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VICTORIAN DRUG TRENDS 2009
Findings from the Illicit Drug Reporting System (IDRS)

Australian Drug Trends Series No. 40

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&
Turning Point Alcohol and Drug Centre

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AGDH&A	Australian Government Department of Health and Ageing
AIHW	Australian Institute of Health and Welfare
ATS	Amphetamine-Type Stimulants
A&TSI	Aboriginal and/or Torres Strait Islander
BBVI	Blood-borne viral infection
CPH	Centre for Population Health
DHS	Department of Human Services
DOH	Department of Health
EDRS	Ecstasy and related Drugs Reporting System
GHB	Gamma-hydroxy-butyrate
GP	General Practitioner
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug User(s)
KE	Key Expert(s)
K10	Kessler Psychological Distress Scale
MAS	Metropolitan Ambulance Service
MDMA	3,4-methylenedioxymethamphetamine
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
NHMD	National Hospital Morbidity Database

NSP	Needle and Syringe Program
PDI	Party Drugs Initiative
PBS	Pharmaceutical Benefits Scheme
PCR	Patient Care Record
PGSI	Problem Gambling Severity Index
PWI	Personal Wellbeing Index
REU	Regular ecstasy user(s)
SD	Standard Deviation
SEADS	South East Alcohol and Drug Services
SF-8	Short-Form 8 Health Survey
SHARPS	Southern Hepatitis/HIV/AIDS Resource and Prevention Service
TGA	Therapeutic Goods Administration
UNSW	University of New South Wales
VACIS	Victorian Ambulance Clinical Information System
VIFM	Victorian Institute of Forensic Medicine

GLOSSARY OF TERMS

Cap	Small amount, typically enough for one injection
Illicit pharmaceuticals	Pharmaceuticals (e.g., antidepressants, antipsychotics, benzodiazepines, morphine, oxycodone, methadone, buprenorphine) obtained from a prescription in someone else's name, e.g., through buying them from a dealer or obtaining them from a friend, partner, etc. The definition does not distinguish between the inappropriate use of licitly obtained pharmaceuticals, such as the injection of buprenorphine or morphine, and appropriate use
Licit pharmaceuticals	Pharmaceuticals 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 purchased through a dealer or prescribed to a partner, friend, etc.
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 or swallowing
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 last six months
Recent use	Use in the last six months via one or more of the following routes of administration: injecting, smoking, snorting or swallowing
Session	A single continuous period of drug use
Use	Use via one or more of the following routes of administration: injecting, smoking, snorting or swallowing

GUIDE TO DAYS OF USE/INJECTION

6 days	Monthly use/injection (past six months)
12 days	Fortnightly use/injection
24 days	Weekly use/injection
90 days	Use/injection every second day
180 days	Daily use/injection

EXECUTIVE SUMMARY

Background

In 1998 the Australian Government Department of Health and Ageing (AGDH&A) commissioned the National Drug and Alcohol Research Centre (NDARC) to implement a national Illicit Drug Reporting System (IDRS), aimed at monitoring emerging trends related to the use of heroin, methamphetamine, cocaine and cannabis. The IDRS study provides nationally comparable data with respect to patterns of illicit drug use and related harms, and provides a basis for better informing future policy and research initiatives.

The majority of available data sources related to patterns of illicit drug use and related morbidity and mortality are *lag indicators,* where the most recent data available may be up to 12 months old in some cases, and are therefore insufficient on their own for strategic early warning purposes. The IDRS serves as a strategic early warning mechanism because it supplements available secondary indicator data sources with *lead indicators*, such as direct surveys with injecting drug user (IDU) groups and key experts (KE)). Findings from successive IDRS studies conducted in metropolitan Melbourne have informed health, law enforcement and community sector responses to illicit drugs in Victoria since 1997[1]. Some recent examples of where the IDRS methodology or Victorian data have been used include:

- in the development of research into cocaine markets in Victoria and New South Wales (Shearer, et al. 2005);
- in Stage One of Australia's Drug Policy Modelling Project (DPMP) (Moore, Caulkins & Dietze, 2005);
- in policy development and review activities and inquiries conducted by the Victorian Government (Victorian Department of Human Services, 2006; Victorian Department of Human Services, 2007; Drugs and Crime Prevention Committee, 2004 & 2006; Di Natale & Ritter, 2003);
- in the annual *Victorian Drug Statistics Handbook* (Victorian Department of Human Services, 2009);
- in a national survey examining attitudes, understanding and experiences of drug-driving (Mallick, et al. 2007); and
- in research into the use of amphetamine-type stimulants (ATS) and early intervention of methamphetamine-related harms (Jenkinson & Quinn, 2008).

Victorian IDRS data have also been disseminated widely at conferences and community forums, and through posters, magazine articles, and peer-reviewed publications.

[1] For specific examples of how previous Victorian IDRS findings have been utilised please refer to: Fry & Miller, 2001 & 2002; Jenkinson, Fry & Miller, 2003; Jenkinson, Miller & Fry, 2004; and Jenkinson & O'Keeffe, 2005 & 2006; Jenkinson & Quinn, 2007.

Summary of 2009 Victorian drug trends

The Centre for Population Health (CPH) at the Macfarlane Burnet Institute for Medical Research and Public Health conducted the Melbourne arm of the 2009 IDRS study between June and September 2009. The project consisted of:

1. a structured survey of 150 current IDU recruited from a number of sites across the metropolitan Melbourne area;
2. semi-structured interviews with 30 KE from a variety of professional settings, selected according to their knowledge about illicit drug use, and level of contact with illicit drug users during the six months preceding the survey; and
3. analysis of secondary indicator data.

Data collected via these three methods were analysed in order to identify illicit drug-related trends in Melbourne for the 2008/2009 financial year. Where appropriate, these data were also compared to findings from the 1997-2008 IDRS studies.

Table A provides a summary of market characteristics as described by IDU participants, for the three main illicit drug types explored in this study – heroin, methamphetamine, and cannabis. Cocaine use was not explored in great detail in 2009 as only a small number of participants reported use of the drug.

Heroin

Heroin continues to be he most commonly used injectable illicit drug among the IDRS participants, with 79% reporting use within the six months preceding interview. Just over half of all participants (56%) reported that heroin was their drug of choice compared with 73% of participants in 2008.

The prevalence of recent heroin use among the sample was comparable to previous years (86% in 2008 and 2007); however, the frequency of heroin use decreased from a median of 81 days in the six months preceding interview in 2008 to 51 days in 2009. KE suggested this might be reflective of the large percentage of participants currently in pharmacotherapy treatment, whose use of heroin may be limited to once or twice a week.

Among the 118 participants reporting recent heroin use, all had injected, with only small numbers of participants reporting recent heroin smoking. As in past years, IDU reported most commonly using white or off-white rock heroin, of south-east Asian origin.

In 2009, participants reported paying (median price) $50 for a cap of heroin, $180 for a half-gram of heroin, and $310 for a gram of heroin, with the most commonly purchased quantity of heroin being a cap (n=45). There were no significant changes in the reported prices of a cap or a gram of heroin between 2008 and 2009.

The heroin that was available at the time of interview was reported by IDU to be of low to medium purity. Victoria Police data supported this, with the average purity of drug seizures over the past year being 22%. Heroin purity has remained stable over the past three years, but continues to remain significantly lower than the 68% purity seen during the heroin glut of 1999-2000.

IDU reported that heroin was either very easy or easy to obtain and that availability had generally remained stable during the six months preceding interview. In contrast to previous years in which heroin was typically reported as being purchased in street markets, in 2009 heroin was most commonly purchased from known dealers at an agreed public location.

Overall, the Melbourne heroin market has remained stable over the past 12 months, with little significant change in patterns of use, availability, price or purity. The key trend in the heroin market that should continue to be monitored for potential impact on patterns of use is the diminishing of the traditional heroin street market, and the trend towards mobile heroin dealing.

Table A: Summary of reported market characteristics of heroin, methamphetamine, and cannabis, Melbourne, 2009

	Heroin	Methamphetamine	Cannabis
Use	• Recent use stable compared to previous years • Frequency of use decreased from 81 days to 51 days • Most commonly white/off-white rock	• Recent speed use stable • Recent crystal methamphetamine use continues to decline • Following two years of decline, recent base use increased significantly	• Most frequently used illicit drug • Frequency of use lower than previous years • Significantly less participants reporting daily use
Price ***Cap/point*** ***Gram*** ***Ounce***	 $50 $310 - • Stable	 $50 $200-380 - • Stable	 - $20 (hydro)/$20 (bush) $250 (hydro)/$225 (bush) • Stable (hydro); increasing (bush)
Availability	• Easy to very easy and stable • Mostly accessed through known dealers at agreed public locations	• Speed, base and crystal methamphetamine availability easy to very easy • Mostly stable; crystal methamphetamine becoming more difficult	• Both bush and hydro easy or very easy to obtain • Mostly stable availability, although some reports bush cannabis coming increasingly difficult to obtain • Most commonly purchased through known dealers or friends
Purity	• Low to medium and stable to decreasing • Average purity of drug seizures by Victoria Police: 22%	• Purity of speed low to medium; base – high; crystal methamphetamine – medium to high • Purity stable to decreasing • Average purity of drug seizures by Victoria police: 12%	• Medium to high • Stable

Methamphetamine

Different forms of methamphetamine are currently available in Australia. The IDRS currently collects information on the use, price, purity and availability of the three main forms of methamphetamine: 'speed', crystal methamphetamine and 'base,' as well as amphetamine liquid and pharmaceutical stimulants such as dexamphetamine.

Reports of recent methamphetamine use among the 2009 IDRS sample were frequent (70% of participants); however, patterns of use varied between different amphetamine types. Around two-thirds of participants reported recent speed use (65%, n=97), comparable to the last three years. In comparison, only one-third of participants reported recent crystal methamphetamine use (32%, n=48), continuing a period of decline from a peak of 53% in 2006. Following two years of decline, the prevalence of recent

methamphetamine base increased significantly from 5% to 13%. In 2009, 20% of IDRS respondents reported methamphetamine to be their main drug of choice, compared with 11% in 2008. Injecting was the most commonly reported route of administration for methamphetamine.

Despite changes in prevalence of use of different types of methamphetamine reported by the sample, frequency of use remained stable, with participants reporting speed use on a median of 12 days (compared with 15 in 2008), crystal methamphetamine use on three days (compared with six days in 2008) and base use on a median of five days (compared with three days in 2008).

The most commonly purchased quantity of methamphetamine in 2009 was a half-gram of speed, with a median reported purchase price of $100. The median purchase price reported for a point of both speed, base and crystal methamphetamine was $50. A gram of speed or base was reportedly purchased for $200 (median price). A gram of crystal methamphetamine was reportedly more expensive, with a median purchase price of $380. There were no significant changes between 2008 and 2009 in the reported prices of a point, half-gram or gram of either speed, base or crystal methamphetamine.

The majority of participants reported that both speed and crystal methamphetamine were either very easy or easy to obtain, with most reporting that availability had remained stable over the six months preceding interview. Around one-quarter of participants reported that crystal methamphetamine was becoming increasingly difficult to obtain, which may explain the observed decrease in recent crystal methamphetamine use.

In 2009, more than half of the participants reported the purity of speed to be low (55%, n=42), and over a third reported that purity had been decreasing over the six months preceding interview (42%, n=32). While only a few participants commented on the purity of crystal methamphetamine, this was reported to be medium (33%, n=7) or high (29%, n=6), but reported to be decreasing (38%, n=8). IDU participants' reports of methamphetamine purity correlates with data from Victoria Police, which indicates that the average purity of amphetamine seizures in 2008-2009 was 12%, lower than in previous years (21% in 2007-2008 and 18% in 2006-2007).

Findings from the 2009 indicate changing patterns of methamphetamine use, with a continuing decline in the prevalence of reported recent crystal methamphetamine use. These changes are likely to be reflective of decreasing purity and availability of these drugs, and should continue to be monitored.

Cannabis

As in previous years, cannabis was, alongside heroin, the most widely used illicit drug by participants in the 2009 IDRS, with 97% of participants reporting lifetime use and 79% of participants reporting use in the six months preceding interview.

As in previous years, questions were asked separately regarding hydroponically grown and naturally grown (bush) cannabis, with the majority of participants reporting predominantly using hydroponically grown cannabis (91%).

While cannabis continues to be the most frequently used drug among IDRS participants, the frequency of reported cannabis use decreased from a median of 175 days in 2008 to a median of 100 days in 2009. Only 11% of participants reported daily cannabis use, significantly less than in 2008 (48%).

In 2009, the quarter-ounce was most commonly reported purchased amount of hydroponic cannabis, with a median reported purchase price of $80. A quarter-ounce of bush cannabis was also purchased for the same price. The median reported price of a

gram of both bush and hydroponic cannabis was $20. The only quantities to show a significant price change between 2008 and 2009 were a half-ounce of hydroponic cannabis, which decreased from $150 to $140, and an ounce of bush cannabis, the price of which increased from $200 to $225.

Cannabis potency and availability were both reported to be generally stable; however, around one-fifth of respondents reported that bush cannabis had become increasingly difficult to obtain over the six months preceding interview. Both cannabis forms were commonly purchased through known dealers or friends; however, participants were more likely to report purchasing bush cannabis from a street drug market compared with hydroponic cannabis.

Other drugs

As in previous years, reports of recent cocaine use among the IDRS sample remained infrequent, with just 15% of participants reporting having used cocaine during the six months preceding interview. Among those reporting recent use, the frequency of use remained low (median=three days), suggesting that cocaine use among IDU in Melbourne continues to be either opportunistic or experimental. Cocaine was reported by several KE to be too expensive for most users, with use reportedly concentrated among a distinct high-functioning group. The IDRS highlights the need for further research with regular psychostimulant users in order to better understand patterns of cocaine use in Melbourne.

Reports of recent ecstasy use among the IDRS sample have continued to decline from a peak of 39% in 2001, with only 19% of 2009 participants reporting recent use. Reported ecstasy injection declined similarly from a peak of 21% in 2001 to just 6% in 2009. Reports of the use of hallucinogens and inhalants were rare among the IDRS sample.

Almost all of the IDRS participants reported lifetime use of both alcohol and tobacco, with 74% and 97% reporting alcohol and tobacco use in the past six months, respectively. The majority of tobacco users were daily smokers, (96%), while alcohol was consumed approximately once a week (median=24 days in the previous six months).

As in previous years, this year's IDU sample reported widespread use of pharmaceutical drugs, such as methadone, buprenorphine, morphine, oxycodone and benzodiazepines.

Almost half of all participants reported using any methadone (licit or illicit) during the six months preceding interview, with around one-fifth reporting recent use of illicit methadone, stable compared with previous years. Thirteen percent of IDRS participants reported recent injection of methadone, with this percentage increasing from a low of 3% in 2005. Recent methadone injection was reported on a median of eight days, and was more common among those using illicit methadone than those using prescribed methadone. A number of KE also reported an increase in methadone injection among their client groups.

Similar to previous years, around one-third of participants reported buprenorphine use in the six months prior to interview, with 51% of all IDRS participants reporting using licit buprenorphine and 25% reporting using illicit buprenorphine. The frequency of reported illicit buprenorphine use was low (median=24 days in the previous six months), the same as in 2008. The percentage of IDRS participants reporting buprenorphine injection remained stable compared with 2008 at 26%, following a period of significant decline from a peak of 43% in 2004. This decrease in prevalence of buprenorphine injection was reported by KE to be a reflection of the decreased availability of this drug following the introduction of buprenorphine-naloxone. Recent injection of illicit buprenorphine was more common than recent injection of prescribed buprenorphine, reported by 21% of

participants compared with 8%; however, recent injection of prescribed buprenorphine was more frequent, reported on a median of 65 days, compared with a median of 48 days for illicitly obtained buprenorphine. As in previous years, the injection of buprenorphine continues to be associated with injecting-related injuries such as abscesses.

Around one-third of the sample reported recent use of buprenorphine-naloxone, with licit use more commonly reported than illicit use (18% and 14% respectively). The frequency of illicit buprenorphine-naloxone increased from a median of five days in 2008 to 12 days in 2009; however, this difference was not statistically significant. Recent buprenorphine-naloxone injection was reported by just 13% of participants, with KE suggesting that injection was uncommon because IDU preferred the subjective effects of buprenorphine over buprenorphine-naloxone.

The prevalence of recent morphine use remained stable compared with 2008, with around one-third of participants reporting recent use. Recent use of illicit morphine was more common than licit use (19% compared with 3%), with illicit use reported on a median of six days. The most prevalent route of morphine administration in 2009 was injection.

Around one-quarter of IDRS participants reporting using oxycodone in the six months preceding interview, similar to 2008. Similar to morphine, illicit oxycodone use was more commonly reported than licit use; however, frequency of use remained low (median=five days in the previous six months). The most commonly reported route of oxycodone administration was injection.

In 2009, for the first time in the IDRS survey participants were asked specifically about their use of over-the-counter codeine products. Approximately one-third of participants reported recent use of over-the-counter codeine, with use reported on a median of 12 days in the previous six months. Codeine was predominantly swallowed, with just 5% of participants reporting lifetime codeine injection. Reports of the use of over-the-counter codeine to achieve intoxication or to alleviate opiate withdrawal symptoms were rare.

Eighty percent of participants in the 2009 IDRS reported recent use of benzodiazepines (licit or illicit), with this prevalence of recent use being the highest reported since the withdrawal of Temazepam gel capsules from the market in 2004. The reported frequency of benzodiazepine use differed between those who obtained their benzodiazepines predominantly licitly, compared with those who predominantly used illicit benzodiazepines (median of 180 days compared with 15 days). Reported rates of benzodiazepine injection have remained stable since 2004 at around 10% or less. The percentage of clients reporting Xanax (alprazolam) as the type of benzodiazepine most commonly used increased from 22% in 2008 to 34%. According to KE, use of Xanax has been associated with aggressive behaviour and memory loss, and the use of this benzodiazepine should continue to be monitored closely.

Associated harms and drug-related issues

In 2009, reports of recent heroin overdose remained low; however, the average number of non-fatal heroin overdoses attended by Ambulance Victoria in the Melbourne metropolitan area per month increased from 83 to 90. Recent methamphetamine overdoses attended by Ambulance Victoria decreased by approximately 100 over the past year, most likely reflecting the decrease in availability of amphetamines. Cocaine-related ambulance attendances have remained stable over the past two years, at roughly double the number seen in 2003.

In 2009, injecting-related injuries continued to be a problem for many IDRS participants, with 43% of participants reporting experiencing prominent scarring or bruising, and 41%

reporting having difficulty injecting. According to KE, injecting-related injuries were associated with injection of pharmaceuticals such as buprenorphine, in particular injecting practices such as groin injection and poor injecting technique.

Reports of both needle/syringe lending and borrowing remained stable compared with 2008, while the percentage of respondents reporting sharing any other injecting equipment decreased from 59% in 2008 to 27% in 2009. Among the 12% who reported borrowing a needle/syringe in the month preceding interview, the majority reported borrowing from a regular sex partner. Further education on the risk of hepatitis C transmission and how to negotiate needle sharing within sexual partnerships is required to address this. More than half of all participants reported reusing their own needle/syringe at least once in the month preceding interview.

Both KE and IDU participant data highlight the poor general health of IDU, with reports of high levels of chronic disease, poor dental health and a range of mental health issues. IDU participants recorded poorer outcomes compared with the general population on both the Kessler Psychological Distress (K10) and Personal Wellbeing Index (PWI) scales.

Around one-third of participants who had driven a vehicle during the six months preceding interview reported driving under the influence of alcohol, and 85% reported driving under the influence of illicit drugs during the six months preceding interview. Participants who reported driving under the influence of illicit drugs did so regularly (median=18 times) and soon after taking drugs (median=20 minutes). Participants commonly reported driving after consuming heroin, cannabis, ecstasy and benzodiazepines. It is concerning to note that only around one-quarter of participants who drove after using illicit drugs believed that their driving ability was in any way impaired.

In 2009, questions exploring gambling risk behaviours were introduced into the IDRS study. One-third of IDRS participants reported gambling during the month preceding interview, usually playing poker machines (79%, n=37) or betting on horse or dog racing (11%, n=5). Participants commonly reported being under the influence of speed, heroin and/or cannabis while gambling.

There were no significant changes in reports of recent arrest or recent criminal activity between 2008 and 2009, which reflects the stability of current drug markets in Melbourne.

KE supported IDU perceptions that the traditional heroin street market was diminishing, with KE generally reporting that mobile dealing was now the most commonly used method for drug purchase by their contacts.

Conclusions

The 2009 Victorian IDRS study has indicated that the majority of illicit drug markets in Melbourne have remained stable over the last 12 months.

Key changes detected in the 2009 IDRS were:

- A greater percentage of participants reported methamphetamine to be their drug of choice compared with 2008 (20% compared with 11%, respectively) which may explain the decrease in frequency of heroin use reported by the 2009 sample.
- Differing patterns of use of the three main types of amphetamines were noted, with speed use remaining stable, crystal methamphetamine use

continuing to decline, and base use increasing following two years of decline.

- A significant decrease in the percentage of participants reporting daily cannabis use compared with the 2008 sample.
- Changing patterns of benzodiazepine use, with reports of recent benzodiazepine use at the highest level since the withdrawal of Temazepam gel capsules from the market in 2004.

On the basis of these findings, we recommend:

1. continued monitoring of illicit drug markets for trends in price, purity, availability, patterns of drug use, and related outcomes;
2. expansion of Victoria's routine drug trend monitoring, through new methods and new sentinel groups, such as users within rural/regional drug markets, to improve the understanding of intersecting drug markets and related outcomes;
3. further research to monitor the characteristics and impact of psychostimulant use in Melbourne, along with consideration of the impact of these drug types upon both health and law enforcement sectors;
4. further research into drug-driving, particularly in regard to peoples' understanding of impairment and the circumstances in which they drive soon after taking illicit drugs;
5. further research to explore the nature and extent of prescription drug use among injecting drug users in Melbourne, and the health harms associated with prescription drug misuse;
6. further research to monitor changing patterns of benzodiazepine use; and
7. further research to gain a better understanding of the determinants of both unsafe injecting and sex practices, particularly for those practices that increase the risk of blood-borne viral infections.

1.0 INTRODUCTION

In 1998 the Australian Government Department of Health and Ageing (AGD&HA) commissioned the National Drug and Alcohol Research Centre (NDARC) to implement a national Illicit Drug Reporting System (IDRS), following a successful pilot study in Sydney (1996) and a multi-state trial (1997) (Hando, O'Brien, Darke, Maher & Hall, 1997; Hando & Darke, 1998; Hando, Darke, Degenhardt, Cormack & Rumbold, 1998). The 1998 IDRS study was conducted in New South Wales, Victoria and South Australia (McKetin, Darke, Hayes & Rumbold, 1999), with each state undertaking an injecting drug user (IDU) survey, key expert (KE) survey, and analysis of available secondary indicator data. In 1999, the IDRS study was replicated in New South Wales, Victoria and South Australia, with all other remaining states and territories participating through the collection of secondary indicator data and completion of KE interviews. In 2000, the IDRS became a truly national drug trend monitoring system when all states and territories conducted the complete study. This is the thirteenth year that the IDRS study has been conducted in Melbourne.

The aim of the IDRS study is to monitor emerging trends related to the use of heroin, methamphetamine, cocaine and cannabis. The IDRS study provides nationally comparable data with respect to patterns of illicit drug use and related harms, and provides a basis for better informing future policy and research initiatives.

The *Victorian Drug Trends 2009* report summarises data collected during the months of June through September 2009 as part of the Melbourne arm of the 2009 IDRS study. The findings of this report pertain primarily to the 2008-2009 financial year, unless otherwise indicated. The report provides an outline of the methods utilised in collecting data for this period, and then presents a socio-demographic and drug use history overview of the IDU sample. The main study findings are then presented for recent trends in the use of heroin, methamphetamine, cannabis, and other drugs. Following this, drug-related harms, general health, and other issues of significance are examined.

For details regarding illicit drug trends for the whole of Victoria, readers should refer to the annual *Victorian Drug Statistics Handbook* (Victorian Department of Human Services, 2009b). Readers are also referred to the forthcoming *Australian Drug Trends 2009* monograph for national IDRS data and jurisdictional comparisons (available from NDARC, University of New South Wales, Sydney).

1.1. Study aims

The primary aims of the 2009 Victorian IDRS were:

1. To document the market characteristics (i.e., price, purity, availability) and patterns of use of heroin, methamphetamine and cannabis among IDU in Victoria;
2. To identify and document any drug-related harms and relevant trends among this population; and
3. To detect and document emerging drug trends of national significance that may require further and more detailed investigation.

2.0 METHODS

This study replicates the IDRS methodology used annually since 1997, incorporating: a survey of IDU; interviews with KE recruited from a variety of professional settings; and analysis of secondary indicators of illicit drug trends in Victoria. The information provided by these three methods has been used to identify trends and outcomes associated with illicit drug use in Victoria.

2.1. Survey of IDU

Structured face-to-face interviews were conducted with 150 current IDU recruited from metropolitan Melbourne during June 2009. In order to be eligible to participate in the study, respondents must have reported that they had injected at least monthly in the six months prior to interview, and have resided in Melbourne for at least the previous 12 months. Convenience sampling was facilitated by posted advertisements and recruitment notices distributed throughout needle and syringe programs (NSP), as well as snowballing methods (recruitment of friends and associates via word of mouth).

Five agencies assisted the research team as recruitment and interview sites for the IDU survey component of the study:

- Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Frankston;
- Access Health, St Kilda;
- InnerSpace, Collingwood;
- Open Family, Footscray; and
- South East Alcohol and Drug Services (SEADS), Dandenong.

The structured interview schedule employed in this study comprised core questions used in previous IDRS studies conducted in Melbourne. The interview schedule contained questions relating to demographics, drug use, the price, purity and availability of drugs, crime, risk-taking behaviour, health, and general trends. The average duration of each interview was approximately 41 minutes (range=20-77 minutes) and participants were reimbursed $40 for their time and out-of-pocket expenses. Ethics approval for this study was obtained from the Alfred Hospital Human Research Ethics Committee, the Peninsula Health Human Research and Ethics Committee and the Victoria Police Research Coordinating Committee.

2.2. Survey of KE

A total of 30 KE (13 females and 17 males) participated in face-to-face and telephone interviews between July and September 2009. Twenty KE (67%) were recruited from the pool of KE who had taken part in previous IDRS and/or Ecstasy and Related Drug Reporting System (EDRS) studies (Quinn, 2008). Other KE participants were recruited as replacements for, or alternatives to, previous participants drawn from the same agencies/services, on the basis of referrals received from professionals in the field, or as individuals representing agencies/services not previously surveyed.

KE involved in the 2009 IDRS consisted of: health workers, e.g., drug and alcohol counsellors, hospital staff, general practitioners (GP) (n=11), NSP and outreach workers (n=8), law enforcement personnel (n=4), and others including lawyers, policy makers, pharmacists and court services workers (n=5). Excluding law enforcement personnel, participants were selected on the basis of having had average weekly contact with illicit

drug users over the preceding six months, and/or contact with 10 or more different illicit drug users during that period, and/or expert knowledge in one or more areas relating to the use, possession, manufacture, and/or trafficking of illicit substances.

While some KE participants were screened after they had received sample copies of the KE interview schedule, project information sheet and consent form – providing them with the opportunity to consider whether they would be able to address questions from the interview schedule – other KE were deemed eligible after telephone screening and did not wish or request to receive an advance copy of materials. The KE interview schedule included sections on the characteristics of people currently involved in the drug market, characteristics of the drug market itself (price, purity and availability) and recent trends in illicit drug use.

While in previous years the KE survey focussed on the main illicit drug used by the people with whom they had contact, the 2009 survey instead focussed on the drug KE perceived to be "most problematic" at the time of interview. The drugs named as most problematic by KE were most commonly heroin (n=7), prescription opiates (including buprenorphine, morphine and oxycodone) (n=5), benzodiazepines (in particular Xanax (alprazolam)) (n=5) and cannabis (n=4). Other drugs nominated by small numbers of clients included amphetamines, over-the-counter codeine preparations and Gamma-hydroxy-butyrate (GHB).

KE interviews took an average of 51 minutes to complete (range=20-75 minutes). Detailed notes were made by the interviewer during each interview, and raw data was transcribed and coded soon after the conclusion of the interview using Microsoft Excel.

2.3. Other indicators

Information collected from the IDU survey and KE interviews was supplemented by data obtained from a number of secondary indicator sources. Data relating to trends for the 2008-2009 financial year are reported, unless otherwise indicated. For secondary indicators where current data are unavailable, the most recently available data have been included.

Indicator data sources presented in this report include:

Surveys reporting on the prevalence of illicit drug use in Victoria

- Data on the prevalence of drug use in the community are typically derived from large-scale population surveys. The most recent population survey from which estimates of illicit drug use within the community are available is the 2007 National Drug Strategy Household Survey (NDSHS) (Australian Institute of Health and Welfare (AIHW), 2008).

Drug seizure purity levels

- The Drug Analysis Branch of the Victoria Police Forensic Services Department conducts purity analyses for all drug seizures made by the Victoria Police. Since 2001, the Victoria Police Forensic Services Department has provided drug purity data for inclusion in the IDRS report. This report presents data for the 2008-2009 financial year.

Drug-related arrest data

- Information pertaining to drug-related arrests in Victoria has been obtained from the Australian Crime Commission (ACC). The Victoria Police and the Australian Federal

Police (AFP) provide arrest data to the ACC for the *Illicit Drug Data Report*. This report presents drug-related arrest data for the 2007-2008 financial year.

Specialist drug treatment presentations

- The Victorian Department of Health (DOH; formerly DHS) funds community-based agencies to provide specialist alcohol and drug treatment services across the state. The collection of client information is a mandatory requirement and occurs via a formalised client data collection system called the Alcohol and Drug Information System (ADIS). The ADIS data presented in this report represents courses of treatment and client numbers for the 2008-2009 financial year.

- The Drugs and Poisons Regulation Group of the Victorian DOH maintains a database that records all methadone, buprenorphine and buprenorphine-naloxone permits in Victoria. This is the major source of information regarding the characteristics of consumers of the Victorian pharmacotherapy programs and is an important source of information regarding treatment for opiate dependence. Data from the quarterly phone census of client numbers for the period January 1985 to October 2009 are presented in the current report.

- DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point Alcohol and Drug Centre) that provides counselling, referrals and advice about drug use and related issues. All calls to DirectLine are logged to an electronic database that can provide information about callers' drugs of concern, calls from drug users, and calls about drug users. This report presents data for the period 1999-2008.

Ambulance attendances at non-fatal drug overdoses and other episodes

- Turning Point Alcohol and Drug Centre manages an electronic drug-related ambulance attendance database, comprising information obtained from the Victorian Ambulance Clinical Information System (VACIS) as well as those previously extracted and coded from ambulance Patient Care Records as part of Turning Point's 'Ambulance Attendance at Heroin Overdose Project' (Dietze, Cvetkovski, Rumbold & Miller, 2000). Reliable data is available from June 1998 (with missing data for the periods May to July 2001, October 2002 to February 2003, and June to July 2004). Although the database includes overdose-related calls for all types of drugs, the dataset is best suited to the monitoring of non-fatal heroin-related overdose, due to the availability of a biological marker of heroin involvement (i.e., the administration of Naloxone and subsequent patient response). Data for the period 2007-2008 are presented in this report.

National Hospital Morbidity Database

- The National Hospital Morbidity Database (NHMD) is compiled by the Australian Institute of Health and Welfare (AIHW). It is a collection of electronic records for admitted patients in public and private hospitals in Australia. *Principal diagnosis* (the diagnosis established after study to be chiefly responsible for occasioning the patient's episode of care in hospital) has been reported. This report presents drug-related (opioid, amphetamine, cocaine and cannabis) hospital admissions for Victoria and Australia, 1999/2000-2007/2008.

Heroin-related fatalities

- Mortality information from heroin-related deaths was obtained from data collated by the Victorian Institute of Forensic Medicine and the Victorian Department of Health

from the National Coronial Information System. This report presents data from 1991 to 2008.

Blood-borne viral infections surveillance data

- Blood-borne viral infections (BBVI), such as human immuno-deficiency virus (HIV), hepatitis B (HBV) and hepatitis C (HCV), are a major health risk for individuals who inject drugs. The Communicable Diseases Section, Public Health Branch of the Victorian DOH records notifications of infectious diseases in Victoria. Data from 1999to 2008 are presented in this report.
- The Australian Needle and Syringe Program (NSP) Survey has been conducted yearly by the National Centre in HIV Epidemiology and Clinical Research (NCHECR) since 1995. It is designed to supplement sentinel BBVI surveillance efforts via a short questionnaire on demographic and behavioural characteristics of NSP clients and serological testing of finger-prick blood samples. Data presented in this report are from the 2004 to 2008 data collections (NCHECR, 2009).

2.4. Data analysis

For continuous, normally distributed variables, *t*-tests were employed, with means and standard deviations (SD) reported. The *rank-sum* test was used to compare non-parametric continuous variables, with medians and ranges reported. Categorical variables were analysed using χ^2 tests for percentages and χ^2 tests for trends over time. All analyses on IDU survey data were conducted using Stata 10.0 (Statacorp LP, Texas, 2007), with a significance level of $p<0.05$.

Content analysis was used for the open-ended responses in KE interviews (Kellehear, 1993). Categorical data for KE estimates of drug price, purity and availability were analysed using Microsoft Excel.

3.0 RESULTS

3.1. Overview of the IDU sample

A total of 150 IDU were interviewed in 2009. Participants were recruited from five different sites across Melbourne: St Kilda (Inner South), Dandenong (Outer South), Frankston (Outer South-East), Collingwood (Inner North) and Footscray (Inner West), with 30 participants recruited from each site. The majority of participants resided in areas local to the recruitment sites. Participants typically heard about the study either from the NSP (40%, n=55) or through word of mouth (51%, n=71). Thirty-four participants (23%) reported having participated in a previous IDRS study, with the majority having been involved in the study during the previous three years (n=23).

The demographic characteristics of the 2009 IDU sample are summarised in Table 1. The majority of participants were male and aged around 35 years. Two-thirds of all respondents reported living in secure accommodation at the time of interview, with a quarter reporting residing at a boarding house, hostel or shelter and a further 9% reporting being homeless or having no fixed address. The majority of participants were born in Australia (88%), with the most common regions of birth outside Australia being the United Kingdom (n=5), and south-east Asia (n=5). Those born outside Australia had resided here for a median of 28 years (range=20-52 years). Nine participants identified as being of Aboriginal and/or Torres Strait Islander (A&TSI) origin (6%), compared with 3% in 2008.

The mean grade completed at school was Year 10 (range=Grade 3-Year 12); a significant percentage of participants had acquired trade or technical qualifications since leaving school, and a few had attained a university qualification. The vast majority of participants were unemployed at the time of interview and therefore most reported receiving a government pension, allowance or benefit as their main source of income Participants reported receiving a median income of $250 per week (range=$110-$1400) and around half of the sample reported having ever been imprisoned.

Table 1: Demographic characteristics of the IDU sample, 2008-2009

	2008 (N=150)	2009 (N=150)
Mean age (years)	35 (SD=7.1)	35 (SD=7.4)
Male (%)	79	63
Heterosexual (%)	91	88
Aboriginal and/or Torres Strait Islander (A&TSI) (%)	3	6
Accommodation (%)		
Own house/flat (includes renting)	50	53
Parents' house	17	13
Boarding house/hostel	15	22
Shelter/refuge	3	3
Drug treatment residence	1	0
No fixed address/homeless	15	9
Employment (%)		
Not employed	86	83
Full-time	3	1
Part-time/casual	8	11
Home duties	1	3
Student	1	1
Mean School education (years)	10	10
Tertiary education (%)		
None	51	49
Trade/technical	43	47
University/college	6	5
Prison history (%)	52	55

Source: IDRS IDU interviews

3.2. Drug use history and patterns of current drug use

The mean age at which participants reported their first injection was 19 years, with the first drug injected being either speed or heroin (Table 2).

IDU most commonly reported their main drug of choice to be heroin, speed or cannabis; however, the most commonly injected drugs in the past month were heroin, speed and buprenorphine (Subutex®). Almost half of all participants reported most commonly injecting a drug other than their main drug of choice in the previous month (42%, n=63), with the main reasons for this being availability (30%, n=19), their drug of choice was non-injectable (i.e., cannabis) (27%, n=17) or it was cheaper (11%, n=7).

Table 2: Injection history and patterns of current drug use among the IDU sample, 2008-2009

	2008 (N=150)	2009 (N=150)
Mean age at first injection (years)	18 (SD=5.1)	19 (SD=5.7)
First drug injected (%)		
Heroin	48	47
Amphetamine	47	49
Other drugs	5	4
Drug of choice (%)		
Heroin	73	56
Methamphetamine	11	20
Cannabis	7	13
Morphine	2	1
Cocaine	3	3
Other drugs	5	7
Drug injected most often in last month (%)		
Heroin	65	55
Methamphetamine	15	30
Morphine	3	1
Buprenorphine	7	9
Other drugs	9	5
Last drug injected (%)		
Heroin	59	52
Methamphetamine	19	27
Morphine	5	1
Cocaine	2	1
Buprenorphine	5	13
Other drugs	10	5
Frequency of injecting in last month (%)		
Weekly or less	17	25
More than weekly	34	37
Once a day	19	19
Two to three times per day	25	15
More than three times per day	3	3
Currently in drug treatment (%)	61	63

Source: IDRS IDU interviews

Just over one-third of participants (37%) reported having engaged in drug injection at least once a day in the month preceding interview, compared with 47% of 2008 participants.

A total of 94 participants (63%) were receiving drug treatment at the time of interview. The most common types of drug treatment among this group were methadone maintenance therapy (56%, n=53), buprenorphine maintenance therapy (16%, n=15) and buprenorphine-naloxone maintenance therapy (18%, n=17). Participants reported being in their current episode of drug treatment for a median of 12 months (range=1 month-15 years). One-third of all participants (n=45) reported having never been in any form of drug treatment.

Table 3 shows the self-reported drug use history of the IDU survey sample over the six months prior to interview, and lifetime, as well as routes of administration and frequency of recent use. Almost all respondents reported lifetime use of tobacco, methamphetamine, heroin, cannabis, alcohol, and benzodiazepines.

The drugs most commonly reported as being used in the six months preceding interview were tobacco, benzodiazepines, heroin, cannabis and alcohol. The drugs most commonly

reported to have been injected during the past six months were heroin and methamphetamine.

Table 3: Drug use history and current patterns of drug use among the 2009 IDU sample (N=150)

Drug Class	Ever used (%)	Ever injected (%)	Injected last 6mths (%)	Med. days injected* last 6mths	Ever smoked (%)	Smoked last 6mths (%)	Ever snorted (%)	Snorted last 6mths (%)	Ever swallowed+ (%)	Swallowed last 6mths+ (%)	Used^ last 6mths (%)	Med. days in treatment* last 6mths	Med. days used^ last 6mths*
Heroin	98	97	79	51	48	7	19	1	17	2	79		51
Homebake heroin	19	19	5	8	2	0	1	0	1	0	5		8
Any heroin (inc. homebake)	98	97	79	49	48	7	19	1	17	2	79		50
Methadone (prescribed)	69	14	6	48					69	39	39	180	180
Methadone (not prescribed)	41	16	8	8					35	13	19		5
Physeptone (prescribed)	5	3	1	2	0	0	0	0	4	1	2	2	2
Physeptone (not prescribed)	15	10	4	1	0	0	0	0	9	1	5		1
Any methadone/physeptone	79	27	13	8					77	45	47		178
Buprenorphine (prescribed)	55	33	8	65	2	0	1	0	50	9	12	155	155
Buprenorphine (not prescribed)	51	41	21	48	1	1	1	0	27	9	25		24
Any buprenorphine (exc. buprenorphine-naloxone)	76	55	26	72	3	1	1	0	59	17	33		77
Buprenorphine-naloxone (prescribed)	41	16	6	30	0	0	0	0	38	17	18	155	90
Buprenorphine-naloxone (not prescribed)	29	22	9	12	0	0	0	0	17	8	14		12
Any buprenorphine-naloxone	54	28	13	25	0	0	0	0	44	22	29		60
Morphine (prescribed)	19	13	2	6	0	0	0	0	15	2	3	150	150
Morphine (not prescribed)	65	62	31	5	0	0	0	0	24	7	31		6
Any morphine	71	67	31	5	0	0	0	0	33	8	33		6
Oxycodone (prescribed)	13	9	4	18	0	0	0	0	10	4	5	90	90
Oxycodone (not prescribed)	60	55	23	8	1	1	0	0	17	2	25		6
Any oxycodone	65	57	24	9	1	1	0	0	25	6	27		8
Over-the-counter Codeine	47	5	1	30	0	0	0	0	47	30	31		12
Other opiates (not elsewhere classified)	11	3	0	0	5	0	1	1	2	1	1		1

Source: IDRS IDU interviews

^ Refers to any route of administration (injecting, smoking, swallowing, and/or snorting)

* Among those who had used/injected

+ Refers to/includes sublingual administration of buprenorphine

Table 3: Drug use history and current patterns of drug use among the 2009 IDU sample (continued)

Drug Class	Ever used (%)	Ever injected (%)	Injected last 6mths (%)	Med. days injected* last 6mths	Ever smoked (%)	Smoked last 6mths (%)	Ever snorted (%)	Snorted last 6mths (%)	Ever swallowed+ (%)	Swallowed last 6mths+ (%)	Used^ last 6mths (%)	Med. days in treatment* last 6mths	Med. days used^ last 6mths*
Speed powder	99	95	64	12	32	9	59	7	47	7	65		12
Amphetamine liquid	13	10	2	3					5	0	2		3
Base/point/wax	37	34	13	3	3	1	1	1	5	1	13		3
Ice/shabu/crystal	82	74	31	4	40	12	1	0	9	2	32		5
Any form methamphetamine#	99	96	69	13	55	16	59	8	53	8	70		14
Pharmaceutical stimulants (prescribed)	6	2	1	67	1	0	1	0	5	3	4		100
Pharmaceutical stimulants (not prescribed)	30	13	3	30	0	0	0	0	22	4	6		12
Any form pharmaceutical stimulants	35	15	4	22	1	0	1	0	27	7	9		22
Cocaine	69	46	12	4	9	1	43	4	5	0	15		3
Hallucinogens	68	8	1	24	1	0	1	0	67	8	9		2
Ecstasy	67	25	6	3	1	0	7	1	66	17	19		4
Benzodiazepines (prescribed)	75	11	1	9	1	0	0	0	75	51	51		180
Benzodiazepines (not prescribed)	78	14	5	4	0	0	1	0	75	57	59		15
Any form benzodiazepines	95	19	6	5	1	0	1	0	94	78	80		70
Alcohol	96	3	0	0					96	74	74		24
Cannabis	97										79		100
Inhalants	17										1		NR
Tobacco	100										97		180

Source: IDRS IDU interviews

^ Refers to any route of administration (injecting, smoking, swallowing, and/or snorting)

* Among those who had used/injected

+ Refers to/includes sublingual administration of buprenorphine

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

NR=Not reported

3.3. Recent use and expenditure on illicit drugs

Ninety-six percent of respondents (n=144) reported using at least one drug type on the day preceding interview, with the most commonly used drugs being cannabis, heroin, alcohol and benzodiazepines (Table 4). The median amount reported as being spent on illicit drugs on the day prior to interview by the 72% of participants who responded to the question was $85 (range=$10-$700). This was slightly, but not significantly, less than the $100 reported by the 2008 IDRS sample.

Table 4: Drug use on day prior to interview, 2004-2009

Type of drug (%)	2004 (N=150)	2005 (N=150)	2006 (N=150)	2007 (N=149)	2008 (N=150)	2009 (N=150)
Cannabis	51	48	44	42	53	43
Heroin	49	45	37	40	45	37
Alcohol	26	25	23	21	24	28
Benzodiazepines	39	27	18	31	30	23
Buprenorphine	25	25	17	12	10	16
Methadone	13	12	11	17	25	26
Buprenorphine-naloxone	-	-	3	3	8	5
Morphine	7	7	6	9	7	3
Other opiates	4	0	1	4	3	0
Antidepressants	12	14	1	7	4	9
Speed	10	9	15	10	13	8
Base	0	0	0	0	0	1
Crystal methamphetamine	1	0	1	2	2	3
Cocaine	1	1	1	1	3	2

Source: IDRS IDU interviews

4.0 HEROIN

4.1. Use

4.1.1. Prevalence of heroin use

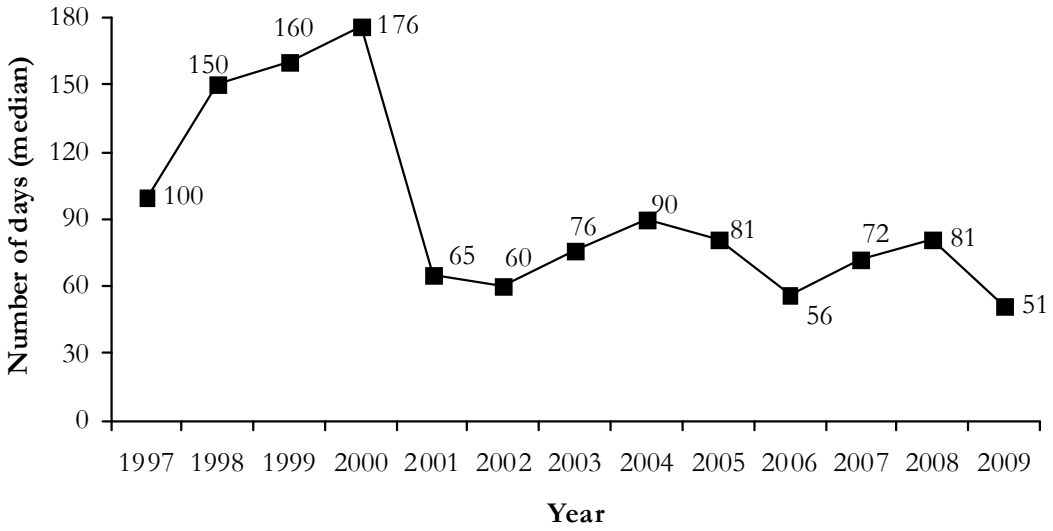
While population-based surveys show few people in the community report the use of heroin (AIHW, 2008), heroin was the most widely used injectable illicit drug in the 2009 IDRS sample, with 98% of respondents (n=147) reporting lifetime use, and 79% (n=118) reporting recent use, i.e., in the last six months (hereafter recent). The prevalence of recent heroin use among the IDRS sample has remained stable over the last five years. However, the percentage of respondents who nominated heroin as their main drug of choice decreased significantly between 2008 and 2009, from 73% to 56% ($p<0.05$). Of the 308 participants interviewed in Victoria as part of the Australian NSP survey in 2008, 58% (n=180) reported that heroin was the last drug they had injected (NCHECR, 2009). Over the past five years, the percentage of NSP survey participants reporting heroin as their most recent drug of injection has fluctuated from as high as 59% in 2004 to a low of 36% in 2006.

4.1.2. Current patterns of heroin use

One hundred and eighteen participants (79%) in the 2009 IDU survey reported recent heroin use, with all reporting recent injection. Small percentages of recent heroin users also reported smoking heroin (heating heroin and inhaling the resulting vapours) (9%), snorting heroin (2%) and consuming heroin orally (3%). One NSP worker noted that a small number of clients had asked for foil, suggesting that they were smoking their heroin; however, most KE reported that the majority of heroin users they had contact with were injecting.

The frequency of recent heroin use decreased significantly in 2009 compared with 2008, dropping from a median of 81 days to 51 days (from a maximum 180 days) ($p<0.05$) (Figure 1). This is the lowest frequency of injecting ever recorded in the IDRS study in Victoria. Several KE reported that the reported frequency of heroin use among IDRS samples may be skewed by the significant number of clients on pharmacotherapy treatment, whose use may be limited to just once or twice a week.

Figure 1: Number of days of heroin use in previous six months, 1997-2009



Source: IDRS IDU interviews

The use of different coloured heroin may require an additional step, such as the use of citric acid or heating, in the preparation for injection. In 2009, IDRS participants were asked about the different colours and forms of heroin used recently, the colour of the heroin used for their most recent injection, and whether they used heat or acid to prepare the drug mix for their most recent injection.

Among those who reported recent heroin use, white or off-white powder was the most commonly used form (Table 5). Approximately one-quarter of respondents reported having recently used brown or beige heroin, similar to 2008.

Table 5: Colours and forms of heroin used in the preceding six months, 2009

Heroin colour & form	Used in the past six months (N=118)	Form most used in the past six months (N=115)
White/Off-white (%)		
Powder	19	8
Rock	91	78
Brown/beige (%)		
Powder	15	3
Rock	24	9
Other colour (%)		
Powder (yellow)	2	0
Rock (yellow)	1	1
Homebake heroin (%)	6	2

Source: IDRS IDU interviews

Ninety-four respondents completed the questions relating to their most recent episode of heroin use. Eleven (12%) reported using heat to prepare their most recent heroin injection, with heat predominantly being used to prepare white heroin (five of the seven

respondents who reported the colour of heroin for which heat was used). None of the respondents reported using acid to prepare their most recent heroin injection.

Six KE commented on the type of heroin commonly used by their clients, with most reporting that their clients generally used white heroin that they believed to be of south-east Asian origin. One KE, a researcher who regularly worked with IDU in one of Melbourne's key street drug markets, confirmed that the heroin being used by the IDU he was in regular contact with "mixes up quite clean, with no need for heat or acid." Three KE commented on the use of brown (Afghan) heroin, with all three confirming that they had seen it in the past but not recently. One law enforcement KE indicated that the majority of heroin seized in Victoria was of south-east Asian origin, consistent with beliefs about heroin more widely available in the city.

Heroin was seen as a problematic drug by seven KE. The demographic profile of heroin users, as described by these KE, was similar to that of previous years' samples: predominantly males, aged in their 20s to 50s, with low levels of education. Most heroin users were reported to be unemployed and receiving a government pension, allowance or benefit as their main source of income. Heroin users were reported to be predominantly of Caucasian background; however, in particular regions up to 75% of heroin users were reported to be of south-east Asian origin.

KE reported that most heroin users with whom they had contact had experienced some level of interaction with the criminal justice system, with many having been incarcerated at least once. One KE, an outreach lawyer, reported that the clients she had worked with were, however, "criminals of circumstance, not intent" and that their criminal activity was a reflection of factors such as homelessness and lack of family/social support rather than deviance.

KE reported that heroin users with whom they had contact experienced high levels of mental illness, with the prevalence of depression and anxiety reported to be between 25% and 95% among this group. KE reported that while some heroin users initiated contact with health services in relation to mental health issues, most either did not follow-up or those that did were not compliant with treatment. Another KE felt that many clients with whom she had contact used heroin to self-medicate in response to mental health issues.

According to KE, as many as 50% of heroin users were reported to be prescribed pharmacotherapy treatment, with one GP reporting that the number of heroin users on pharmacotherapy treatment was increasing by 5%-15% each year. Increasing demand for methadone maintenance therapy in particular was noted by one Indigenous health worker. KE also reported that IDU would go on and off treatment regularly in response to changing market conditions, particularly police presence. It was reported that many IDU continue to use heroin while on treatment, but that use was reduced.

4.2. Price

Information relating to the price, purity and availability of heroin was supplied by 104 participants (69%) who felt confident in their knowledge of the heroin market. Median price estimates are based on participant reports of the price paid at last purchase.

In 2009, the quantity of heroin most commonly reported as recently bought was a half-gram, with the median price paid for this quantity at last purchase being $180 (range=$100-$380), and the most commonly reported price for this quantity $150. Forty-five participants reported recently purchasing a 'cap' (~0.1 g) of heroin, with the current

median price of a cap reported to be $50 (range=$20-$100) (Table 6). The most commonly reported price for a cap of heroin was $50.

There were no significant changes between 2008 and 2009 in the price of any of the reported heroin quantities.

Seven KE commented on the current market price of heroin, with reports ranging from $25 to $50 for a cap and $200 to $400 for a gram, consistent with prices reported by IDU. One KE reported that an increase in the number of heroin dealers in the local area and high demand from users were ensuring that prices remained low.

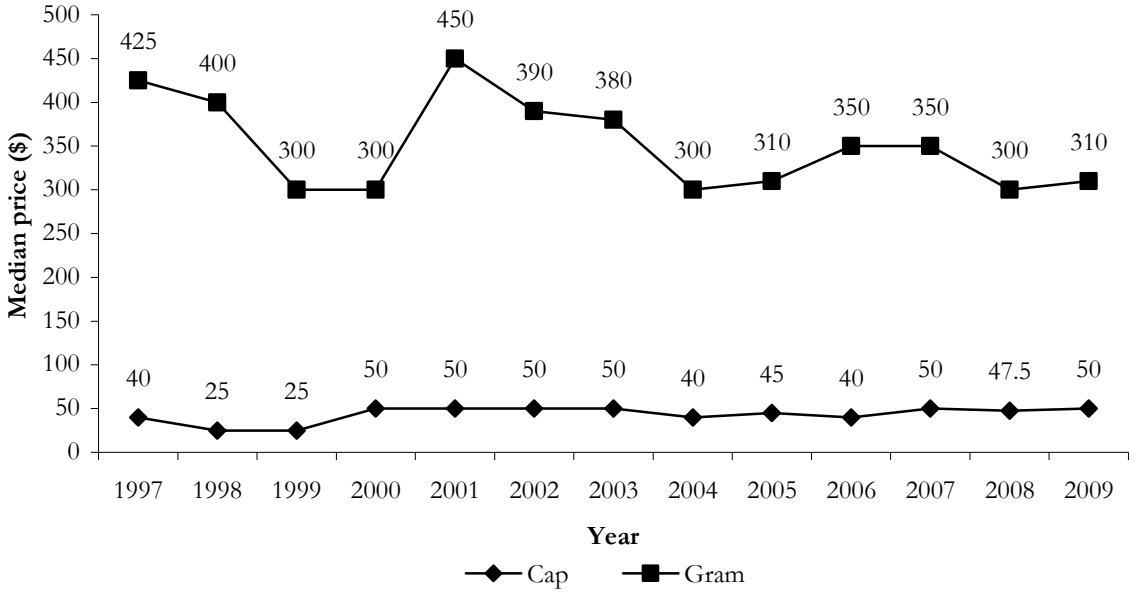
Table 6: Price of most recent heroin purchase, 2008-2009

Amount	Number of purchasers Median price ($) (range)	
	2008	2009
Cap	n=52	n=45
	47.50 (20-100)	50 (20-100)
Quarter-gram	n=37	n=16
	100 (70-120)	100 (60-170)
Half-gram	n=61	n=57
	180 (100-380)	180 (120-220)
Gram	n=35	n=20
	300 (120-420)	310 (210-450)

Source: IDRS IDU interviews

Figure 2 shows the median price of most recent purchase of heroin among participants in the Victorian IDRS between 1997 and 2009. The reported price of a cap of heroin has remained stable since 2000, at $40-$50. The reported price per gram of heroin has fluctuated, however, peaking at $450 in 2001, during the 'heroin drought' (Dietze & Fitzgerald, 2002). The reported price for a gram of heroin has remained stable over the past five years, at $300-$350.

Figure 2: Median price of a gram and cap of heroin estimated from IDU purchases, 1997-2009



Source: IDRS IDU interviews

The majority of IDU who commented on the price of heroin reported that it was stable recently (67% a figure comparable to the 73% who reported as such in 2008). This percentage remained higher than in some previous years (e.g., 41% in 2006). Smaller percentages of IDU reported that the price of heroin had either decreased (13%, n=13) or increased (11%, n=11) recently. Eight participants (8%) reported that the price of heroin had been recently fluctuating.

Six KE commented on changes in the current market price of heroin, five of whom reported that the heroin price was recently stable, while one KE reported that the price had decreased.

4.3. Availability

The majority of IDU respondents who commented on the availability of heroin (n=104) reported it as either very easy (53%) or easy (39%) to obtain at the time of interview. Almost three-quarters of these respondents (71%) reported that heroin availability had been stable recently. Three percent reported that heroin availability had fluctuated during that time.

The majority of participants reported that the last time they purchased heroin, it was bought from a known dealer (63%). Smaller percentages reporting recently buying heroin from a street dealer (16%) or a friend (15%). The most common venues for heroin purchase were at an agreed public location (37%), at the street market (26%) or at a dealer's home (16%).

Most KE reports supported IDU reports that heroin was widely available, with one NSP manager reporting that clients of their service were "scoring frequently and easily." One treatment program manager reported that while he was seeing more clients presenting due to heroin use, he did not feel that levels of heroin use had increased to the levels described in recent media reports. Law enforcement KE supported this, reporting that while heroin seizures in Victoria were drastically reduced compared with 1999-2000

levels, there had been a slight increase in the number of heroin couriers detected and seizures made. Several KE commented that the heroin 'street market' was diminishing, with most dealing now being conducted using mobile phones to organise purchases from agreed private and public locations.

4.4. Form and purity

Most (79%) of the 114 IDRS participants who commented on the type of heroin most commonly used recently reported the use of white or off-white rock heroin, a finding similar to previous years (e.g., 70% in 2008).

One hundred and two participants commented on current heroin purity, with most reporting purity to be low or medium (43% and 30% respectively). Smaller percentages reported that heroin purity was high (12%, n=12) or fluctuating (15%, n=15).

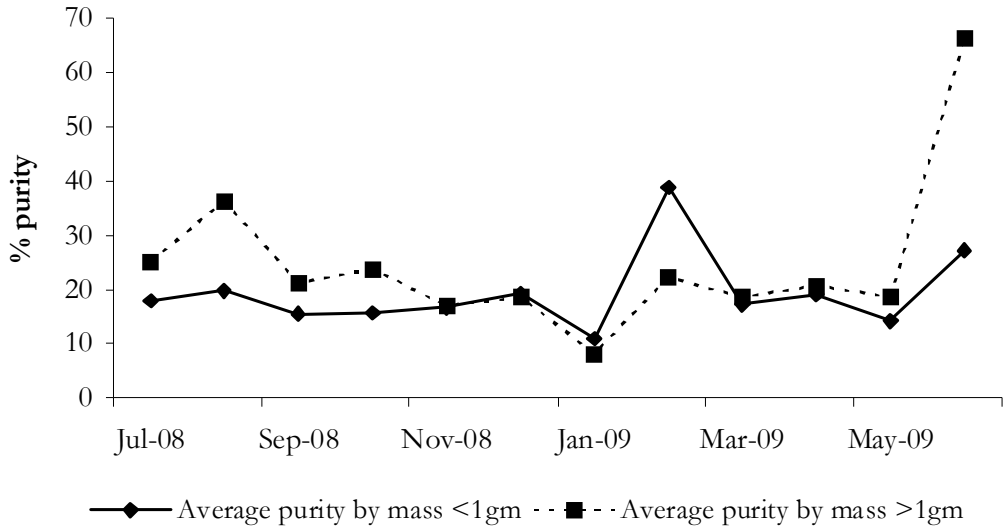
One hundred and one participants commented on whether they felt that heroin purity had recently changed, with around one-third reporting that purity had generally remained stable (36%). Around one-quarter of respondents felt that heroin purity had generally recently decreased (25%) and one-fifth reported that heroin purity had increased or fluctuated (19% and 20% respectively).

While most KE agreed that heroin was readily available, the quality of heroin was believed to be fluctuating, with purity generally described as low to medium, and only "a few flutters of good stuff coming in." Good quality heroin was only believed to be available to an individual who "knows someone who knows someone."

The average purity level of heroin seizures (for <1g and >1g amounts) made by law enforcement agencies in Victoria during the 2008-2009 financial year is shown in Figure 3.

The overall average purity level of heroin seizures analysed between July 2008 and June 2009 was 22% (range=8%-67%). The average purity of smaller heroin seizures (<1g) was 19% (range=11%-39%), while the purity of larger seizures (>1g) was slightly higher (average=25%, range=8%-67%). The average purity of heroin seizures made during 2008-2009 has remained stable compared with 2007-2008 (22%) and 2006-2007 (23%), though remains much lower than the average purities reported during the height of the heroin supply in Melbourne: 68% in 1998, 60% in 1999, 47% in 2000 (Quinn, 2008).

Figure 3: Average purity of heroin seizures by Victorian law enforcement, July 2008-June 2009



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Source: Victoria Police Forensic Services Department

4.5. Summary of heroin trends

Table 7 summarises trends in the use, price, purity and availability of heroin as described by participants in the 2009 Victorian IDRS study.

The prevalence of reported heroin use remained stable compared with previous years, as did the current market prices reported for all quantities of heroin commonly purchased. Heroin purity was reported to be low to medium, with purity generally remaining stable or decreasing. Heroin was considered easy to very easy to obtain, and was commonly purchased through known dealers.

Table 7: Summary of heroin market characteristics, Melbourne, 2009

Use	• Recent use by 79% of participants – stable compared to 2008 • Median frequency of use decreased from 81 days in the past six months in 2008 to 51 days in 2009 • White or off-white rock was the most commonly used form of heroin
Price	• No significant change in median prices: Cap: $50 compared with $47.50 in 2008 Gram: $310 compared with $300 in 2008
Availability	• Heroin was considered easy or very easy to obtain by most IDRS participants, with availability stable over the past six months • Heroin was most commonly purchased through known dealers, with purchases generally made at an agreed public location
Purity	• IDRS respondents generally reported the purity of heroin over the past six months to be low (43%) or medium (30%), with purity generally remaining stable (36%) or decreasing (25%) • Average purity of drug seizures by Victoria Police: 22% (range=8%-67%)

5.0 METHAMPHETAMINE

5.1. Use

5.1.1. Prevalence of methamphetamine use

Different forms of methamphetamine are currently available in Australia. The IDRS study currently collects information on the use, price, purity and availability of the three main forms of methamphetamine: speed, base and crystal methamphetamine (ice), along with information on the use of amphetamine liquid and pharmaceutical stimulants (e.g., dexamphetamine).

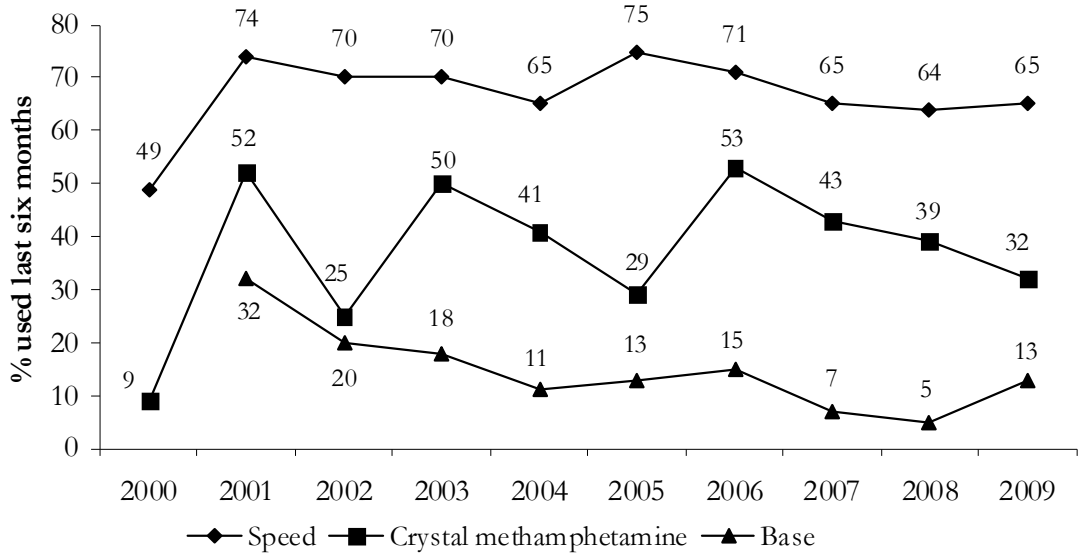
Around 2% of the Victorian population raged 14 years and over reported the use of methamphetamine in the 12 months prior to the NDSHS (AIHW, 2008). However, as in previous years, almost the entire sample (99%, n=149) of IDU survey respondents reported having ever used at least one of the three main forms of methamphetamine (speed, base or crystal methamphetamine). Use of methamphetamines in the six months preceding interview (i.e., 'recent' use) was reported by almost three-quarters of participants (70%, n=105). While 20% of IDRS respondents reported methamphetamine to be their main drug of choice compared with 11% in 2008, this increase was not statistically significant. Reports of lifetime injection of methamphetamine were common, with 95% of participants reporting lifetime speed injection, and 74% of participants reporting lifetime injection of crystal methamphetamine.

In 2008, 18% of the 308 NSP clients interviewed in Victoria as part of the Australian NSP Survey reported that the drug they had most recently injected was methamphetamine. The percentage of NSP Survey interviewees reporting methamphetamine as their most recent drug of injection has decreased over the last three years, from a peak of 35% in 2006.

5.1.2. Current patterns of methamphetamine use

Speed was reportedly the most commonly used type of methamphetamine, recently used by 65% of respondents. One-third of participants reported recently using crystal methamphetamine, and smaller numbers reported recent use of base (13%), pharmaceutical stimulants (licit or illicit) (9%) and amphetamine liquid (2%). The prevalence of recent speed use has remained stable over the past three years, while the prevalence of recent crystal methamphetamine use has continued to decline significantly from previous years ($p<0.05$). Following two years of decline, the prevalence of recent use of base increased significantly between 2008 and 2009 ($p<0.05$) (Figure 4).

Figure 4: Percentage of IDU reporting recent methamphetamine use, 2000-2009



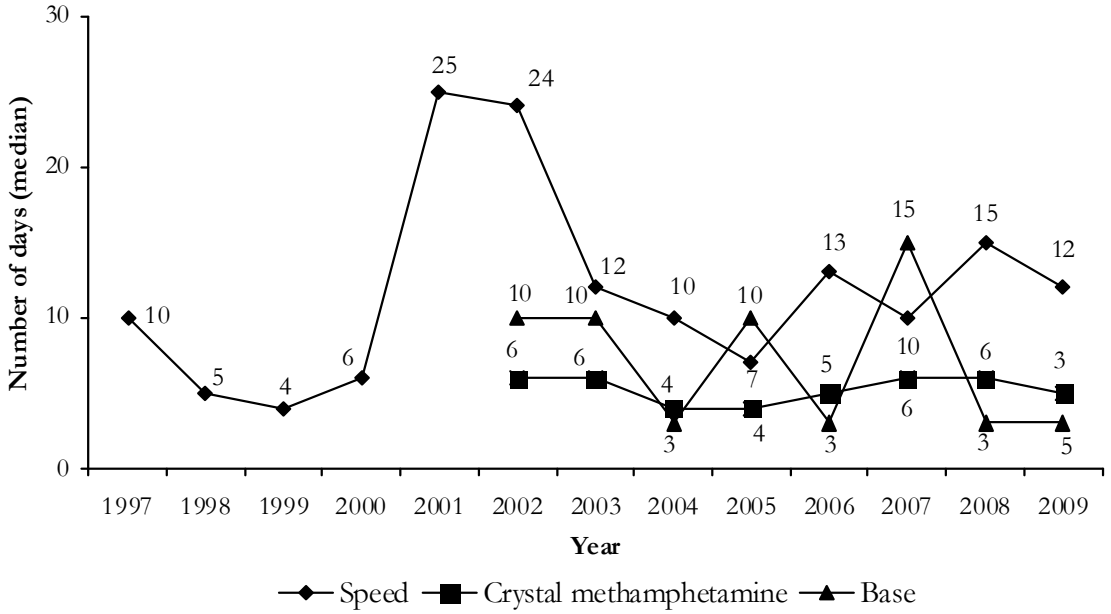
Source: IDRS IDU interviews

Injecting was the most commonly reported route of administration for methamphetamine, with recent injection of speed reported by 64% of respondents and recent injection of crystal methamphetamine reported by 31% of respondents. Reports of recent injection of base, amphetamine liquid and pharmaceutical stimulants were uncommon. Reports of recent use of methamphetamine by other routes of administration were also uncommon, with only 16% of IDRS participants reporting recent smoking and 8% reporting recent snorting of any form of methamphetamine.

Two KE considered amphetamines to be the most problematic drug used by clients with whom they had contact, with one naming crystal methamphetamine as particularly problematic. One KE commented that amphetamine users were either injecting speed or smoking crystal methamphetamine, while the other reported that amphetamine users were predominantly injecting crystal methamphetamine. This KE also commented that women were more likely to begin by smoking crystal methamphetamine before eventually transitioning to injecting. It was reported that crystal methamphetamine smokers believed they would not become addicted to the drug if they did not inject it.

Frequency of recent amphetamine use remained relatively stable compared with the previous years (Figure 5).

Figure 5: Number of days of methamphetamine use in the previous six months, 1997-2009*



Source: IDRS IDU interviews

* Data not available for base and crystal methamphetamine prior to 2002

KE described some of the character characteristics of methamphetamine users as being different to heroin users. Amphetamine users were described as mostly males aged in their 30s, of Anglo-Saxon or European ethnicity, although the number of female amphetamine users was reported by one KE to be increasing. In comparison to heroin users, amphetamine users were described as being likely to have attained at least a Year 10 pass or to have completed high school, and one KE reported that amphetamine users with whom they had contact tended to be middle-class, high-functioning professionals. High levels of alcohol use alongside amphetamine use were noted by one KE.

5.2. Price

Prices reportedly paid for speed, base and crystal methamphetamine by Melbourne IDU on the last occasion of purchase are presented in Table 8. The median price, price range, and the number of respondents who reported purchasing each quantity recently are also shown.

5.2.1 Speed

Seventy-seven participants (51% of all IDRS respondents) were able to comment on the current price of speed.

Prices reported for the three most commonly purchased quantities of speed have remained relatively stable since 2003. In 2009, the median reported price of a point of speed increased ($50 compared with $40 in the previous year); however, this increase was not significant ($p>0.05$). Reported prices for a half-gram and gram of speed remained stable. The most commonly reported prices paid for the last speed purchase were $50 for a point, $100 for a half-gram and $200 for a gram. Of the 76 participants who commented on recent changes to the price of speed, the majority (75%) reported that the

price of speed had remained stable. Fourteen percent of the sample reported that the price of speed had increased.

5.2.2 Crystal methamphetamine

Twenty-one participants (14% of all IDRS respondents) were able to comment on the current price of crystal methamphetamine. Half-grams were the most commonly reported purchase amount, reportedly purchased for a median price of $200 (range=$100-$300) (Table 7). The reported price of a point and a half-gram of speed remained stable compared with 2008, while the reported price for a gram of speed increased by $10. Prices for points and grams of crystal methamphetamine were reported by small numbers of participants and must therefore be interpreted with caution.

Twenty participants commented on changes to the price of crystal methamphetamine, with more than half (55%, n=11) reporting that the price had remained stable recently. Thirty-five percent of respondents (n=7) reported that the price of crystal methamphetamine had been increasing recently. One KE was able to comment on the price of crystal methamphetamine, reporting that it cost $40-$50 per point and that this price had increased during the six to 12 months preceding interview.

Table 8: Price of most recent methamphetamine purchase, 2008-2009

Amount	Number of purchasers Median price ($) (range)					
	Speed		*Crystal methamphetamine*		*Base*	
	2008	2009	2008	2009	2008	2009
Point (0.1 gram)	n=28 40 (20-100)	n=21 50 (20-50)	n=13 50 (20-100)	n=5 50 (20-70)	n=0	n=3 50 (40-50)
Half-gram	n=36 100 (50-200)	n=41 100 (80-200)	n=11 200 (100-220)	n=10 200 (100-300)	n=1 150	n=5 100 (90-120)
Gram	n=33 200 (80-500)	n=28 200 (150-260)	n=7 370 (200-400)	n=5 380 (200-440)	n=1 200	n=6 200 (200-220)

Source: IDRS IDU interviews

5.2.3 Base

While the number of IDRS participants able to comment on the price of base was higher than previous years, few participants were able to comment on the base market meaning that reported prices should be interpreted with caution. The median reported prices for base purchases were $50 for a point, $100 for a half-gram and $200 for a gram. The majority of participants who were able to comment on the price of base reported that the price had remained stable recently (75%, n=6).

5.3. Availability

5.3.1 Speed

Seventy-five IDU were able to comment on the current availability of speed, with the majority reporting that speed was very easy (47%, n=36) or easy (36%, n=28) to obtain. Only 14% (n=11) reported that speed was difficult or very difficult to obtain. Reports on

the availability of speed remained stable compared with the previous year. The majority of respondents reported that the availability of speed had remained stable recently (62%, n=48). Although no increase in speed availability has been reported by IDU, clandestine amphetamine laboratories were a major concern to law enforcement KE, with number of laboratories detected increasing dramatically over the past three to four years.

Of the 77 participants who described their most recent speed purchase, the majority reported purchasing speed from a known dealer (39%, n=30) or from a friend (35%, n=27). Small numbers of participants reported purchasing speed from an acquaintance (10%, n=8) or street dealer (10%, n=8). Two participants reported recently purchasing speed from a family member.

The most commonly reported venues for speed acquisition were at an agreed public location (21%, n=16), home delivery (21%, n=16) or at a dealer's house (19%, n=15).

5.3.2 Crystal methamphetamine

The majority of those who commented on the current availability of crystal methamphetamine (n=21) reported that it was easy (38%, n=8) or very easy (38%, n=8) to obtain at present. Of the remaining five participants who were able to comment on availability of crystal methamphetamine, three reported it to be difficult and two reported it to be very difficult. Of those participants who commented on recent changes to crystal methamphetamine availability, around half reported it to be stable (48%, n=10) and one quarter reported that it was becoming increasingly difficult to obtain (24%, n=5). Crystal methamphetamine was reported by one KE to be in "high demand" which was limiting availability.

Crystal methamphetamine was most commonly purchased from friends (43%, n=9) and known dealers (38%, n=8), and most commonly purchased at friends' or dealers' homes (52%, n=11). Only four participants made their most recent crystal methamphetamine purchase at the street market.

5.3.3 Base

Of the eight participants who were able to comment on the availability of methamphetamine base, three-quarters reported it to be very easy to obtain, and one-quarter reported it to be easy to obtain. Seven of the eight participants reported that the availability of base had recently remained stable.

5.4. Purity

5.4.1 Speed

In 2009, more than half of the participants able to comment on speed purity reported the current purity of speed to be low (55%, n=42), 14% reported purity to be medium (n=11) and 17% reported it to be high (n=13). A small number of participants believed that speed purity had fluctuated recently (14%, n=11). Forty-two percent of participants reported that speed purity had recently been decreasing (n=32), while 25% reported that speed purity had recently remained stable (n=19).

5.4.2 Crystal methamphetamine

Of the 21 participants who commented on the current purity of crystal methamphetamine, most reported it to be medium (33%, n=7) or high (29%, n=6). However, over a third (38%, n=8) reported that the purity had been recently decreasing. Another third of participants reported that the purity of crystal methamphetamine had been fluctuating (29%, n=6). One KE was able to comment on the purity of crystal

methamphetamine, with purity reported to be medium but decreasing. Reports by KE in law enforcement suggest that the majority of 'ice' seized in Victoria is actually a crystalline form of speed powder, the purity of which is substantially lower than real 'ice', which is currently unavailable.

5.4.3 Base

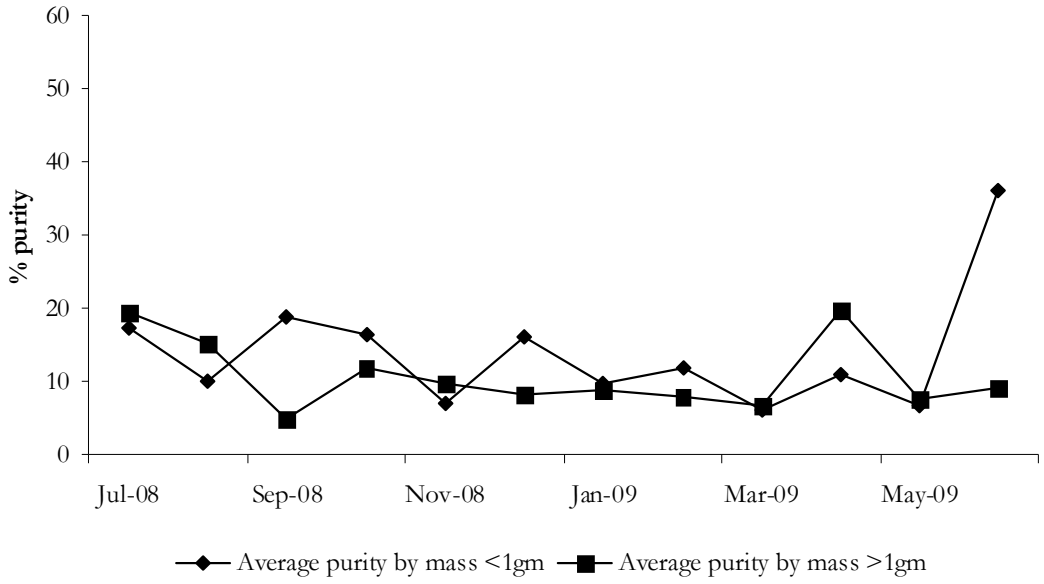
Only eight participants were able to comment on the current purity of methamphetamine base, with four reporting purity to be medium and two reporting purity to be high. Four participants reported that the purity of methamphetamine base had remained stable recently.

The average purities of <1g and >1g methamphetamine seizures by law enforcement agencies in Victoria during the 2008-2009 financial year are shown in Figure 6. The average purity of small seizures (<1g) was 14% (range=6%-36%), while the average purity of larger seizures was slightly lower, at 11% (range=5%-20%).

The mean purity of all seizures of methamphetamine analysed in Victoria during the 2008-2009 financial year was 12%, lower than previous years (21% in 2007-2008, 18% in 2006-2007 and 19% in 2005-2006) (Quinn, 2008).

As in previous years, there were very few amphetamine seizures (as opposed to methamphetamine seizures) made by law enforcement agencies in Victoria during the 2008-2009 financial year. The average purity of the amphetamine seized was also low (9%, range=1%-20%).

Figure 6: Average purity of methamphetamine seizures by Victorian law enforcement, July 2008-June 2009



Source: Victoria Police Forensic Services Department

5.5. Summary of methamphetamine trends

Trends in methamphetamine price, availability, purity and use are summarised in Table 9. Findings from this year's IDU sample indicate that while the prevalence of recent speed use has remained stable, the prevalence of recent crystal methamphetamine use has decreased. The percentage of IDRS respondents reporting recent base use increased to levels similar to what was seen in the 2006 study. Frequency of use of speed, crystal methamphetamine and base remained stable compared with 2008. As in previous years,

these drugs were reported to be predominantly sourced through known dealers and friends (social networks).

Table 9: Summary of methamphetamine market characteristics, Melbourne, 2009

	Speed	*Base*	*Crystal methamphetamine*
Use	• The prevalence of recent speed use has remained stable over the past three years, while the prevalence of recent crystal methamphetamine use has continued to decline significantly. • Following two years of decline, the prevalence of recent base use increased significantly between 2008 and 2009		
Price Point (median) Half-gram (median) Gram (median)	 $50 $100 $200	 $50 $100 $200	 $50 $200 $380
	• No significant changes in the price of a point/cap, half-gram or gram of speed, base or crystal methamphetamine		
Availability	• Very easy to easy to obtain • Remained stable over past six months	• Mostly very easy • Stable	• Easy to very easy to obtain • Mostly availability stable, although 24% reported availability becoming more difficult
	• Generally sourced from known dealers or friends		
Purity	• Current purity medium to low • Purity stable or decreasing	• Purity high • Stable	• Purity high to medium • Purity decreasing
	• Average purity of drug seizures 12%, lower than in previous years		

6.0 CANNABIS

6.1. Use

6.1.1. Prevalence of cannabis use

Almost 9% of Victorians aged 14 years and over reported using cannabis within the 12 months preceding interviews for the NDSHS (AIHW, 2008)[2], making cannabis the most widely used illicit drug in the state. Cannabis was also one of the most widely used illicit drugs by participants in the 2009 IDRS, with 97% of participants (n=146) reporting lifetime cannabis use, and 79% of participants (n=118) reporting use in the past six months (hereafter recent). The percentage of IDRS respondents reporting recent cannabis use has remained stable over the past four years ($p>0.05$).

As in previous IDRS surveys, questions related to cannabis were asked separately for hydroponic cannabis and bush (naturally-grown) cannabis, as well as hash/hash oil (Quinn, 2008; Jenkinson & Quinn, 2007; Jenkinson & O'Keeffe, 2006; Jenkinson & O'Keeffe 2005). Of the 118 participants who reported recent use of cannabis, 111 reported on the forms of cannabis they had used, with 103 (93%) reporting use of hydroponically grown cannabis. Recent use of bush cannabis was also common, reported by 41% of participants (n=45). Reports of the use of hash or hash oil were rare, reported by only 6% and 1% of participants, respectively. Most respondents reported that hydroponically grown cannabis was the form of cannabis most used recently (91%, n=100). The prevalence of use of different cannabis forms was consistent with previous IDRS years.

6.1.2. Current patterns of cannabis use

Among IDRS respondents who reported using cannabis in the past six months, cannabis use was reported on a median of 100 days (range=1-180 days). The frequency of cannabis use decreased compared with the previous year (median=175 days); however, this decrease was not statistically significant ($p>0.05$). Only 13 participants (11%) reported daily cannabis use recently, significantly less than in 2008 (48%, n=53) ($p<0.05$). Despite the decrease in frequency of cannabis use, cannabis continues to be the most frequently used illicit drug among Victorian IDRS participants.

Four KE reported that cannabis was the most problematic drug used by the clients with whom they had contact. Cannabis was reported to be problematic because the majority of clients were long-term, heavy users (most KE reported that the majority of users smoked daily, sometimes consuming up to one to two grams of cannabis each day). This level of use was described as having negative impacts on clients' motivations, life goals and mental health. Furthermore, one KE reported that while he considered cannabis use to be deeply problematic, many of his clients did not.

Cannabis users were described as younger than heroin or amphetamine users, reportedly ranging in age from 12-65 years, with most aged in their 20s to 40s.

[2] The sample was based on households, therefore homeless and institutionalised persons were not included in the survey.

6.2. Price

Information related to the price, purity and availability of cannabis was reported by 89 participants (59% of all IDRS participants, and 75% of IDRS participants reporting recent cannabis use).

In 2009, the most commonly purchased quantity of hydroponic cannabis during the six months preceding interview was a quarter-ounce, with the median price reportedly paid for this quantity at last purchase being $80 (range=$50-$90) (Table 10). Forty-three participants reported recently purchasing a gram of hydroponic cannabis, with the median price paid being $20 (range=$10-$20). The most commonly purchased amount of bush cannabis was a quarter-ounce, the median price of which was reported as stable at $80 (range=$50-$80).

The median reported prices of other commonly purchased hydroponic and bush cannabis amounts are shown in Table 10. There were no significant changes between 2008 and 2009 in the reported price of most of the cannabis quantities. The only quantities to show a significant price change between 2008 and 2009 were a half-ounce of hydroponic cannabis, which decreased from $150 to $140 and an ounce of bush cannabis, the price of which increased from $200 to $225 ($p<0.05$). Five participants commented on the price of hash, with the median reported price for a gram of hash being $20 (range=$10-$40).

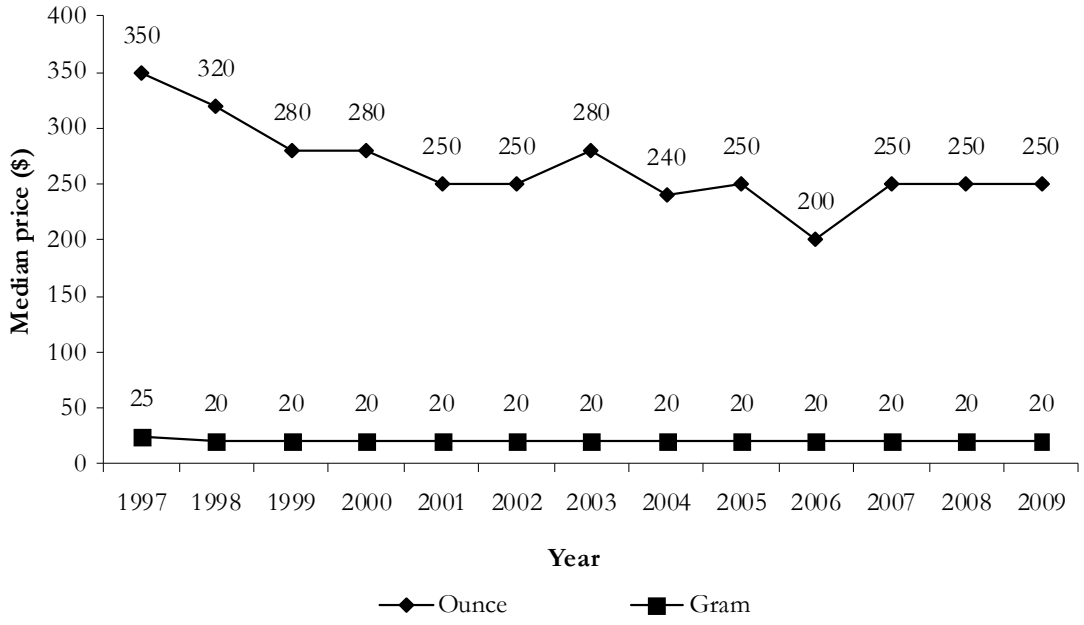
Table 10: Price of most recent cannabis purchase, 2008-2009

Amount	Number of purchasers Median price ($) (range)			
	Hydroponic		*Bush*	
	2008	**2009**	**2008**	**2009**
Gram	n=53 20 (10-20)	n=43 20 (10-20)	n=10 20 (10-20)	n=16 20 (15-30)
Three grams	n=27 50 (30-60)	n=22 50 (40-50)	n=3 50	n=10 50 (30-50)
Quarter-ounce	n=41 80 (60-100)	n=57 80 (50-90)	n=5 80 (70-100)	n=22 80 (50-80)
Half-ounce	n=16 150 (120-180)	n=15 140 (100-280)	n=2 110 (100-120)	n=8 125 (100-150)
Ounce	n=31 250 (200-350)	n=19 250 (200-300)	n=7 200 (100-200)	n=11 225 (180-280)

Source: IDRS IDU interviews

Figure 7 shows the median reported price of a gram and an ounce of cannabis as reported by IDRS survey participants over the past decade. While the reported price of a gram of cannabis has remained stable at $20, the price per ounce has been less consistent. The reported price of an ounce of cannabis has remained stable at $250 since 2007, following a low of $200 in 2006.

Figure 7: Median price of a gram and ounce of cannabis estimated from IDU purchases, 1997-2009*



Source: IDRS IDU interviews

*2003-2009 prices reflect those for hydroponic cannabis only (the form most often used)

The majority of participants who commented on the price of cannabis reported that the price of both hydroponic and bush cannabis had remained stable recently (66% (n=56) and 75% (n=24), respectively.)

Two KE commented on the price of cannabis, with one reporting the price of a gram of cannabis to be between $15 and $20, and the other reporting that half an ounce of cannabis could be obtained for $150. One KE reported that the price of cannabis had remained stable recently, while the other reported that price had fluctuated.

6.3. Availability

Eighty-four participants commented on the availability of hydroponic cannabis, with most reporting that it was either very easy (66%, n=55) or easy (27%, n=23) to obtain. Seventy-three percent of IDU who commented on the availability of hydroponic cannabis reported that availability had remained stable recently. Consistent with IDU reports, KE also reported that cannabis was widely available, with one KE reporting acquiring cannabis to be "almost as easy as getting alcohol."

Fewer users (n=31) were able to confidently comment on the availability of bush cannabis. Two-thirds of these users reported that bush cannabis was easy (36%, n=11) or very easy (32%, n=10) to obtain, with the remainder generally reporting that bush cannabis was difficult to obtain (29%, n=9). The majority of bush cannabis users reported that availability had remained stable recently (59%, n=19); however, some reported that bush cannabis had become increasingly difficult to obtain (19%, n=6).

Both hydroponically grown and naturally grown cannabis were most commonly sourced through known dealers (40% and 41% of last purchases, respectively) or friends (49% and 31% of last purchases, respectively). Participants were significantly more likely to report purchasing bush cannabis from a street dealer than hydroponic cannabis ($p<0.05$).

The locations where participants reported making their most recent cannabis purchase included a friend's home (29% of hydroponic purchases, and 22% of bush purchases), a dealer's home (20% and 19% respectively), an agreed public location (24% and 22% respectively) or home delivery (15% and 13% respectively.) Participants were significantly more likely to report purchasing bush cannabis from a street drug market than hydroponic cannabis (19% compared with 8% respectively) ($p<0.05$).

6.4. Potency

Eighty-four participants reported on the current potency of hydroponic cannabis, with the majority reporting it to be high (58%, n=49), and smaller numbers reporting it to be medium (31%, n=26) or fluctuating (8%, n=7). Law enforcement KE confirmed this, reporting that seizures of high purity cannabis occurred almost every day. When asked to comment on recent changes to the strength of cannabis, the majority of IDRS participants reported that it had remained stable (58%, n=49), but 22% (n=19) suggested that it had been fluctuating recently.

Similarly, the potency of bush cannabis was reported to be medium (53%, n=17) or high (25%, n=8) by most participants and that this had recently remained stable (63%, n=20).

6.5. Summary of cannabis trends

A summary of cannabis trends is shown in Table 11. The Melbourne cannabis market and patterns of use remain stable, with cannabis continuing to be the most frequently used illicit drug among IDU.

Table 11: Summary of cannabis market characteristics, Melbourne, 2009

Use	• Frequency of use decreased compared with previous years; however, this difference was not statistically significant • Significantly less IDRS participants reported daily cannabis use compared with 2008 • Despite this, cannabis continues to be the most frequently used illicit drug among this sample • Accessed primarily through social networks and known dealers
Price	• Prices generally remained stable at $20/gram for both hydroponic and bush cannabis • Price per ounce remained stable for hydroponic cannabis ($250), but increased from $200 to $225 for bush cannabis (compared with 2008)
Availability	• Both hydroponic and bush cannabis reported to be easy or very easy to obtain • Availability mostly stable although some reports of bush cannabis becoming increasingly difficult to obtain • Both cannabis forms commonly purchased through known dealers or friends; however, participants were more likely to report purchasing bush cannabis at a street drug market
Potency	• Medium to high and stable

7.0 OTHER OPIOIDS

7.1. Methadone

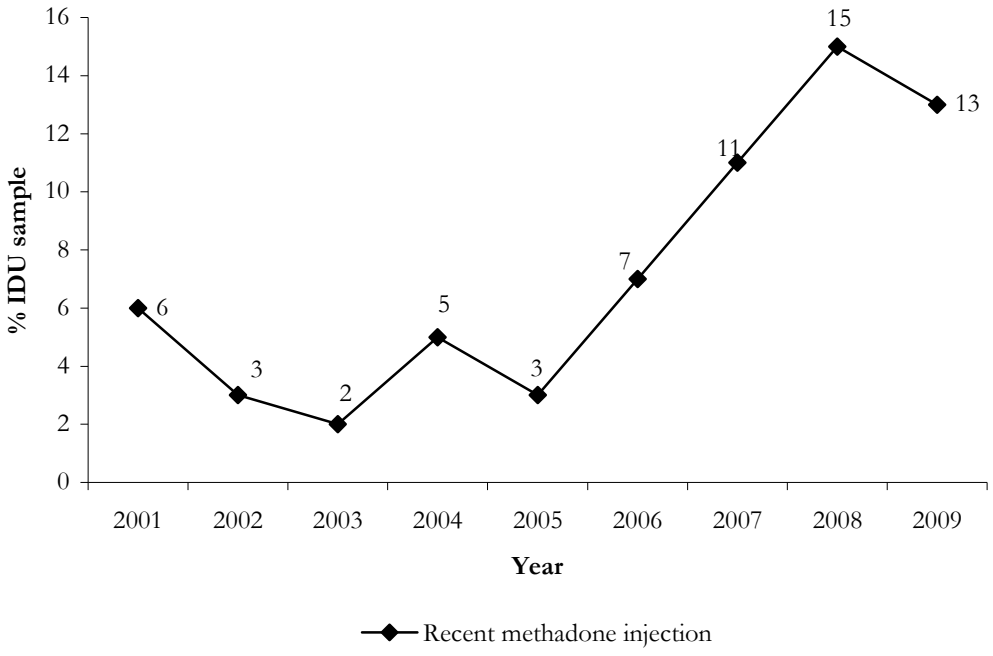
For the purposes of the IDRS study, the category 'methadone' includes methadone syrup and methadone in tablet form (known as Physeptone). Seventy-nine percent of the 2009 IDRS participants (n=118) reported having ever used any methadone (either licit (prescribed) or illicit), similar to previous years. Forty-seven percent of IDRS respondents (n=70) reported using any methadone during the six months preceding interview (i.e., 'recent' use).

Reports of the lifetime use of illicit methadone were frequent (41%, n=61). However, reports of recent illicit methadone use were less common, reported by 19% (n=28) of all IDRS participants. The percentage of IDRS respondents reporting recent use of illicit methadone has remained stable over the past three years ($p>0.05$). Among participants who reported recent use of illicit methadone, use was reported on a median of five days (range=1-72), similar to 2008 (median=6 days).

Twenty-three participants (15%) reported lifetime use of illicit physeptone, and only seven (5%) reported recent use. Illicit physeptone use appears to be either experimental or opportunistic, with respondents reporting recent use on between just one and three days.

Lifetime injection of any methadone or physeptone was reported by just over a quarter of all IDRS participants (27%, n=41), with recent methadone or physeptone injection reported by 13% of all IDRS participants (n=20). The percentage of IDRS participants reporting recent methadone injection has increased significantly since 2005 ($p<0.05$). However, the 2009 figure was comparable to 2008 (Figure 8).

Figure 8: Percentage of IDU reporting recent methadone injection, 2001-2009



Source: IDRS IDU interviews

Among those reporting recent injection, injection of methadone syrup was more common than injection of physeptone tablets (85% of recent methadone injectors compared with 35%), and injection of illicit methadone was more common than injection of prescribed methadone (80% of recent methadone injectors compared with 45%). Recent methadone injection was reported on a median of eight days (range=1-144 days).

Only six participants were able to comment on the price, purity and availability of illicit methadone.

Six participants reported prices of their most recent illicit methadone syrup purchases, with reports varying from as low as $15/300 ml to $50/100 ml. No participants were able to comment on the price of illicit physeptone.

Five of the six participants who commented on the price of methadone reported that the price had remained stable recently, and four of the six reported that methadone was easy (n=2) or very easy (n=2) to obtain. Recent availability of methadone was reported as stable by four participants. Most illicit methadone users reported that their most recent methadone purchase was made from a friend (83%, n=5) at a friend's home (83%, n=5), with only one participant reporting purchasing illicit methadone from an unknown dealer at a street drug market.

None of the KE interviewed in 2009 viewed methadone to be a specifically problematic drug; however, a small number commented on the use of illicit methadone. One KE was concerned about the increasing injection of both licit and illicit methadone, and suggested the introduction of a policy of mixing methadone with orange juice rather than cordial, in the hope that the presence of particulate matter may provide a visual deterrent from injecting.

7.2. Buprenorphine

Similar to previous years, around three-quarters of IDRS respondents reported lifetime use of buprenorphine (Subutex®) (76%, n=114) and one-third of respondents reported recent buprenorphine use (33%, n=50).

As in previous years, respondents were asked about both prescribed (licit) and non-prescribed (illicit) use of buprenorphine. Half (n=76) of the sample reported ever using illicit buprenorphine, and one-quarter (n=37)reported recent illicit buprenorphine use. The percentage of IDRS participants reporting recent illicit buprenorphine use increased compared with 2008 (19%); however, this difference was not significant. Frequency of reported illicit buprenorphine use was low at a median of 24 days (range=1-180 days), the same as in 2008.

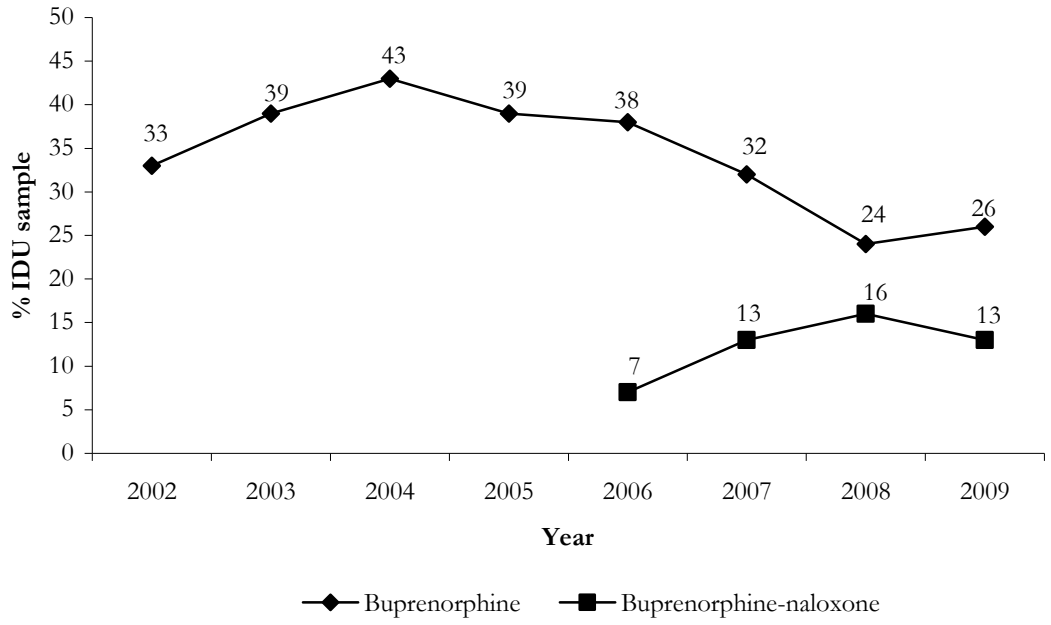
Buprenorphine was identified as a problematic drug by three KE, two of whom reported that use was predominantly licit.

Lifetime injection of any buprenorphine (licit or illicit) was reported by 82 participants (55%), and recent buprenorphine injection was reported by 39 participants (26%). The percentage of IDRS participants reporting recent injection remained stable compared with 2008, following a period of significant decline from a peak of 43% in 2004 ($p<0.05$) (Figure 9).

KE reported that the introduction of buprenorphine-naloxone and the transfer of the majority of buprenorphine clients to the new product had a significant impact on the availability of buprenorphine, leading to the decrease in buprenorphine injection. Another commented that while initial buprenorphine injection may have been

experimental amongst the people with whom they have contact, use soon became habitual for most: "Once you've found the needle, you can never get off."

Figure 9: Percentage of IDUs reporting recent buprenorphine and buprenorphine-naloxone injection, 2002-2009



Reports of recent injection of illicit buprenorphine (21%, n=31) were more common than recent injection of prescribed buprenorphine (8%, n=12). However, recent injection of prescribed buprenorphine was reported to occur more frequently than recent injection of illicit buprenorphine, reported on a median of 65 days (range=1-180 days) compared with a median of 48 days (range=1-180 days). Frequency of prescribed buprenorphine injection decreased compared with 2008, where injection was reported on a median of 150 days; however, this decrease was not statistically significant. In contrast, recent injection of illicit buprenorphine increased from a median of 24 days in 2008 (again, this difference was not statistically significant).

Buprenorphine injectors were described by KE to be young, generally aged in their 20s, with high levels of unemployment, with many engaging in petty crime. One KE reported that many young buprenorphine injectors had never used heroin, and perceived it to be "hardcore" in comparison to buprenorphine. In one particular region, buprenorphine injectors were reported to be predominantly second generation IDU from dysfunctional families, who had grown up in an environment where drug use was normalised.

According to KE, buprenorphine injection continues to be associated with injecting-related injuries, despite multiple health and education campaigns being rolled out over the past few years. Provision of wheel filters was a particular concern raised by one NSP worker, whose NSP had a 'no cash' policy, which precluded them from selling wheel filters to buprenorphine injectors. This KE reported that clients were left with no choice but to inject buprenorphine unsafely, as they were unable to obtain wheel filters from the NSP, but could also not purchase them from local pharmacies because of potential impact on their treatment.

Twenty-two participants (15%) were able to comment on the market characteristics for illicit buprenorphine. A median price of $5 for 2 mg of buprenorphine (range=$5-$6) was reported by seven participants, a median price of $10 for 4 mg was reported by five

participants and a median price of $20 for 8 mg of buprenorphine was reported by 11 participants. The price of illicit buprenorphine did not change significantly between 2008 and 2009. When asked to comment on any recent changes to the price of illicit buprenorphine, the majority reported that price had remained stable (82%, n=18). One KE commented on the price of illicit buprenorphine, reporting that 4 mg was usually sold for around $5.

Twenty-one participants commented on the availability of illicit buprenorphine, of whom more than three-quarters reported that illicit buprenorphine was currently very easy to obtain (76%, n=16). The majority of these participants reported that availability of illicit buprenorphine had remained stable recently (76%, n=16) but some reported that it had either become more difficult (14%, n=3) or easier (10%, n=2) to obtain. One KE reported that most of the buprenorphine users with whom he had contact were now on pharmacotherapy programs so there was less demand for black market buprenorphine. Furthermore, the buprenorphine street market was described as being limited, with people coming out just to "get rid of the excess and then go home," unlike the heroin street market, which was described as "an all-day job."

At last purchase, participants reported that illicit buprenorphine was most commonly purchased from friends (73%, n=16) or street dealers (23%, n=5), with purchases made either at a street drug market (41%, n=9), at a friend's home (27%, n=6) or home delivered (18%, n=4).

7.3. Buprenorphine-naloxone

Initially, Subutex® was the only buprenorphine preparation available in Australia for the treatment of opioid dependence. A second sublingual preparation, Suboxone®, containing buprenorphine and naloxone was approved by the Therapeutic Goods Administration (TGA) in July 2005 (Lintzeris et al, 2006), and became available on the Pharmaceutical Benefits Scheme (PBS) in April 2006 (AGDHA, 2006). Buprenorphine-naloxone was developed to limit the abuse potential of buprenorphine by reducing the potential for injection, especially by opioid-dependent users who are not in treatment (Lintzeris et al, 2006). The advantage of buprenorphine-naloxone for some consumers is the potential for unsupervised dosing.

Around half of the 2009 IDRS sample reported lifetime use of buprenorphine-naloxone (licit or illicit) (54%, n=81), and around one-third reported recent use (29%, n=43). The percentage of participants reporting lifetime use of buprenorphine-naloxone increased from 33% in 2007 and 45% in 2008 ($p<0.05$). However, this increase is best attributed to an increasing number of IDU accessing buprenorphine-naloxone following its fairly recent introduction.

Reports of both lifetime and recent use of licit buprenorphine-naloxone were more frequent than reports of illicit buprenorphine-naloxone use (reported by 41% and 18% of IDRS participants compared with 29% and 14%, respectively.) Reported frequency of illicit buprenorphine-naloxone use increased from a median of five days in 2008 to 12 days in 2009; however, this increase was not statistically significant ($p>0.05$).

Lifetime injection of buprenorphine-naloxone was reported by just over one-quarter of the IDRS sample (28%, n=42), similar to 2008. Recent buprenorphine-naloxone injection was uncommon, however, reported by only 20 participants (13%) (Figure 10). Recent injection of illicit buprenorphine-naloxone was more commonly reported than recent injection of prescribed buprenorphine-naloxone (9%, n=13 compared with 6%, n=9). The reported frequency of buprenorphine-naloxone injection increased from 12 days in 2008 to 25 days in 2009; however, this difference was not statistically significant

(p>0.05). One KE reported that IDU preferred the subjective effects of buprenorphine injection over buprenorphine-naloxone, and were thus less likely to inject this preparation.

Eleven participants (7%) were able to answer questions about the price, purity and availability of illicit buprenorphine-naloxone. A median price of $5 (range=$5-$10) for 2 mg of buprenorphine-naloxone was reported by three participants, while eight participants reported a median price of $20 for 8 mg of buprenorphine-naloxone (range=$10-$20). Nine of the 11 participants who commented on the price of illicit buprenorphine-naloxone reported that the price of this drug had remained stable recently. Trends in the price of illicit buprenorphine-naloxone should be interpreted with caution due to the small number of participants able to comment.

Illicit buprenorphine-naloxone was reported to be very easy to obtain by the majority of those who commented (64%, n=7), with availability reportedly remaining stable recently (90%, n=10).

Buprenorphine-naloxone was reported as most commonly purchased through friends (73%, n=8) at their home (55%, n=6). Four participants (36%) reported purchasing illicit buprenorphine-naloxone from a street market or an agreed public location. Ten participants commented on the main reasons they had used illicit buprenorphine-naloxone recently, with the most commonly reported reasons being: because the participant was away from home (60%, n=6) and for self-treatment (50%, n=5). One participant reported using illicit buprenorphine-naloxone predominantly as a substitute for heroin or other opiates.

7.4. Morphine

Similar to 2008, approximately three-quarters of IDRS participants reported lifetime use of morphine (71%, n=107). One-third of participants reported recent morphine use (33%, n=49) a figure slightly, but not significantly, less than in 2008 (41%, n=61) (p>0.05). One KE reported that the reason clients with whom he had contact used morphine was because they liked the consistency of knowing exactly what they are getting (in comparison to heroin, the quality of which may fluctuate).

Both lifetime and recent use of illicit morphine were more commonly reported than licit morphine (65% compared with 19% and 31% compared with 3%, respectively). There has been no significant change in the prevalence of recent illicit morphine use over the past eight years (p>0.05) (Figure 10). KE supported the notion that the majority of morphine use among this group was illicit, with reports that some IDU acquired prescriptions for more than they need for personal use so that they can sell the excess. Pharmacy break-ins and doctor shopping were also reported by one KE to be common methods of obtaining illicit morphine. One medical officer KE reported that he was so concerned about diversion of morphine that his practice had introduced a policy limiting early pick-ups of doses and preventing dose increases.

The reported frequency of recent illicit morphine use remained low, with use reported on a median of six days (range=1-96 days) compared with five days in 2008. One NSP worker KE reported that the frequency of morphine use fluctuated in response to availability, and that clients would use it more regularly if it were readily available and prices remained stable.

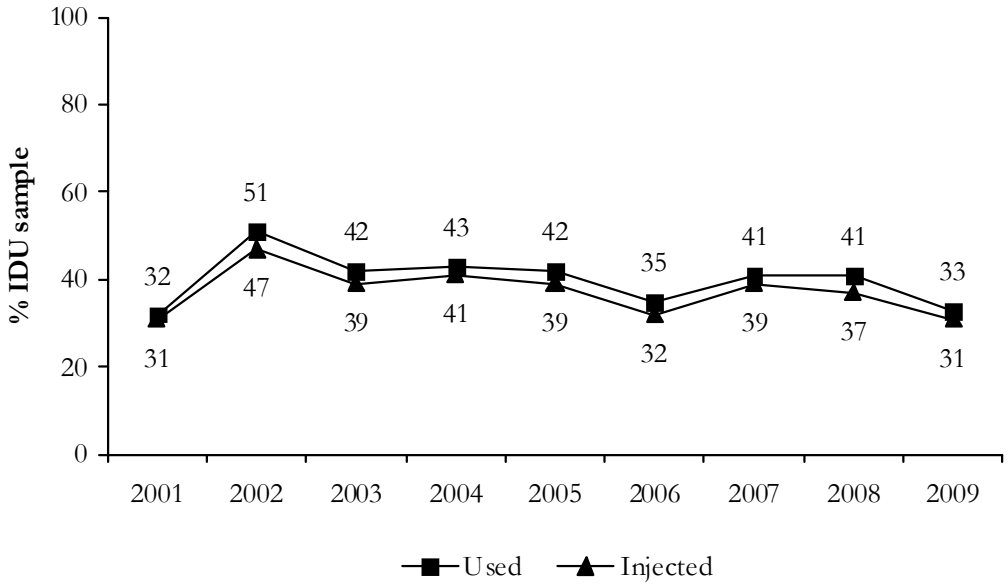
Participants in the 2009 IDRS most frequently reported injection as the mode of illicit morphine administration, with 31% of the sample (n=46) reporting recent injection. In contrast, recent injection of licit morphine was reported by just 2% of the sample (n=3).

One-quarter of study participants (24%, n=36) reported having ever swallowed illicit morphine; however, only 10 participants (7%) reported swallowing illicit morphine recently. The percentage of IDRS participants reporting recent morphine injection has remained stable since 2001 (p>0.05).

Morphine injection was reported on a median of five days (range=1-180 days) during the six months preceding interview, the same as in 2008.

Forty-three participants reported the brand of morphine most commonly used in the six months preceding interview, with 65% of respondents (n=28) reporting most commonly using MS Contin®, and 33% (n=14) most commonly reporting using Kapanol®.

Figure 10: Percentage of IDU reporting recent morphine use and injection, 2001-2009



Source: IDRS IDU interviews

Thirty-one participants (21% of the sample) were able to comment on the price, purity and availability of illicit morphine.

Prices paid for the two most commonly purchased brands of morphine, MS Contin® and Kapanol®, at the last occasion of purchase by Melbourne IDU are presented in Table 12. The most commonly purchased amount of morphine reported by the IDU sample in 2009 was 100 mg of MS Contin®, the same as in 2008. The reported price of 100 mg of MS Contin® increased by $10 compared with 2008; however, this difference was not statistically significant. In 2009, two participants also reported buying 30 mg of Anamorph, one for $10 and the other for $15. Of the 29 participants who commented on the price of illicit morphine, the majority reported that it had remained stable recently (72%, n=21).

Among the 30 participants who commented on the availability of illicit morphine perceptions varied widely, with 10 participants (33%) reporting that it was very easy to obtain, nine participants (30%) reporting that it was easy to obtain and another nine participants (30%) reporting that it was difficult to obtain. A further two participants (7%) reported that illicit morphine was very difficult to obtain. Most participants, however, agreed that the availability of illicit morphine had recently remained stable

(58%, n=18). Smaller numbers reported that it had had become increasingly difficult to obtain (19%, n=6) or that availability had been fluctuating (10%, n=3).

Illicit morphine was reported to be most commonly purchased through friends (52%, n=16), known dealers (23%, n=7) and street dealers (23%, n=7), with transactions generally made at a street market (32%, n=10), at an agreed public location (29%, n=9) or at a friend's house (19%, n=6).

The main reasons reported for recent illicit morphine use were as a substitution for heroin or other opiates (52%, n=16), to achieve intoxication (35%, n=11) and for self-treatment (19%, n=6).

Table 12: Price of most recent morphine purchase, 2008-2009

Amount*	Number of purchasers Median price ($) (range)			
	MS Contin®		***Kapanol®***	
	2008	**2009**	**2008**	**2009**
20mg capsule	-	-	n=0 -	n=5 20 (10-20)
30mg tablet	n=3 20 (10-30)	n=4 12.50 (10-15)	-	-
50 mg capsule	-	-	n=5 20 (10-30)	n=6 27.50 (20-50)
60mg tablet	n=11 20 (8-30)	n=12 30 (10-40)	-	-
100mg tablet/capsule	n=17 40 (25-60)	n=22 50 (25-50)	n=9 40 (20-50)	n=15 50 (30-100)

Source: IDRS IDU interviews

* MS Contin® comes in the form of 5 mg, 10 mg, 30 mg, 60 mg and 100 mg tablets, while Kapanol® is produced in 20 mg, 50 mg and 100 mg capsules. No IDU reported purchasing the amounts that are not shown here

7.5. Oxycodone

In 2009, 65% of IDRS participants (n=97) reported having ever used oxycodone, similar to the 71% (n=107) of 2008 participants. Around one-quarter of participants reported recent oxycodone use (27%, n=40), again, similar to 2008 (27%, n=40).

Patterns of oxycodone use were similar to patterns of morphine use, with both lifetime and recent use of illicit oxycodone being more commonly reported than licit oxycodone use (60% compared with 13%, and 25% compared with 5%, respectively.) Similar to morphine, KE reported that oxycodone was also obtained illicitly through pharmacy break-ins. One pharmacist KE reported that the oxycodone black market was being encouraged by doctors, observing that oxycodone was being prescribed more commonly, and that prescriptions tended to be for large doses, often including several repeats.

The frequency of illicit oxycodone use remained low, with use reported on a median of five days (range=1-160 days), the same as in 2008. One community development worker

KE reported that predominantly heroin-using clients would use oxycodone if it was available and heroin was not, but that there was no constant supply.

Participants in the 2009 IDRS most frequently reported injection as the mode of illicit oxycodone administration, with 23% of the sample (n=34) reporting recent injection. Oxycodone injection was reported on a median of five days (range=1-134 days) during the six months preceding interview, the same as in 2008. KE reported that both injecting and oral use of oxycodone were common among clients with whom they had contact, and that different patterns of use were associated with different ethnic groups. One medical officer KE reported that for the first time he was seeing opiate-dependent people who had never injected illicit opiates. A pharmacist also reported that clients were only using oxycodone orally because they were finding it too difficult to dissolve for injection.

Thirty-five participants reported the brand of oxycodone most commonly used recently, with all respondents naming OxyContin.

Twenty participants (13% of the sample) were able to comment on the market characteristics of illicit oxycodone.

As in 2008, the most commonly reported purchase amount of OxyContin was 80 mg. The price for this amount of oxycodone increased by $10 compared with 2008; however, this difference was not statistically significant (Table 13). Just one participant reported that their last purchase was Endone, with the price of 5 mg reported to be $10. The majority of those who reported on changes to the price of illicit oxycodone reported that it had remained stable recently (70%, n=14), with the remainder reporting that the price had been recently increasing. One KE reported that oxycodone was sold for $6 per pill but was unable to specify the brand or size of pills sold for this price.

Table 13: Price of most recent oxycodone purchase, 2008-2009

Amount	Number of purchasers Median price ($) (range)	
	2008	2009
20mg tablet	n=1 20	n=3 20 (10-40)
40mg tablet	n=4 20	n=7 20 (10-30)
80mg tablet	n=10 30 (20-40)	n=18 40 (4-60)

Source: IDRS IDU interviews

Perceptions were varied among the 20 participants who commented on the availability of illicit oxycodone, with eight participants (40%) reporting that it was easy to obtain, seven participants (35%) reporting that it was very easy to obtain and another five participants (25%) reporting that it was difficult to obtain. Most participants, however, agreed that the availability of illicit oxycodone had recently remained stable (75%, n=15). Four participants (20% of those who commented) reported that illicit oxycodone had become more difficult to obtain and one participant (5%) reported that availability had been fluctuating. One NSP outreach worker was able to comment on the availability of illicit

oxycodone, reporting that availability fluctuated, with a "flood" coming in approximately every six months.

Illicit oxycodone was most commonly reported as being purchased through friends (45%, n=9), street dealers (30%, n=6) and known dealers (20%, n=4), with transactions generally made at a street market (40%, n=8), at a friend's home (25%, n=5) or at an agreed public location (20%, n=4).

The main reasons reported for recent illicit oxycodone use were as a substitution for heroin or other opiates (42%, n=8), to achieve intoxication (42%, n=8) and for self-treatment (21%, n=4).

7.6. Pharmaceutical opioids

In 2009, IDRS participants were asked detailed questions about their use of pharmaceutical opioids, including morphine products (Kapanol®, MS Contin®, etc.), hydromorphone products (Palladone, Dilaudid, etc.) and oxycodone products (Oxycontin etc.)

Thirteen participants (9%) reported having recently been prescribed any pharmaceutical opioids, with the most commonly prescribed pharmaceutical opioids being Kapanol® (31%, n=4), Endone (31%, n=4), and OxyContin (23%, n=3). All 13 participants reported that they were prescribed pharmaceutical opioids for pain, particularly chronic, non-malignant pain (46%, n=6) or acute pain (38%, n=5). Four of these participants (31%) reported sharing, selling or trading pharmaceutical opioids which they had received via their last prescription.

Forty-two participants (28%) reported using any pharmaceutical opioids (either prescribed to them or someone else's) during the 12 months preceding interview, of whom 16 (38%) reported experiencing a range of side effects, including difficulty injecting (50%, n=8), dirty hit (44%, n=7), abscesses/infections from injecting (25%, n=4), thrombosis/blood clots (25%, n=4), overdose (6%, n=1) and cellulitis (6%, n=1). Among the 31 participants who reported injecting any pharmaceutical opioids, most reported using a filter during their last injection (90%, n=28); however, the type of filter used was not specified.

7.7. Over-the-counter codeine

In 2009 information relating to the use of over-the-counter (OTC) codeine products was distinguished from the use of other opioids for the first time in the IDRS survey.

Almost half (47%, n=71) of all IDRS participants reported lifetime use of OTC codeine, and around one-third (31%, n=46) reported recent OTC codeine use. OTC codeine was predominantly swallowed, with only eight participants reporting lifetime injection (5%) and just one participant reporting recent OTC codeine injection. The frequency of reported OTC codeine use was relatively low, with use reported on a median of 12 days (range=1-180 days). One program manager KE reported that there had been no reports of OTC codeine injection among the clients with whom he had worked, despite many clients reporting daily use of this drug.

Forty recent OTC codeine users commented on whether their use was predominantly licit (used as prescribed or directed for a valid medical reason) or illicit, with the majority (88%, n=35) reporting their use to be licit. The main reasons reported for the use of OTC codeine were for general pain relief (e.g., toothaches, back pain, migraines and acute injuries) (48%, n=20) and for headaches (31%, n=13). Reports of use of OTC

codeine to achieve intoxication or to relieve opioid withdrawal were rare, reported by less than five participants each, respectively.

The most commonly used brands of OTC codeine among the 36 participants who commented were Panadeine (36%, n=19), Mersyndol (19%, n=7) and Nurofen Plus (14%, n=5).

Although not reflected in the IDU survey data, KE expressed concern about inappropriate use of OTC codeine, with reports that it was easy for use to spiral out of control in light of the broad accessibility of these drugs. One KE reported that he knew of clients who used up to 48 pills each day.

Reports on the prevalence of OTC codeine use among some clients have increased over the last two years, according to KE. This was of great concern to many KE for a number of reasons: first, clients rationalised their use as being safe because they were using medication obtained from a pharmacy. In addition, clients took a long time to see their use as problematic and thus access treatment. The risk of serious side-effects including gastrointestinal ulcers resulting from long-term use was also mentioned by one KE.

While OTC codeine is readily available, one KE reported that some pharmacists had begun asking consumers for identification as a means of monitoring inappropriate use. Policymakers reported that significant changes were being made in response to the inappropriate use of OTC codeine including disseminating information to prescribers and dispensing pharmacists through the Medical Practitioners Board and Pharmacy Board and encouraging the manufacturer to put warning labels on packaging. There has also been a push to move codeine preparations to a Schedule 3 prescribing restriction, which would require the drug to be stored behind a counter, such that clients must request the drug and be assessed by the pharmacist prior to purchase. It is hoped that these measures would increase shopping time at pharmacies, thereby discouraging pharmacy-shopping, and thus use of this drug.

7.8. Other opioids

Eleven percent of participants (n=17) reported ever using other opiates (not elsewhere classified); however, recent use of other opiates was rare, reported by just one participant (1%). This prevalence is much lower than reports of other opiate use within the 2008 IDRS sample; however, over-the-counter codeine was included in this category in 2008.

The one participant who reported recent use of other opioids reported snorting opium.

8.0 OTHER DRUGS

8.1. Cocaine

One hundred and three participants (69% of the sample) reported ever having used cocaine; however, only 23 participants (15%) reported having used cocaine during the six months (hereafter recent) preceding interview. While the prevalence of recent cocaine use decreased from 24% of respondents in 2008 and 22% in 2007, this difference was not statistically significant ($p>0.05$). Just 3% of participants (n=4) reported cocaine to be their drug of choice. Despite the low prevalence of cocaine use among the IDU sample, a number of KE reported that cocaine was being used more often than in the past, although it was reported that use was concentrated among a distinct high-functioning group. Cocaine was reported by several KE to be too expensive for most users.

As in 2008, the most commonly reported route of cocaine administration was injection, reported by 18 (78%) of the 23 participants who reported recent cocaine use. Four percent of participants (n=6) reported recently snorting cocaine and 1% (n=2) reported recently smoking cocaine.

Cocaine use was reported on a median of just three days (range=1-180 days) in the previous six months, similar to five days reported in 2008, suggesting that cocaine use among IDU surveyed in Melbourne continues to either opportunistic or experimental.

Twenty-two participants commented on the forms of cocaine they had recently used, with 82% (n=18) reporting having used powder cocaine, 23% (n=5) reporting having used rock cocaine and 9% (n=2) reporting having used crack cocaine. When asked about the most commonly used form of cocaine during this period, the majority reported that they had used powder cocaine most often (77%, n=17).

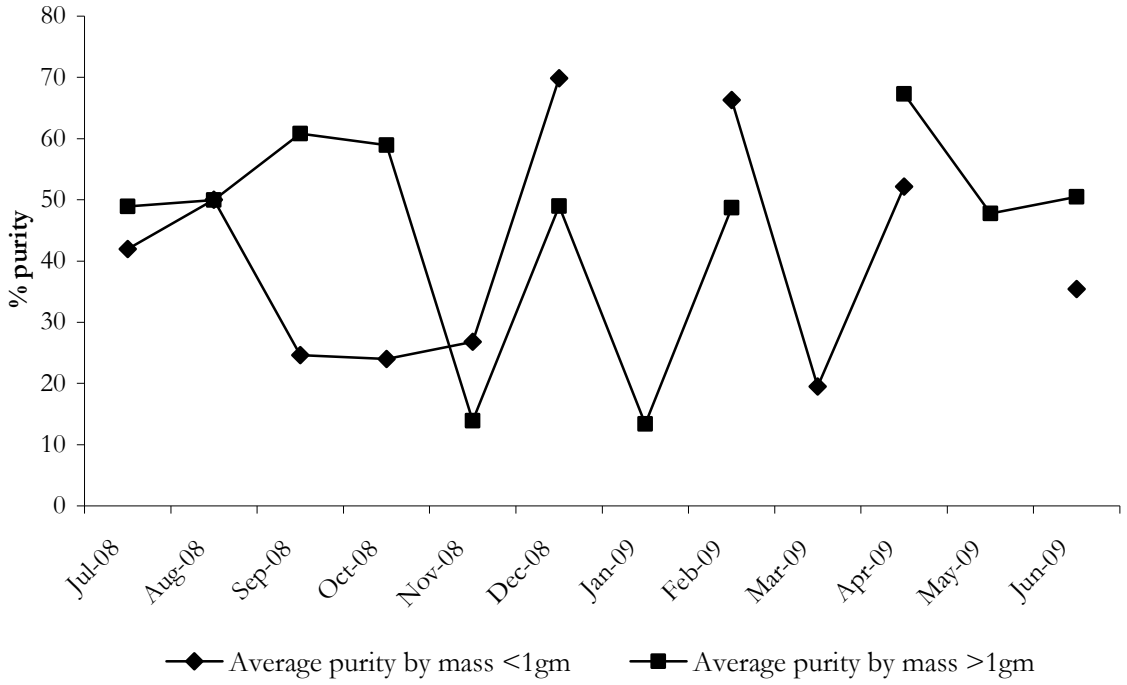
Just eight participants (5% of the entire IDRS sample) were able to comment on the market characteristics of cocaine. As such, it is difficult to interpret trends from these data. Two participants reported that they had most recently paid $50 for a cap of cocaine, the same price reported in 2007 (five participants reported that a cap of cocaine cost $100 in 2008). Three participants also reported that two to three points of cocaine could be obtained for $100. Two participants reported purchasing a half-gram of cocaine, with one reporting the price to be $100 and the other reporting the price to be $180. The most commonly purchased amount of cocaine by IDRS participants was a gram (n=4), which was purchased for between $190 and $400 (median: $325). Five of these eight participants reported that the price of cocaine had remained stable over the six months preceding interview (63%), while two participants reported that the price had been increasing (25%) and one participant reported that the price had fluctuated (13%). Two KE commented on the price of cocaine, reporting it to be sold for up to $400 per gram.

Participants' perceptions of the current purity of cocaine varied, with four participants reporting purity to be high (50%), two reporting it to be medium (25%), one reporting it to be low (13%) and one reporting that it fluctuated (13%). Seven participants reported on recent changes in the purity of cocaine, with most (57%, n=4) reporting that it had remained stable.

The average purity levels of cocaine seizures analysed by law enforcement agencies in Victoria during the 2008-2009 financial year are shown in Figure 11. The average purity of cocaine seizures weighing less than one gram was 41% (range=20%-70%), while the average purity of larger seizures (>1 gm) was slightly higher, at 46% (range=13%-67%).

The mean purity of all cocaine seizures overall was 44%. The average purity of cocaine seizures has remained stable at 30%-40% since 2000 (Quinn, 2009).

Figure 11: Average purity of cocaine seizures by Victorian law enforcement, July 2008 to June 2009



Source: Victoria Police Forensic Services Department

Eight participants commented on the availability of cocaine, with most reporting that cocaine was currently easy or very easy to obtain (75%, n=6) and the remaining two participants (25%) reported that cocaine was difficult to obtain. Seven participants reported on changes in the availability of cocaine during the six months preceding interview, with six of the seven (86%) reporting that it had remained stable. One participant found that it had become more difficult to access cocaine during this period. One law enforcement KE who reported a slight increase in the number of investigations relating to cocaine use over the past three to four years, reported that large cocaine seizures continue to be uncommon.

Cocaine was reportedly most commonly purchased from friends (63%, n=5) or known dealers (25%, n=2), with purchases generally made at a friend's home (50%, n=4) or at an agreed public location (25%, n=2). One KE reported that cocaine was commonly trafficked through commercial sex workers.

8.2. Ecstasy

Two-thirds (67%, n=101) of study participants reported having ever used ecstasy (3,4-methylenedioxymethamphetamine or MDMA) in their lifetime, and around one-fifth (19%, n=29) reported recent ecstasy use. The prevalence of recent ecstasy use among the IDRS IDU sample has displayed a significantly decreasing trend, from a peak of 39% in 2001 ($p<0.05$).

Among those who reported recent ecstasy use, all reported using ecstasy in pill form (100%, n=29), while smaller numbers of participants reported also using ecstasy powder (10%, n=3) and ecstasy liquid (3%, n=1). Use of ecstasy was infrequent, reported at a median of four days (range=1-72 days) in the six months prior to interview.

Twenty-six participants (17%) reported recently using ecstasy orally, while nine participants (6%) reported having injected it during this period. The prevalence of recent ecstasy injection has decreased significantly among IDRS IDU samples from a peak of 21% in 2001 ($p<0.05$). Reports of ecstasy injection were infrequent, with nine participants reporting having injected ecstasy on a median of three days (range=1-12 days).

While the IDU surveyed in the 2009 IDRS study were able to provide some information on ecstasy trends in Melbourne, a clearer picture of ecstasy use can be gained through contact with other sentinel groups, such as psychostimulant or regular ecstasy users (REU). For the past seven years the Ecstasy and related Drugs Reporting System (EDRS; formerly the Party Drugs Initiative (PDI)), which employs a similar methodology to the IDRS study, has been conducted in every Australian jurisdiction. One component of this study involves the collection of information from REU on patterns of use and market characteristics of 'party drugs' including ecstasy, GHB, and ketamine. Results from the 2009 EDRS study will be available in early 2010.

8.3. Hallucinogens

Over two thirds (68%, n=102) of the 2009 IDRS sample reported lifetime use of hallucinogenic drugs such as magic mushrooms and Lysergic acid diethylamide (LSD), however recent use of these drugs was rare, reported by just 13 participants (9%). Among those reporting recent use, 77% (n=10) reported using LSD and 23% (n=3) reported using magic mushrooms.

Twelve participants (8%) reported having ever injected any type of hallucinogen, while just one participant (<1%) reported having recently injected any hallucinogens. Reported frequency of hallucinogen use was low, reported on a median of two days (range=1-24 days).

8.4. Benzodiazepines

Almost all participants in the 2009 IDRS reported having ever used any benzodiazepines, either licitly or illicitly (95%, n=143). Recent benzodiazepine use was also common, reported by 120 participants (80%) (Figure 12). The prevalence of recent benzodiazepine use increased compared to 2008 (69%), and was the highest reported since the withdrawal of Temazepam gel capsules from the market in 2004.

The recent use of illicitly obtained benzodiazepines was more commonly reported (59%, n=89) than the recent use of licitly obtained benzodiazepines (51%, n=76). One hundred and sixteen participants who reported recent use of both licitly and illicitly obtained benzodiazepines commented on the form of benzodiazepine most used, with more than half using predominantly prescribed benzodiazepines (59%, n=69).

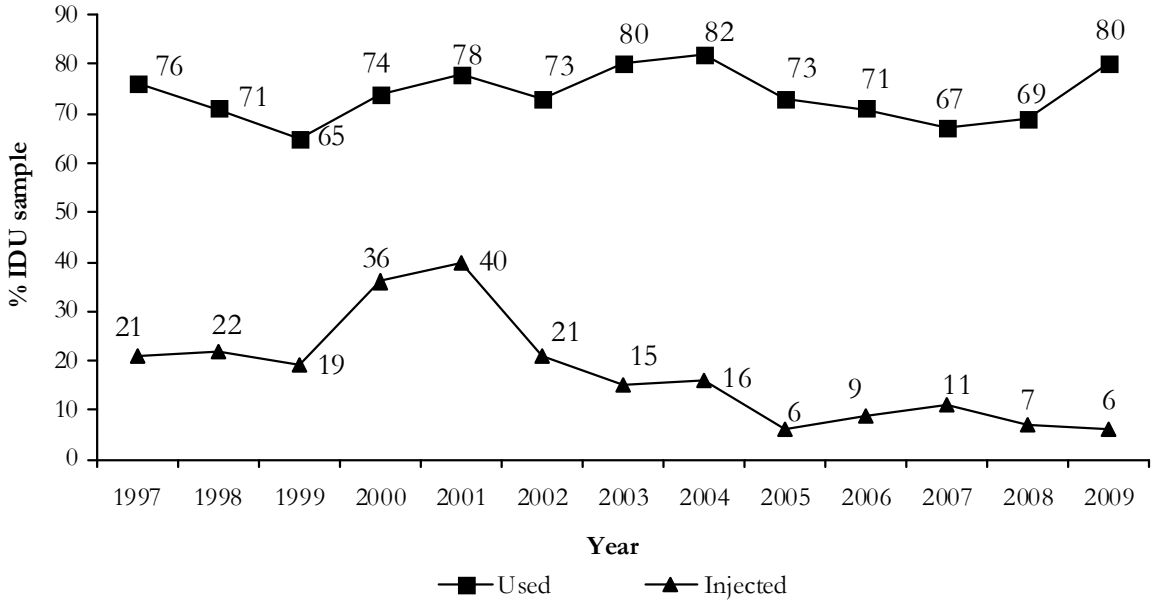
The reported frequency of benzodiazepine use differed between those who obtained their benzodiazepines predominantly licitly, compared to those who predominantly used illicit benzodiazepines (median of 180 days (range=3-180 days) compared with a median of 15 days (range=1-180 days).

In 2009, 29 (19%) participants reported having ever injected any benzodiazepines and nine (6%) participants reported recently having injected any benzodiazepines (Figure 12). The percentage of IDU who reported recent benzodiazepine injection increased significantly between 1999 and 2001 ($p<0.05$), then decreased significantly between 2001 and 2004 ($p<0.05$). The reduction in this route of administration was probably reflective of changes made in May 2002 to the prescribing authority for Temazepam on the PBS

(Breen et al., 2003), and also the impact of the Temazepam Injection Prevention Initiative implemented by the Victorian DOH in November 2001 (Dobbin, 2002). In March 2004, all Temazepam gel-cap formulations were withdrawn from the market (Wilce, 2004). Reported rates of benzodiazepine injection have remained stable since 2004 ($p>0.05$).

One hundred and seven participants reported on the main brand of benzodiazepine used during the six months preceding interview, with the most commonly used brands being Valium (diazepam) (54%, n=58) and Xanax (alprazolam) (34%, n=36). The percentage of participants reporting Xanax as the brand of benzodiazepine most used increased significantly from 22% in 2008 ($p<0.05$).

Figure 12: Percentage of IDU reporting recent benzodiazepine use and injection, 1997-2009



Source: IDRS IDU interviews

Benzodiazepines were identified as a problematic drug class by five KE interviewed in 2009. KE reported that benzodiazepine use was both licit and illicit, with there being a significant black market for particular brands of benzodiazepines such as Xanax. Use of benzodiazepines was reported to be mostly oral, with a small percentage injecting.

One of the key concerns expressed by KE was the use of benzodiazepines to top-up other opiates, particularly heroin, and the impact that this had on overdose risk. One NSP worker reported witnessing four overdoses in which benzodiazepines were involved over a period of seven days. Another KE reported that, particularly among younger users, there was a strong fear of overdose associated with benzodiazepine use.

Consistent with the increase in Xanax use reported by IDU participants, KE also identified Xanax as being a benzodiazepine of particular concern. One KE attempted to shed some light on the current popularity of Xanax, explaining that it has a faster onset than other benzodiazepines such as Valium, with a medium-length half-life. Furthermore, Xanax was reported to be easily available, with doctors prescribing more Xanax since the government imposed more stringent prescribing restrictions on Valium (no repeats are allowed on Valium prescriptions, compared with three on Xanax prescriptions), according to one KE.

Use of Xanax has been associated with a range of side-effects, most significantly memory loss and aggression (Paton, 2002). KE commented on a range of events involving clients who have been under the influence of Xanax, with Xanax-affected clients reported to engage in a range of "stupid" opportunistic criminal activities, such as petty theft, of which they have no recollection afterwards. Several KE described criminal activities committed by Xanax-affected clients as being out of character for those particular individuals. One NSP manager described in incident where a normally meek client violently attacked NSP staff, but upon attending the NSP the following day had no recollection of the incident. Another KE described clients under the influence of Xanax as thinking they are "invisible", and associated this with unpredictable and erratic behaviour. KE were particularly concerned about charges being laid for crimes committed under the influence of Xanax, feeling that it was very difficult to make someone accountable for their actions under these circumstances.

Some KE reported policy changes within services in response to concerns regarding the use of Xanax, such as one medical officer who reported a policy introduced in his practice that doctors are not to initiate Xanax prescribing; if a patient requests Xanax they will be offered a longer-acting benzodiazepine instead, and restricted to daily or twice-daily dose pick-ups. Other approaches described by KE include reclassifying Xanax as a Schedule 8 pharmaceutical, where long-term prescriptions will require registration and monitoring, increasing awareness among prescribers through updates in the Medical Practitioners Bulletin, and health promotion and education campaigns at the IDU level.

8.5. Inhalants

Seventeen percent of IDRS participants (n=25) reported having ever used any inhalants; however, only one participant (<1%) reported recent use of any inhalants.

8.6. Alcohol and tobacco

Reported alcohol and tobacco use were both prevalent among this sample of IDU, with 96% (n=144) and 100% (n=150) reporting lifetime use, and 74% (n=111) and 97% (n=145) reporting recent use, respectively.

A small number of participants (n=5, 3%) reported having ever injected alcohol; however, nobody reported recently having injected alcohol.

The median number of days of alcohol use for this group was 24 days (or approximately once a week in the previous six months), the same as in 2008. Sixteen participants (11%) reported drinking alcohol on a daily basis. Among the 145 participants who reported recent use of tobacco, 139 (96%) reported smoking daily.

Alcohol was mentioned as a problematic drug by two KE, because of the high prevalence of use, with alcohol often a key component of polydrug use among this group. One KE reported seeing an increase in alcohol as the sole drug of use, especially among younger clients, and felt that this was reflective of the aggressive advertising tactics of the alcohol industry.

Alcohol was reported to be involved in relationship breakdown and anti-social behaviour, with one KE reporting that much of the problematic behaviour among IDU that is blamed on heroin is really caused by alcohol. Public drinking, particularly going into the summer months, was a particular concern of some KE. One paramedic KE reported that alcohol was a confounder in many drug-related presentations, making diagnosis difficult.

9.0 DRUG TREATMENT

9.1. Heroin

9.1.1 Alcohol and Drug Information System (ADIS)

During the 2008-2009 financial year, 49,079 courses of treatment were delivered to 26,557 clients[3] in Victorian specialist alcohol and drug services[4]. The total number of both courses of treatment and numbers of clients decreased slightly compared with the 2007-2008 financial year (50,826 and 27,202 respectively).

Approximately 14% of the courses of treatment delivered to 13% of clients were for heroin-related problems, making heroin the most frequently occurring drug of concern after alcohol (45% of courses of treatment delivered to 43% of clients) and cannabis (22% of courses of treatment delivered to 22% of clients).

9.1.2 DirectLine calls

During 2008, DirectLine responded 44,406 calls; a drug of concern was identified in 24,892 of these calls (56%). Heroin was identified as a drug of concern in 2,322 calls, representing 9% of all drug-identified calls to DirectLine that year. The percentage of drug-related calls where heroin was identified as a drug of concern steadily decreased from 1999-2002, and has remained fairly stable since then (Figure 13).

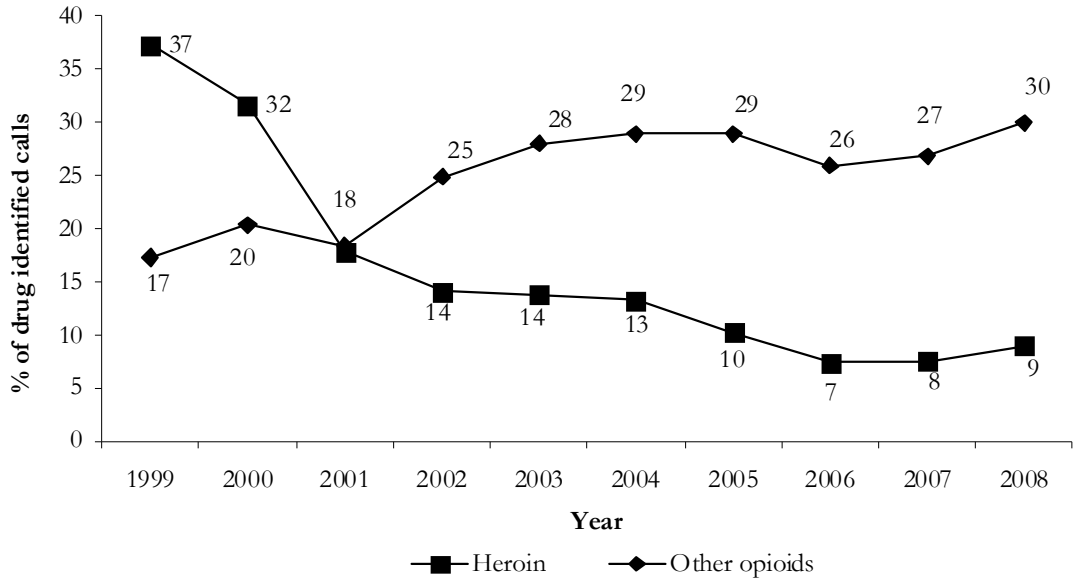
An additional 7,348 calls were made in 2008 where other opioids were identified as a drug of concern (30% of all drug-identified calls). The percentage of drug-identified calls regarding other opioids[5] remained relatively stable in comparison to previous years (Figure 13).

[3] Clients in specialist alcohol and drug services include both drug users and non-users. Non-users may include partners, family or friends.

[4] Federal and state government funded.

[5] Other opioids include: licit and illicit methadone, buprenorphine, buprenorphine-naloxone, morphine and codeine. Analgesics (not further defined) were also included in this category, as was paracetamol. Therefore, this grouping is not strictly 'other opioids'.

Figure 13: DirectLine calls where the drug of concern was identified as heroin or other opioids, 1999-2008



Source: DirectLine; Turning Point Alcohol and Drug Centre

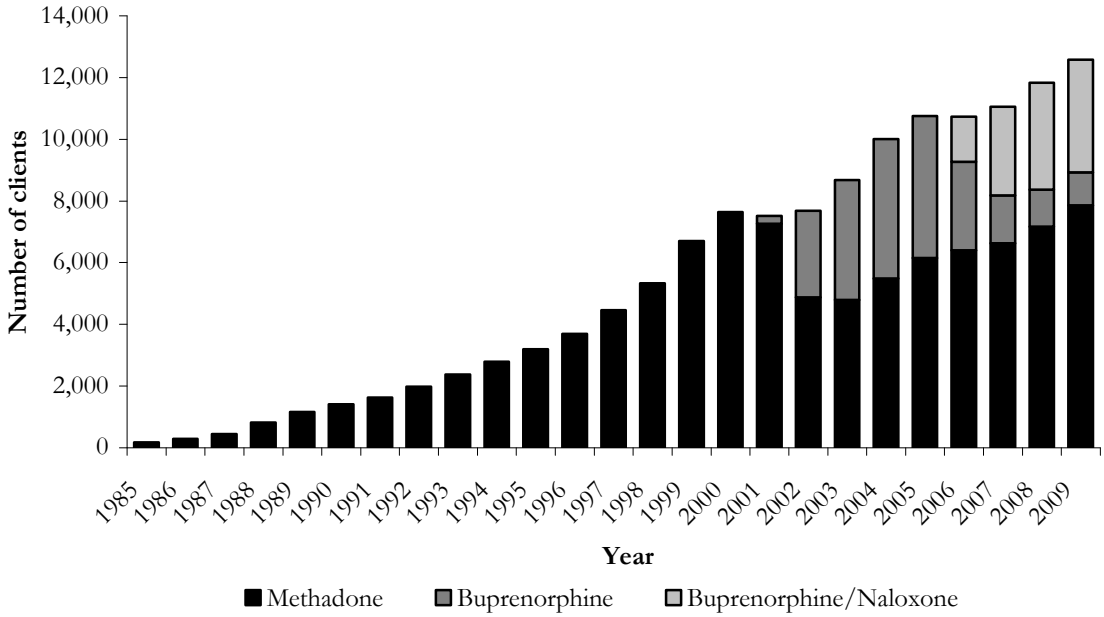
9.1.3. Pharmacotherapy consumers

The Drugs and Poisons Regulation Group at the Victorian DOH records the annual number of methadone, buprenorphine and buprenorphine-naloxone clients in Victoria. These numbers are monitored through a phone census of all prescribing pharmacies.

The number of clients prescribed methadone maintenance therapy increased steadily from 181 in 1985 to over 7,500 clients in 2000 (Figure 14). In 2001, buprenorphine first became available on the PBS, and was prescribed to 258 clients. Over the next five years, the number of clients prescribed buprenorphine increased dramatically, peaking at 4,605 in 2005, while the number of clients prescribed methadone decreased accordingly, dropping to as low as 4,795 in 2003. Buprenorphine-naloxone became available on the PBS in 2006, and since that time a large number of buprenorphine consumers have been transferred to the combination product.

In 2009, 12,576 clients were recorded as being on pharmacotherapy programs, with the largest percentage prescribed methadone (62%, n=7,856). Around one-third of pharmacotherapy clients were prescribed buprenorphine-naloxone (29%, n=3,650) and the remainder of clients were receiving buprenorphine (9%, n=1,070).

Figure 14: Victorian pharmacotherapy consumers, by type of opioid substitution therapy, 1985-2009



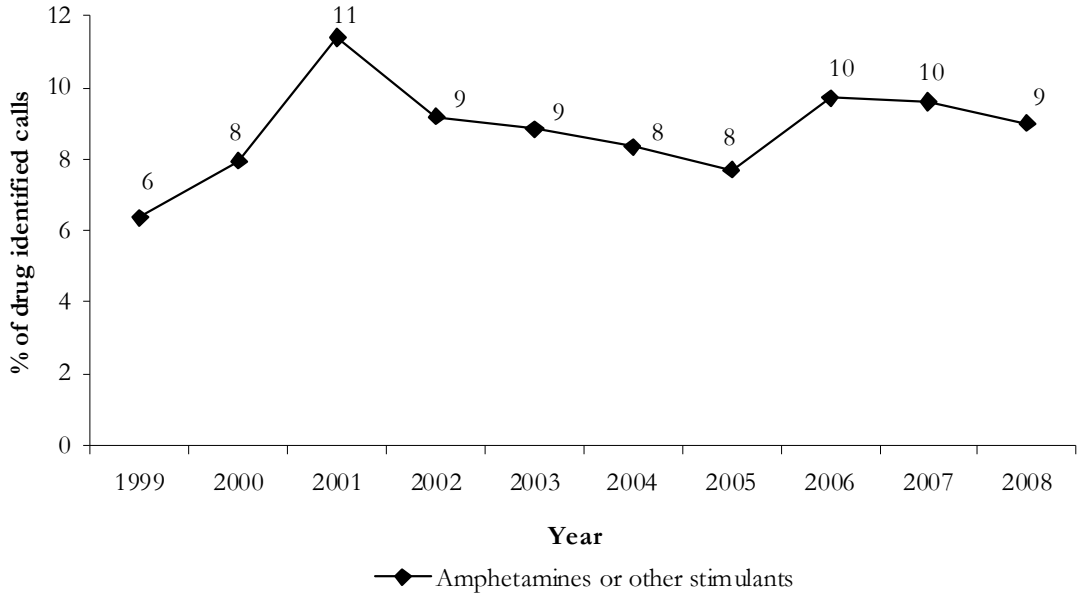
Source: Drugs and Poisons Regulation Group, Victorian Department of Health

9.2. Methamphetamine

9.2.1 DirectLine calls

During 2008 DirectLine responded to 2,310 calls where amphetamines or other stimulants were identified as a drug of concern (9% of all drug-identified calls), compared with 2,846 in 2007 (10%). This percentage has remained relatively stable since 2001 (Figure 15).

Figure 15: DirectLine calls where the drug of concern was identified as amphetamines or other stimulants, 1999-2008



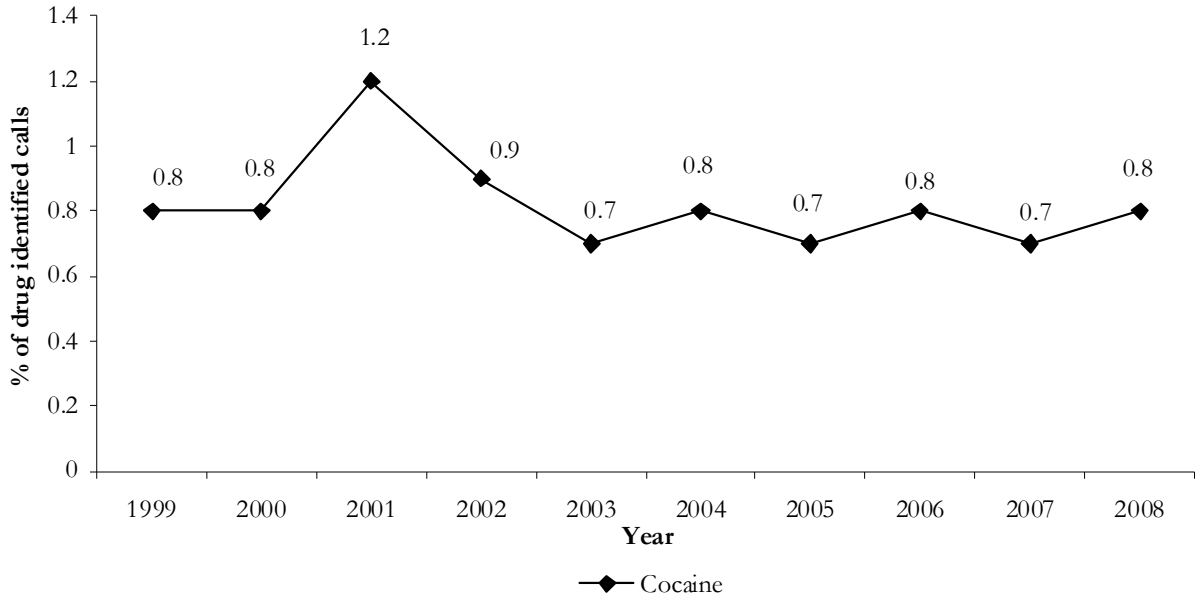
Source: DirectLine; Turning Point Alcohol and Drug Centre

9.3. Cocaine

9.3.1 DirectLine calls

During 2008 DirectLine responded to 205 calls where cocaine was identified as a drug of concern. As in previous years, this represents less than 1% of all drug-identified calls made to DirectLine during that year (Figure 16).

Figure 16: DirectLine calls where the drug of concern was identified as cocaine, 1999-2008



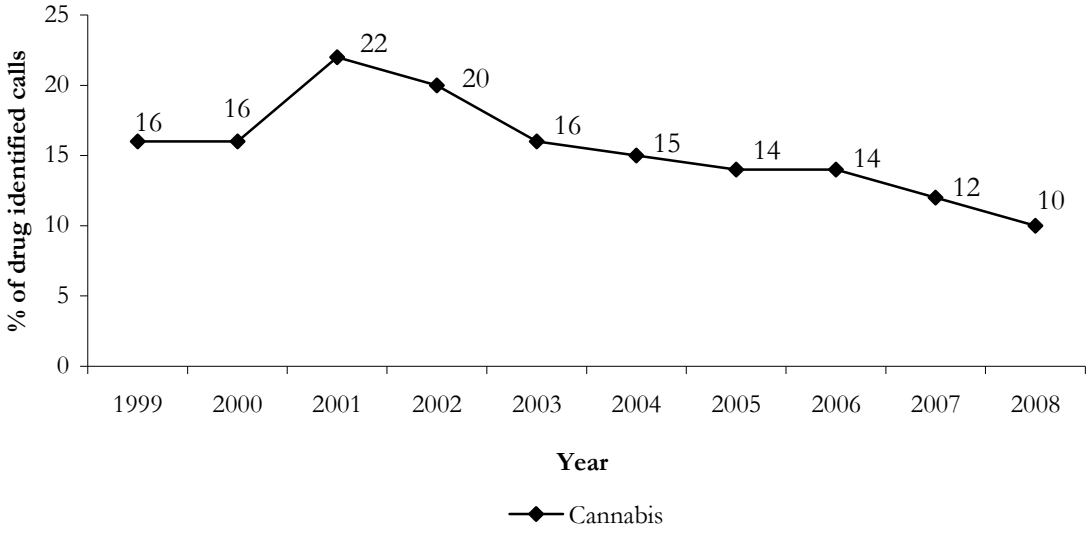
Source: DirectLine; Turning Point Alcohol and Drug Centre

9.4. Cannabis

9.4.1 DirectLine calls

During 2008, DirectLine responded to 2,565 calls where cannabis was identified as a drug of concern, representing 10% of all drug-identified calls to DirectLine in 2008. This is a slight decrease from the 3,430 cannabis-related calls (12%) in 2007. The percentage of drug-related calls where cannabis was identified has consistently decreased since 2001, when cannabis-related calls peaked at 22% (Figure 17).

Figure 17: DirectLine calls where the drug of concern was identified as cannabis, 1999-2008



Source: DirectLine; Turning Point Alcohol and Drug Centre

10.0 ADVERSE OUTCOMES AND RISK BEHAVIOURS

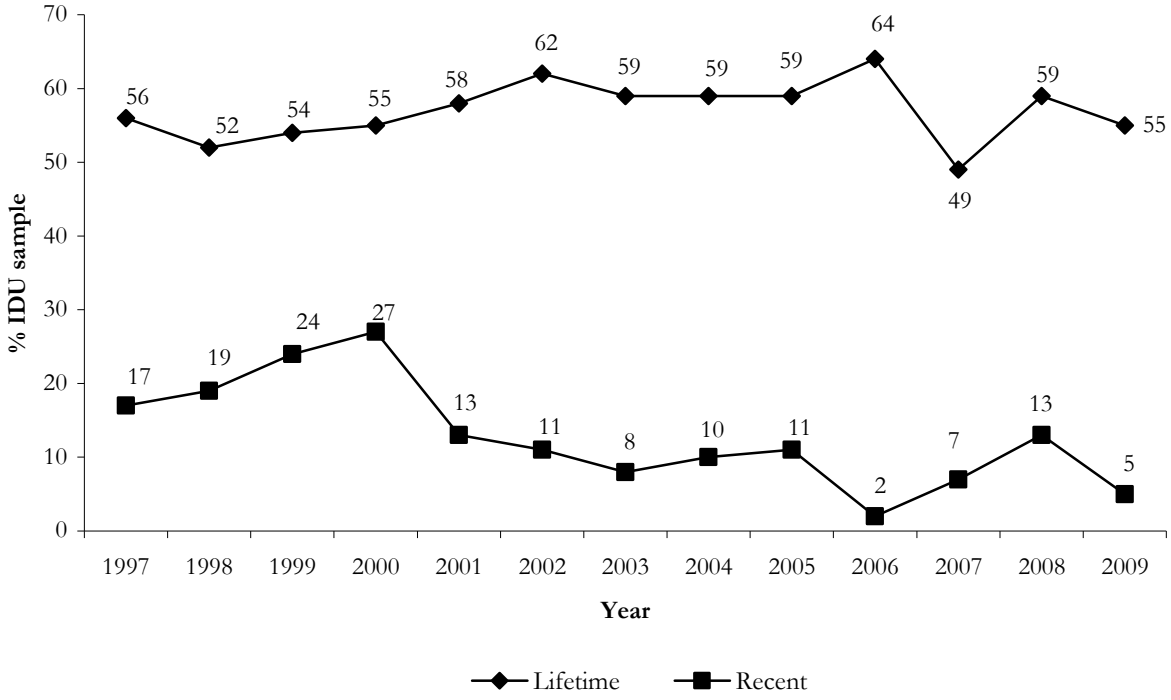
10.1. Overdose and drug-related fatalities

10.1.1. Heroin

Self-reported overdose

The prevalence of lifetime and recent self-reported heroin overdose among IDRS participants from 1997 to 2009 are shown in Figure 18. In 2009, more than half of all participants (55%, n=83) reported that they had ever experienced a heroin overdose. However, recent heroin overdose was rare, reported by just eight participants (5%).

Figure 18: Self-reported experience of heroin overdose, 1997-2009



Source: IDRS IDU interviews

The median reported length of time since last overdose was five years (range=1 month-30 years), with participants reporting having experienced a median of three overdoses in their lifetime (range=1-30). Eighty-one participants provided further information about their most recent heroin overdose, with 75% (n=61) reporting having been administered Narcan (a fast-acting opioid antagonist given to reverse the effects of heroin overdose) at their last overdose.

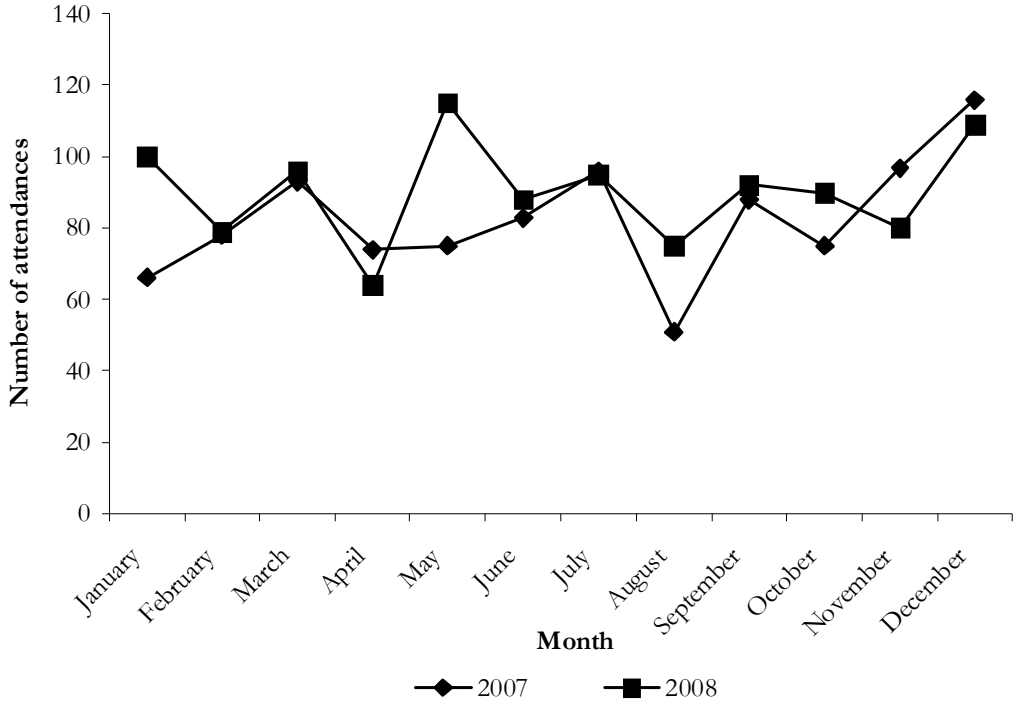
Eleven participants who reported an accidental overdose during the past 12 months were asked to comment on what kind of treatment or information they received at their last overdose. Of these 11 participants, seven reported receiving any treatment or information, most commonly ambulance attendance (45%, n=5), receipt of Narcan (45%, n=5), attending a hospital emergency department (36%, n=4), and attending a GP (18%, n=2).

Non-fatal heroin overdose attended by ambulance

Figure 19 shows the number of non-fatal heroin overdoses attended by Ambulance Victoria (AV), by month between January 2007 and December 2008 in the greater Melbourne area. During 2008, there were 1,083 non-fatal heroin overdoses attended by the AV, slightly higher than the previous year's total (992). The average number of attendances per month increased from 83 (range=51-116) in 2007 to 90 (range=64-115) in 2008. Monthly numbers of non-fatal heroin overdoses attended by ambulances in Melbourne continue to remain significantly lower than the peak of 461 recorded in December 1999 (Jenkinson, Miller & Fry, 2004).

The median age of cases experiencing non-fatal heroin overdose has increased from a median of 28 years in 2002, and remained stable at 31 years since 2006.

Figure 19: Number of non-fatal heroin overdose attended by MAS, Melbourne, 2007-2008

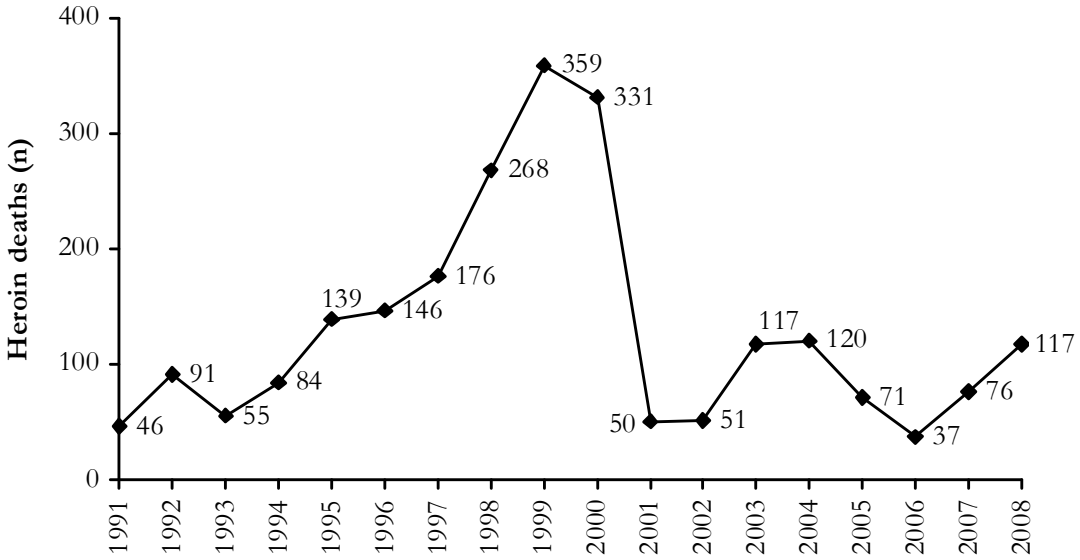


Source: Ambulance Victoria; Turning Point Alcohol and Drug Centre

Heroin-related deaths

The data for trends in heroin-related mortality in Victoria are summarised in Figure 13 which shows an increasing trend in the number of heroin-related deaths in Victoria throughout the 1990s, before a dramatic decline in numbers between 2000 (n=331) and 2001 (n=50). The sharp decline in fatalities from 2000 to 2001 is consistent with the timing of what is known as a severe period of reduction in Melbourne's heroin supply (Miller, Fry & Dietze, 2001). During 2001 to 2004, the number of heroin-related deaths in Victoria again increased (to figures similar to those seen in the early to mid-1990s). In 2005, however, the number of deaths decreased (to n=71), with the declining rate continuing in 2006 (to n=37), remaining much lower than the peak of 359 reported in 1999. In 2008, however, the number once again increased to 117.

Figure 20: Heroin-related deaths in Victoria, 1991-2008



Source: Victorian Institute of Forensic Medicine, Victorian Department of Health

10.1.2. Other drugs

Self-reported overdose

Twenty-nine participants (18%) reported ever overdosing on any other drugs, with the median number of overdoses experienced being one (range=1-30). Participants reported having last overdosed on any other drugs a median of 48 months prior to interview (range=1 month-20 years).

Ten participants reported overdosing on any drugs (excluding heroin) during the year preceding interview. The most commonly used drugs (participants could name more than one) at the time of last overdose included: benzodiazepines (30%, n=3), speed (20%, n=2) and crystal methamphetamine (20%, n=2). Other drugs implicated in recent overdose by small numbers of participants included cocaine, cannabis, anti-depressants, and GHB.

Five participants reported receiving any treatment or information following recent overdose, most commonly being attended to by an ambulance (80%, n=4), attending a hospital emergency department (80%, n=4), and visiting a psychiatrist (60%, n=3).

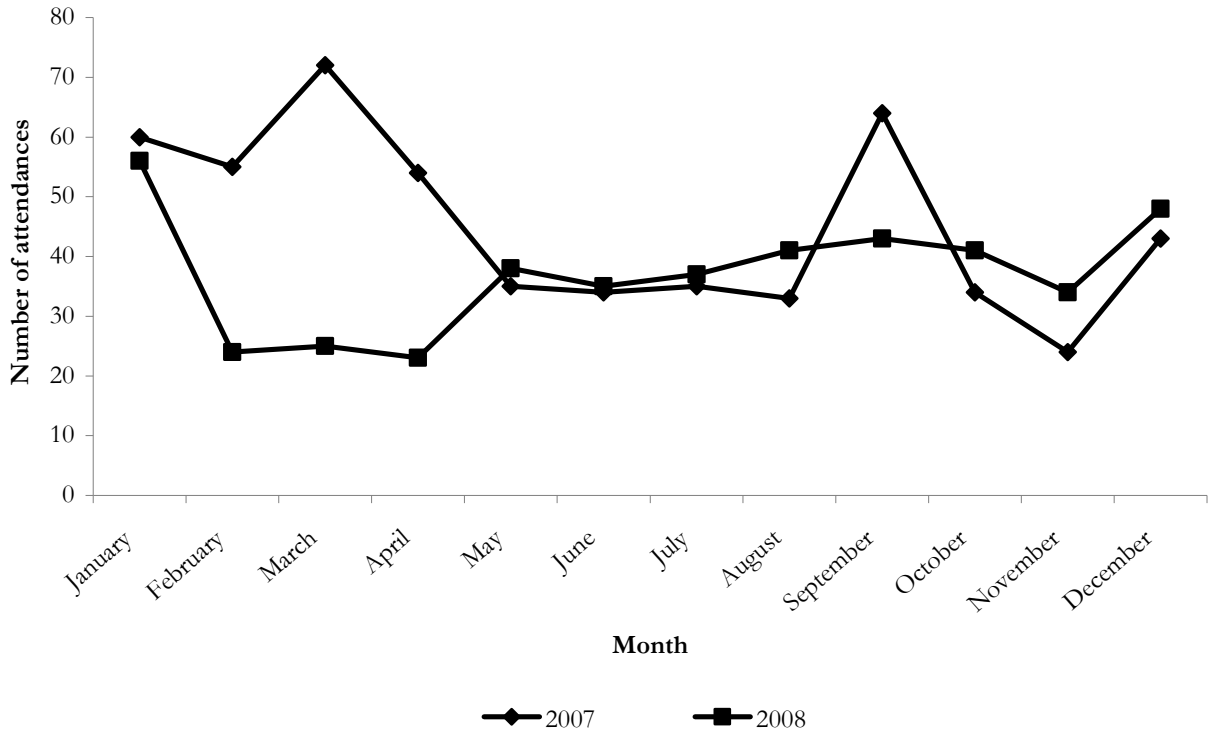
Other drug related events attended by ambulance

Drugs other than heroin that are mentioned in a patient care record (PCR) completed by Melbourne paramedics are also recorded on the database maintained by Turning Point. In contrast to heroin overdose, where there are definitive clinical symptoms of overdose (such as pinpoint pupils and a positive response to naloxone), these cases only report when the drug names are recorded by the paramedics on the PCR. Therefore, the figures reported here should only be interpreted as indicators, and are likely to significantly under-report the actual number of people who had used these drugs and were subsequently attended by paramedics.

During 2008, paramedics attended a total of 445 amphetamine-related events, around 100 less than the previous year (543). The number of attendances per month varied

between 23 and 56, averaging 37 per month, compared with 2007, where the average number of attendances per month was 45 (range=24-72) (Figure 21). The median age of cases remained stable at 28 years.

Figure 21: Number of ambulance attendances where amphetamines were mentioned, Melbourne, 2007-2008



Source: Ambulance Victoria, Turning Point Alcohol and Drug Centre

The number of ambulance attendances for cocaine-related events remained stable at 57, compared with 60 in 2007. The number of cocaine-related events attended by ambulance officers has, however, more than doubled since 2003 (23 attendances). These data reflect the low prevalence of cocaine use among IDU in Melbourne, and suggest that even the small number of users have limited contact with ambulance services. The median age of cases presenting with cocaine-related events remained stable at 28 years.

10.2. Hospital admissions

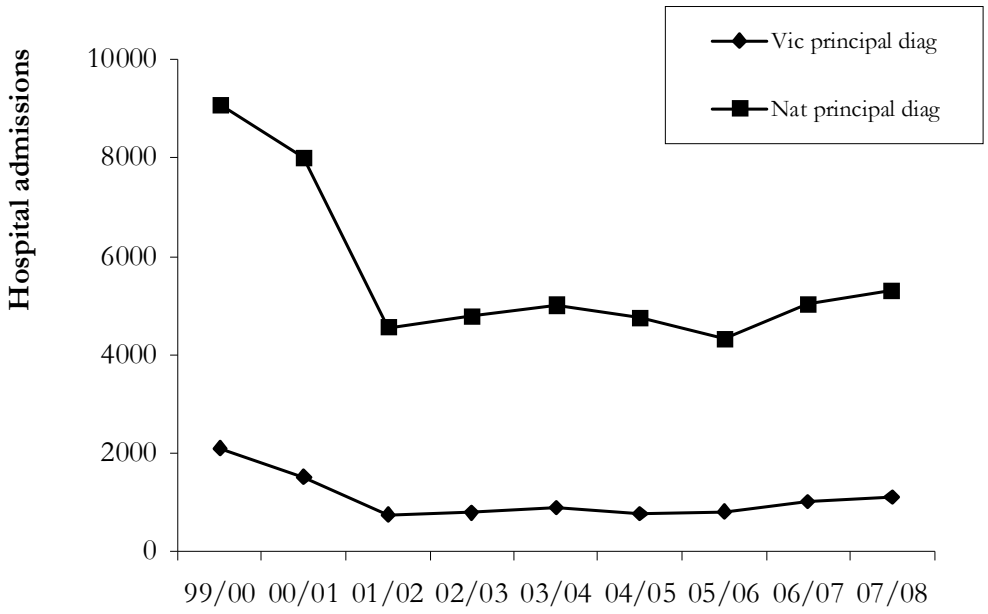
The NHMD is compiled by the AIHW. It is a collection of electronic records for admitted patients in public and private hospitals. Drug-related (opioid, amphetamine, cocaine and cannabis) hospital admissions are reported below for Victoria and Australia, 1999/2000-2007/2008. *Principal diagnosis* refers to the diagnosis established (after study) to be chiefly responsible for occasioning the patient's episode of care in hospital.

10.2.1. Heroin

Opioid-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 22. It is evident from this data that the number of opioid-related hospital admissions, both in Victoria and nationally, decreased between 1999/2000-2001/2002. This is consistent with both IDU and KE reports of a reduction in Melbourne's heroin supply during that period (Jenkinson, Fry & Miller, 2004). Since

that time the number of opioid-related hospital admissions has remained relatively stable, both in Victoria and Australia. Opioid-related hospital admissions account for the highest percentage of drug-related admissions (compared to amphetamine, cocaine and cannabis).

Figure 22: Opioid-related hospital admissions, 1999-2008

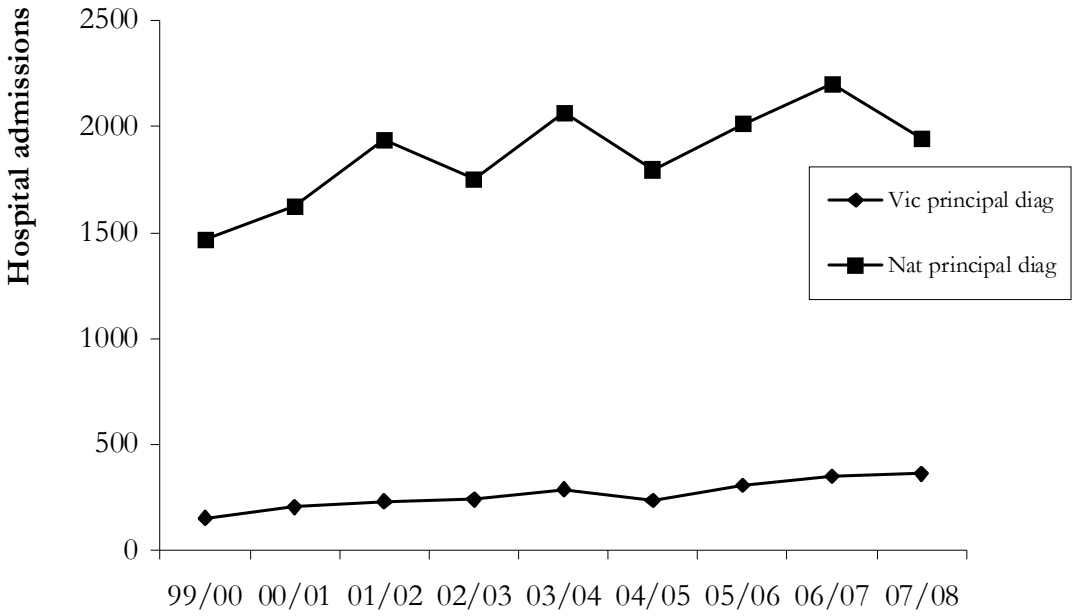


Source: AIHW, NDARC

10.2.2. Methamphetamine

Amphetamine-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 23. It is evident from these data that the number of amphetamine-related hospital admissions has generally been stable-increasing over the period of analysis, with the highest number of amphetamine-related hospital admissions (both in Victoria and nationally) recorded during 2007/2008.

Figure 23: Amphetamine-related hospital admissions, 1999-2008

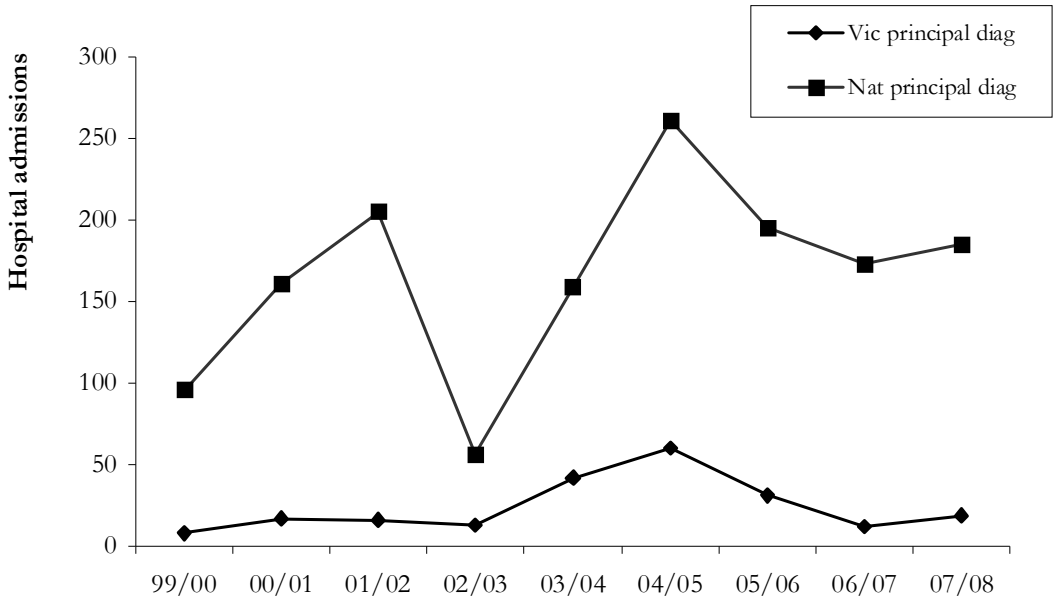


Source: AIHW, NDARC

10.2.3. Cocaine

Cocaine-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 24. It is evident from these data that the number of cocaine-related hospital admissions in Victoria have been relatively stable apart from a small increase in numbers in 2003/2004 and 2004/2005. Nationally, the number of cocaine-related hospital admissions increased between 1999/2000 and 2001/2002, and then significantly decreased in 2003, before increasing in both 2003/2004 and 2004/2005, and stabilising from there. The number of cocaine-related hospital admissions continues to be much lower than for opioids or amphetamines.

Figure 24: Cocaine-related hospital admissions, 1999-2008

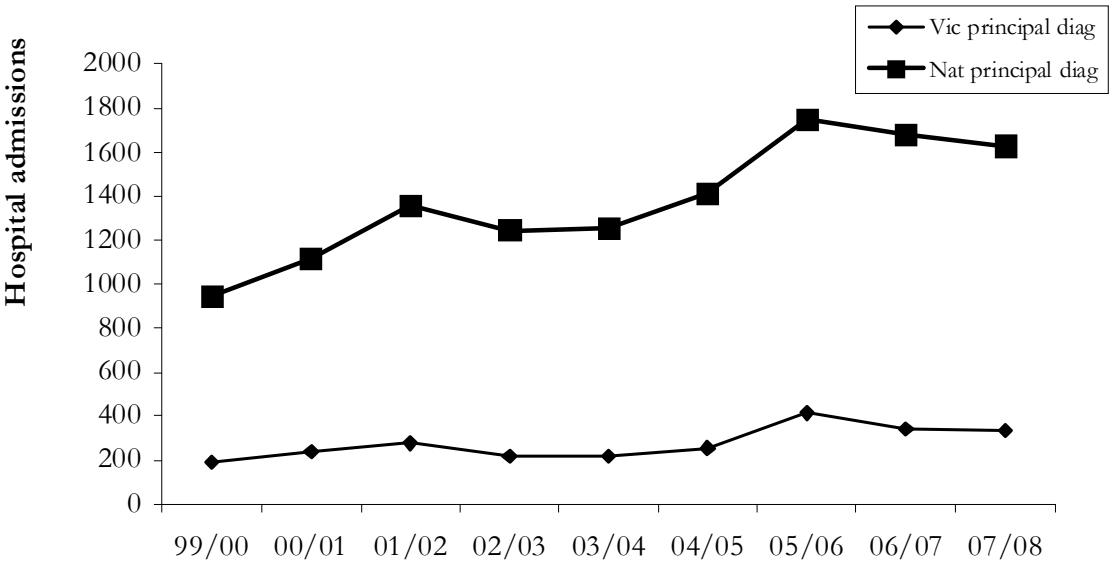


Source: AIHW, NDARC

10.2.4. Cannabis

Cannabis-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 25. It is evident from these data that the number of cannabis-related hospital admissions nationally has gradually increased over the period of analysis, peaking in 2005/2006 with 1,748 admissions, while in Victoria the rates have been more stable during this time.

Figure 25: Cannabis-related hospital admissions, 1999-2008



Source: AIHW, NDARC

10.3. Injecting risk behaviours

10.3.1. Sharing of injecting equipment

The sharing of needles/syringes and other equipment associated with the preparation and injection of drugs carries significant risk of exposure to BBVI such as HIV, HBV and HCV (Crofts, Aitken, & Kaldor, 1999).

Twenty-one percent of 2009 IDRS participants (n=31) reported loaning a used needle to someone else in the month prior to interview. Among these participants, most reported loaning needles only once (36%, n=11) or twice in the past month (39%, n=12), but almost one-quarter of participants reported lending needles between three and 10 times during the past month (23%, n=7) and one participant reported lending needles more than 10 times during the past month.

Twelve percent of respondents (n=18) reported borrowing someone else's used needle during the last month. Needles were generally reported as only being reused after one other person had used it (89%, n=16), with that person most commonly reported to be a regular sex partner (61%, n=11), close friend (33%, n=6) or family member (17%, n=3).

Forty-one participants (27%) reported using other injecting equipment after somebody else in the past month, with the most commonly reused equipment being spoons/mixing containers (26%, n=39), water (13%, n=19), and filters (7%, n=10).

Sixty percent of all participants (n=90) reported reusing their own used needles at least once in the past month, with significant percentages reporting reusing their own needles multiple times (24% reused their own needles twice, 33% reused their own needles three to five times, and 12% reused their own needles six or more times).

In 2009, reports of both borrowing and loaning used needles increased slightly compared with the previous year, however these increases were not statistically significant (Table 14). However, reports of sharing any other injecting equipment decreased significantly from 41% of participants in 2008 to 27% in 2009 ($p<0.05$).

Table 14: IDU self-reported injecting risk practices (past month), 2002-2009

Risk practice (past month)	2002	2003	2004	2005	2006	2007	2008	2009
Borrowed a used N/S (%)	17	10	11	15	12	7	9	12
Lent a used N/S (%)	22	24	21	23	17	10	16	21
Used spoon/mixing container after someone else (%)	43	41	41	46	31	41	31	26
Used filter after someone else (%)	15	24	13	27	9	19	19	7
Used tourniquet after someone else (%)	13	7	13	11	6	7	11	3
Used water after someone else (%)	23	24	32	33	19	29	17	13
Used any injecting equipment after someone else (%)	49	43	46	50	35	45	59	27

Source: IDRS IDU interviews

One hundred and forty-nine participants reported the location of their most recent injection, with most injecting in a private home (72%, n=108). Public injecting (in cars, public toilets and other public locations) was reported by the remaining 41 participants (27%). The reported locations of last injection were similar to those reported in previous

IDRS studies (Quinn, 2009; Quinn, 2008; Jenkinson & O'Keeffe, 2006; Jenkinson & O'Keeffe, 2005).

Participants were also asked to reported on the injection site of their most recent injection, with the vast majority reporting most recently injecting in their arm (77%, n=116) or hand (11%, n=16). Five percent of participants (n=8) reported most recently injecting in their neck. Reports of groin injecting were uncommon.

Participants most commonly reported obtaining injecting equipment from NSP during the six months preceding interview (98%, n=147) or from a chemist (23%, n=35). Injecting equipment was also reported as being obtained infrequently from friends (8%, n=12), outreach services (6%, n=9), dealers (2%, n=3) and hospitals (1%, n=2).

In 2009, participants were asked to answer questions about their recent use of butterflies and pill filters. Fifteen participants (10%) reported using a butterfly. Twelve participants commented on the frequency of butterfly use, with use reported on a median of five days (range=1-168 days). At last injection when a butterfly was used, participants most commonly reported injecting methadone (40%, n=6), morphine (7%, n=1), heroin (7%, n=1), speed (7%, n=1) and benzodiazepines (7%, n=1). One NSP worker KE reported increased demand for butterflies among clients of that NSP's service.

Twenty-four participants (16%) reported recently using a pill filter. Twenty-one of these commented on the frequency of their pill filter use, with use reported on a median of seven days (range=1-180 days). At last injection when a pill filter was used, participants most commonly reported injecting buprenorphine (21%, n=5), buprenorphine-naloxone (13%, n=3), morphine (13%, n=3), speed (8%, n=2), and benzodiazepines (8%, n=2).

10.3.2. Blood-borne viral infections

Blood-borne viral infections (HIV, HBV, HCV) represent a major health risk for individuals who inject drugs. An integrated surveillance system has been established in Australia for the purposes of monitoring the spread of these infections.

Table 15 shows new Victorian HIV diagnoses where injecting drug use was identified as the exposure category. In 2008 there were six new HIV diagnoses among people reporting injecting drug use, accounting for 2% of all new HIV diagnoses that year. The percentage of HIV diagnoses in Victoria where injecting drug use was recorded as an exposure category has remained stable at between 2% and 6% (El-Hayek, 2009).

Table 15: New HIV diagnoses in Victoria where injecting drug use has been identified as the likely exposure factor, 1999-2008

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number (n)	4	12	9	4	11	8	10	8	5	7
% of new HIV diagnoses	3.1	6.4	4.5	1.9	5.4	3.9	4.2	3.1	1.9	273

Source: El-Hayek, 2009

The prevalence of HIV infection among IDU is estimated by the National NSP Survey, which found an HIV prevalence of 0.5% among 1,090 IDU who provided blood samples over a period of five years (Table 16) (NCHECR, 2009).

In contrast to HIV, the situation with regard to the HCV among IDU in Victoria is of major concern, as there is evidence of a continuing high level of HCV infection among this group.

The Communicable Diseases Section of the Victorian DOH collects data on notifications of HCV infection, which are then classified as either newly acquired and not further specified. In 2008, the Communicable Diseases Section received 2,408 notifications of HCV infection, of which 158 (6.6%) were classified as newly acquired infections (National Notifiable Diseases Surveillance System (NNDSS), 2009).

The National NSP Survey found that over a period of five years, 71% of IDU who provided samples for blood testing were HCV antibody positive (Table 17) (NCHECR).

Table 16: Prevalence of HCV and HIV infection among NSP clients, Victoria, 2004-2008

	2004	2005	2006	2007	2008	Total
HCV (%)	69	67	71	73	72	71
HIV (%)	0.5	0.6	0.5	0.0	0.7	0.5

Source: National Centre in HIV Epidemiology and Clinical Research, 2009

10.4. Driving risk behaviours

For the past five years, IDU survey respondents have been asked about driving risk behaviour. In 2009, 62 participants (41%) reported having recently driven a vehicle at least once, similar to 47% in 2008.

Of those 62 participants who had recently driven, 34% (n=21) reported having driven while under the influence of alcohol. Among those who reported having driven under the influence of alcohol, 33% (n=7) reported having driven while they believed themselves to be over the legal blood alcohol limit during that time. Driving over the limit was reported a median of six times (range=1-20).

Among the 62 participants who had recently driven a vehicle, 85% (n=53) reported having driven after taking illicit drugs. Driving under the influence of illicit drugs was reported a median of 18 times (range=1-180). Participants most commonly reported driving soon after using heroin (66%), cannabis (58%), ecstasy (28%) and benzodiazepines (25%).

Table 17: Use of illicit drugs prior to driving (past six months), 2005-2009

Illicit drug type (%)	2005 (n=71)	2006 (n=62)	2007 (n=51)	2008 (n=60)	2009 (n=53)
Heroin	80	58	77	68	66
Cannabis	49	44	53	65	59
Speed	29	42	29	28	28
Crystal methamphetamine	4	15	4	7	2
Buprenorphine	13	16	8	7	4
Benzodiazepines	10	11	16	12	25
Ecstasy	6	3	2	2	6

Source: IDRS IDU interviews

Participants were asked about their most recent experience of driving after taking any illicit drugs, with the most commonly reported illicit drugs being heroin (45%, n=24), cannabis (43%, n=43), benzodiazepines (15%, n=8), speed (13%, n=7) and methadone (9%, n=5). Participants reported driving a median of 20 minutes after taking illicit drugs (range=1-180 minutes).

Fifty-two participants commented on the self-perceived effect of illicit drugs on their driving ability the last time they drove after using illicit drugs, with more than half believing that their drug use had no impact (56%, n=29). Fourteen participants reported that their driving ability was slightly impaired (27%) and five participants (10%) felt that their driving ability was quite impaired. Four participants reported that their driving ability was improved to some degree (8%).

Only 10 participants reported having ever been roadside drug tested by the police. Participants reported roadside drug tested a median of five months prior to interview (range=2 weeks-60 months). Two of these 10 participants recorded positive test results for cannabis.

KE working within the justice system reported that alcohol-related driving offences were much more common among this group than drug-related driving offences, although one speculated that this was a reflection on the small number of clients experiencing roadside drug testing. One medical officer KE believed that illicit drugs could be implicated in an increasing number of motor vehicle accidents, however the true extent of drug driving could be not be measured as it was not routine practice to test for illicit drugs in hospital emergency departments.

10.5. Gambling risk behaviours

Research indicates that many gamblers engage in drug use (both licit and illicit) and conversely many drug users engage in gambling (Gupta & Derevensky, 1998). Questions exploring gambling risk behaviours were introduced into the IDRS survey for the first time in 2009.

One-third (33%, n=47) of IDRS participants reported gambling during the month preceding IDRS interview, and the majority reported usually playing poker machines (pokies) (79%, n=37). Twenty-one percent (n=10) of respondents reported usually betting on horse or dog races and 11% (n=5) reported usually visiting a casino. Other types of gambling reported were purchasing lottery tickets and betting on sports games. Participants reported gambling on a median of two days during the past month (range=1-30 days), with the majority of participants reporting that this was usual behaviour for them (66%, n=31).

Participants were asked to describe their last occasion of gambling. Most participants reported most recently playing the pokies (77%, n=36) or betting on horse/dog races (15%, n=7). One-quarter of respondents reported being under the influence of alcohol while gambling on this occasion (26%, n=12), of whom three-quarters reported continuing to consume alcohol while gambling (75%, n=9).

Two-thirds of participants reported being under the influence of illicit drugs on their last occasion of gambling (66%, n=31), with most reporting having used speed (45%, n=14), heroin (45%, n=14), cannabis (13%, n=4) or cocaine (6%, n=2).

Forty-six participants reported the amount of money spent on their last occasion of gambling, with a median of $27.50 spent (range=$1-$1200).

Seventeen participants who had gambled on four or more days during the past month completed the Problem Gambling Severity Index (PGSI). The PGSI is made up of nine self-reported items which assess problem gambling behaviours and consequences of gambling (Holtgraves, 2009). Responses to the nine items are added and participants classified as follows: 0=recreational gambler; 1-2=low risk gambler; 3-7=moderate risk gambler; 8+=problem gambler. According to these classifications, two participants were

recreational gamblers (12%), six were classified as moderate risk gamblers (35%), and nine participants were classified as problem gamblers (53%).

11.0 HEALTH

11.1. Injection-related health problems

Reports by the participants in the IDU survey of injection-related health problems in the previous month are summarised in Table 18. Ninety-five participants reported experiencing any injection-related health problems in the previous month (63%), with the median number of injection-related problems experienced being two (range=1-6).

Table 18: Self-reported injection-related health problems (past month), 2006-2009

Type of problem (%)	2006 (N=150)	2007 (N=150)	2008 (N=150)	2009 (N=150)
Prominent scarring/bruising	49	63	47	43
Difficulty injecting	43	35	39	41
Dirty hit (made me feel sick)	23	17	15	18
Thrombosis	8	9	10	7
Abscesses/infections from injecting	3	10	7	6
Overdose	3	3	3	5

Source: IDRS IDU interviews

The most commonly experienced injection-related health problems were prominent scarring or bruising, experienced by 43% of all IDRS participants (n=64) and difficulty injecting experienced by 41% of all IDRS participants (n=61).

Seven participants (5%) reported experiencing an overdose in the month preceding interview. Six participants reported the main drug used on the last occasion of overdose, with four reporting it to be heroin (67%). One participant who reported heroin overdose also reported using benzodiazepines and morphine during that session. KE reported that prevalence of overdose had remained stable or increased slightly compared with previous years, with recent overdoses attributed to concurrent benzodiazepine or alcohol use. One GP KE reported seeing an increase in overdose-related injuries, including nerve damage among clients who had "nodded off" in awkward positions.

Twenty-seven participants (18%) reported experiencing a dirty hit in the month preceding interview, of whom 22 reported on the main drug used. The main drugs implicated in dirty hits were methamphetamine (45%, n=10), heroin (18%, n=4) and buprenorphine (14%, n=3). Three participants also reported using benzodiazepines during the same session.

Reports of injection-related injuries have decreased, but continue to be common, according to many KE, with injuries generally associated with the injection of pharmaceuticals including buprenorphine, morphine and oxycodone. Compared to previous years, however, KE believed that IDU were now more aware of the risks involved with buprenorphine injection because of the horror stories that have circulated: "everyone knows the guy who lost his fingers to gangrene, the guy who had to get his eyeballs scraped clean from candida."

The severity of injection-related injuries has stabilised according to one GP KE, who reported that few patients were presenting with serious vein damage and that most could be treated easily with antibiotics.

Injection-related injuries were reported by some KE to be associated with engaging in particular injecting practices, such as groin injection. Lack of basic hygiene practices, such as the use of alcohol swabs, bad injecting technique, reusing injecting equipment and not using or improper use of pill filters were also described as key causes of injection-related injuries, particularly abscesses, scarring and bruising.

11.2. Chronic health conditions

In 2009, information was collected from IDU survey participants about a range of chronic health conditions. Table 19 presents the prevalence of chronic health conditions among regular IDU and the general Australian population, and Table 20 presents additional conditions included in the IDU survey. Population prevalences were derived from the 2007-2008 National Health Survey, conducted by the Australian Bureau of Statistics (ABS).

Table 19: Prevalence of chronic health conditions among IDU compared with the general Australian population

Condition	Ever diagnosed (N=150) (%)	Median age diagnosed (range)	Diagnosis or treatment* (past 12 mths) (%)	General population prevalence (N=20,800) (%)
Asthma	36	8 (1-39)	59	22
Cancer	5	29 (19-49)	57	4
Stroke (or effects of a stroke)	2	28 (25-48)	0	1
Heart or circulatory condition	9	31 (1-44)	50	17
Gout, rheumatism, or arthritis	9	35 (20-42)	50	4
Diabetes or high blood sugar	3	33 (12-55)	75	3

Source: IDRS IDU interviews; Australian Bureau of Statistics, 2009
* Percentage of those diagnosed

Table 20: Prevalence of additional chronic health conditions among IDU

Condition	Ever diagnosed (N=117) (%)	Median age diagnosed (range)	Diagnosis or treatment* (past 12 mths) (%)
Epilepsy	8	19 (1-30)	89
Skin problems	20	15 (1-40)	52
Vision problems	21	29 (3-47)	38
Hearing problems	11	29 (6-46)	8
Diabetes	<1	10	0
High blood pressure	6	28 (8-40)	57
Liver disease	42	14 (6-31)	11
Respiratory disease	3	14 (6-31)	100
Joint/muscular/skeletal problems	12	25 (13-43)	46
Human Papilloma Virus	3	21 (18-33)	25
Septicaemia	3	34 (26-40)	0
Cellulitis	4	39 (20-45)	40
Hayfever	18	8 (1-40)	35
Sinus or sinus allergy	9	10 (5-40)	44
Emphysema	7	36 (27-45)	63
Bronchitis	11	20 (5-40)	38
Anaemia	7	20 (15-30)	38
Fluid retention/oedema	3	22 (18-35)	0
Hernias	3	37 (1-55)	0
Kidney problems	15	30 (4-46)	18
Psoriasis	4	8 (1-40)	40
Stomach or gastrointestinal ulcer	7	27 (15-39)	50
Thyroid trouble/goitre	3	31 (26-37)	33
Tuberculosis	0	-	-
Back or neck pain	44	20 (1-46)	44
Migraine	33	19 (5-40)	50

Source: IDRS IDU interviews
* Percentage of those diagnosed

The prevalence of asthma was significantly higher among IDU compared with the general Australian population (36% Vs 22%, $p<0.05$); however, it is difficult to draw any conclusions about the health of this sample of IDU from this data due to the small number of participants reporting each health condition.

11.3. Dental health

In 2009 participants were also asked a series of questions relating to dental health. One hundred and thirty-one participants (87% of respondents) provided information regarding their most recent visit to the dentist. The main reasons reported for visiting a

dentist were tooth extraction (47%, n=62), for fillings (22%, n=29), for a check-up (18%, n=23) and for other dental procedures (24%, n=32).

Ninety-six percent of participants (n=126) were able to recall whether they paid for their last dental visit, with 63% of respondents (n=79) reporting that they did not have to pay.

General dental health among this group was poor, with participants reporting having lost a median of three teeth (range=0-28) (n=145). This may be a reflection of limited access to dental services, with participants rarely visiting a dentist (the median number of visits in the past 12 months was only one (range=0-24)). Furthermore, 59% of participants (86 of 147 who commented) reporting that they did not attend a dentist when required during the 12 months preceding interview.

Dental problems and poor oral hygiene were identified by KE as being common among many IDU, with poor nutrition and lack of access to dental services identified as barriers to dental health. Cigarette smoking was also nominated by one KE as a factor in poor oral health. KE expressed positive feedback, however, regarding a new dental scheme which allows IDU to obtain free dental work, believing that this would help improve many clients' self-esteem.

11.4. Mental health and psychological distress

Ninety-three participants (62% of the 2009 IDU sample) reported that they had experienced any mental health problems in the six months preceding interview (including any issues that had not been discussed with a health professional). The percentage of respondents reporting recent mental health problems increased significantly from 41% (n=62) in 2008 ($p<0.05$).

As in previous years, respondents most commonly reported experiencing depression (75%, n=70), anxiety (41%, n=38), manic depression/bipolar disorder (14%, n=13) and schizophrenia (11%, n=10). Three participants (3%) reported experiencing post-traumatic stress disorder, and one participant (1%) reported experiencing drug-induced psychosis.

Among the 93 participants who reported a recent mental health problem, 92 participants reported on their use of health services, with 69 participants (75%) reporting having recently seen a health professional regarding their mental health problems.

Of the 69 participants who had recently seen a health professional, 60 (87%) reported being prescribed any medication for their mental health problems. The percentage of IDRS participants receiving medication for mental health problems was slightly higher than 2007 (77%, n=30). The most commonly prescribed medications were: antidepressants (n=40), most commonly Avanza (mirtazepine) or Efexor (venlafaxine); benzodiazepines (n=24), most commonly Valium (diazepam), Xanax (alprazolam) or Serepax (oxazepam); and antipsychotic medications (n=13), most commonly Zyprexa (olanzapine) or Seroquel (quetiapine).

KE supported IDU reports of mental illness, with most reporting a continued presence of mental health issues, including depression, anxiety, schizophrenia and personality disorders among their clients/contacts. One KE reported an increasing prevalence of post-traumatic stress disorder among clients accessing their health service. Reports of drug-related psychosis were surprisingly low. KE reported that many IDU were prescribed benzodiazepines and/or anti-depressants, with some also receiving psychiatric treatment. One KE highlighted the link between physical health and mental health, and the need for more integrated services addressing this link.

11.4.1. Kessler Psychological Distress Scale (K10)

In 2009, the 10-item Kessler Psychological Distress Scale (K10), a questionnaire designed to measure the level of distress and severity associated with psychological symptoms in the four weeks prior to completion (Kessler et al., 2002), was also administered to IDU participants. Scores in the K10 range from 10-50, with scores from 10-15 considered indicative of low psychological distress, 16-21 considerate moderate, 22-29 considered high and scores over 30 considered very high.

One hundred and forty-seven participants completed the K10, 98% of all 2009 IDRS participants. Participants in the 2009 IDRS reported significantly higher levels of psychological distress than those reported by members of the general Australian population who were interviewed as part of the 2007-2008 National Health Survey ($p<0.05$) (Table 21).

Table 21: Levels of psychological distress among IDU compared with the general population

Score	Level of psychological distress	IDU (N=149) (%)	General population (N=15,751) (%)
10-15	Low	9	67
16-21	Moderate	28	21
22-29	High	32	9
30-50	Very high	31	4

Source: IDRS IDU interviews; Australian Bureau of Statistics, 2009

11.4.2. Personal Wellbeing Index

In 2009, the previously used Short-Form 8 Health Survey (SF-8) (Lefante, 2005) was replaced with the Personal Wellbeing Index (PWI). The PWI is designed to measure quality of life, through questions of satisfaction toward people's feelings about themselves (Cummins, Woerner & Chester, 2009). Participants were asked questions across seven aspects of their personal lives – health, personal relationships, safety, standard of living, achieving, community connectedness and future security, and asked to report their level of satisfaction on a scale of 0 (completely unsatisfied) to 10 (completely satisfied). A score between 70 and 80 points is considered normal, with the average total score among population samples in Western nations being 75.

One hundred and forty-five participants (97% of the sample) completed the PWI, with the mean overall PWI score being 56.5 (SD=20.6). This is significantly lower than the mean overall PWI score recorded by respondents in a recent general population survey conducted in Queensland, Victoria and South Australia (mean=75.9, SD=12.3) (Cummins, Woerner & Chester, 2009). IDRS participants also scored lower across all eight individual domains compared with this general population sample (Table 22).

Table 22: Personal wellbeing of IDU compared with the general population

Domain	IDU (N=145) Mean (SD)	General population (N=1,500) Mean (SD)
Standard of living	50.6 (26.9)	78.7 (16.4)
Health	51.0 (25.4)	75.1 (19.7)
Achieving in life	46.6 (28.4)	73.6 (19.1)
Personal relationships	60.5 (29.3)	80.2 (21.3)
How safe you feel	74.5 (26.8)	81.3 (16.7)
Community connectedness	55.0 (30.1)	73.0 (18.4)
Future security	57.5 (29.9)	70.5 (19.2)
Life as a whole	55.2 (27.3)	78.6 (17.0)
Total	56.5 (20.6)	75.9 (12.3)

Source: IDRS IDU interviews; Cummins, Woerner & Chester, 2009

11.5. General health care

The general health and hygiene of IDU was reported to be poor by the majority of KE interviewed in 2009. Factors such as homelessness and "chaotic" lifestyles were implicated in poor health, with KE reporting that healthcare is simply not a priority for most IDU.

Poor diet (including lack of access to regular nutritious meals), poor general hygiene and lack of exercise were reported among many IDU, with food vouchers/packages and services such as showers and laundries reportedly in high demand.

In terms of general health, KE commented that IDU displayed high rates of viral infections, coughs and colds, most likely associated with a lack of stable accommodation and irregular use of health services. Skin conditions, chronic respiratory conditions such as asthma and infections (e.g., gastrointestinal) were also commonly reported.

Hepatitis C continues to be a problem for IDU, with KE reporting that up to 70% are affected. KE reported that there is still a lack of understanding about how HCV is transmitted. Needle sharing was reportedly still common, particularly between sexual partners, and KE noted that this was commonly influenced by issues of trust and control within these relationships. KE reported a strong push to encourage people to get tested regularly for HCV, and to access treatment services for HCV infection. One KE reported that many clients "just hope to clear it" and highlighted the need for continuing need for HCV education. One Indigenous health worker reported that treatment services for HCV continued to be inaccessible to many Indigenous IDU due to cultural barriers.

KE reported varying levels of sexual risk behaviour among clients. Some reported giving out increasing numbers of condoms and lubricant; however, it was reported that most clients did not practice safe sex, particularly with regular partners. One NSP worker reported that flavoured condoms were very popular, particularly among their younger clients; however, it is unclear whether these clients were actually using them, or simply enjoyed the novelty of taking them. Reports of unplanned sexual encounters were common, according to KE, and while several service provider KE reported making some referrals for sexual health check-ups, many reported that they would like to be doing more in this area.

The key health priority mentioned by KE service providers in 2009 was general health and hygiene education campaigns, which was a particular concern in the wake of the outbreak of H1N1 Influenza (Human Swine Flu). Other issues targeted by health education campaigns in 2009 included safe sex, ways to improve mental health, safe injecting and improving injecting techniques. Community safety education (e.g., what to do in the event of a needlestick injury) was also reported as a healthcare priority by one service provider KE.

11.6. Summary of health issues

The key health issues that emerged in the 2009 IDRS include:

- Continued presence of injection-related injuries, particularly prominent scarring and bruising, leading to difficulty injecting;
- Poor general health and hygiene resulting from limited access to nutritious food and irregular use of health services
- Poor dental health and lack of access to dental services;
- A significant increase in the percentage of IDRS participants reporting recently experiencing mental illness, most commonly depression and/or anxiety; and
- Poor outcomes compared with the general population on the K10 and PWI scales.

12.0 TRENDS IN LAW ENFORCEMENT AND DRUG USE

12.1. Criminal activity among IDU participants

Forty-two percent of participants (n=63) reported having been arrested during the 12 months preceding interview, similar to 43% (n=65) in 2008. As in 2008, the largest portion of arrests were in relation to property crime (22%, n=33) and drug use/possession (11%, n=16). There were also small numbers of participants who reported being arrested for violent crime (5%, n=7), driving offences (5%, n=7), drug dealing/trafficking (4%, n=6) and fraud (2%, n=3).

Participants were asked about types of crimes engaged in during the month preceding interview, and frequency of crimes committed. Thirty-nine percent of participants (n=59) reported engaging in any crime in the past month, with drug dealing (27%, n=41) and property crimes (17%, n=26) the most commonly reported (Table 23). There were no significant changes in the percentage of IDU reporting recent criminal activity compared with the previous year ($p>0.05$).

Frequency of criminal activity varied by type of crime with the majority of those reporting property crime reporting engaging in this type of crime once a week or less (58%, n=15). In contrast, the majority of those participants who reported dealing drugs in the month preceding interview reported doing so more than once a week (56%, n=23). Fraud and violent crimes were generally committed less often than once a week.

Table 23: Criminal activity reported by IDU during the last month, 2003-2009

Type of crime	2003 (N=150)	2004 (N=147)	2005 (N=147)	2006 (N=147)	2007 (N=149)	2008 (N=150)	2009 (N=150)
Property crime (%)	35	28	26	20	22	21	17
Dealing (%)	40	30	25	35	24	35	27
Fraud (%)	7	8	4	5	5	5	1
Violent crime (%)	10	8	7	2	7	3	7
Any crime (%)	59	53	48	48	38	47	39

Source: IDRS IDU interviews

12.2. Dealing and trafficking

KE comments on drug dealing and trafficking predominantly related to heroin. As in previous years, heroin was reported to be predominantly dealt and trafficked by males of south-east Asian heritage, although one law enforcement KE did report an increase in number of females trafficking and dealing. Law enforcement KE reported conducting a number of "intensive high-visibility" operations over the past year, as well as executing a large number of warrants. The key aims of these operations were said to be to reduce supply, thereby leading to a decrease in street traffic and resultant crime in major heroin street markets.

KE supported IDU perceptions that the traditional heroin street market was diminishing, with mobile dealing now dominating. KE reported that the majority of dealing now occurs in residential locations, particularly public housing towers. One area of Melbourne, where the street market was reported to be thriving by KE, was described as

the place people would go to if they did not have phone contacts. Public injecting in this area continues to be an issue highlighted by a range of KE.

Law enforcement KE reported that the majority of arrests made in relation to heroin were for use/possession rather than trafficking, and that those charged with trafficking were predominantly small-time dealers who were doing so just to support their own habit. One legal services worker reported that many clients with whom she had contact predominantly sold drugs to "friends and associates", and felt that there was a need for the judicial system to discriminate between dealing within social networks and dealing to anonymous clients.

12.3. History of incarceration

One hundred and forty-nine participants (99%) reported on their history of incarceration, with just over half (55%, n=82) reporting having ever been in prison (convicted of an offence and sentenced to jail). Participants reported being last released from prison a median of four years ago (range=<1-24 years), and having served a median of five months at last sentence (range=2 weeks-7 years).

Eighty-one participants reported on their injecting history in prison, with just over one-third reporting having ever injected in prison (38%, n=31). Among 22 participants who reported on the frequency of injecting during their last prison sentence, 13 participants (59%) reported having injected monthly or less. Among 15 participants who had been incarcerated during the 12 months preceding interview, five reported (33%) reported injecting in prison during this time.

12.4. Arrests

The following section details consumer (use/possession) and provider (manufacture/trafficking) arrests related to opioids, methamphetamine, cocaine and cannabis. Data are derived from the ACC *Illicit Drug Data Report 2007-2008*. Percentages should be interpreted with caution due to the lack of uniformity across states and territories in the recording and storing of data on illicit drug arrests. Totals included those offenders for whom consumer/provider status was not stated.

12.4.1. Heroin

Table 24 describes consumer and provider arrests for heroin and other opioids during the 2007-2008 financial year. During that financial year, just over half (50%, n=802) of the arrests made in Australia for heroin and other opioid offences occurred in Victoria. However, while the number of consumer arrests in Victoria increased from 691 in 2006-2007, this accounted for a smaller percentage of national arrests (50% compared with 63% in 2006-2007). The number and percentage of provider arrests remained relatively stable compared with 2006-2007.

Table 24: Consumer and provider arrests, Heroin and other opioids, 2007-2008

	Victoria (n)	Australia (n)	% of national arrests
Consumer	802	1,599	50.2
Provider	370	676	54.7
TOTAL	1,172	2,279	51.4

Source: Australian Crime Commission

12.4.2. Methamphetamine

Table 25 details consumer and provider arrests for amphetamine-type stimulants, during 2007-2008. During that financial year around one-fifth (21%) of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria. The number and percentage of consumer and provider arrests remained stable compared with 2006-2007.

Table 25: Consumer and provider arrests, amphetamine-type stimulants, 2007-2008

	Victoria (n)	Australia (n)	% of national arrests
Consumer	2,462	11,608	21.2
Provider	1,137	4,399	25.8
TOTAL	3,599	16,047	22.4

Source: Australian Crime Commission

12.4.3. Cocaine

Table 26 details consumer and provider arrests for cocaine during 2007-2008. During that financial year 15% of the arrests made in Australia for cocaine offences occurred in Victoria. The number and percentage of consumer arrests remained stable compared with 2006-2007; however, the percentage of provider arrests increased from 18% to 23%.

Table 26: Consumer and provider arrests, cocaine, 2007-2008

	Victoria (n)	Australia (n)	% of national arrests
Consumer	65	427	15.2
Provider	54	240	22.5
TOTAL	119	669	17.8

Source: Australian Crime Commission

12.4.4. Cannabis

Table 27 details consumer and provider arrests for cannabis during 2007-2008. As in the previous financial year, approximately one-tenth (11%) of the arrests made in Australia for cannabis offences occurred in Victoria. In Victoria, the total number of consumer and provider arrests for cannabis remained stable compared with 2006-2007.

Table 27: Consumer and provider arrests, cannabis, 2007-2008

	Victoria (n)	Australia (n)	% of national arrests
Consumer	4,950	44,860	11.0
Provider	1,731	7,460	23.2
TOTAL[x]	6,681	52,465	12.7

Source: Australian Crime Commission

12.5. Summary of law enforcement trends

The key law enforcement issues to emerge from the 2009 IDRS are:

- Stabilisation of the percentage of IDRS participants reporting recent incarceration and recent criminal activity;
- An increase in the number of consumer arrests related to heroin use; and
- Diminishing of the traditional street drug market, and a trend towards to mobile dealing.

13.0 STUDY LIMITATIONS

The aim of the IDRS study is to monitor emerging trends in illicit drug use and related issues within the community. The study is not designed to provide a definitive or detailed explication of these trends. Rather, the primary purpose of the IDRS findings is to (where appropriate) inform future policy and research responses to the public health and law enforcement challenges presented by illicit drug use in each state and territory within Australia.

The IDRS approach relies on the perceptions of expert individuals involved in and exposed to the illicit drug scene (both individuals who inject drugs and professionals working with these groups). Where possible, these reports are compared against secondary indicators. However, given the hidden nature of illicit drug use, the availability of reliable indicator data is often limited.

Further, the IDRS study principally gathers evidence on emerging trends among people in contact with drug treatment, health and other services (e.g., the IDU interviews are primarily conducted at Melbourne NSP). As this population is not necessarily representative of all illicit drug users (e.g., those who do not routinely access such services, and recreational/non-dependent illicit drug users), the generalisability of the present results is limited. Another key limitation of the IDRS methodology is that it only describes drug use issues within metropolitan Melbourne and fails to provide a comprehensive picture of drug use issues across the whole state of Victoria. To provide such a comprehensive picture, the IDRS methodology would need to be expanded to regional areas of Victoria.

14.0 IMPLICATIONS

The findings of the 2009 Melbourne IDRS study suggest the following priority areas:

1. Continued monitoring of illicit drug markets for trends in price, purity availability, patterns of drug use, and related outcomes.

The IDRS study has again demonstrated its value as an informative and reliable drug trend monitoring study. It provides comparable data relating to illicit drug use over time and between jurisdictions, in a timely and cost-effective manner. Data from recent years have highlighted the dynamic nature of the illicit drug markets in Melbourne and the need to monitor fluctuations and the way these may impact on patterns of drug use. The continued monitoring of illicit drug markets is will add to our understanding of patterns of drug use and our ability to inform strategic policies and limit any associated harms.

2. Expansion of Victoria's routine drug trend monitoring, through new methods and new sentinel groups, to improve the understanding of intersecting drug markets and related outcomes.

The experience in Victoria and nationally has shown that the IDRS methodology can be extended to other sentinel groups of drug users for the purpose of monitoring trends in different market segments. For example, the IDRS drug trend monitoring methods have been successfully adapted for the purpose of exploring benzodiazepine use among IDU (Breen, et al. 2003), and to explore patterns of drug use among psychostimulant users (Stoovè, Laslett & Barratt, 2005; Johnston, et al., 2004). Expansion of core methods from existing monitoring systems to other important groups of drug users (e.g., new initiates to intravenous drug use) or different drug markets (e.g., rural/regional markets) should also be investigated. Additionally, the feasibility of incorporating new data collection methods (e.g., web-based surveys), such as those successfully implemented in the Victorian Psychostimulant Monitoring Project and the Cocaine Markets Study (Johnston, et al., 2004; Shearer, et al., 2005) might also be considered as a means of enhancing sampling and market coverage of existing monitoring systems.

3. Further research to monitor the characteristics and impact of psychostimulant use in Melbourne, along with consideration of the impact of these drug types upon both health and law enforcement sectors.

While the IDRS study is able to monitor trends in psychostimulant use among regular IDU, it cannot provide information on psychostimulant use and related outcomes among all sentinel groups of interest. Given the evidence among the IDRS sample of widespread use of methamphetamine, particularly speed, and the anecdotal reports of harms associated with methamphetamine use, further research is required to gain a greater understanding of these drug types. In turn, health and law enforcement professionals working with drug-using populations may be required to develop informed strategies to manage people who may experience negative effects due to the use these drugs.

4. Further research into drug-driving, particularly in regard to people's understanding of impairment and the circumstances in which they drive soon after taking illicit drugs.

In 2009, approximately 86% of those IDU who had driven a car during the past six months reported having driven soon after taking an illicit drug during that time. Worryingly, only one-third of these drivers acknowledged that their driving may have been impaired by their drug use, highlighting the urgent need for effective education about how different drugs affect driving ability.

5. Research to explore the nature and extent of pharmaceutical drug use among IDU in Melbourne, and the health harms associated with pharmaceutical drug misuse.

There continues to be reports of diversion and injection of prescription and non-prescription pharmaceuticals by some IDU respondents. Given the harms associated with injecting misuse of pharmaceutical drugs such as buprenorphine and buprenorphine-naloxone, further research into factors to reduce these harms is required, as is the need for development of effective educational resources.

6. Continued monitoring of changing patterns of benzodiazepine use.

The 2009 IDRS participants reported the highest level of benzodiazepine use since the withdrawal of Temazepam gel capsules from the market in 2004. This year's study also detected a significant increase in the recent use of Xanax (alprazolam), a benzodiazepine associated with memory loss and aggression. Continued monitoring of the use of benzodiazepines, alprazolam in particular is a priority.

7. Further research to gain a better understanding of the determinants of unsafe injecting and sex practices, particularly for those that increase the risk of BBVI.

In 2009, participants continued to report sharing of injecting equipment, particularly with regular sex partners, and HCV carriage rates remained unacceptably high. Ongoing emphasis on strategies to reduce the rates of needle/syringe and other injection equipment sharing is needed, and the development and dissemination of harm-reduction resources should continue to be a priority.

Since 1997, the Melbourne arm of the national IDRS study has proven to be a reliable, cost-effective and informative mechanism for the monitoring of illicit drug trends in Victoria. It yields data that are comparable from year-to-year and across jurisdictions, and has assisted policy, health and law enforcement sectors in their efforts to respond more effectively to changing patterns of illicit drug use.

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