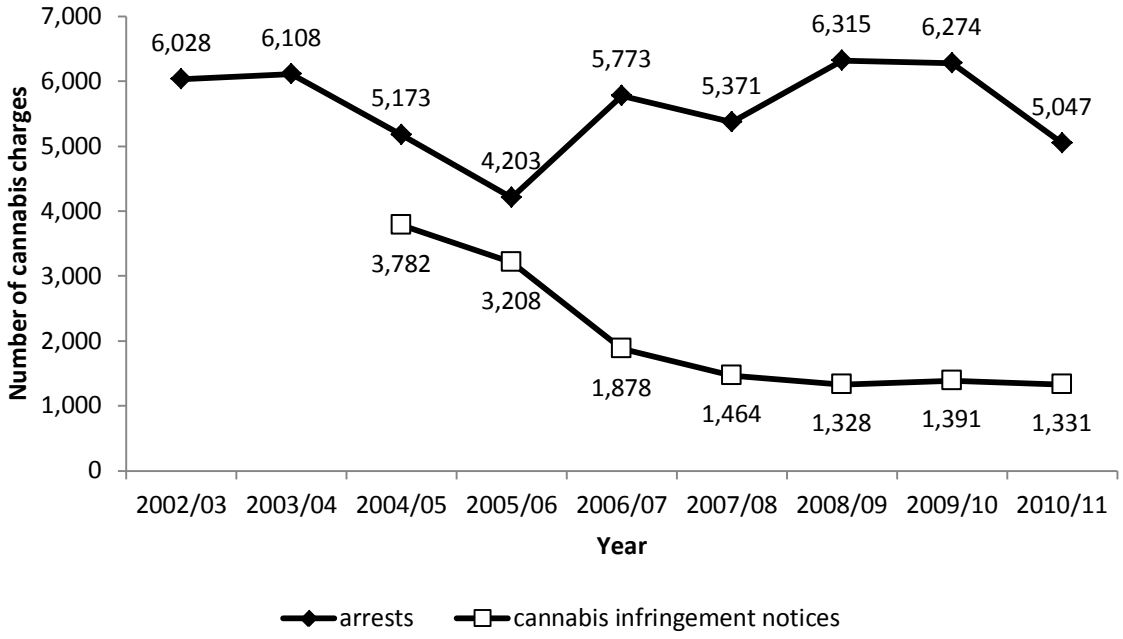
Source: **ACC**

One KE suggested that there had been a number of anecdotal injuries resulting from explosions in illicit drug laboratories, but that these did not tend to be reported.

11.2.3 Cannabis

The number of cannabis arrests made in WA by WAPS and AFP from 2002/03 to 2010/11 is shown in Figure 47. Cannabis arrests have decreased since 6,315 in 2008/09 to 5,047 in 2010/11 which was the lowest number recorded since 2005/06. These arrests included 4,434 consumer arrests and 613 provider arrests. Cannabis infringement notices were introduced in March 2004 after the passage of the *Cannabis Control Act 2003* (WA), but their use has continued to decrease over time and they have effectively not been used since the election of the Barnett Liberal government in October 2008, which eventually repealed the Act in 2010.

Figure 48: Number of cannabis consumer/provider arrests, WA, 2002/03-2010/11

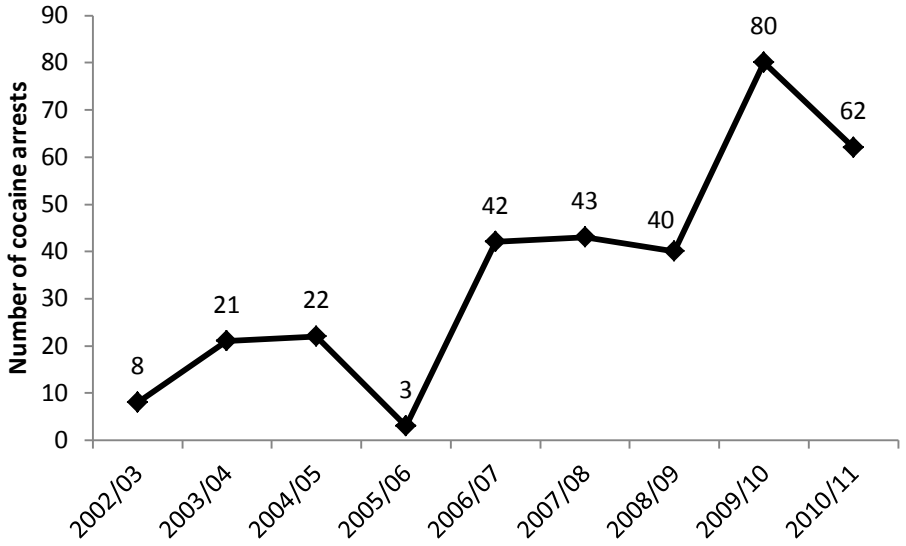


Source: **ACC**

11.2.4 Cocaine

The number of cocaine arrests made in WA by WAPS and AFP from 2002/03 to 2010/11 is shown in Figure 48. In 2010/11, the number of cocaine arrests fell from 80 to 62. However, this remains substantially higher than the number of arrests recorded prior to 2009/10. These arrests included 31 consumer arrests and 31 provider arrests.

Figure 49: Number of cocaine consumer/provider arrests, WA, 2002/03-2010/11



Source: **ACC**

12. SPECIAL TOPICS OF INTEREST

12.1 Fagerstrom test for nicotine dependence

As in 2011, Respondents in the 2012 user interviews who smoked on a daily basis were again screened using the Fagerstrom test for nicotine dependence. There were 97 respondents who answered the Fagerstrom nicotine test. Of these, 24% (n=23) had no nicotine dependence, 6% (n=6) had low dependence, 9% (n=9) had low to moderate dependence, 9% (n=9) had a moderate level of dependence and 52% (N=50) were heavily dependent upon nicotine.

12.2 Pharmaceutical opioids

The consumption of any pharmaceutical opioid in the six months prior to the survey was reported by 80% (n=78) of the WA user sample. The most commonly reported pharmaceutical opioids of choice were oxycodone (34%, n=26), followed by MS Contin (25%, n=19) and methadone syrup by 12% (n=9), and a wide range of miscellaneous preparations.

The most common reasons given for using pharmaceutical opioids were 'to treat self-dependence' (42%, n=33), 'seeking an opiate effect' (35%, n=27), 'pain relief' (33%, n=26), 'can't score heroin' (22%, n=17), 'cheaper than heroin' (18%, n=14), and 'knowing what dose to expect' (10%, n=8).

Asked if they had ever been prescribed pharmaceutical opioids for pain relief revealed that 40% (n=17) had been. There were also 23% (n=18) who indicated that they had been refused a script for pain relief. Asked how much pain relief had been experienced as a result of this script, just 16% (n=3) reported complete relief while 53% (n=10) reported receiving from none to moderate (50%) relief. Having ever sold, traded or given away their pharmaceutical opiate script was reported by 21% (n=16).

Asked if they had ever sought information regarding the filtering of these preparations for injection, 55% (n=39) indicated that they had not. A further 34% (n=24) had obtained this information from a needle and syringe program, while the remainder had obtained information from a peer-run user group or from friends.

12.3 Brief Pain Inventory

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

The BPI is a tool used for the assessment of pain in both clinical and research settings. The BPI uses rating scales from 0 to10. For questions 3 to 6, 0 is 'no pain' and 10 is 'pain as bad as you can imagine'. The mean of questions 3 to 6 is then calculated to make the 'pain severity score'. For questions 9A to 9G, 0 is 'Does not Interfere' and 10 is 'Completely

Interferes'. The mean of questions 9A to 9G is then calculated to make the 'pain interference score'. The 'pain interference score' looks at how much pain interferes with daily activities: general activity, mood, walking, normal work, relations, sleep and enjoyment of life.

Among WA PWID in the 2012 survey, 30% reported experiencing pain on the day of the survey other than 'everyday pain' such as toothache or headache. Of these, 80% (n=24) attributed this to 'chronic non-cancer pain'. The pain severity score ranged from 1.3 to 8.5 with a mean of 5.3, indicating typically mid-range pain.

Asked what medications they were receiving for this pain revealed that 33% (n=10) were not receiving any medication. Various forms of morphine had been prescribed to 27% (n=8), tramadol and paracetomol each to 10% (n=3), and oxycodone and diazepam each to 7% (n=2). The amount of relief reportedly provided by these medications in the past 24 hours ranged from 'no relief' (26%, n=7) to 'complete relief' (11%, n=3) with a median score of five, suggesting that large numbers of these respondents were not having their pain relief needs adequately addressed. Having experienced trouble obtaining pain relief from a doctor was reported by 69% (n=20) of those responding. Half of those responding (n=14) indicated that they had not told their doctor about their drug use and one additional individual stating that their doctor knew about their drug use, but not the extent of it.

Asked about the degree to which this pain interfered with daily activities saw a range from less than one (4%, n=1) through to the maximum of ten (4%, n=1) with a mean of 5.5 indicating moderate levels of interference. This data is presented in Table 20.

Table 20: Brief Pain Inventory (BPI) among PWID who commented, 2012

	WA N=100
Experienced pain today (other than everyday pain) (%)	30
Nature of pain (%)	n=30
Acute/short term	10
Chronic non-cancer pain	80
Chronic cancer/malignant pain	3
Other	7
Mean 'Pain Severity' score	5.3
Mean relief experience from treatment/medications*	4.5
Mean 'Pain Interference' score	5.5
Trouble obtaining pain relief from doctor last 6 months (%)	69
Told doctor about drug use when requested pain relief (%)	n=28
No	50
Yes	29
Yes, but not all use	4
Doctor already knew	18

Source: IDRS Injecting drug user interviews
*** among those who received treatment/medication for pain and commented (n=246)**

12.4 Opioid and stimulant dependence

The Severity of Dependence Scale (SDS) is a screening measure of dependence in which scores of four or more are indicative of some level of dependence.

There were 85 PWID who completed the SDS for opioid dependence. Of these, 85% (n=72) were screened as having some level of dependence. These included 96% (n=25) of females and 79% (n=46) of males, although this difference was not found to be significant.

Of the 61 PWID who completed the SDS for dependence on stimulants, 28% (n=17) were screened as having some level of dependence. These included 65% (n=11) of males and 35% (n=6) of females who were found to have some level of dependence on stimulants. This difference was not found to be significant, although this is likely an artifact of low numbers of dependent respondents.

12.5 OST medication injection

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

Of the WA sample, 17% of participants reported recently injecting methadone, 11% reported recently injecting buprenorphine, 13% buprenorphine-naloxone 'tablet' and 11% buprenorphine-naloxone 'film'.

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

12.6 Injection-related injuries and diseases

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

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

In 2012, IDRS participants were asked if they had ever and recently (last six months) experienced any injection-related injuries or diseases (IRID) from the list used in the IRID project (Dwyer, Power, Topp et al., 2007) . Table 22 below lists the IRIDs ever and recently experienced in the last six months by participants in the IDRS survey and also those from the IRID project. Note: recent use in the IRID project is in the last 12 months. For example, of those who commented in the IDRS project (N=895), nearly half (46%) reported in their lifetime and 30% reported recently experiencing redness near the injection site. This compared to 42.2 (ever) and 28.3% (recently) in the IRID project. While most of the results were similar, some differences were noted (Table 22).

The most common recent problems were redness near the injection site and swelling near the injection site, both reported by 28% of respondents. These cases were attributed to injection in an artery by 31% (n=11) and 26% (n=7) respectively. A dirty hit in the last six months was reported by 16% of all respondents, but had ever been experienced by 57%, suggesting that, over a long period of injecting, the experience of a dirty hit at some stage is

relatively normal. Other common events or symptoms recently experienced included thrombosed veins (collapsed or blocked veins) by 22%, thrombophlebitis (swollen red tracks along veins) by 21%, nerve damage by 20%, hives by 19%, pitting oedema (a swelling that leaves a dent when pressed) by 18%, accidental injection in an artery by 12%, and lymphoedema (swollen hands) by 10%. The full breakdown of these events both ever and in the six months preceding the interview is displayed in Table 21.

Table 21: Self-reported injecting-related injuries and diseases ever experienced and recently* from injection, nationally 2012

Problem experienced from injecting (%)	The IRID project (N=393)		WA IDRS (N=100)	
	Ever	Last 12 months*	Ever	Last 6 months*
Non-serious IRIDs				
Redness near injection site	42.2	28.3	36	28
Swelling near injecting site	45.0	30.9	41	28
Raised red area (hives)	56.0	41.3	28	19
Dirty hit	67.9	35.4	57	16
Hit an artery when injecting	21.9	9.4	23	12
Numbness/Pins and needles	19.3	12.4	26	20
Collapsed/blocked veins	47.8	27.0	38	22
Potentially serious IRIDS				
Pus-filled lump (skin abscess)	16.5	7.0	24	6
Internal/inside body abscess	3.0	1.0	10	2
Red, hot, swollen, tender skin (cellulitis)	14.2	7.0	20	8
Inflamed veins (thrombophlebitis)	14.2	6.6	23	21
Swelling leaves a dent (pitting oedema)	7.4	4.4	27	18
Puffy Hands Syndrome (lymph oedema)	7.1	3.9	15	10
Fistula (permanent hole)	n.a	n.a.	6	5
Injecting sinus	4.8	2.8	n.a	n.a
Serious IRIDs				
Heart infection (endocarditis)	3.0	1.0	4	0
Septicaemia	4.3	1.3	n.a	n.a
Septic arthritis	1.0	0.2	n.a	n.a
Osteomyelitis	0.5	0.2	n.a	n.a
Serious infection (unspecified)	2.3	0.5	n.a	n.a
Other serious infection needing stay in hospital and intravenous antibiotics (septic arthritis, osteomyelitis, septicaemia)	n.a	n.a	17	5
Deep vein thrombosis (blood clot)	3.3	1.3	3	3
Gangrene	0.8	0.3	20	3
Amputation	0.8	0.3	2	1
Venous ulcer	1.5	0.8	6	5
Other problem	n.a.	n.a.	4	4

Source: IDRS participant interviews (Dwyer, Power, Topp et al., 2007)
*recently = last six months for the IDRS and the last 12mths for the IRID project (Dwyer, Power, Topp et al., 2007)

12.7 Neurological history

In 2012, PWID were asked about their neurological history and history of head injury.

Respondents were asked if they had ever been diagnosed with certain conditions and the age at which they had been diagnosed. There were six respondents who had ever been diagnosed with epilepsy at a mean age of 22 (range 11-30) and two respondents had ever been diagnosed with diabetes at a mean age of 38 (range 34-42). There were no respondents who reported having ever been diagnosed with stroke or hypoxic brain damage.

Asked if they had ever been knocked unconscious, 47% reported that they had. This had occurred a median number of two times (range 1-40). Regarding the most severe occasion of being knocked unconscious, the median age of respondents at the time had been 25 (range 1-44). The vast majority (81%, n=38) of these episodes had lasted for 30 minutes or

less with a median of five minutes. However, a small number of respondents (n=6) reported much longer times ranging from one to 192 hours (i.e. 16 days). Being under the influence of alcohol at the time was reported by 34% (n=16) of those responding. Being under the influence of drugs at the time was also reported by 34% (n=16). Drugs implicated in this context included heroin (n=3), cannabis (n=3), benzodiazepines (n=3), amphetamines (n=2), and unspecified opiates (n=1).

Respondents were asked if they had experienced any effects as a result of being knocked unconscious, and if these effects were ongoing at the time of the interview. Of the 47% of respondents who reported having been knocked out, 72% (n=34) reported experiencing some symptoms following the episode. The most commonly experienced symptoms, reported by more than half of those who had been knocked out were poor concentration (62%, n=21), memory loss (62%, n=21) and problems with coordination or balance (59%, n=20). Miscellaneous other symptoms reported by individual respondents included head aches and blurred vision, numbness, seizures, tingling throughout the body, tiredness and visual impairment. None of these miscellaneous symptoms were reported as ongoing. This data is shown in Table 22.

Table 22: Symptoms experienced by PWID following episodes of unconsciousness due to head trauma.

Symptoms	% Experienced (n=34)	% Ongoing
Weakness in body	38% (n=13)	31% (n=4)
Poor concentration	62% (n=21)	43% (n=9)
Memory loss	62% (n=21)	38% (n=8)
Problems finding the right words	35% (n=12)	42% (n=5)
Problems with coordination or balance	59% (n=20)	25% (n=5)
Personality change	32% (n=11)	46% (n=5)
Mood changes	38% (n=13)	62% (n=8)
Other	18% (n=6)	0% (n=0)

Source: WA IDRS user survey.

12.8 Knowledge of legal drug thresholds

For the first time in 2012, respondents in the PWID survey were asked if they thought that the quantity of drugs in their possession would affect the type of charge they could receive if caught by the police. Of those responding, 90% (n=86) correctly believed that the quantity found by police would be an important deciding factor in the nature of the charge received. According to Hughes (2011), the deeming levels for a supply charge for each of the drugs in this list is two grams by weight, apart from cannabis where the level is 100g. However, on asking what respondents believed were the quantities of drugs covered by the threshold for receiving a sell or supply offence (as opposed to possession for personal use), answers varied widely, suggesting that familiarity with these legal thresholds in the drug-using community is frequently poor. These responses are displayed in Table 23. With regards to heroin, of those who answered in terms of grams, 40% (23) overestimated the supply charge threshold. Similarly, 39% (n=16) overestimated the threshold for amphetamine, 43% (n=13) overestimated the threshold for cocaine and 58% (n=7) overestimated the threshold for MDMA. Conversely, all those responding (n=22) underestimated the supply charge threshold for cannabis.

Table 23: Perceptions of WA PWID of legal thresholds of drug quantities that would result in a sell or supply offence*

Drug	Quantity (points)	Quantity (pills)	Quantity (grams)	Quantity (ounces)
Heroin	n=6 Median=2.5 Range=0.5-5	N/A	n=58 Median=2 Range=0.25-28	N/A
Methamphetamine	n=7 Median=2 Range=0.5-5	N/A	n=41 Median=2 Range=0.5-28	N/A
MDMA	N/A	n=20 Median=10 Range=1-100	n=12 Median=3 Range=1-50	N/A
Cocaine	N/A	N/A	n=30 Median=2 Range=0.1-28	N/A
Cannabis	N/A	N/A	n=23 Median=10 Range=0.6-60	n=31 Median=1 Range=0.25-10

*Extreme outliers have been omitted

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