

B. de Graaff & R. Bruno

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

Australian Drug Trends Series No. 41

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ABBREVIATIONS

2CI	2,5-dimethoxy-4-iodophenethylamine
ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH&A	Australian Government Department of Health and Ageing
AIDS	Auto-immune Deficiency Syndrome
AIHW	Australian Institute of Health and Welfare
AOD	Alcohol and other Drug
ATSI	Aboriginal and/or Torres Strait Islander
AUDIT	Alcohol Use Disorders Identification Test
BBVI	Blood-borne viral infection(s)
CNS	Central nervous system
CPR	Cardio-pulmonary resuscitation
DHHS	Department of Health and Human Services
EDRS	Ecstasy & related Drug Reporting System
HBC	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
ICD	International Classification of Diseases
IDDI	Illicit Drug Diversion Initiative
IDRS	Illicit Drug Reporting System
IDU	Injecting drug user(s)
K10	Kessler 10 Psychological Distress Scale
KE	Key expert(s) (previously referred to as key informant)
LSD	<i>d</i> -lysergic acid
MCS	Mental Component Score
MDA	3,4-methylenedioxyamphetamine
MDEA	3,4-methylenedioxyethamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MMT	Methadone Maintenance Therapy
MSM	Methylsulfonylmethane
N	Number of participants
NCIS	National Coronial Information System
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NMDS	National Minimum Data Set (for Alcohol and Drug Treatment Services)

NSP	Needle and Syringe Program(s)
OTC	Over-the-counter
PBS	Pharmaceutical Benefits Scheme
PCS	Physical Component Score
S8	Schedule 8
SD	Standard deviation
SF8	Short Form-8 Health Survey
SIS	State Intelligence Services, Tasmania Police
SPSS	Statistical Package for the Social Sciences
SSRI	Specific Serotonin Reuptake Inhibitor
TasCAHRD	Tasmanian Council on AIDS, Hepatitis and Related Diseases
TASPOL	Tasmania Police
TCA	Tricyclic anti-depressant

EXECUTIVE SUMMARY

In 1998, the National Drug and Alcohol Research Centre was commissioned by the Commonwealth Department of Health and Family Services (now the Australian Government Department of Health and Ageing (AGDH&A)) to begin a national trial of the Illicit Drug Reporting System (IDRS), following previous employment of the methodology in New South Wales, South Australia and Victoria. The intention of the IDRS was to provide a coordinated approach to the monitoring of data associated with the use of heroin, cocaine, methamphetamine and cannabis, in order that this information could act as an early warning indicator of the availability and use of drugs in these categories.

In 1999, the Tasmanian component of the national IDRS gathered information on drug trends using two methods: key expert (KE) interviews with professionals working in drug-related fields; and an examination of existing indicators. For the 2000-2005 IDRS, funding was provided by the National Drug Law Enforcement Research Fund (NDLERF) to expand this methodology and include a survey of people who regularly inject illicit drugs, in addition to the methods employed previously. Funding for this methodology since this time has been provided by the Australian Government Department of Health and Ageing.

Injecting drug user survey

One hundred people that regularly injected illicit drugs (IDU) were interviewed using a standardised interview schedule which contained sections on demographics, drug use, price, purity and availability of drugs, crime, risk-taking, health and general drug trends.

Key expert survey

Thirty-two professionals working with substance-using populations provided information about a range of illicit drug use patterns in clients they had direct contact with. These 'key experts' (KE) included drug treatment workers, Needle and Syringe Program staff, general health workers, youth and outreach workers, a community development worker and staff from police and justice-related fields. Of these individuals, 8 reported on groups that predominantly used opioids, 10 on cannabis and 10 on groups primarily using methamphetamine.

Other indicators

In order to complement and validate the key expert interview data, a range of drug use indicator data was sought from both health and law enforcement sectors. Guidelines for the acceptability of these sources aimed to ensure national comparability, and required that the sources were available annually, included 50 or more cases, were collected in the main study site, and included details on the main illicit drug types under study.

Included in this analysis were telephone advisory data, drug offence data, hepatitis B and C incidence data, data from the National Drug Strategy Household Survey, and data from clients of the state's Needle and Syringe and Pharmacotherapy programs, as well as drug and alcohol treatment services.

Demographic characteristics of injecting drug user (IDU) participants

Demographic characteristics of the regular injecting drug user participants interviewed were generally very similar to those interviewed in previous Hobart IDRS studies. Participants were predominantly male (58%), and had an average age of 34 years. Participants had completed 10 years of education on average, and more than two-thirds (68%) were currently unemployed. Almost half had a previous prison history (47%) and three-fifths were involved in some sort of drug treatment at the time of interview (56%).

The majority of participants (61%) were injecting a few times per week (but not every day), with 30% injecting at least once daily. Opioids were the predominant drug of choice among the cohort (59%). Opioids were reported by 74% of the current cohort as the drug most injected in the preceding month.

Patterns of drug use among the IDU sample

The major trends identified in the 2009 Tasmanian IDRS report relate to indications of emerging changes in patterns of methamphetamine and pharmaceutical opioid use amongst local IDU, along with ongoing use of coincident opioid and benzodiazepine (particularly alprazolam) use. Summaries of major trends for each drug class are reported below by drug type, and are also summarised in Table A.

Table A: Price, availability, purity and prevalence of use of heroin, methamphetamine, cannabis, morphine and methadone at the time of the interview and over the preceding six months

	Heroin	Methamphetamine			Cannabis		Morphine	Methadone
		Powder	Paste	Crystal	Bush	Hydro		
Prevalence of use	Very low	Stable level of use, used in last 6 months by more than half the sample	Use has returned to levels seen prior to 2008, when a notable decline was reported	Decrease in use	No change, remains the most frequently used illicit drug		Stable number using and frequency of use lower than 2008, but the same as reported in 2007	Stable level of use (l) and (t)
Price								
1 mg	-	-	-	-	-	-	-	
0.1 gram	-	\$50, stable	\$50, stable	\$50, stable	-	-	\$100, stable/increased	\$1, stable
0.5 gram	\$150	-	-	-	\$25, stable	\$25, stable	-	\$12.50, 10mg(t) increased/stable
gram	\$450	\$300, stable	\$300, stable	\$300, stable	\$250, stable/increased	\$300, stable/increased	-	-
ounce	-	-	-	-	-	-	-	-
Purity*	Medium to high and most unable to comment if purity had changed over last 6 months	Low purity and decreasing over last 6 months	Mixed reports ranging from low to medium to high; mixed reports on purity trends over recent months	Medium to high and generally stable over last 6 months	Medium and stable in last 6 months	High and stable in last 6 months	<i>Pharmaceutical</i>	<i>Pharmaceutical</i>
Availability	Very difficult to access among a small number of people able to access; unchanged over last 6 months	Easy/very easy and stable over preceding six months	Easy and stable to decreasing over preceding six months	Difficult/very difficult and stable to decreasing in last 6 months	Easy/very easy and stable, slight increase over preceding six months	Easy/very easy and stable	Easy/very easy and stable to decreasing over preceding six months	Easy/difficult and decreasing over last six months (l) Difficult/very difficult and stable to decreasing over preceding six months (t)

Source: IDRS IDU and KE interviews and drug use indicator data

* Note: based on IDU and key expert estimates of purity/potency; (l)=methadone syrup; (t)=Physeptone tablets

Heroin

Consistent with patterns seen in previous studies, only a small proportion of the TAS cohort (12%) reported using heroin in the preceding six months, with this use being very infrequent (six of the previous 180 days), despite a high preference for heroin as a drug of choice (33%). The rate of recent heroin use among Tasmanian IDU cohorts has decreased dramatically from 38% in 2000 to 12% in the current study, in contrast to the stable reported preference for opioid drugs over time (approximately two-thirds of each annual sample).

Very few of the IDU participants interviewed in 2009 could report on local trends in price, purity or availability of heroin. Only two participants were able to provide information regarding price paid for recent heroin purchases. These purchases were one 'half-weight' (0.5g) at a cost of \$150 and one gram purchase at a cost of \$450. Given these extremely sparse reports, it is difficult to infer trends regarding the price of heroin locally.

There was little uniformity in the forms of heroin used: seven participants reported use of rock from, with near-equal use of white or brown rock. Powder heroin, typically white, was used by four participants. Just three participants were able to comment on subjective purity of the heroin they had used in the preceding six months, stating that it was either 'medium' or 'high' in purity.

Most participants who commented reported availability of heroin to be 'very difficult'; with all participants agreeing that this situation had remained unchanged in the preceding six months. In the majority of previous years, IDU participants typically considered heroin as 'difficult' or 'very difficult' to access, and that this situation had not changed in recent months. The clear majority of indicators – such as the continuing low prevalence of heroin use among clients of the state's NSP and the low median rate of use of heroin (six days in the last six months among those who had used the drug) and that, of the 33% of the IDU sample that reported heroin as their drug of choice, only 24% had recently used heroin – indicated that the low availability of heroin in the state, identified in earlier IDRS studies, continued in 2009.

Methamphetamine

Almost all IDU participants in 2009 reported lifetime use of some form of methamphetamine (powder, base/paste, crystal/ice or liquid), with four-fifths reporting use in the preceding six months (80%). This rate of recent use is slightly lower than reported in previous local IDRS studies, in which 83-94% of each sample between 2003 and 2007 had reported recent use of methamphetamine (with the exception of 2008: 74%).

Previous years have seen major upheavals in methamphetamine markets in Hobart, often tied to changes in the availability of higher-potency forms of the drug. Between 2001 and 2005, there was a steady increase in use of methamphetamine, both among the IDRS IDU cohort (85% in 2001; 95% in 2005) and among clients of the state's NSP (30% in 2004; 59% in 2005). In 2006 and 2007, the proportions reporting recent use of methamphetamine stabilised (83% in 2006; 88% in 2007); however in 2008, this rate of use temporarily decreased to 74%. In 2009, a small increase in the rate of recent use of methamphetamine was observed (80%), returning to levels reported in 2006 and 2007. Somewhat similarly, the proportion of client transactions from the state's NSPs reported for methamphetamine has also decreased from 56% in 2005/06 to 31% in 2008/09 (however, there are limitations to this data: see Section 2.3).

The most commonly used forms of the drug were powder and base methamphetamine, used by 56% and 55% of participants respectively. Use of base/paste methamphetamine decreased dramatically in 2008 from 79% of the sample in 2005 to 25% in 2008, however, this trend was

reversed in 2009. Similarly, use of crystal methamphetamine declined from 69% of the 2003 cohort to 26% in 2009.

In 2009, frequency of use of any form of methamphetamine in the preceding six months was 15 days (out of a maximum of 180 days), similar to 2008, in which the median frequency of use was 12 days. These levels of use are lower than reported in previous local IDRS studies, in which median frequency of use ranged between 20 and 48 days over the preceding six months (2003-2008). Amongst participants in the current sample, the median frequency of use for powder methamphetamine was nine days, for base/paste 10 days, and for crystal methamphetamine, six days.

Market prices locally for all three presentations of methamphetamine appear to have remained relatively stable since 2005, particularly in relation to 'point' amounts (approximately 0.1g) of the drug, at \$50 for any form. Modal purchase prices for larger amounts of powder and 'base/paste' methamphetamine remained stable since 2004 at \$300 per gram. The median purchase price for gram quantities of ice/crystal methamphetamine declined in previous years from \$400 in 2004 to \$300 in 2006. In 2007, gram purchases of ice/crystal methamphetamine increased slightly to a median of \$340; however, in 2008 and 2009, the median price has stabilised at \$300. Participants predominantly regarded the prices of each presentation of the drug as remaining 'stable' in recent months.

IDU participants reporting on subjective purity of powder methamphetamine considered this to be 'low', and that this had decreased or fluctuated over the preceding six months. Several participants provided anecdotal reports in 2008 and 2009 that the more skilful local 'cook/s' have recently been incarcerated, which was thought to have contributed to the decreasing purity of powder methamphetamine. 'Base/paste' was considered by participants to fluctuate between 'low' and 'medium' subjective purity, however, participants were very mixed in their responses regarding changes to potency in the preceding six months. Participants considered ice/crystal methamphetamine used locally as 'medium' to 'high' in subjective purity, with potency remaining stable in recent months.

Participants interviewed in 2009 regarded powder form of methamphetamine as 'easy' to 'very easy' to access, with availability stable in recent months. The majority of participants who had recently used base/paste methamphetamine reported that it was 'easy' to access; however, it was not considered as easy to access as the other forms. Participants generally noted stable or decreased availability of base/paste methamphetamine in recent months. Crystal methamphetamine was considered to be difficult to access, and that this situation had either remained unchanged in recent months or had become increasingly difficult.

Trends in 2009 represent subtle changes both for the methamphetamine market overall (for the IDU demographic) and within it; in contrast to trends in previous years, indicators suggest that overall use of methamphetamine has decreased slightly in 2008 and 2009 (both in IDRS and NSP data), and that amongst those recently using this drug the majority of participants reported powder and base/paste as the predominant forms of methamphetamine used. Use of crystal methamphetamine among IDU participants appeared to have decreased in 2009. A companion study in Hobart carried out during a similar period examining drug use among regular ecstasy users (REU) also noted reductions in levels of use of crystal methamphetamine: the rate of recent use decreased from 27% 2006 to 7% in 2009 (Matthews & Bruno, 2010). These findings suggest a declining crystal methamphetamine market in Tasmania in 2009.

Cocaine

It appears that the availability and use of cocaine in Hobart continues to be very low, at least within the populations surveyed in the current study or accessing government services, with use of the drug among clients of the state's NSP virtually non-existent (<0.1% of non-pharmacy

equipment transactions). Only a very small proportion of the Tasmanian IDRS IDU participants reported recent use of the drug (2%), and the median frequency of this use was very low (three days of the last 180).

Reflecting the very low level of cocaine use amongst IDRS participants, no reports were provided regarding price, purity or availability in 2009. In 2008, very few participants commented on trends in availability: single participants reported availability to be 'easy' or 'very difficult' and both considered this situation to have remained stable in the preceding six-month period. Tasmania Police have made very limited numbers of cocaine seizures in the last decade: single 1g seizures in 2000/01 and 2005/06; two seizures (7g total) in 2006/07; and two seizures (7.6g total) in 2008/09¹.

These patterns of low levels of availability and use in these cohorts appear to have remained reasonably stable over the past few years. However, it is noteworthy that around half of the Tasmanian IDRS IDU sample reported lifetime use of cocaine, an increase from patterns seen in earlier studies. Similarly, there has been a gradual increase in the level of recent use of the drug in different local consumer populations such as frequent ecstasy consumers (Matthews & Bruno, 2010) which may provide indications of emerging changes in local markets for the drug.

Cannabis

Almost all participants in the 2009 Tasmanian sample reported lifetime use of cannabis, with most reporting use in the preceding six months (89%). The median frequency of this use was daily, which has been consistent in the Tasmanian IDU cohorts since the very first IDRS study in 2000; however, the proportion of IDU participants reporting daily use has decreased from 75% in 2001 to 50% in 2009. Those IDU participants who used cannabis generally reported smoking both hydroponically and outdoor-cultivated cannabis in the preceding six months, although the former was the form most commonly used. While cannabis remains the most commonly used illicit drug, both in the IDU sample and in the state, there are indications of decreasing levels of use more generally, with the National Drug Strategy Household Survey (NDSHS) suggesting that use of cannabis in the previous year in local samples has declined from 15.8% in 1998 to 10.8% of those aged 14 years and over in 2007.

Participants who commented reported that a \$25 'deal' of both hydroponically-cultivated cannabis and outdoor-cultivated cannabis weighed a modal amount of 1.0 gram. In 2008, a \$25 'deal' of outdoor-cultivated cannabis had a modal weight of 2.0 grams. When accessing outdoor cannabis, participants typically purchased quantities of quarter-ounce (mode \$50) and one ounce (mode \$250). The modal prices reported in 2009 are notably different from those reported in 2008, when quarter-ounce purchases cost a modal amount of \$70 and one ounce purchases cost a modal price of \$200. The majority of those commenting perceived no change in price of outdoor cannabis in the preceding six months. Prices for hydroponically-cultivated cannabis were higher, at a mode (and median) of \$90 per quarter-ounce and \$300 per ounce. The price for quarter-ounce purchases has remained stable since 2007; however, the median price estimate for ounce purchases increased from \$250 in 2007 to \$300 in 2008 and 2009. Overall, however, the majority of participants commenting perceived no change in price of hydroponic cannabis in the preceding six months.

Similar to previous years, participants described the subjective potency of outdoor-cultivated cannabis as 'medium', with this level generally considered 'stable' in the preceding six months. Hydroponically-cultivated cannabis was regarded as 'high' in subjective potency by participants who commented, with this level regarded as 'stable' or 'increasing' in recent months.

¹ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

Participants commenting on cannabis overwhelmingly reported that both hydroponic and outdoor forms were 'very easy' or 'easy' to obtain, with this situation remaining stable for both forms over the preceding six months.

Other opioids

Morphine

Four-fifths (81%) of the Tasmanian sample had used morphine in recent months, with all injecting the drug in this time. MS Contin remained the predominant preparation used by this group, used by 54% of the sample as a whole, with Kapanol the next most commonly used (by 19% of the sample).

Tasmanian IDRS studies had shown a decreasing proportion of participants reporting recent use of morphine between 2003 and 2005, as well as a declining frequency of use amongst consumers. This occurred despite a relatively stable proportion of the IDU samples receiving maintenance pharmacotherapies (approximately 50%) and reporting an opioid as their drug of choice (approximately 60%). Since 2005, there has been a trend to increasing morphine use, with particularly notable increases between the 2007 and 2008 samples in terms of proportions reporting recent morphine use (68% and 81% respectively) and in the frequency of this use (24 v. 48 days respectively). In 2009, 82% of the sample reported recent use; however, the frequency of this use halved to 24 days.

The modal price reported by IDU for all commonly-used morphine formulations was \$1 per mg. This represented increases in prices for 100mg MS Contin (previously modal price of \$80 between 2006 and 2008), 60mg MS Contin (\$50 in 2008), and 100mg Kapanol (\$70 between 2003 and 2007). Morphine was considered 'easy' to 'very easy' to obtain by those who commented, and this situation was reported as remaining stable or decreasing in recent months. These overall increases in indications of use and of the price of morphine both speak to an increase in local demand for the drug in 2009.

Methadone syrup

Illicit methadone syrup was used by just over half of the sample (52%) in the past six months, at a median frequency of 12 days, equating to use approximately once per fortnight. Almost half of the IDRS respondents reporting recent use of illicit syrup (46%) were themselves enrolled in methadone maintenance treatment during this period. The frequency of illicit methadone syrup use also appeared lower amongst those who were enrolled in methadone maintenance treatment (9 v. 14 days in the preceding six months).

It is important to recall that the individuals participating in the IDRS are selected on the basis of their regular injection of drugs and, as such, are not representative of all those enrolled in maintenance pharmacotherapy programs. Participants were asked to comment on the reasons for use of illicit methadone syrup: most commonly cited were reasons pertaining to intoxication, as a substitute for other drugs and self-treatment for opioid dependence or pain. There may be a spectrum of reasons for the use of illicit syrup by those themselves enrolled in the program, but it is important also to consider the role of incomplete stabilisation and of problems in the systems around dose dispensing in these situations. For a recent, detailed investigation of these types of issues, see Fraser et al. (2007).

Illicit methadone syrup was reported to cost a median of approximately \$1 per mg in 2009, consistent with the majority of reports since 2001. Participants reported prices to be stable in recent months. Methadone syrup is most frequently purchased from friends or acquaintances,

and this is generally carried out in an agreed-upon public location or a friend's home. Participants were divided in their reports on the availability of illicit methadone syrup: it was considered to be 'easy' to access (if pre-arranged and purchased from friends or acquaintances); and 'difficult' and decreasing in availability otherwise.

There have been continuing reports of participants injecting combinations of alprazolam and methadone syrup in the past five local IDRS studies, a practice that carries an increased risk of overdose, injection-related harms, and adverse social or legal consequences because of the particular disinhibitive effects of this combination, which both IDU participants and KE noted as concerns in regard to this trend.

Physeptone

Consistent with reports from the 2008 IDRS, half of the sample (50%) reported recent use of illicit Physeptone (methadone tablets), an increase from the 2007 study, in which 38% of the sample reported this. Between 2003 and 2007, recent use of illicit Physeptone had been in decline (from 64% in 2003 to 49% in 2006). The modal price of illicit Physeptone tablets was \$12.50 per 10mg. This marked an increase from the \$10 modal price reported between 2000 and 2008. Participants reported that prices had either increased or remained stable in recent months. Physeptone was regarded as 'difficult' to access, with this level of availability remaining stable or declining somewhat in the preceding six months.

Oxycodone

Illicit oxycodone use among local IDU samples appears to have increased in recent years, from 30% reporting use in 2005 to 56% of the current sample. OxyContin tablets were the predominant formulation used in the preceding six months.

Despite their higher relative potency than morphine tablets, preparations of oxycodone tablets had been sold locally at lower comparative prices since 2005. Since the 2007 survey, consumer reports have suggested the cost of these drugs has increased: the modal price estimate for 80mg OxyContin tablets doubled from \$40 to \$80 between 2007 and 2009.

Illicit oxycodone was generally considered to be either 'easy' or 'very easy' to access. This situation was regarded as 'stable' over the preceding six months by most participants, with a notable minority reporting decreasing availability over this period. The combination of the rapidly increasing rate of prescription of oxycodone (both nationally and locally), the apparent increasing demand in the morphine market, and its perceived similarity among users to morphine, render it likely that oxycodone use may continue to expand within the local IDU market. Given the high relative potency of oxycodone, and its possible synergistic effects with other opioids, this is an issue that merits continued careful monitoring.

It is important to note also that the opioids used by this group are not coming from direct doctor-shopping, as the vast majority report obtaining them 'illicitly', i.e. not on a prescription in their name.

Benzodiazepines

Almost all the participants reported lifetime use of benzodiazepines (95%), and four-fifths of the sample reported recent use (79%). Recent use of illicit benzodiazepines was reported by two-thirds of the sample (66%), at a median frequency of 16 days, which equates to use approximately once per fortnight.

There were no consistent reports on the ease of access of benzodiazepines illicitly. Illicit benzodiazepines were most commonly sourced from friends either as a gift or purchase, rather than through theft, forgery or feigning symptoms to doctors (doctor-shopping).

There are clear indications that, following a reduction of the injection of benzodiazepines among IDU between 2002 and 2003 (arising from the restriction and eventual removal of the preferred temazepam gel capsules from the market), injection of benzodiazepines remains an ongoing part of the local drug culture, with Tasmanian IDU consumers continuing to inject at rates higher in comparison to those identified in other Australian jurisdictions. As noted in previous IDRS studies, it is also clear that alprazolam (Xanax in particular) appears to have largely replaced the local illicit market for temazepam gel capsules among those IDU particularly interested in benzodiazepine injection, with this drug being used in similar ways to temazepam capsules by consumers, such as in simultaneous combination with methadone syrup or other opioids. Regulatory changes were implemented in September 2007 by the Tasmanian Pharmaceutical Services Branch regarding prescribing of alprazolam, with an aim to decrease misuse of this drug. Since these changes, IDRS participants noted decreased availability and increased prices for alprazolam. Despite this, between the 2007 and 2008 studies, small increases in use were reported, however, in 2009, a slightly lower rate of use was reported (30% in 2008, 20% in 2009). This marks a possible change from the trend toward increasing injecting use of alprazolam amongst the IDU samples. However, the ongoing injecting use of alprazolam remains a concern given the serious psychological and physical harms associated with benzodiazepine injection. Additionally, the overall level of use and availability of benzodiazepines generally remains high within local IDU, particularly among primary users of opioids, which is again of concern given the increased risk of overdose when the two substances are combined, and the highly variable half-lives across different benzodiazepine types. As such, patterns of benzodiazepine use and injection in the state continue to warrant very close attention.

Health-related trends

Non-fatal overdose

Opioids

Small proportions of participants reported experiencing a non-fatal overdose from use of morphine, methadone or heroin in the preceding 12 months; however, a significantly greater proportion of participants in the current study reported lifetime experience of a non-fatal overdose than was reported in 2008.

Fatal overdose

Opioids

The number of accidental deaths in Tasmania attributable to opioid use in 2007 was 11, which equates to a rate of 42 deaths per million population, aged between 15 and 54 years. Nationally in 2007, 266 deaths were attributed to such causes, which equates to a rate of 22 deaths per million population.

Injecting risk behaviours

Self-reported rates of sharing of needles or syringes among clients of non-pharmacy NSP outlets had steadily declined over time (from 2.6% of all transactions in 1995/96 to 0.3% in 2005/06); however, in 2006/07, this trend was briefly reversed (with 1.1% of client transactions reporting sharing needles or syringes) - this rate has continued to decrease since this time - to 0.14% in 2008/09.

The current Tasmanian IDRS study identified a similar pattern with rates of sharing amongst IDU participants increasing sharply in 2006/07, and decreasing over the subsequent periods. Two percent of the current cohort reported use of another person's used needle/syringe in the month prior to interview, a rate lower than was reported in 2007 (16%), but similar to rates in other years. Similarly, the number of participants reporting providing their used equipment to

another person decreased from 29% in 2007 to 13% in 2009, returning to a similar level to that reported in other Tasmanian IDRS reports.

Three-fifths of the consumers interviewed (63%) reported re-using their *own* injection equipment in the month prior to interview, with the majority of these participants re-using on multiple occasions in this time. The main forms of equipment that consumers reported re-using were winged-infusion sets ('butterflies'), 3/5ml barrels, 10ml barrels and 1ml syringes. Requiring equipment after-hours (nights or weekends) or the distance from an outlet were the main reasons participants provided for re-using equipment.

These are harmful injection practices, as repeated use of needles leaves them blunt, which could cause damage to the venous system, and use of non-sterile equipment can lead to the introduction of bacteria into the bloodstream, which can lead to infections, septicemia or endocarditis. Sharing of injecting equipment greatly increases the chance of transmission of blood borne viruses such as HCV or HIV.

Self-reported injection-related problems

Four-fifths of the sample surveyed experienced current injection-related health problems (80%), an increase from the rate reported in 2008 (54%). Scarring/bruising and difficulty finding veins to inject into (indicative of vascular damage) were the most common injection-related problems experienced by the current IDRS IDU cohort.

Self-reported mental health problems

Forty-six percent of participants reported experiencing a mental health problem in the preceding six months. In earlier local IDRS IDU surveys, there had been a steadily increasing rate of individuals reporting recent experience of a mental health problem (rising from 53% in 2004 to 60% in 2007); however, this trend was reversed over 2008 and 2009. Depression and anxiety-related disorders were the most commonly cited. While the self-reported rate of recent mental health problems is declining amongst the IDU cohorts locally, both the Kessler 10 (K10) and the Short Form-8 Health Survey (SF-8) demonstrate substantially higher rates of psychological distress in the IDRS sample in comparison to the Australian national average

Self-reported general health problems

Self-reported general health amongst IDU participants was generally poorer than was reported for general population samples. IDRS participants scored lower on the Physical Component of the SF8 than was reported in the National Health Survey (1995), and lower in all measures of the Personal Wellbeing Index than has been reported as the normative Australian population scores. Chronic health conditions such as migraines, asthma, skin conditions, joint/muscular/skeletal problems, bronchitis and emphysema were reported by a higher proportion of IDRS participants than by a general population sample in the National Health Survey (2009).

Driving risk behaviour

Three-quarters of the consumers interviewed that had driven a car in the past six months had done so within an hour of using illicit or non-prescribed drugs on at least one occasion. Cannabis, methamphetamine and illicit morphine were most commonly involved. While the extent of self-reported driving under the influence of drugs has remained stable in the past three local IDRS studies, the level of drug driving involving methamphetamine had decreased from 74% of those who had driven in 2005 to 25% in 2009.

Law enforcement trends among IDU

Self-reported criminal activity

Sixty-two percent of the IDU respondents self-reported involvement in some type of criminal activity in the preceding month. The crimes most commonly reported were dealing drugs and property crime. Half of the IDU respondents had been arrested in the previous 12 months (49%), a rate consistent with that reported in the 2009 National IDRS sample (52%: Stafford et al. 2010). In Tasmania, most arrests related to property crime and driving offences.

Arrests

In keeping with low levels of use and availability of heroin in Tasmania among IDU participants, very few heroin-related arrests have been reported by Tasmania Police over recent years. No arrests were reported for the 2000/01-2003/04 and 2006/07-2008/09² financial years, with just single arrests made in 2004/05 and 2005/06.

Conversely, reports of arrests for methamphetamine-related offences had increased from 20 in 1996/97 to 179 in 2007/08. This trend was reversed in 2008/09, with 72 such arrests being reported by Tasmania Police³.

The number of arrests related to cannabis has increased over the 2006/07-2008/09 period⁴, following a gradual decline in the preceding four years. The majority of drug-related arrests reported in Tasmania are for cannabis offences (73-96% from 1997/98 to 2007/08).

Drug-Related Charges in Tasmanian Courts

The number of individuals before the Supreme Court of Tasmania facing charges under the *Misuse of Drugs Act 2001* has increased from 20 individuals in 2003/04 to 75 in 2007/08. It is likely that the recent apparent increase in charges may largely relate to legislative changes rather than being necessarily reflective of substantial changes in the rate of such offences.

The number of individuals before the Magistrates Court for drug-related matters had increased in 2008/09, primarily due to a large increase in the number of charges relating to possession and/or use of drugs. The number of these charges had been stable between 2003/04 and 2007/08, with between 414-517 charges per annum, however, in 2008/09 this increased to 886 charges.

² Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

³ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

⁴ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

1.0 INTRODUCTION

In 1998, the National Drug and Alcohol Research Centre (NDARC) was commissioned by the Commonwealth Department of Health and Family Services (now the Australian Government Department of Health and Ageing) (AGDH&A) to begin a national trial of the Illicit Drug Reporting System (IDRS), following a successful pilot study of the project's methods in New South Wales in 1996 (Hando et al., 1997) and in the following year a multi-state trial in New South Wales (Hando & Darke, 1998), South Australia (Cormack et al., 1998) and Victoria (Rumbold & Fry, 1998).

The intention of the IDRS is to provide a coordinated approach to the monitoring of trends associated with the use of methamphetamine, opioids, cannabis and cocaine, in order that this information can act as an early indicator of emerging trends in illicit drug use. Additionally, the IDRS aims to be timely and sensitive enough to signal the existence of emerging problems of national importance rather than to describe phenomena in detail; instead, providing direction for issues that may require more detailed data collection, or are important from a policy perspective.

The full IDRS methodology involves a triangulated approach to data collection on drug trends, involving standardised surveys of people who regularly inject illicit drugs, a qualitative survey of key experts (KE) - individuals who have regular first-hand contact with groups of people who use illicit drugs, and an examination of existing available data sources or indicators relevant to drug use in each state. Following a replication of the IDRS process in 1998 in New South Wales, Victoria and South Australia, the IDRS was expanded nationally for 1999, with these states continuing to follow the full methodology, while Western Australia, Northern Territory, the Australian Capital Territory, Queensland and Tasmania examined drug use trends using an abbreviated design, utilising key expert interviews and examination of secondary data sources only. The National Drug Law Enforcement Research Fund (NDLERF) subsequently provided these states with additional funding to expand data collection to the full IDRS methodology for 2000 through to 2005. The full methodology of the IDRS nationally has been funded by the Australian Government Department of Health and Ageing since 2006.

The 2009 Tasmanian Drug Trends Report summarizes the information gathered in the Tasmanian component of the national IDRS using the three methods outlined above: a survey of people who regularly inject illicit drugs, 'key expert' interviews with professionals working with individuals who use illicit drugs, and an examination of existing indicators relating to drugs and drug use in the state. The methods are intended to complement and supplement each other, with each having its various strengths and limitations. Results are summarized by drug type to provide the reader with an abbreviated picture of illicit drug usage in Hobart and recent trends. Reports detailing Tasmanian drug trends from 1999 through to 2008 (Bruno & McLean 2000, 2001, 2002, 2003, 2004; Bruno, 2005, 2006, de Graaff & Bruno, 2007a, 2008, 2009) and state comparisons (McKetin et al., 2000; Topp et al., 2001, 2002; Breen et al., 2003, 2004; Stafford et al., 2005; O'Brien et al. 2006; Black et al., 2007 and 2008 and Stafford et al., 2009) are available as technical reports from the National Drug and Alcohol Research Centre, University of New South Wales⁵.

1.1 Study aims

The specific aim of the Tasmanian component of the IDRS was to provide information on trends in illicit drug use in Tasmania that require further investigation.

⁵ IDRS reports from all jurisdictions, as well as national reports, are available for free download in pdf format on the National Drug and Alcohol Research Centre website: <http://ndarc.med.unsw.edu.au>

2.0 METHOD

The IDRS is essentially a convergent validity study, where information from three main sources, each with its own inherent advantages and limitations, is compiled and compared to determine drug trends. The three components of the IDRS are a survey of people who regularly inject illicit drugs (IDU, or, alternatively referred to as ‘consumers’), a qualitative study of professionals (‘key experts’) working in drug (or related) fields that have regular direct contact with individuals who use illicit drugs, and an examination of existing indicator data on drug-related issues. Details of each dataset are provided below. Previous work with the IDRS methodology has found that people who regularly inject drugs are an informative sentinel group for detecting illicit drug trends due to their high exposure to many types of illicit drugs. This group also has first-hand knowledge of the price, purity and availability of illicit drugs. KE interviews provide contextual information about drug use patterns and health-related issues, such as treatment presentations. The collection and analysis of existing drug use indicator data provides quantitative contextual support for the drug trends detected by the IDU and KE surveys (McKetin et al., 2000).

Data sources complemented each other in the nature of the information they provided, with information from the three sources used to determine whether there was convergent validity for detected trends, and the most reliable or ‘best’ indicator of a particular trend used when summarising such trends. Findings from the 2009 Tasmanian IDRS are also compared with findings from the previous Tasmanian studies (Bruno & McLean, 2000, 2001, 2002, 2003, 2004a; Bruno, 2005; de Graaff & Bruno 2006, 2007, 2008) to determine any changes in drug trends over time.

2.1 Survey of injecting drug users (IDU)

The IDU survey was conducted during June 2009, and consisted of face-to-face interviews with 100 people who regularly injected illicit drugs. Inclusion criteria for participation in the study were that the individual must have injected at least once monthly in the six months prior to interview, and have resided in Hobart for the past twelve months or more. Participants were recruited using a variety of methods, including advertisements distributed through Needle and Syringe Program (NSP) outlets, pharmacies (through flyers included with injection equipment) or health services, and snowball methods (recruitment of friends and associates through word of mouth). Participants were interviewed at places convenient to them, such as health services and NSP outlets. Two agencies - the Link Youth Health Service and the Tasmanian Council on AIDS, Hepatitis and Related Diseases (TasCAHRD, in their Hobart and Glenorchy sites) assisted the researchers by providing support as recruitment and interview sites for IDRS participants. The major location for recruitment and subsequent interview was Hobart city, although approximately one-third of the sample was recruited and interviewed in Glenorchy city (in the northern suburbs of Hobart).

A standardised interview schedule used in previous IDRS research (Hando & Darke, 1998; McKetin et al., 1999; Topp et al., 2001) was administered to participants. The interview schedule contained sections on demographics, drug use, price, purity and availability of drugs, crime, risk-taking, health and general changes in drug use. Participants were screened for appropriateness both by referring staff members of the recruitment sites and the interviewers, the latter through a series of questions designed to elicit participants’ knowledge of injecting drug use practice. Both the University of New South Wales and the Tasmanian Social Sciences Human Research Ethics Committee granted ethical approval for the survey (approval H0007853 for the Tasmanian committee). Participants were provided with an information sheet describing the interview content prior to commencement (subsequent to screening), allowing them to make an informed decision about their involvement. Information provided was entirely confidential, and participants were informed they were free to withdraw from participation without prejudice or to decline to answer any questions if they so wished. Interviews generally lasted between 45 and 60

minutes (averaging 56 minutes, ranging from 35 to 170 minutes), and participants were reimbursed \$40 for their time and out-of-pocket expenses.

Data analysis was conducted using SPSS for windows, release 17.0.2 (SPSS Inc., 2009).

2.2 Survey of key experts (KE)

Thirty-two KE, who were working with illicit drug users in the greater Hobart area, participated in face-to-face interviews between late August and early September 2009. Sixteen KE (50%) were recruited from the pool of KE that had taken part in the 2008 IDRS, eleven participants (34%) were recruited from the pool of KE that had taken part in the 2007 IDRS, while eight had also participated in the 2006 IDRS study. Smaller numbers of KE had participated in earlier studies: five in 2005; four in 2004, 2003 and 2002; and three in the 2001 and 2000 IDRS studies. All other participants in the current study were identified and recruited either as replacements for the 2008 IDRS participants drawn from the same agencies, or on the basis of referrals from the Tasmanian IDRS steering committee or professionals in the field.

KE included youth workers (n=3), members of the Department of Justice (law enforcement professionals n=4, policy n=1, medical officer n=1), a lawyer (n=1), emergency workers (ambulance officer n=1, emergency medicine consultant n=1) and a community development worker (n=1). The remainder worked specifically in the drug and alcohol field, comprising counsellors and outreach workers (n=7), needle and syringe outlet workers (n=3), medical practitioners prescribing methadone or specialising in alcohol and other drug treatment (n=2), a pharmacist (n=1) and other health professionals working in a variety of more general roles in the drug and alcohol field, including assessment, nursing, education, harm reduction, detoxification and advocacy (n=7).

Several KE were interviewed for their expert opinions on specific issues (e.g. drug-related violence) or on other particular areas (such as advocacy or dealing and production of illicit drugs). The remaining KE were interviewed in regard to their direct work with drug consumers, with entry criteria for inclusion in this aspect of the study being at least weekly contact with illicit drug users in the past six months and/or contact with ten or more illicit drug users in the last six months. These 26 individuals had a median of 5 days per week contact with consumers in the preceding six months (mode 5 days per week, range 3-5), with all reporting contact with more than ten consumers in this period, and almost all (95%) seeing more than 20 such people in the preceding six months. Although several KE came from generic services, many worked specifically with special populations, including youth and injecting drug users.

KE were asked to specify the main illicit drug used by the drug users they had most contact with in the past six months. Similar numbers of KE reported on different groups of clients: 10 respectively reported on groups that predominantly used methamphetamine/psychostimulants and cannabis and eight reported on groups that predominantly used pharmaceutical opioids (three methadone, two morphine, one oxycodone) and two commenting on clients predominantly using a combination of opioids.

The qualitative interview schedule was a structured instrument that included sections on drug use patterns, drug availability, criminal behaviour and health issues. Interviews took between 20 and 90 minutes to administer. Notes were taken during the interview and were subsequently transcribed in full. Open-ended responses were analysed using word processor and spreadsheet software, sorting for recurring themes across respondents. Single reports from KE have been presented where they were deemed reliable by the interviewer, and where the information provided contributed to the explanation of particular trends. Closed-ended questions were analysed using SPSS for Windows, release 17.0.2 (SPSS Inc., 2009).

2.3 Other indicators

To complement and validate data collected from the KE study and IDU survey, a range of secondary data sources was examined, including survey, health, and law enforcement data. The pilot study for the IDRS (Hando et al., 1997) recommended that such data should be available at least annually, include 50 or more cases, provide brief details of illicit drug use, be collected in the main study site (Hobart or Tasmania for the current study), and include details on the four main illicit drugs under investigation (heroin, cannabis, cocaine and methamphetamine). However, due to the relatively small size of the illicit drug-using population in Tasmania (in comparison to other jurisdictions involved in the IDRS), and a paucity of available data, the above recommendations have been used as a guide only. Indicators not meeting the above criteria should be interpreted with due caution, and attention is drawn to relevant data limitations in the text.

Data sources that fulfil the majority of these criteria and have been included in this report are outlined below:

2.3.1 Needle and Syringe Program data

The Needle and Syringe Program (NSP) has been operating in Tasmania since the introduction of the *HIV/AIDS Preventive Measures Act in 1993*. Staff record the number of needle/syringes ordered from all outlets participating in the program (around 90 outlets) and, for participating non-pharmacy outlets, data are collected regarding age, sex, equipment shared since last visit, last drug used, and disposal methods for each client transaction. The data provided represent responses from 33,387 occasions of service in the 2008/09 financial year. It should be noted that data are not necessarily collected systematically for all data fields – e.g. while there are 33,387 recordings for gender of client, there are 33,084 recorded for the age of the client (99% of the recorded cases⁶). There has also been some inconsistency between outlets in the wording of questions asked of clients, most notably in the question regarding substance used (the majority of services ask ‘what is the drug you most often inject?’ while some find that asking ‘what is the drug you are about to inject?’ more useful for health intervention purposes), which may impede clear comparisons of trends across years for this dataset.

2.3.2 Prevalence of last drug injected by IDU in Tasmania, provided by the Australian Needle and Syringe Program (NSP), on behalf of the collaboration of Australian Needle and Syringe Programs

The Australian NSP survey has been carried out over one week each year since 1995. During a designated survey week, NSP staff ask all clients who attend to complete a brief, self-administered questionnaire and provide a finger-prick blood sample for testing the presence of blood-borne viral infections (BBVI) such as hepatitis B (HBV) and C (HCV). The data provided here represent the reported last drug injected by survey respondents in Tasmania each year from 1995 to 2008. Since 1995, the number of participants participating in the study has steadily climbed from six to 168 in 2007, however, this was notably lower in the 2008 study, with 57 participants (1995 n=6; 1996 n=18; 1997 n=23; 1998 n=51; 1999 n=25; 2000 n=27; 2001 n=28; 2002 n=151; 2003 n=118; 2004 n=107; 2005 n=137; 2006 n=150; 2007 n=168: MacDonald & Zhou, 2002; National Centre in HIV Epidemiology and Clinical Research, 2009).

2.3.3 The 1998, 2001, 2004 and 2007 National Drug Strategy Household Surveys

The National Drug Strategy Household Survey (NDSHS), run by the Australian Institute of Health and Welfare (AIHW), represents a prevalence study of drug use amongst the general

⁶ However, there has been an improvement in the data recording rate in recent years – in 2000/01, only 44% of the 32,507 occasions of service included information regarding principal drug used, while in 2001/02, the relevant rate was 78%, rising to 87.5% in 2002/03; 90.7% in 2003/04; 84% in 2005/06; 97% in 2006/07 and 99% in 2007/08.

community, surveying 1,031 individuals in Tasmania in the 1998 study, 1,349 individuals in 2001, 1,208 in 2004, and 1,143 in 2007 who were over 14 years of age, could speak English, and who lived in private dwellings (Australian Institute of Health and Welfare, 1999, 2002, 2005b, 2008b). The survey investigated use of the following illicit drugs relevant to this report: cannabis; methamphetamine; hallucinogens; cocaine; ecstasy/designer drugs; and heroin. Respondents were asked whether they had ever used these drugs and whether they had used them within the past twelve months.

2.3.4 Police and Justice Department data

Tasmania Police State Intelligence Services, the Australian Crime Commission (ACC, previously the Australian Bureau of Criminal Intelligence or ABCI), and the state Justice Department have provided information on drug seizures, charges and costs. Data on the purity of drugs seized are also provided through the ACC; however, not all drug seizures are analysed for purity. Data from the ACC for the 2008/09 financial year was not available at the time of publication. Where available, data from Tasmania Police have been used to examine changes in key law enforcement-related variables. It should be noted that these data are preliminary and subject to revision (totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules), and this issue is noted in the text as is relevant.

2.3.5 Urine screens of prisoners

The Tasmanian Justice Department has conducted random urine screens of prisoners since 1993, aiming to test approximately 10% of the state's prison population monthly. Since 1995, these screens have been increasingly based on suspicion of drug use, rather than on a purely random basis, and sample sizes have increased since this time (1995/96 n=111; 1996/97 n=283; 1997/98 n=253; 1998/99 n=267; 1999/00 n=359; 2000/01 n=541; 2001/02 n=561; 2002/03 n=467; 2003/04 n=261; 2004/05 n=416; 2005/06 n=376; 2006/07 n=337, 2007/08 n=788). In the 2008/09 financial year, the Justice Department utilised both standard urine screen tests and the insta-testing system for the presence of drugs. A total of 734 screens for drugs were carried out during the 2008/09 financial year.

2.3.6 Blood-borne viral infections surveillance data

Blood-borne viral infections (BBVI), in particular HIV/AIDS and HBV and HCV, are 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 diseases. The Department of Health and Human Services, Public Health Division, records notifications of diagnoses of HIV, HBV and HCV in Tasmania, and, where possible, records the relevant risk factors for infection that the person may have been exposed to. There are limitations to the interpretation of this dataset in terms of monitoring trends in the spread of these viruses. For example, many injecting drug users who have been exposed to HCV may not undergo testing. Further, it is difficult to confidently determine whether notifications represent new cases or those that have been established for some time.

2.3.7 Tasmanian Pharmacotherapy Program data

Pharmaceutical Services in the Department of Health and Human Services maintains a database that records all maintenance pharmacotherapy program registrations (methadone, buprenorphine, and buprenorphine-naloxone) in Tasmania, along with applications to prescribe a combination of an opioid and alprazolam. The number of annual new admissions to the pharmacotherapy program, the number of active daily clients and applications to prescribe both an opioid and alprazolam, are presented.

2.3.8 Coronial findings on illicit drug-related fatalities

In previous IDRS reports, overdose-related fatalities data from 1998 to the present (provided by the Australian Bureau of Statistics, ABS) have been presented. The ABS has changed the way deaths data is collected, making comparisons to earlier overdose bulletins published by the National Drug and Alcohol Research Centre difficult. Since 2003, the ABS has progressively ceased visiting jurisdictional coronial offices to manually update causes of death that had not been loaded onto the computerised National Coronial Information System (NCIS). It was in 2006, that the ABS began to rely solely on data contained on NCIS at the time of closing the deaths data file. In addition, a number of jurisdictions, notably New South Wales and Queensland, reported backlogs in cases that had been finalised by the coroner (i.e. cases where the coroner has determined the cause of death), but not yet loaded onto NCIS. These factors are likely to have an impact on the number of opioid-related deaths recorded at a national level in 2006 and 2007, given that New South Wales and Queensland recorded the highest number of opioid-related deaths in Australia during the period 2000 to 2005. Accordingly, only drug-related deaths for 2006 and 2007 are reported here. These data should be interpreted in conjunction with the ABS Technical Note 2: Coroner Certified Deaths, 3303.0 2006 (Roxburgh & Burns, in press).

2.3.9 Hospital morbidity data

Hospital morbidity data in relation to use of drugs have been provided by the Australian Institute of Health and Welfare (AIHW) for the 1999/00 to 2007/08 financial year periods. These data relate to public hospital admissions for individuals aged between 15 and 54 years, where drug use was recorded as the 'principal diagnosis'; namely, where the effect of a drug was established, after study, to be chiefly responsible for occasioning the patient's episode of care in hospital (with the exception of admissions for psychosis and withdrawal). These figures were based on diagnoses coded according to the International Classification of Diseases (ICD) 10, second edition. It is also important to note that data from the state's single public specialist detoxification centre are only included in this dataset from June 2002.

2.3.10 Tasmanian alkaloid poppy crop data

Tasmania has had a commercial opiate alkaloid industry for many years, where farmers are licensed to grow the poppy (*Papaver somniferum*) for production of codeine and related products by pharmaceutical companies. The Tasmanian Government has international obligations under the United Nations Convention on Narcotic Drugs to ensure licensing of crops, and that there is limited diversion, as some of the poppy strains grown can be converted into opium. Data on diversion rates of Tasmanian poppy crops have been provided by the Poppy Board of the Tasmanian Justice Department, as they are a useful indicator of potential illicit use of opium or poppy tar.

2.3.11 Telephone advisory services data

Tasmania has two 24-hour alcohol and drug-related telephone information services. In mid-May 2000, Turning Point Alcohol and Drug Centre in Victoria took over responsibility for administration of the Tasmanian Alcohol and Drug Information Service (ADIS), a confidential drug and alcohol counselling, information and referral service. Turning Point systematically records data for each call received, which comprised 2,208 calls to ADIS during the 2000/01 financial year; 2,129 calls in 2001/02; 1,984 in 2002/03; 1,554 during 2003/04; 1,332 calls during 2004/05; 1,469 calls in 2005/06; 1,474 calls in 2006/07; 1,525 in 2007/08; and 1,556 in the 2008/09 financial year.

3.0 RESULTS

3.1 Overview of the IDU sample

A total of 100 individuals were interviewed. The demographic characteristics of the IDU sample are presented in Table 1 below. The mean age of participants in the 2009 study was 34.1 years (SD = 8.2, range 19-51 years). The average age of the cohort over the preceding eight years has increased (26.3 years in 2000). Fifty-eight percent of the 2009 cohort was male, similar to the sample in 2008 (57%), however, this reflects the continuation of a steady trend toward decreasing proportions of male participants which has emerged since 2002, when 71% of participants were male. Female participants were slightly younger than male participants in the 2009 cohort (females 32.6 years, SD=8.1; male participants 35.2 years, SD=8.1), but this difference was not statistically significant.

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

Characteristic	2008 N=100	2009 N=100
Age (mean years, range)	31.5 (range 18-61)	34.1 (range 19-51)
Sex (% male)	57	58
Employment (%):		
Not employed/on a pension	85	68
Full-time	2	4
Part-time/casual	4	12
Home duties	6	12
Student	2	2
Work and study	1	1
Received income from sex work last month	2	1
Aboriginal and/or Torres Strait Islander (%)	12	17
Heterosexual (%)	87	84
Bisexual (%)	9	8
Gay or lesbian (%)	4	6
Other (%)	0	2
Relationship status (%)		
Married/de facto	38	30
Partner	17	25
Single	43	41
Separated	1	1
Divorced	1	3
School education (mean no. years, range)	10.0 (range 6-12)	10.0 (range 5-12)
Tertiary education (%):		
None	76	52
Trade/technical	22	44
University/college	2	4
Currently in drug treatment^ (%)	56	59
Prison history (%)	46	47

Source: IDRS IDU interviews

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

The majority of participants described themselves as heterosexual (84%), with smaller proportions identifying as bisexual (8%) or homosexual (6%). Around two-fifths of the sample reported they were single (41%), one-third married/de facto (30%) and one-quarter reported they had a partner (25%) at the time of the interview. English was the dominant language spoken among all but one participant. Among those interviewed in 2009, there was a mean of 10.0 years of school education (SD = 1.5, range 5-12), similar to that of cohorts in previous years. The majority of participants interviewed in the IDRS had not completed any tertiary studies, and this proportion has significantly declined between the 2008 and 2009 cohorts (76% v. 52%; 95%CI of difference 11-36%). This change largely reflects a significantly greater proportion of participants in 2009 that had attained a trade or technical qualification (22% in 2008 v. 44% in 2009: 95%CI of difference 9-34%).

Two-thirds of the 2009 sample (68%) was not employed at the time of the interview, reversing the trend for increasing rates of unemployment between 2005 (64%) and 2008 (85%). At the time of the interview, 12% of the sample was involved in either part-time or casual work or home duties, 4% in full-time work, 2% in full-time study and 1% in both work and study. When asked about their main source of income, the majority (85%) reported this as a form of government pension, allowance or benefit; 10% reported this to be a wage; and 4% reported funds gained via criminal activity. In terms of all sources of income, 93% had received some income from a government pension, allowance, or benefit in the past month, 20% from a wage or salary, 29% from some form of criminal activity, 10% from child support and 1% from sex work. A new question was included in the 2009 survey that asked participants what the total of their net legal income was for the preceding twelve months. Three-quarters of the sample reported a net total of either \$7,800-\$12,999 (34%) or \$13,000-\$20,788 (40%). These amounts correspond well with allowances paid by Centrelink (e.g. Newstart and the Disability Support Pension). Small proportions reported net legal incomes of \$20,800-\$31,199 (18%), \$31,200-\$41,599 (5%) and \$41,600-\$51,999 (3%).

The sample was drawn from suburbs within the northern, eastern, southern, and inner city areas of Hobart, with two-thirds of the participants either living in close proximity to Hobart city (32%) or Glenorchy city (32%). A more detailed breakdown, on the basis of local council areas is as follows: Hobart City (32%); Glenorchy City (34%); Clarence (18%); Sorell (7%); Kingborough (3%); New Norfolk and Tasman Peninsula (1% respectively). The majority of participants lived in their own (rented or owned) house or flat (71%), with 8% living in their family home, while 19% were living in unstable accommodation at the time of interview (such as a boarding house, hostel, hotel, caravan park or no fixed address).

Just under half of the sample (47%) of participants had been imprisoned at some stage in their lives, similar to the rate reported in 2008 (46%), but slightly higher than reported in previous IDRS cohorts (ranging between 30% and 34% from 2005 to 2007). The proportion of males reporting a prison history was 64%, and the proportion of females was 26%, a difference that was statistically significant ($\chi^2 (1_{n=100})=13.59, p<0.001$). A similar pattern was found in 2008, with 54% of males and 35% of females reporting a prison history ($\chi^2 (1_{n=100})=3.75, p=0.041$).

Just over half of the sample (56%) was in some form of drug treatment at the time of interview. This is similar to rates reported in 2006, 2007 (57% respectively) and 2008 (56%); however, it is a slight decrease from the characteristics of the 2004 cohort, where 65% were involved in treatment. Notably, more than two-fifths of the 2008 participants (45%) reported current involvement in methadone maintenance treatment, similar to the rates reported in 2008 (46%), 2007 (43%) and 2006 (51%).

The demographic characteristics of the Tasmanian 2009 IDU sample are largely similar to the previous Tasmanian IDU samples (Bruno & McLean 2001, 2002, 2003, 2004a; Bruno 2005, 2006; de Graaff & Bruno 2007a, 2008, 2009). There have been substantial overlaps in those participating in the IDRS studies over time: of the 100 participants in the 2009 study, more than

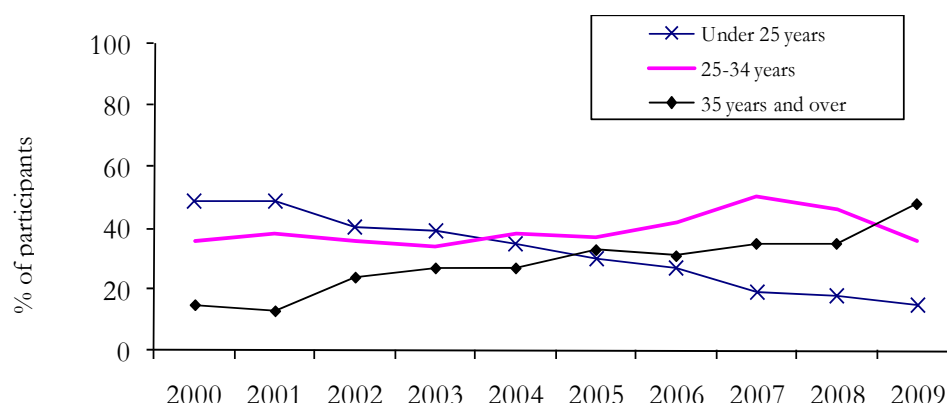
half (55%) had previously participated in another IDRS study. Of this group, 33 participated in the 2008 study, 32 in 2007, 12 in 2006, three in 2005, one in 2002 and 2001 and 2 in 2000. This is consistent with patterns in previous IDRS studies.

Given that the sampling procedure for the IDRS studies is largely convenience-based in nature, there is the possibility for notable shifts in demographics to occur, which may impact on the interpretation of differences in the patterns of drug use identified in the annual consumer cohorts. Between the 2008 and 2009 local IDU cohorts, small but notable differences were observed: the mean age of the samples increased significantly (31.5 years in 2008 and 34.1 years in 2009: $t(197)=2.271$, $p=0.0241$); the proportion that was not employed at the time of interview decreased significantly (85% v. 68% unemployed respectively: 95%CI of difference 5-28%); and the rate of completion of a form of a trade or technical course increased significantly (22% v. 44% respectively: 95%CI of difference 9-34%). While these differences are notable, they are within the expected limits of sampling variation for a study of this size and they may have little impact on the drug use data between the two consumer samples. However, these variations may have an impact on the patterns of substance use reported amongst the IDU participants, and reference to these, along with other notable discrepancies between the 2009 IDU and previous IDU samples, will be discussed in subsequent sections of this report.

3.1.1 Age and sex of the IDU sample over time

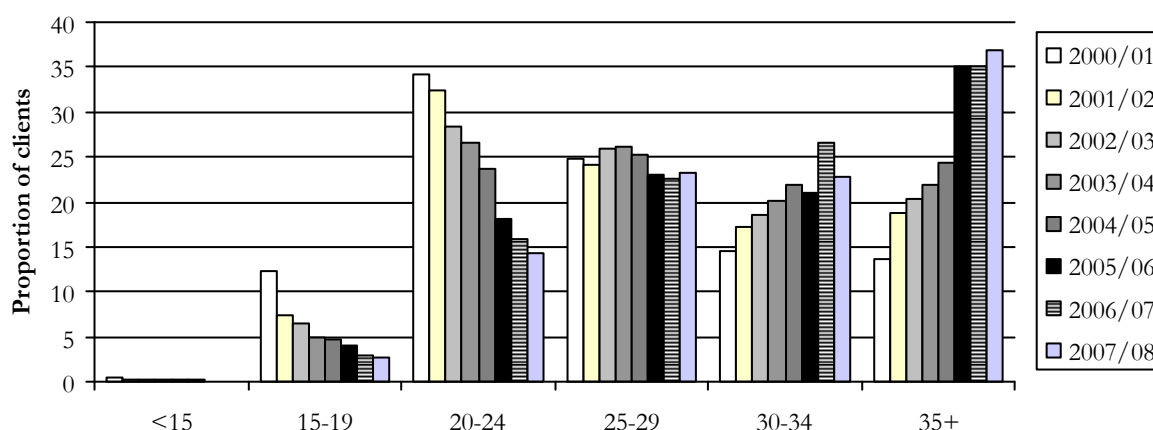
As could be expected, with a noteworthy overlap in participants across these annual samples, the mean participant age in the Tasmanian IDU cohorts had steadily increased between 2002 and 2009, from 28 years in 2002 to 34 years in 2009. According to the Tasmanian NSP data, there has been a marked increase in the proportion of clients older than 35 accessing NSP outlets in recent years, with steady declines in those under 25 (Figure 2). In 2007/08, more than one-third (37%) of non-pharmacy NSP clients were aged 35 or over, whereas this group comprised only 13.7% of clients in 2000/01. In 2008/09, changes were made to the way in which this data was collected, rendering comparisons with previous years not possible. Interestingly, an increasing age of IDU has also been seen in other jurisdictions conducting the IDRS where there is minimal participant overlap between samples (Degenhardt et al, 2008), and has also been noted in independent studies of NSP attendees nationally (National Centre in HIV Epidemiology and Clinical Research, 2007).

Figure 1: Age distribution of IDU in the Tasmania (Hobart) IDRS samples, 2000-2009



Source: IDRS IDU interviews

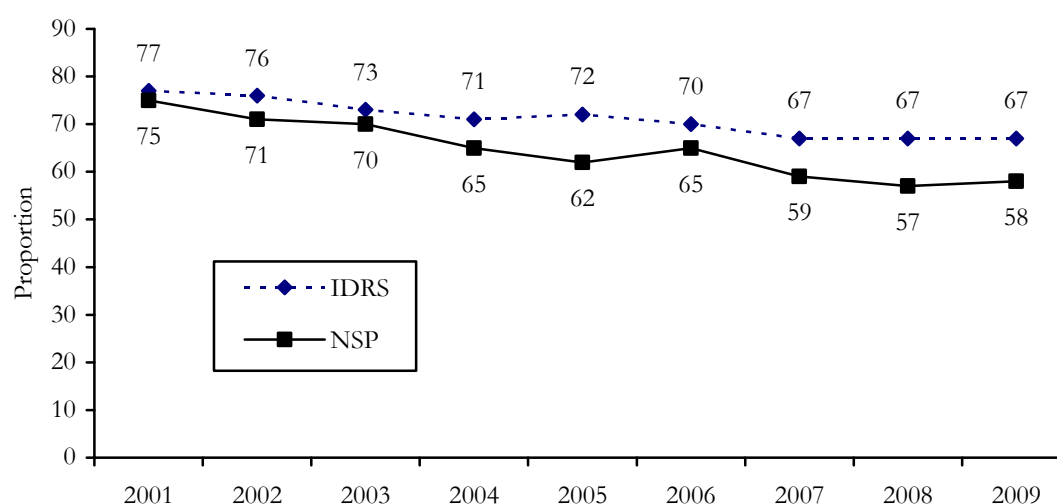
Figure 2: Age of clients of non-pharmacy Needle and Syringe Program outlets in Tasmania, 2000/01-2007/08



Source: Tasmanian Needle and Syringe Program

Within the IDRS IDU cohorts, the proportion of male participants has gradually declined: in the 2001 study 75% of participants were male, whereas in 2009, this had dropped to 58% in 2009 (Figure 3). Similar patterns are seen amongst clients of the non-pharmacy NSP in Tasmania, where the proportion of male clients has fallen from 77% in 2000/01 to 67% in 2008/09 (NSP: Figure 3).

Figure 3: Proportion of males amongst Tasmanian IDRS IDU cohorts and Tasmanian non-pharmacy Needle and Syringe Program clients, 2001-2009



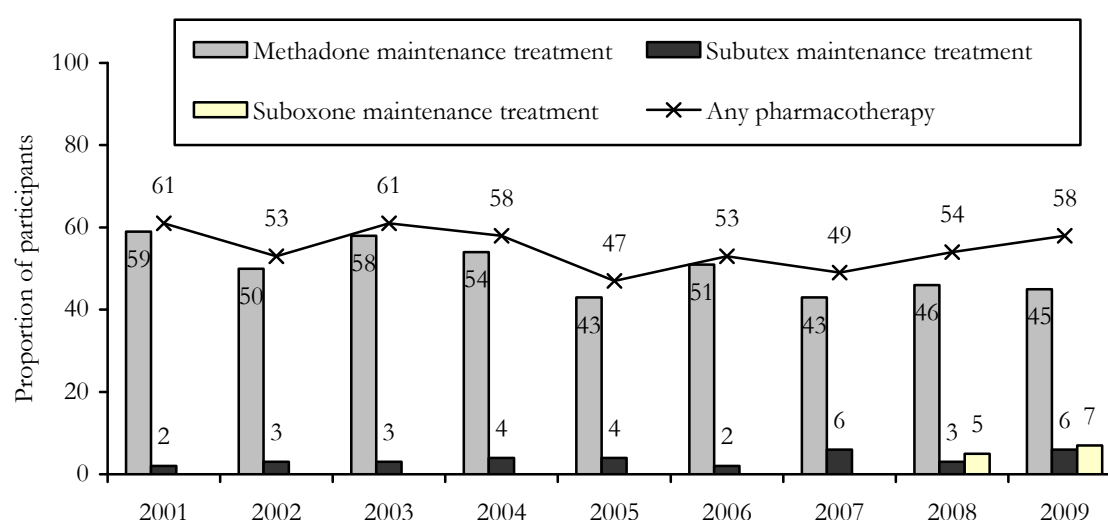
Source: IDRS IDU interviews and Tasmanian Needle and Syringe Program

3.2 Current and previous drug treatment

Over half of the participants (55%) reported being engaged in some form of drug treatment at the time of interview. This is consistent with the levels reported by cohorts between 2005 and 2008, in which 55%-57% reported involvement in treatment. Involvement in methadone maintenance treatment has remained between 40-45% since 2005 (Figure 4). The proportion of participants reporting current engagement in Subutex treatment has remained low and stable, with just 6% of the 2009 sample reporting this. Seven percent of participants in the current study reported engagement in Suboxone treatment (buprenorphine-naloxone). In 2008 5% reported engagement in this form of treatment, and prior to this no clients had reported this. This increase in engagement in Suboxone treatment is a result of it being used more frequently in pharmacotherapy treatment settings over the preceding two years in Tasmania. Overall, the proportion of the IDRS participant samples reporting involvement in any form of maintenance pharmacotherapies at the time of interview has remained relatively stable (within the limits of sampling variability) between 2001 and 2009.

For the 2009 cohort, mean duration of time in methadone maintenance treatment was 78 months (SD=57.2, range 2-252). Six individuals reported engagement in Subutex (buprenorphine) maintenance treatment; among these, the mean duration of treatment was 13 months (SD=17.4, range 0.75-48.00). Seven individuals reported engagement in Suboxone (buprenorphine-naloxone) maintenance treatment; among these, the mean duration of treatment was 14 months (SD=12.9, range 1.5-36.0). A single participant reported access to drug counselling at the time of the interview, however, ten participants had reported accessing drug counselling services in the six months preceding the interview (Table 2). Of the group reporting current access to methadone maintenance treatment (n=45), three had received drug counselling in the preceding six months (7%). Of the six participants engaged in Subutex treatment, one (17%) had received drug counselling in the preceding six months, and similarly, of the seven participants engaged in Suboxone treatment, just one (14%) had received drug counselling in the preceding six months. No participants reported having accessed detoxification, a therapeutic community, narcotics anonymous or naltrexone treatment in the six months preceding the interview.

Figure 4: Proportion of the IDU sample accessing methadone or buprenorphine maintenance treatments at the time of interview, 2001-2009



Source: IDRS IDU interviews

Table 2: Proportion of participants reporting treatments other than opioid replacement pharmacotherapy in past six months, 2001-2009

Treatment type	2001 %	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %
AOD Counselling	11	19	18	25	17	20	17	11	10
Detoxification	7	7	5	3	0	0	4	5	0
Therapeutic community or rehabilitation	0	0	2	1	0	0	1	2	0
Naltrexone	0	0	0	1	0	5	0	0	0
Narcotics Anonymous	0	0	0	0	0	0	0	0	0
Other	3	2	4	2	2	2	2	1	1

Source: IDRS IDU interviews

Note: Multiple responses could be selected

3.3 Drug use history and current drug use

The mean reported age at first injection was 18.9 years (SD=4.6, range 12-33: Table 4). This was similar to that identified in the 2008 cohort (18.6 years, SD=6.0, range 12-50 years), and previous samples. There were no significant sex differences in the age of first injection (18.6 years for females v. 19.1 years for males). The mean injecting drug using career (total time since first injection of a drug) for the 2009 cohort was 15.3 years (SD=7.23, range 3-36 years). Males reported a mean injecting career of 16.1 years (SD=7.8, range 3-36), and females reported a mean duration of 14.1 years (SD=6.2, range 3-32), a difference that was not statistically significant.

Fifty-seven percent of the cohort reported methamphetamine as the first drug injected, 19% reported morphine, 15% heroin, 4% methadone, and single participants reported benzodiazepines, dexamphetamine or a combination of heroin and cocaine (Table 4). Participants who were either recent initiators to injecting (i.e. a career of 5 years or less) or those with a longer career (more than 10 years) more commonly reported methamphetamine as the first drug injected (63% and 60% respectively) than participants who reported a moderate length of career (injecting for between 6 and 10 years: 39%). A significantly greater proportion of participants reporting a moderate career noted morphine as the first drug injected (44%), a higher rate than reported by recent initiators (25%) and those with a longer career (12%: $\chi^2(1_{n=99})=9.792, p=0.007$) (Table 3). These trends in 'drug first injected' are likely to fluctuate with availability of particular drug types in the local market.

Table 3: Drug use among newer and older inductees into injecting drug use, 2009

Characteristic	Recent initiators to injecting (<5 years) n=8	Moderate injecting career (6-10 years) n=18	Longer injecting career (>10 years) n=73
Age first injected	19 (SD=4.1)	17 (SD=4.2)	19 (SD=4.6)
Duration of injecting career	3 years (SD=0.5)	8 years (SD=1.2)	18 years (SD=5.8)
First drug injected (%)			
Methamphetamine	63	39	60
Heroin	0	6	19
Morphine	25	44	12
Methadone	13	6	3

Source: IDRS IDU interviews

Table 4: Injection history, drug preferences and polydrug use of IDU participants, 2008-2009

Variable	2008 N=100	2009 N=100
Age first injection (years)	18.6 (range 12-50)	18.9 (range 12-33)
First drug injected (%)		
Heroin	7	15
Methamphetamine	54	57
Methadone	8	4
Morphine	22	19
Benzodiazepines	1	1
Cocaine	0	0
Other	8	2
Drug of choice (%)		
Heroin	25	33
Cocaine	5	4
Methamphetamine (any form)	21	19
<i>Speed</i>	18	14
<i>Base</i>	0	2
<i>Crystal (ice)</i>	3	3
Methadone	15	9
Morphine	26	12
Oxycodone	0	5
Benzodiazepines	2	4
Cannabis	3	7
Methadone and benzodiazepines	2	0
Drug injected most often in last month (%)		
Heroin	0	1
Cocaine	0	0
Methamphetamine (any form)	17	18
<i>Speed</i>	15	12
<i>Base</i>	0	5
<i>Crystal (ice)</i>	2	1
Methadone	30	37
Morphine	41	33
Benzodiazepines	5	1
Buprenorphine	1	2
Methadone and benzodiazepines	2	1
Most recent drug injected (%)		
Heroin	0	1
Cocaine	0	0
Methamphetamine (any form)	14	17
<i>Speed</i>	12	9
<i>Base</i>	0	8
<i>Crystal (ice)</i>	2	0
Methadone	33	25
Buprenorphine	1	1
Morphine	38	37
Oxycodone	2	3
Benzodiazepines	8	5
Frequency of injecting in last month (%)		
Weekly or less	10	9
More than weekly, but less than daily	61	61
Once per day	19	17
2-3 times a day	8	13
>3 times a day	2	0
Polydrug use		
Mean number of drug classes ever used* (range)	6.8 (5-7)	6.4 (3-7)
Mean number of drug classes used* in last 6 months (range)	5.6 (3-7)	5.6 (2-7)
Mean number of drug classes ever injected^ (range)	2.9 (1-5)	3.1 (1-5)
Mean number of drug classes injected^ in last 6 months (range)	2.3 (1-4)	2.2 (1-4)

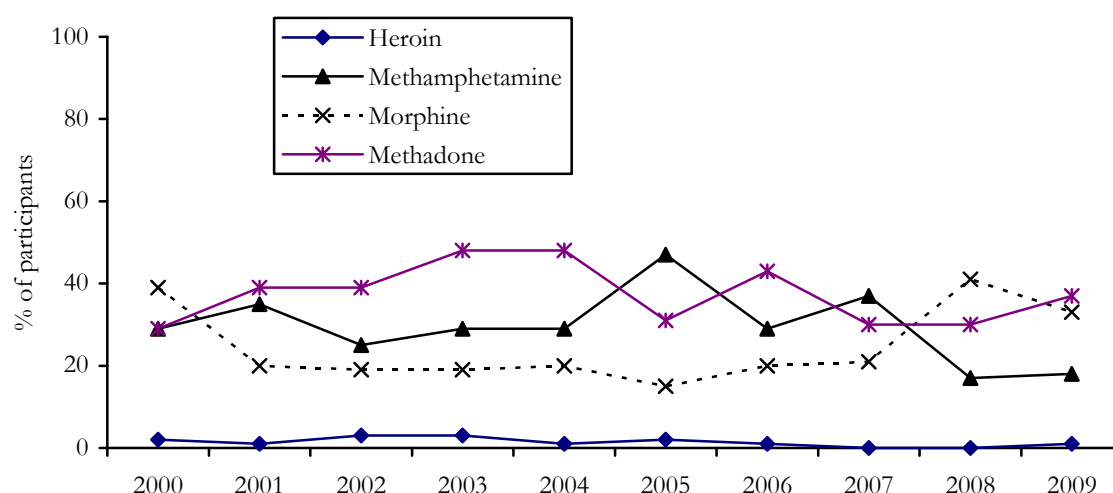
Source: IDRS IDU interviews. 'used' refers to any of the following routes of administration: smoke/inhale, snort, swallow/ingest and inject. The seven categories refer to: stimulants, opioids, hallucinogens, benzodiazepines, cannabis, alcohol and tobacco. ^ Refers to 5 categories only (omitted tobacco and cannabis)

One-third of the 2009 IDRS IDU cohort reported that heroin was their drug of choice (33%), and 21% preferred methamphetamine. Overall preference for any form of opioid, including heroin, methadone, morphine and oxycodone, was 59% in 2009, which was similar to the rate reported in the 2008 and 2006 studies (67% and 64% respectively) and studies prior to 2005, which have all reported approximately two-thirds of each cohort as opioid-preferring. In 2005 and 2007, somewhat lower rates of participants reported an opioid as their drug of choice (54% and 55% respectively).

Consistent with the high preference for opioids among the participants in the current study, 73% reported an opioid as the drug they had most often injected in the preceding month. Despite heroin being the drug of choice of 33% of the cohort, methadone (37%) and morphine (33%) were the most commonly injected opioid drugs. Just one participant reported heroin as the drug most injected in the last month. Participant reports of methadone as the drug most injected in the last month increased between 2000 and 2004, from 29% to 48%; following some fluctuation, this has remained at approximately one-third of the past three samples (37% in 2009: Figure 5). The proportion of participants reporting morphine as the drug most injected was significantly higher in 2009 (41%) than in 2007 (21%) or in previous years (95%CI of difference 7-32%). In contrast to this, reports of methamphetamine as the drug most injected were higher between 2000 and 2007 (ranging between 25-47%), peaking in 2005 with 47% of the sample reporting this. This rate is significantly higher than was reported in either 2008 (17%: 95%CI of difference 17-41%) or 2009 (18%: 95%CI of difference 16-41%). The predominant form of methamphetamine injected in the month prior to interviewing by the 2009 cohort was powder (12%).

As can be seen in Figure 5, the higher levels of use of methamphetamine in the 2005 and 2007 cohorts has decreased markedly in 2008 and 2009, whilst the rate of morphine as the drug most injected has increased. These changes may represent availability of drugs or drug preferences.

Figure 5: Drug injected most last month, 2000-2009



Source: IDRS IDU interviews

Note: In 2000, morphine was included in a grouping with opioids other than methadone or heroin

Participants were asked about the frequency of injection in the month preceding the interview (Table 4). Most reported injecting more than weekly but not daily (61%); 17% reported injecting once per day; and 13% reported injecting more than once per day. The proportion of IDRS IDU respondents reporting daily injection has remained at approximately one-third of the participants since 2005.

Respondents reported on their drug use on the day prior to their interview (Table 5). Ninety-five percent reported using a drug on the previous day (notably, in contrast to just 63% reporting having spent money on drugs on that day). Cannabis was the most commonly used drug on the day prior to interview, with 57% of respondents reporting this. Use of methadone (41%, although used by only three people not currently enrolled in methadone maintenance treatment), benzodiazepines (39%), morphine (28%), alcohol (22%) and methamphetamine (13%) were also commonly reported on the day prior to the interview. In comparison to the 2008 IDRS cohort, there was a significantly lower rate of use of cannabis on the day prior to the interview (71% in 2008 and 57% in 2009: 95%CI of difference 1-27%); however, the rate reported for the 2009 study is similar to reports between 2005 and 2007 (ranging between 57-62%). Use of morphine on the day prior to interview has been increasing since 2005 from 13%, and has remained stable over 2008 and 2009 at 31% and 28% respectively. Reports of use of any form of methamphetamine on the day prior to interview were stable between 2005 and 2007 (ranging between 14% and 22%), but decreased to 5% in 2008. In the current study, this rate is slightly higher than reported in 2008 (13%).

Table 5: Drugs taken on the day prior to interview among the IDU sample, 2005-2009

Drug*	2005 %	2006 %	2007 %	2008 %	2009 %
Cannabis	57	60	62	71	57
Methadone^	41	46	45	41	41
Benzodiazepines	38	39	45	33	39
Morphine	13	22	11	31	28
Methamphetamine: powder	9	5	18	4	9
Methamphetamine: base/paste	10	5	3	0	2
Methamphetamine: crystal	3	4	0	1	2
Pharmaceutical stimulants	2	0	1	2	2
Heroin	1	0	0	0	0
Cocaine	0	0	0	0	0
Alcohol	20	16	22	13	22
Antidepressant	9	11	6	1	4
Buprenorphine	3	1	7	3	5
Buprenorphine-naloxone	0	0	0	3	4
Oxycodone	1	0	4	2	2
Other opiates	3	3	2	1	4
Ecstasy	1	1	1	0	2
<i>Did not take any drugs</i>	7	7	3	3	5

Source: IDRS IDU interviews

* Could list more than one drug

^ includes prescribed methadone

Participants were also asked about the last location when they injected. These responses are summarised in Table 6, indicating that only a small minority of the cohort inject in public spaces (14%). The proportion of the cohort reporting injecting in public places has significantly decreased since 2007 (32% in 2007 v. 14% in 2009: 95%CI of difference 9-34%).

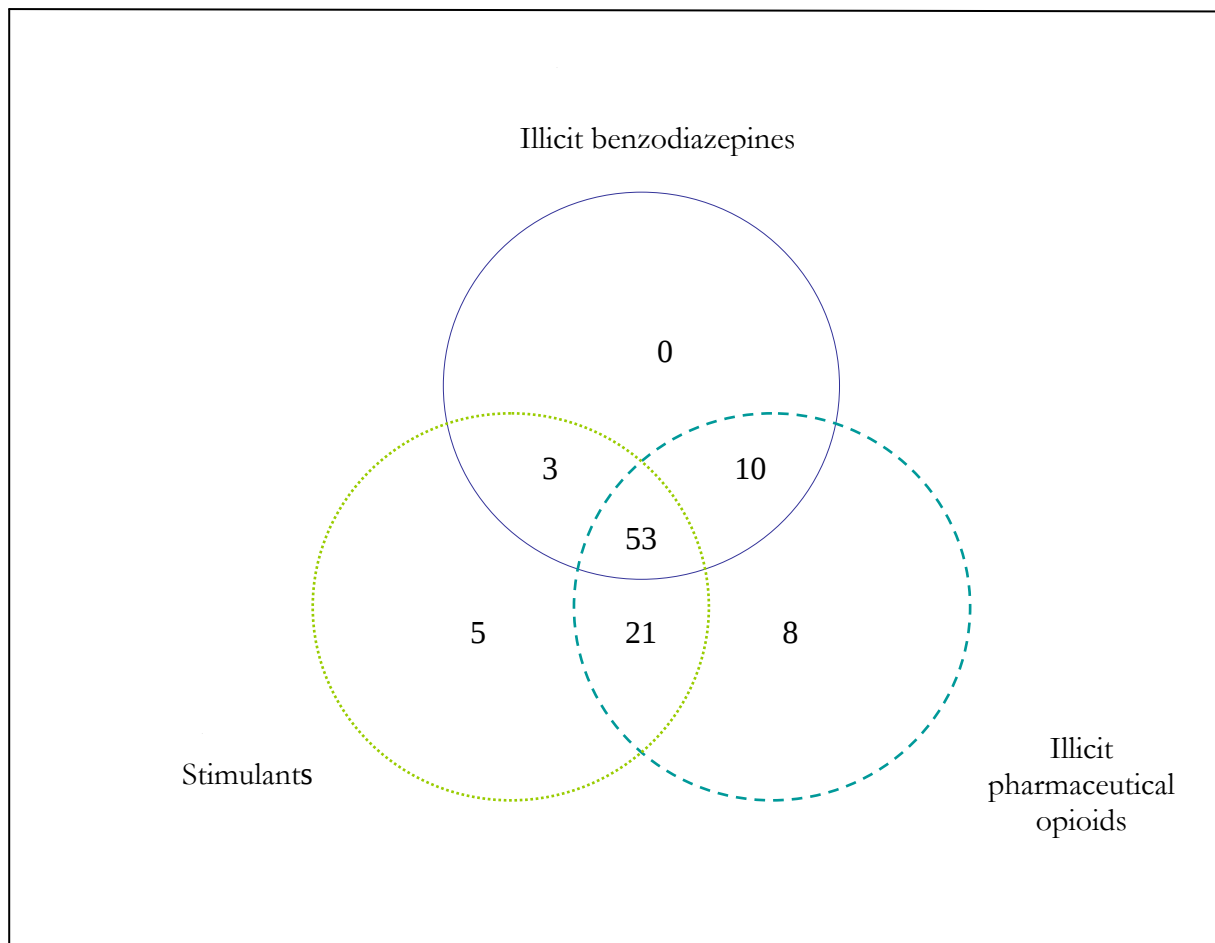
Table 6: Location in which respondents last injected, 2007-2009

	2007 N=98 %	2008 N=100 %	2009 N=100 %
Private home	67	87	86
Public toilet	15	6	6
Car	15	7	6
Street/park or beach	2	0	2

Source: IDRS IDU interviews

Drug use histories of the 2009 IDRS IDU respondents are summarised in Table 7. There was a substantial level of polydrug use among this group, as almost all individuals had used methamphetamine, morphine, methadone, benzodiazepines, alcohol, cannabis and tobacco at some stage in their lives. Of the 7 possible drug classes examined (opiates, stimulants, hallucinogens, cannabis, benzodiazepines, tobacco and alcohol), participants had used a median of 7 (mean = 6.4, SD = 0.78, range 3-7) drug classes in their lives, and 6 (mean = 5.6, SD = 1.2, range 2-7) in the preceding six months. A median of 3 drug classes had been injected over their lifetimes (mean = 3.1, SD = 0.9, range 1-5), and 2 (mean = 2.2, SD = 0.8, range 1-4) in the preceding six months. These figures are consistent with those in the 2008 cohort (Table 4). Figure 6 below illustrates polydrug use over the preceding six months, specifically for illicit benzodiazepines, stimulants and illicit pharmaceutical opioids. Just over half (53%) of the participants had used stimulants, illicit pharmaceutical opioids *and* illicit benzodiazepines in the preceding six months, with a further 21% using both stimulants and illicit pharmaceutical opioids in this time. Given that only 5% of the current cohort reported solely using stimulant drugs in the six months prior to interview, and just 8% used only illicit pharmaceutical opioids in this time, it is clear that the current cohort could predominantly be considered as polydrug consumers. This is an important consideration, as descriptions of 'primary methamphetamine consumers' or 'primary opioid consumers' in subsequent sections of the report will likely also be consumers of drugs of the opposing class.

Figure 6: Polydrug use in the preceding six months amongst the IDU cohort, 2009



Source: IDRS IDU interviews

Table 7: Polydrug use history of the IDU sample, 2009

Drug Class	Ever used %	Ever Injected %	Injected last 6 mths %	Days injected in last 6 mths*	Ever Smoked %	Smoked last 6 mths %	Ever snorted %	Snorted last 6 mths %	Ever Swallowed %	Swallowed last 6 mths+ %	Used^ last 6 mths %	Days in treatment* last 6 mths	Days used^ in last 6 mths*
Heroin	64	63	12	6	21	2	16	0	13	0	12		6
Homebake heroin	21	20	0	0	5	0	0	0	2	0	0		0
<i>Any heroin (inc. homebake)</i>	65	64	12	6	22	2	16	0	13	0	12		6
Methadone (prescribed)	73	65	43	48					71	48	48	180	180
Methadone (not prescribed)	87	86	51	12					16	9	52		12
Physeptone (prescribed)	21	15	4	93	0	0	0	0	10	0	4	180	93
Physeptone (not prescribed)	79	77	50	6	1	1	1	1	9	0	50		6
<i>Any methadone (inc. Physeptone)</i>	96	94	77	52					76	53	78		179
Buprenorphine (prescribed)	26	9	2	51	0	0	0	0	25	8	8	90	60
Buprenorphine (not prescribed)	28	25	11	2	0	0	0	0	6	1	12		3
<i>Any Buprenorphine (exc buprenorphine-naloxone)</i>	47	30	13	3	0	0	0	0	29	9	19		21
Buprenorphine-naloxone (prescribed)	16	5	2	31	0	0	0	0	16	10	10	105	90
Buprenorphine-naloxone (not prescribed)	7	5	1	2	0	0	0	0	2	1	2		25
<i>Any Buprenorphine-naloxone</i>	20	8	3	2	0	0	0	0	18	11	11		90
Morphine (prescribed)	29	23	2	180	0	0	0	0	18	2	3		180
Morphine (not prescribed)	97	97	80	24	2	0	0	0	22	8	81		24
<i>Any Morphine</i>	99	98	81	24	2	0	0	0	38	9	82		30
Oxycodone (prescribed)	10	9	3	2	0	0	1	1	6	1	3		8
Oxycodone (not prescribed)	80	79	56	6	0	0	2	2	8	4	56		6
<i>Any Oxycodone</i>	80	79	56	6	0	0	2	2	14	5	56		8
Over the counter codeine	50	3	0	0	1	0	0	0	48	39	39		15
Other opioids (not elsewhere classified)	37	1	0	0	14	7	0	0	33	9	18		9

Source: IDRS IDU interviews

^ Refers to any route of administration, i.e. includes use via injection, smoking, swallowing, and snorting; + Refers to/includes sublingual administration of buprenorphine

* Among those who had used/injected.

Table 7: Polydrug use history of the IDU sample, 2009 (continued)

Drug Class	Ever used %	Ever Injected %	Injected last 6 mths %	Days injected in last 6 mths*	Ever Smoked %	Smoked last 6 mths %	Ever snorted %	Snorted last 6 mths %	Ever Swallowed %	Swallowed last 6 mths+ %	Used^ last 6 mths %	Days in treatment* last 6 mths	Days used^ in last 6 mths*
Speed powder	96	94	55	8	8	1	49	4	32	4	56		9
Base/point/wax	88	88	55	10	1	0	3	1	15	8	55		10
Ice/shabu/crystal	72	70	24	5	25	6	2	1	4	3	26		6
Amphetamine liquid	22	22	9	6					1	1	9		6
<i>Any form methamphetamine</i>	98	98	80	15	28	7	50	5	38	11	80		15
Pharmaceutical stimulants (prescribed)	4	1	0	0	0	0	0	0	2	0	0		0
Pharmaceutical stimulants (not prescribed)	82	73	36	6	0	0	4	0	30	10	41		5
<i>Any form pharmaceutical stimulants</i>	83	73	36	6	0	0	4	0	31	10	41		5
Cocaine	51	35	2	2	10	0	31	1	3	0	2		3
Hallucinogens	79	12	0	0	0	0	1	0	79	21	21		1
Ecstasy	73	42	16	2	0	0	11	7	61	27	42		2
Benzodiazepines (prescribed)	78	31	9	24	0	0	0	0	76	42	45		170
Benzodiazepines (not prescribed)	83	44	24	6	0	0	0	0	76	60	66		16
<i>Any benzodiazepines</i>	95	51	25	9	0	0	0	0	92	75	78		59
Alcohol	97	10	0	0					97	63	63		24
Cannabis	97										89		180
Inhalants	35										15		2
Tobacco	98										97		180

Source: IDRS IDU interviews

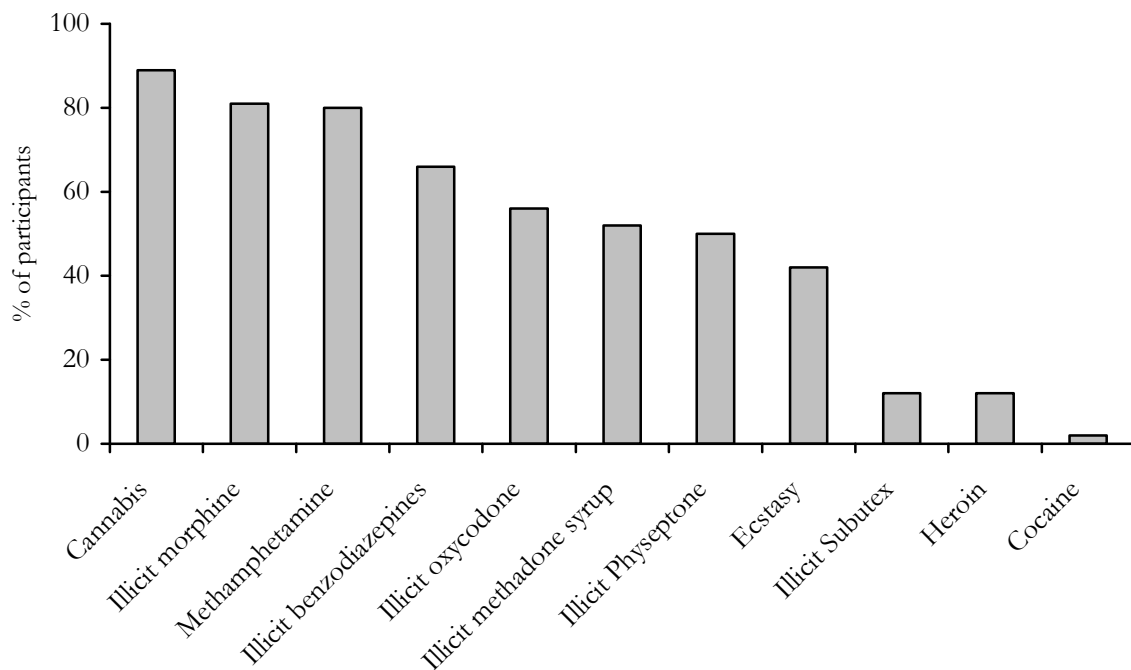
^ Refers to any route of administration, i.e. includes use via injection, smoking, swallowing, and snorting

+ Refers to/includes sublingual administration of buprenorphine

* Among those who had used/injected.

Overall, the most commonly used illicit drug in the six months preceding the interview was cannabis, with 89% of participants reporting use (Figure 7). Four-fifths of the sample reported recent use of illicit morphine (81%) and methamphetamine (80%). Illicit benzodiazepines were used by two-thirds of the sample (66%), and around half of the sample reported recent use of illicit oxycodone (56%), illicit methadone syrup (52%) or illicit Physeptone tablets (50%). Ecstasy had been used by two-fifths of the sample (42%), and very small proportions of participants reported recent illicit use of buprenorphine (Subutex: 19%), heroin (12%), or cocaine (2%).

Figure 7: Patterns of drug use among the 2009 IDRS sample



Source: IDRS IDU interviews.

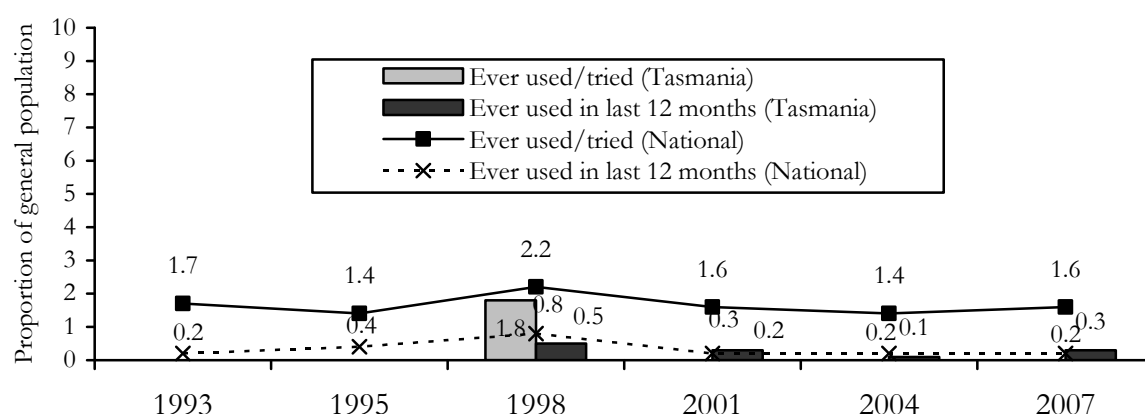
4.0 HEROIN

4.1 Use

4.1.1 Prevalence of heroin use

The 1998 National Drug Strategy Household Survey (AIHW, 1999) reported that 1.8% (n=15) of Tasmanians sampled had ever used heroin, while 0.5% (n=5) had used it in the year prior to interview (Figure 8). While the small numbers involved mean that meaningful inferences are difficult to draw, past year use in the 2001 and 2004 surveys are similar (0.3%, n~4 and less than 0.1% respectively: AIHW, 2002; 2005b). Similarly, the 2007 National Drug Strategy Household Survey (n=1,143) reported that 0.3% of the Tasmanian sample had used heroin in the preceding consistent with rates in the national sample (0.3%) (AIHW, 2008b).

Figure 8: Prevalence of heroin use in Australia and Tasmania among those aged 14 years and over, 1993-2007



Source: National Drug Strategy Household Survey 1993-2007

* In 2004, less than 0.1% of the Tasmanian sample reported recent use of heroin

4.1.2 Heroin use among NSP clients

Reported use of heroin as the main drug injected by non-pharmacy NSP outlet clients has remained low (2% or less of all transactions since 2001/02) against a background of a steadily increasing number of client transactions on the program (Table 8). While it should be noted that data from the NSP reported here includes some imputation of missing data (thus these figures should best be regarded as estimates) of note in these figures is a decline in client transactions between 2000/01 and 2001/02 (falling from 405 to 143 respectively) where heroin was reported as the drug most often injected. Following a return to similar levels in 2002/03 (446 transactions), these cases steadily declined in subsequent years, to 200 in 2005/06. In 2006/07, a small increase in the proportion of heroin-related client transactions was observed (1.1%, n~377); however, this was short-lived, as the rate decreased to 0.6% (n~203) in 2007/08⁷ and 0.4% (n=131) in 2008/09.

⁷ It should be noted that prior to 2007/08, NSP data included data from both primary and secondary NSP outlets across Tasmania; in 2007/08 and 2008/09, data was collected exclusively from primary outlets. Whilst the number of transactions may vary in accordance with the change in reporting style, rates remain a useful way to monitor these trends over time for this dataset.

It is important to note that NSP data may underestimate the extent of heroin use, as different NSP outlets ask slightly differing questions in regard to drug use - with some asking ‘what is the drug you most often inject?’, while others prefer ‘what is the drug you are about to inject?’, with the different questions having different biases against identification of use of drugs accessed in low frequency. For example, in the current cohort, although 12% of the IDU sample had used heroin in the past six months, just one participant reported it as the drug they most often injected, and there is a very high level of polydrug use amongst those who reported recent use of heroin (discussed below).

Table 8: Percentage of heroin reported as ‘drug most often injected’ in transactions at Tasmanian non-pharmacy Needle and Syringe Program outlets, 1997/98-2008/09

Year	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09
Number of transactions reporting heroin	390	257	457	405	143	446	384	222	200	377	203	131
Percent of total transactions reporting heroin	5.7%	2.9%	4.3%	2.8%	0.7%	1.5%	1.1%	0.5%	0.6%	1.1%	0.6%	0.4%

Source: Population Health, Department of Health and Human Services

The Australian Needle and Syringe Program Survey (MacDonald & Zhou, 2002; National Centre in HIV Epidemiology and Clinical Research, 2009) has reported heroin as the last drug injected by 3% or less of their participants between 2002 and 2007 (Table 9). In 2008, 7% of the sample reported heroin as the last drug injected, however, the sample size was notably lower than previous years (57 in 2009 compared with 107-168 in 2002-2007), so this finding should be interpreted with caution. Overall, these figures estimate the level of use of heroin as much higher than that seen in the NSP client data, although underscore the point that heroin use is not common amongst Tasmanian IDU.

Table 9: Australian Needle and Syringe Program (NSP) Survey: Prevalence of heroin within ‘last drug injected’, 2002-2008

	2002		2003		2004		2005		2006		2007		2008	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Heroin	5 [†]	3	1	1	0	0	2	1	4 [†]	2	3	2	4	7
Total sample size	151		118		107		137		150		168		57	

Source: MacDonald & Zhou, 2002; National Centre in HIV Epidemiology and Clinical Research, 2009

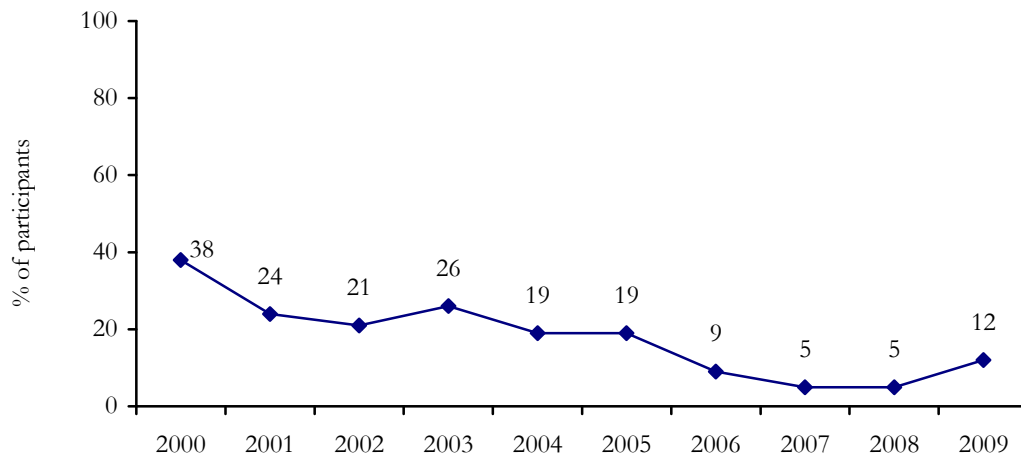
[†] Of these individuals, one reported their last drug injected as a mixture of heroin and cocaine

4.1.3 Current patterns of heroin use

Among the 2009 IDU sample, 64% reported they had tried heroin at some stage of their lives, and all but one had injected it (63%). Of the twelve participants who reported heroin use in the preceding six months, all had injected it, at a median frequency of six days (range 2-60 days). Two participants also reported smoking heroin in the preceding six months. Recent use of heroin amongst IDRS cohorts had declined from 38% in 2000 to 5% in 2008, and has remained relatively unchanged in 2009 at 12% (Figure 9). Despite these low rates of heroin use, a substantial proportion of participants in each cohort have reported heroin to be their drug of

choice: between 2000 and 2006, the proportion of participants reporting heroin as their drug of choice remained between 32% and 40%. However, in 2007 and 2008, this decreased to 27% and 25% of each sample respectively. In 2009, one-third of the sample reported heroin to be their drug of choice (33%). This low level of use in a regularly injecting group, in which one-third report heroin as their drug of choice, indicates heroin supply in Tasmania is limited.

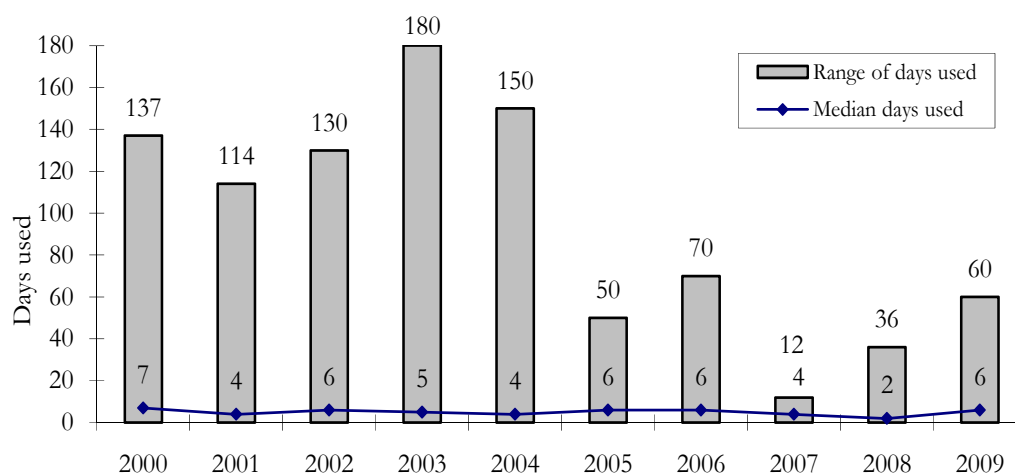
Figure 9: Proportion of IDU participants reporting recent use of heroin, 2000-2009



Source: IDRS IDU interviews

Frequency of use in the preceding six months amongst those using heroin has remained relatively stable and low across all IDRS studies. However, there has been a wide range of use amongst the cohorts, with some participants in earlier studies able to access heroin very regularly (Figure 10). In keeping with the decline in the proportion of the IDRS IDU cohorts reporting recent use of heroin since 2003 (Figure 9), there has been a reduction in the range of days that heroin had been used among recent cohorts. In support of these findings, two key experts - employed in the drug treatment field - noted heroin use was rare amongst the client groups they were familiar with, with one also noting that *'we get a few reports of heroin being sent down, but there's no distribution network'*.

Figure 10: Median days and range of heroin use in the past six months, 2000-2009



Source: IDRS IDU interviews

There was a high level of polydrug use amongst those who had used heroin in the past six months (Table 10), predominantly of illicit morphine, cannabis, alcohol, illicit methadone syrup and illicit oxycodone. This finding is in keeping with reports from KE that, because of fluctuating availability, primary users of opioids have to be flexible in their patterns of use, turning to other opioids, methamphetamines or benzodiazepines if their opioid drug of choice is unavailable.

Table 10: Patterns of drug use reported by those IDU who had used heroin in the past six months (n=12)

	% of those who had used heroin in last 6 months reporting use	Median days use for those using the drug
Methadone syrup (illicit)	67 (n=8)	10 (range 1-120)
Physeptone (illicit)	42 (n=5)	5 (range 2-8)
Morphine (illicit)	75 (n=9)	10 (range 2-96)
Oxycodone (illicit)	67 (n=8)	9 (range 1-45)
Benzodiazepines (illicit)	58 (n=7)	12 (range 3-32)
Cannabis	75 (n=9)	170 (range 2-180)
Methamphetamine		
<i>Powder</i>	50 (n=6)	8 (range 1-15)
<i>Base/paste</i>	42 (n=5)	6 (range 2-21)
<i>Ice/crystal</i>	33 (n=4)	28 (range 2-50)
Alcohol	75 (n=9)	60 (range 3-180)

Source: IDRS IDU interviews

Of those IDU who had reported heroin use in the preceding six months (n=12), two-thirds regarded heroin as their drug of choice (67%, n=8), 17% of participants reported morphine (n=2) and single participants reported cannabis and crystal methamphetamine as their drug of choice (8% respectively). Just one participant reported that heroin was the drug they had injected most often in the preceding month, despite 33% reporting it as their drug of choice. Participants were asked to clarify the discrepancy between their drug of choice and the drug most used in the preceding month. Of the group reporting heroin as their drug of choice, 82% (n=27) reported lack of availability as the primary reason that heroin was not the main drug they had used in the preceding month. Nine percent reported current engagement in drug treatment as the primary reason, and single participants reported either price or health effects as the main reason.

Participants were asked to describe the form/s of heroin they had used. Seven participants reported use of rock form: three reported this to be white or off-white in colour; two reported it to be brown; and two participants reported use of both white or off-white and brown heroin. Four participants reported the heroin they had used was in powder form: three reported the powder to be white or off-white in colour and the fourth participant reported it to be pink. Participants were asked to comment on the form they had most used in the preceding six months: five participants reported predominant use of white/off-white rock form; two participants reported either brown rock form or white/off-white powder form; and a single participant reported predominant use of pink powder heroin.

Participants who reported recent use of heroin were asked to comment on preparation methods for injection of heroin forms. Of the 8 participants who commented, all reported no use of heat or acid the last time they prepared heroin for injection.

Traditionally, heroin originating from the Golden Triangle (Myanmar, Burma and Thailand), where Australia's heroin has predominantly originated in the past, has been white or off-white in colour. This form of heroin had an acidic (acetone/hydrochloride) base, was relatively easy to prepare for injection, being more refined, and easy to dissolve in water. In contrast, heroin produced in the Golden Crescent (Afghanistan, Pakistan and Iran), a region producing heroin that has been seen very rarely in Australia, was traditionally brown in colour and was less refined. It requires the use of heat and often an acid to prepare for injection and is also more amenable to smoking as a route of administration.

More recently, however, the picture has become less clear, and it has been demonstrated that heroin colour is not a reliable determinant of geographic origin (Zerell et al., 2005). Therefore, while this colour information provides an indication of the appearance of heroin used by participants of the IDRS, it is not possible to draw conclusions about its geographic origin, purity or preparation method required for injection based on these data alone. Further research into this area is required before firmer conclusions can be drawn.

4.2 Price

In previous years, IDU who could comment on the price of heroin generally referred to purchasing it in units of 'points' (referring to 0.1g), 'packets', 'caps' or 'tastes', the latter two appearing to be a generic descriptor for a varying amount of the drug, generally between 0.05-0.15g. No participants in 2009 were able to comment on the purchase price for these smaller quantities. A single participant reported having purchased 0.5g of heroin for \$150, and 1.0g of heroin was reported to cost \$450 (n=1). In previous years, when IDRS IDU cohorts reported higher levels of heroin use, information regarding price was more common (see Table 11). Figure 11 shows some variability in prices for heroin since 2000; however, the numbers of participants reporting on this has generally been too small to make inferences about purchase prices of local heroin. None of the KE could confidently comment on purchase prices of heroin.

Table 11: Modal price of heroin purchased by IDU, 2000-2009 IDRS

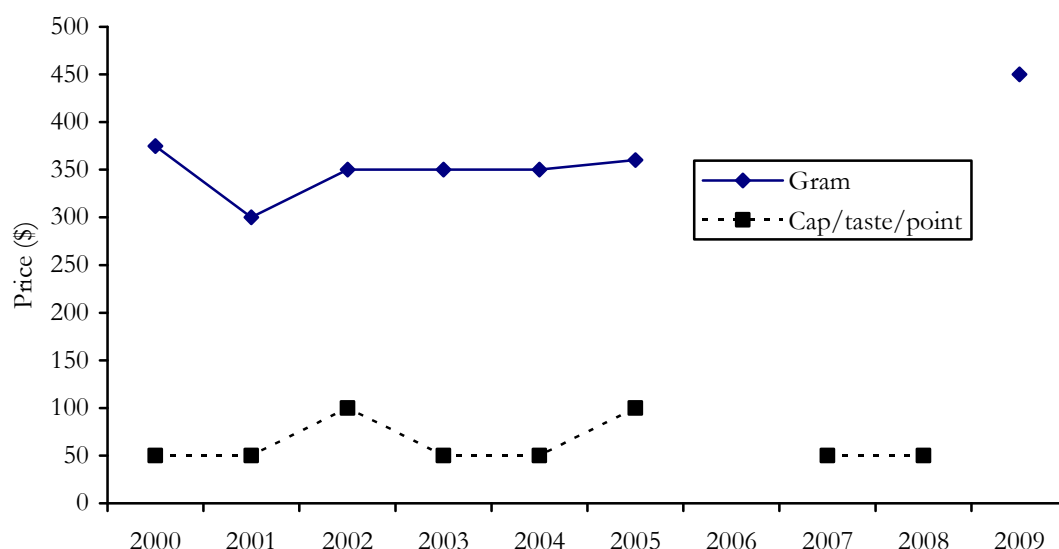
Descriptor	2000		2001		2002		2003		2004		2005		2006		2007		2008		2009	
	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>	\$	<i>n</i>
cap,taste, point (~0.05-0.15g)	\$50	1	\$50	15	\$100	12	\$50	7	\$50	6	\$100	4	-	0	\$50	1	\$50	1	-	0
‘points’/‘2 tastes’(~0.2g)	\$100	2	\$100	8	\$93*	2	\$100	1	\$50	1	-	0	\$200~	1	-	0	-	0	-	0
1/4 gram (0.25g)	\$50	1	\$100	1	\$135*	4	\$100	1	\$100	1	-	0	-	0	-	0	-	0	-	0
half-weight (0.5g)	-	0	\$170	1	\$250	1	-	0	\$370*	2	-	0	-	0	-	0	\$500	1	\$150	1
gram (1.0g)	\$375*	2	\$300	2	\$350	1	\$350	2	\$350	4	\$360*	3	-	0	-	0	-	0	\$450	1

Source: IDRS IDU interviews

* Where multiple modes existed, median price was substituted.

~ Refers to 2-3 points

Figure 11: Modal prices of heroin estimated from IDU purchases, 2000-2009



Source: IDRS IDU interviews

Note: These prices are estimated on the basis of very small numbers of reports ($n < 5$ for all cases except reports of 'cap' purchases in 2001 and 2002), and should be interpreted with caution. There were no reports of prices for these quantities in 2006.

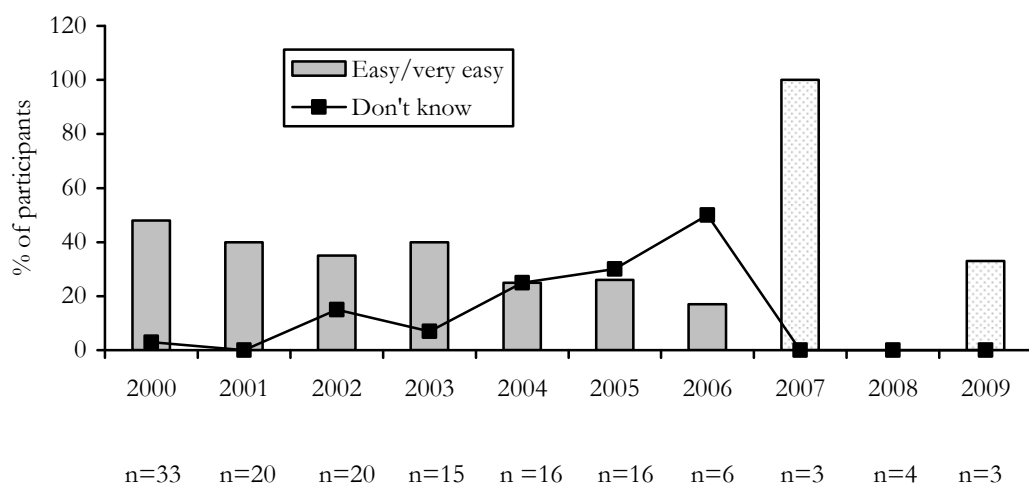
4.3 Availability

Of the three IDU participants that were able to comment on the availability of heroin, two reported it to be 'very difficult' for them to access, and one participant reported it to be 'very easy' (Table 12). This varies somewhat to the responses provided in 2008: all four participants reporting on availability trends commented that heroin was either 'difficult' or 'very difficult' for them to access. None of the key experts interviewed in 2009 could confidently comment on the current availability of heroin. Participants were also asked to comment on changes in availability over the six months preceding the interview. All three participants who commented reported that they perceived heroin availability having remained stable in this time. Examining trends in reported heroin availability over time in the local IDRS study (Figure 12), between 2001 and 2006, a greater proportion of respondents considered heroin as 'difficult' or 'very difficult' to access in comparison to those that considered it as 'easy' or 'very easy' to access. While in 2007 all consumers reporting ($n=3$) considered heroin 'easy' for them to access, this is unlikely to signify any notable change in the availability of heroin in Tasmania (particularly in light of the extremely low level of use of heroin in the IDU cohort); instead this is more probable that a very small group of people had reasonable access to heroin over a short period of time (Figure 12).

Table 12: Participants' reports of heroin availability in the past six months, 2008-2009

	2008 (N=100)	2009 (n=100)
Current availability		
Able to respond (%)	4	3
<i>Of those who responded:</i>		
Very easy (%)	-	33
Easy (%)	-	-
Difficult (%)	75	-
Very difficult (%)	25	67
Availability change over the last six months		
Able to respond (%)	4	3
<i>Of those who responded:</i>		
More difficult (%)	25	-
Stable (%)	25	100
Easier (%)	50	-
Fluctuates (%)	-	-

Source: IDRS IDU interviews

Figure 12: Participant reports of current heroin availability, of those who commented 2000-2009

Source: IDRS IDU interviews

Note: These estimates are based on an extremely small number of reports and should be interpreted with caution

Participants were asked to comment on the source person from whom they last accessed heroin within Hobart. Of the three participants who could answer, two reported purchasing heroin from a friend, and a single participant reported purchasing the drug from a known dealer. Participants were also asked to comment on the last location where heroin was purchased in the preceding six months. Two participants responded to this, reporting accessing it at either a

dealer's home or at a friend's home. While these reports refer to heroin purchased within the state, one KE commented that use of heroin by local IDU predominantly occurred whilst they were travelling interstate. Several IDU participants commented they had either purchased heroin whilst interstate, for use in Hobart, or had it sent from other Australian jurisdictions.

Tasmania Police reported no heroin seizures between 2006/07 and 2008/09⁸; and in 2004/05 and 2005/06 single seizures (0.2g and 2.8g respectively) of a drug believed to be heroin were reported. No seizures of heroin were made between 2000/01 and 2003/04⁹.

When reviewing this information, it appears that the historical pattern of limited availability of heroin locally has continued. While some better-connected IDU may have reasonably stable access to the drug, the availability of heroin in the state remained low, as indicated by the low level of recent use of the drug by the IDU sample.

4.4 Purity

Participants were asked to comment on the subjective purity of heroin they had recently used. The three participants who commented were divided in their responses: two participants perceived purity to be medium; and a third participant reported it to be high. This is similar to reports from the 2008 IDRS report, in which single participants reported purity to be either high or medium (Table 13). No KE in 2009 could comment on the purity of heroin used by the groups that they were familiar with. In previous surveys, IDU have commented that the relatively poor quality of heroin (at a relatively high cost) had led them to be generally wary of buying heroin for fear of being 'ripped off', and because of this, they preferred to purchase pharmaceutical opioids, as the exact quantity of drug purchased is clear.

The limited extent of use of heroin amongst the current participants meant that little information was available in regard to recent changes in heroin purity (Table 13). Of the three participants who commented, a single participant reported no change, and two participants stated they were unable to judge changes in purity over the preceding six months, which is likely a reflection of their infrequent use of the drug. No KE could confidently comment on trends in purity of heroin.

Examining subjective reports of heroin purity in the Tasmanian IDU cohorts over time (Figure 13), it is clear that, while these reports have somewhat fluctuated over the samples, since 2003 the majority of those able to comment on purity have considered the heroin available to them as 'medium' in purity (Figure 13).

Overall, the number of heroin seizures and analyses of these in Tasmania are infrequent, resulting in limited objective purity data available for comparison to these subjective reports. The Australian Crime Commission (ACC) reported a single seizure of less than two grams of heroin in the first quarter of 2000, made by the Australian Federal Police (AFP), which returned a measurement of 74.6% purity. In 2002, the ACC reported on the purity of eight seizures made by Tasmania Police and analysed during the third quarter of 2002, returning a median of 70.4% purity (range 69.6-71.0%). Single seizures of heroin were made by Tasmania Police in 2004/05 and 2005/06, however, analyses of these seizures were not conducted.

⁸ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

⁹ In 2002/03, a joint operation involving the Australian federal Police, Victoria Police and Tasmania Police resulted in the seizure of 125kg of heroin. No seizures related to this were recorded by Tasmania Police, however eight seizures were analysed for purity by Tasmania Police in 2002/03 (see Section 4.4).

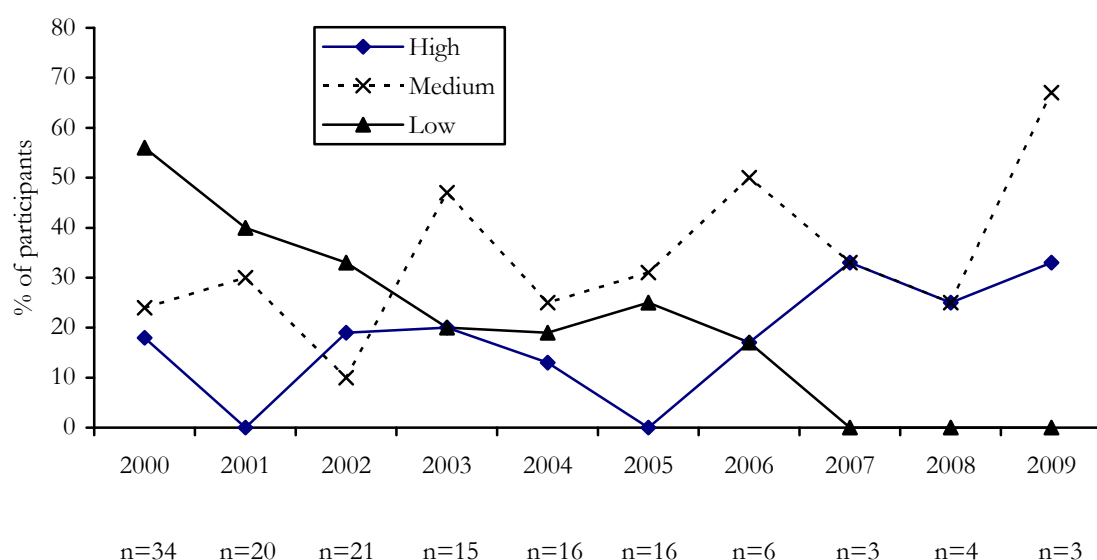
Table 13: Participants' perceptions of heroin purity in the past six months, 2008-2009

	2008 (N=100)	2009 (N=100)
Current purity		
Able to respond (%)	4	3
<i>Of those who responded:</i>		
High (%)	25	33
Medium (%)	25	67
Low (%)	-	-
Fluctuates (%)	-	-
Don't know^ (%)	50	-
Purity change over the last six months		
Able to respond (%)	4	3
<i>Of those who responded:</i>		
Increasing (%)	25	0
Stable (%)	25	33
Decreasing (%)	0	0
Fluctuating (%)	0	0
Don't know^ (%)	50	67

Source: IDRS IDU interviews

^ 'Don't know' refers to participants who were able to respond to survey items on price and/or availability of heroin, but had not had enough contact with users/dealers, or had not used a sufficient number of times to feel confident responding to items concerning purity

Figure 13: Proportion of IDU participants reporting current heroin purity as high, medium or low, of those who could respond, 2000-2009



Source: IDRS IDU interviews

Note: The estimates in 2006, 2007 and 2008 are based on an extremely small number of reports and should be interpreted with caution (n<10 per annum)

4.5 Trends in heroin use

The majority of indicators - and findings such as the low median rate of use of heroin (6 days in last six months amongst those who had used the drug) and, that of the 33% of the IDU sample that reported heroin as their drug of choice, only one-quarter had recently used heroin (n=8) - indicate that the low availability of heroin in the state identified in earlier IDRS studies has continued in 2009. The national IDRS study identified stable numbers of heroin users nationally, but noted a small overall increase in frequency of heroin use (Stafford et al., 2010).

The Australian Crime Commission (ACC) 2007/08 *Illicit Drug Data Report* (2009) notes that South-East Asia remains the primary embarkation point for heroin for the Australian market, despite an overall decrease in opium production in South-East Asia over the last decade. Between 2006 and 2007 in the 'Golden Triangle' region of South-East Asia (Myanmar, Thailand and Laos), a combination of increased opium cultivation and crop yields was estimated to have resulted in a potential increase in opium production of as much as 40% (ACC, 2009). Opium production in South-West Asia (particularly Afghanistan) has increased significantly over the last decade, and is increasingly being identified in heroin seizures in Australia (ACC, 2009). More than 90% of the world's opium is estimated to be produced in Afghanistan. In 2008, Afghan poppy cultivation decreased by 19%, resulting in a decrease in opium production of 6%. With the high use of opioids and stable strong preference for heroin amongst the IDU sampled by the IDRS, both locally and nationally (Stafford et al., 2010), future trends in use of the drug continue to merit close attention, particularly as heroin markets nationally regain equilibrium.

4.6 Summary of heroin trends

Table 14: Summary of heroin trends

Use	• Used by 12% of the IDU sample in past six months at a low frequency (a median of six out of the past 180 days) despite a high preference for heroin as drug of choice (33%) • Those that use heroin also have high levels of polydrug use, including illicit morphine, oxycodone, methadone, benzodiazepines, cannabis and alcohol • Indicator reports suggest ongoing low levels of heroin use locally • Findings of the 2007 NDSHS indicate that 0.3% of Tasmanians had used heroin in the previous year
Availability	• Amongst a very small group of IDU participants (3%), participants were mixed regarding the ease of which they were able to access heroin (either 'very difficult' or 'very easy'), however all agreed that this situation had remained unchanged over the preceding six months. • Low levels of use in the sample are suggestive of continued low availability of heroin locally
Purity and form	• Both 'rock' and powder heroin used. 'Rock' heroin was described as white/off-white or brown in colour; and powder form was described as being white/off-white or pink • No objective purity data are available for locally-purchased heroin; however, consumer estimates in recent years suggest 'medium' purity

5.0 METHAMPHETAMINE

In the initial years of the IDRS studies, reports have used the overarching term ‘amphetamine’ to refer to both amphetamine and methylamphetamine (methamphetamine¹⁰). Throughout the 1980s, the form of illicit amphetamine most available in Australia was amphetamine sulphate (Chesher, 1993). Following the legislative controls introduced in the early 1990s on the distribution of the main precursor chemicals for the production of amphetamine sulphate (Wardlaw, 1993), illicit manufacturers were forced to rely on different procedures for the preparation of amphetamine. During the 1990s, the proportion of amphetamine-type substance seizures that were methamphetamine (rather than amphetamine) steadily increased until methamphetamine clearly dominated the market (ABCI, 1999, 2000, 2001). Across Australia today, the powder traditionally known as ‘speed’ is almost exclusively methamphetamine rather than amphetamine. For example, in the 2006/07 financial year, of the 4,396 seizures of (non-phenethylamine) amphetamine-type seizures analysed for purity in Australia, 97.9% (by number) were methamphetamine rather than amphetamine (ACC, 2008).

As methamphetamine markets across the country have expanded in recent years, it has become apparent that there is a diversity of forms, or presentations, of methamphetamine sold in the Australian illicit drug market. These more potent forms may be known by terms such as ice, shabu, base, paste and crystal meth, but they are all methamphetamine in basis. While there is some disagreement among both consumers and researchers as to the nature of these forms and the distinguishing divisions between forms, it is clear that these are marketed differently to consumers and often sold on differing price scales. As such, trends in regard to each of these forms will be discussed separately where appropriate, and the term methamphetamine will be used in the IDRS to refer to the drugs available in this class.

With the exception of methamphetamine-based tablets marketed as ‘ecstasy’, and pharmaceutical stimulants such as dexamphetamine and methylphenidate, it appears that there are three dominant ‘preparations’ of methamphetamine used within the Tasmanian (and Australian) IDU market - each falling at three points along a continuum of form, but, again, all of which are the same substance.

Powder form methamphetamine¹¹ is the presentation of the drug which has traditionally been available in Australia. This is commonly a powder that can range from fine to more crystalline or coarse, and may take different colours (commonly white, brown or pink), depending on the chemical process used in its production and the quality of that process. It is produced within Australia, most commonly in small, portable ‘laboratories’, and is usually based on pharmaceutical pseudoephedrine (extracted from, for example, Sudafed tablets). Because of its powder form, it is fairly easy to ‘cut’ (dilute) and is commonly sold at fairly low purity/potency, although this can vary substantially. Consumers interviewed for the 2009 IDRS survey reported that methamphetamine powder sometimes contained small crystals amongst the powder, with the powder generally appearing white in colour, or alternatively brown, beige or pink. The presence of crystals in powder methamphetamine may represent higher purity methamphetamine, or alternatively it may be explained by the use of an adulterant (methylsulfonylmethane, MSM) in the late stages of production. The introduction of MSM forms crystals, giving the powder methamphetamine a crystalline appearance (Fetherston & Lenton, 2006).

The two other ‘forms’ of methamphetamine are traditionally higher in potency (due to being more difficult to ‘cut’) and have increased in availability across all Australian jurisdictions in the past decade (Topp et al., 2002). The first, referred to in some jurisdictions as ‘base’ or ‘paste’, is

¹⁰ Methamphetamine is an abbreviation of the name methylamphetamine, and, as such, both terms are interchangeable.

¹¹ Powder form methamphetamine is also referred to in national and other jurisdiction IDRS reports as ‘speed’.

commonly a gluggy, waxy, oily, 'wet' powder. It is usually sold in units of 'points' (0.1 grams). This form of the drug appears oily because the conversion process from pseudoephedrine to methamphetamine produces the alkaline (base) form of methamphetamine, which is 'oily'. To convert this to a more easily injectable form (methamphetamine hydrochloride crystals, which may take the appearance of powder, or, when no impurities are present, and carefully crystallised, may take the form of the 'ice' crystals discussed below) requires a high level of skill, and when not completed correctly, the result of this process is an oily powder that often has a yellow or brownish tinge due to the presence of iodine and other impurities (Topp & Churchill, 2002). In the 2009 study, participants that had recently purchased this form of the drug locally commonly described it as 'gluggy', and reported the colour as ranging from clear, white, beige, brown to yellow, orange or pink.

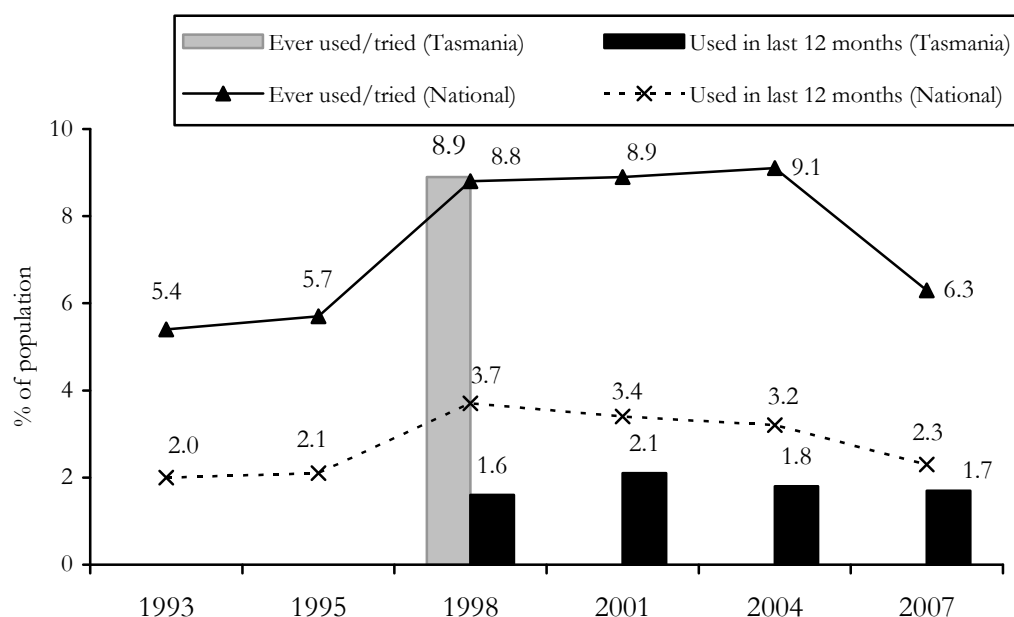
The final form of methamphetamine examined in the current study is often referred to as 'ice' or 'crystal meth(amphetamine)'. This is the product of a careful production process, and is believed to be chiefly imported into Australia from Asian countries (Topp & Churchill, 2002), although there are also indications of local production in recent years (ACC, 2009). It commonly appears as clear, ice-like crystals, and, as such, is difficult to 'cut' (dilute), resulting in a relatively high-purity/potency product. However, as previously noted, MSM is an adulterant that can be used to give lower purity powder methamphetamine the appearance of higher purity crystal methamphetamine (although it should be noted that there is currently no forensic validation that this has been present in drugs used in Tasmania). Consumers in the current and previous IDRS studies have generally described this form as white/clear crystals or rocks, looking like crushed glass or rock salt (with crystals commonly larger than sugar crystals).

5.1 Use

5.1.1 Prevalence of methamphetamine use

The most recent survey of methamphetamine use within the general community of Tasmania was undertaken within the 2007 National Drug Strategy Household Survey (AIHW, 2008b), which sampled 1,143 Tasmanian residents aged 14 years and over. These results indicated that 1.7% ($n \sim 20$) had used the drug in the 12 months prior to interview (Figure 14). This rate is consistent with the national rate in the 2007 survey (2.3%, with this observed difference within the range of sampling error). It would appear that there has been little substantial change in the level of methamphetamine use in the Tasmanian community in recent years, as the proportions reporting past-year use was 1.6% in the 1998 survey (AIHW, 1999; sample size = 1,031), and has varied little since this time (2.1% of those aged 14 years and above in 2001, 1.8% in 2004 and 1.7% in 2007). Where slight differences in 'prevalence' rates have occurred between surveys, these have uniformly remained within the range of variability due to sampling for these studies and are, therefore, unlikely to reflect meaningful changes in the extent of the use of these drugs in the population.

Figure 14: Prevalence of meth/amphetamine use in Australia and Tasmania among those aged 14 years and over, 1993-2007



Source: National Drug Strategy Household Survey 1993-2007

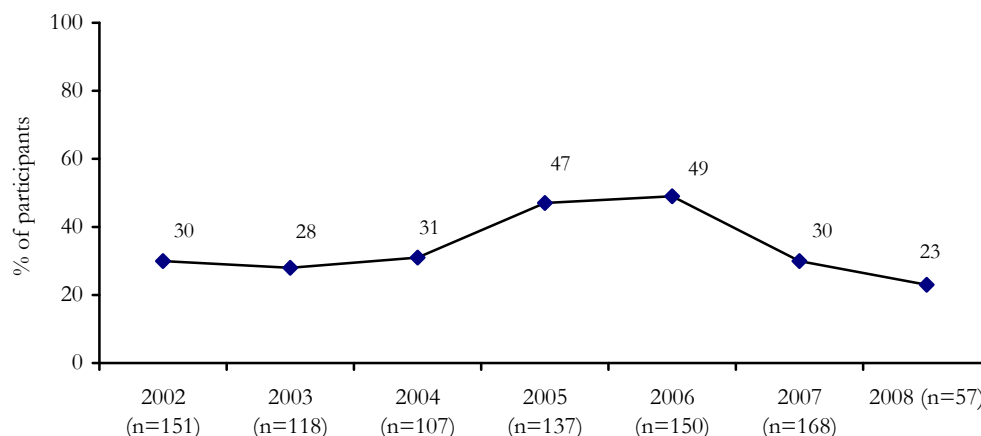
5.1.2 Methamphetamine use in particular populations

Data from urine screens of Tasmanian prisoners revealed a very low rate of sympathomimetic amines among positive tests, accounting for 3% or less of all positive tests between 1995/96 and 2008/09. In 2008/09, just one positive urine drug screen for sympathomimetic amines/amphetamines (0.5% of all positive urine screens) was reported. However, these figures may underestimate the level of use amongst this group due to the relatively rapid elimination of this drug from the body.

5.1.3 Methamphetamine use among IDU

The Australian Needle and Syringe Program Survey (MacDonald & Zhou, 2002; National Centre in HIV Epidemiology and Clinical Research, 2009) take an annual survey of individuals presenting to NSP outlets. Those that participate in the survey are asked, among other things, the last drug they injected. Between 2002 and 2004, methamphetamine was the last drug injected of around 30% of the Tasmanian participants (Figure 15). In 2005, consistent with trends seen in the IDRS IDU cohort and among clients of the state's NSP, the proportion of survey participants reporting methamphetamine as the last drug injected increased to 47%, and this remained stable in 2006 (49%). In 2007 and 2008, this trend was reversed, with the proportion of participants reporting methamphetamine decreasing to 30% and 23% respectively, which is consistent with the trends of decreasing use identified in the NSP data between 2006/07 and 2008/09.

Figure 15: Australian Needle and Syringe Program Survey: Prevalence of methamphetamines as ‘last drug injected’ amongst Tasmanian IDU, 2000-2008



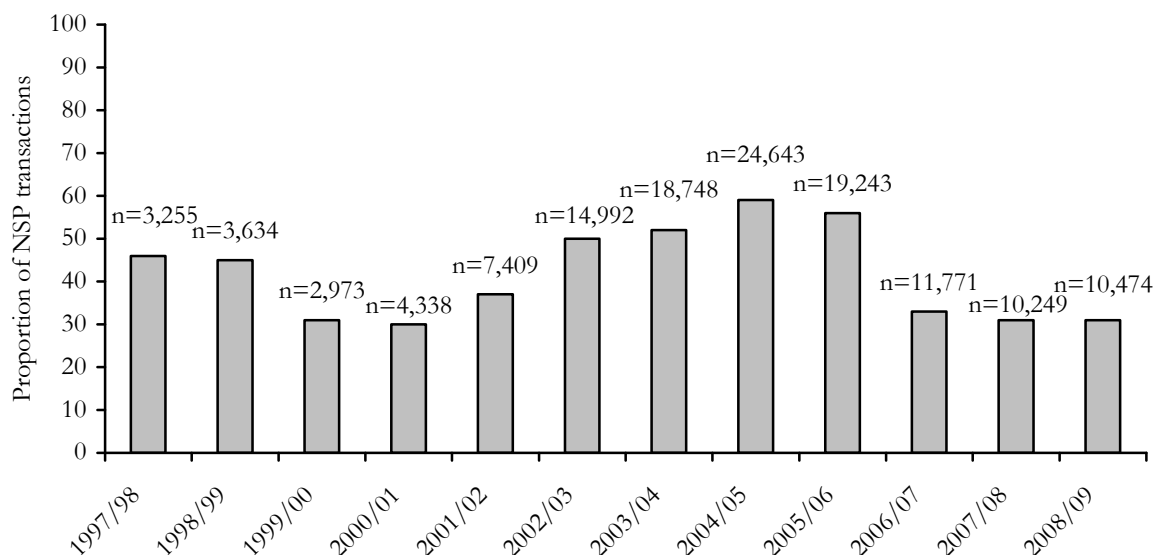
Source: MacDonald & Zhou, 2002; National Centre in HIV Epidemiology and Clinical Research, 2009

Since 1997, clients of non-pharmacy NSP outlets have been asked which drug they mostly inject. While methamphetamine has been the most commonly reported single drug used across the years of data collection, the proportion of NSP clients reporting methamphetamine as the drug they most commonly used was in steady decline from 56% in 1996/97 to 30% in 2000/01 (Figure 16). However, this trend was reversed between 2001/02 and 2004/05, with proportions increasing from 37% to 59% respectively. In 2006/07, a dramatic decrease occurred, with around one-third of client transactions being reported for methamphetamine. Over the following two financial years, this rate has remained relatively unchanged (Figure 16).

While this appears to represent a substantial change in the market over time and is consistent with use patterns among the IDRS samples, these data should be interpreted with caution: firstly, a recent study has estimated that approximately 15% of all injection equipment distributed on a monthly basis is distributed through pharmacy-based outlets (Bruno, 2004a), where no client data are collected. This proportion may have increased since 2005/06, as the only 24-hour NSP program in Hobart closed in February 2006, which recorded on average more than 1,200 transactions per month, primarily for methamphetamine. No increases in transactions recorded by other non-pharmacy NSPs have been observed since this closure; therefore, it is possible that many of these transactions are now occurring in pharmacy-based outlets. Given that the clear bulk of injection equipment distributed through pharmacy outlets (1ml barrels) is appropriate for methamphetamine injection (and not for pharmaceutical opioids, the other type of drugs most commonly injected in Tasmania), it is likely that the majority of this equipment is used for injection of methamphetamine. As such, the non-pharmacy outlet data presented in Figure 16 is likely to be an underestimation of the true proportion of methamphetamine injection amongst Tasmanian IDU. Secondly, this decline in reports of methamphetamine use amongst NSP client transactions may also partially reflect changes in regard to the provision of certain injecting equipment. Late in 2006, a policy was introduced by the Department of Health and Human Services (Population Health) to limit the availability of winged-infusion sets (butterflies) to those clients injecting large quantities of liquid (e.g. methadone syrup). Over recent years, there has been a local culture of using winged-infusion sets for a broad range of drugs, including methamphetamine, benzodiazepines and pharmaceutical opioids. As a result of this change in availability (according to one KE in 2009 and 2008 and two KE in 2007, all of whom were working in NSP outlets) many clients were reporting injecting use of methadone to access this equipment, when in fact they were most probably using another substance. In support of this, a

dramatic increase in client reports of methadone injection was apparent in the NSP client data (Figure 36). Given these contextual issues, it is unclear exactly how much of the apparent decline in methamphetamine use amongst non-pharmacy clients of the NSP program reflects a real change in the market of this drug.

Figure 16: Proportion of Tasmanian non-pharmacy Needle and Syringe Program clients reporting methamphetamine as ‘drug most often injected’, 1997/98-2008/09



Source: Population Health, Department of Health and Human Services.

Note: These figures include some estimated data for a number of services, based on average monthly client transactions, where data were missing

5.1.4 Current patterns of methamphetamine use

Eighty percent of the 2009 IDU cohort reported use of any form of methamphetamine in the six months preceding the interview, at a median frequency of 15 days, equating to use on average once per fortnight. This level of use is lower than reported in previous Tasmanian IDRS studies, with the exception of 2008 (74% using, median frequency 12 days): recent use had been reported by between 83% and 94% of participants between 2003 and 2007; similarly, median frequency of use was reported to be 20-48 days over this period.

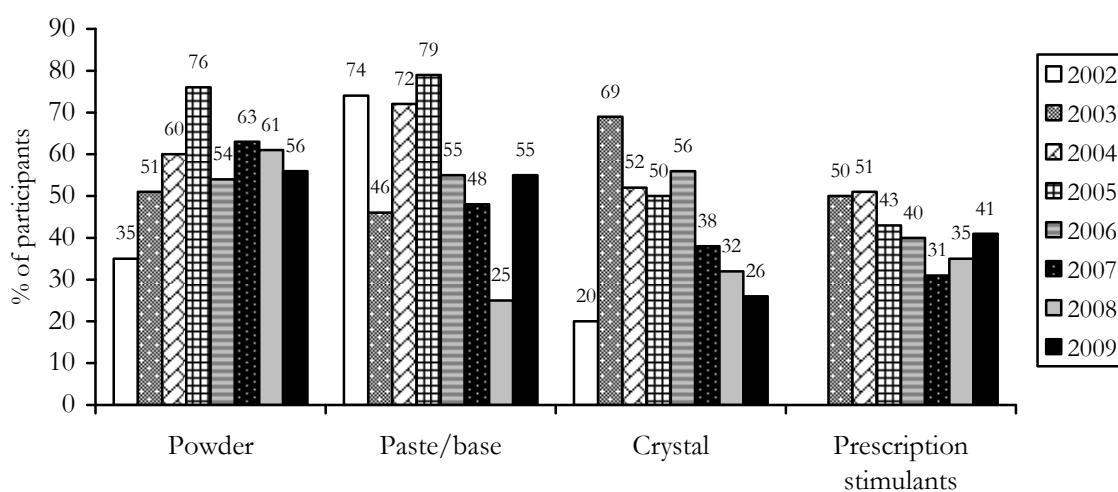
Demographic characteristics of those who had recently used methamphetamine were similar to the rest of the cohort (see Section 3.1), in terms of age, sex, employment status, ATSI background, sexual preferences, educational background, prison history, injection frequency, age of first injection, current engagement in treatment and duration of injecting career.

For the 2009 IDRS, IDU were asked to differentiate between methamphetamine powder, ‘base/paste’ and crystalline methamphetamine. This distinction had a good level of face validity to those IDU surveyed, despite there often being a substantial amount of overlap in the physical appearance of these ‘forms’. IDU reported making these distinctions on the basis of physical form, purchase cost, and potency of subjective simulant effect.

IDU reports of the forms of methamphetamine they had used in the previous six months clearly show that a wide range of forms and potencies of the drug are available to the local consumer community (Figure 17). Sixty-eight percent (n=56) of those recently using any form of

methamphetamine or pharmaceutical stimulant reported using powder methamphetamine; 67% (n=55) had recently used base/paste methamphetamine; 32% (n=26) reported recent use of crystalline methamphetamine, and 50% (n=41) reported use of illicit prescription stimulants (Figure 18). Nine participants reported use of liquid form methamphetamine (often known as ‘ox blood’). In previous IDRS studies, use of this form has been rare (e.g. 3%, n=2 in 2008). None of the participants in the current study reported recent licit use of pharmaceutical stimulants (i.e. use by prescription to the individual), but use of illicitly accessed tablets was seen in a notable proportion of participants (50% of those using any form of methamphetamine or pharmaceutical stimulant in the past six months, n=41), with use of dexamphetamine (n=21) more common than methylphenidate (n=17).

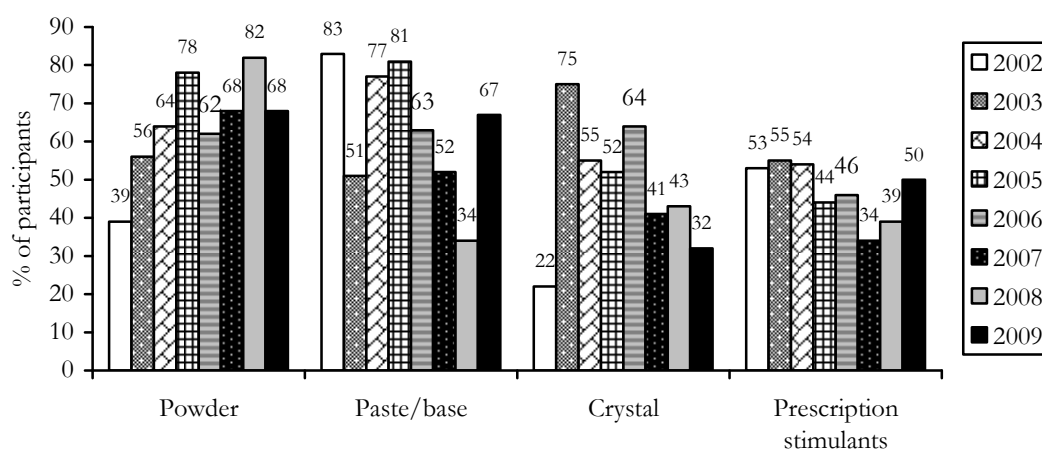
Figure 17: Proportion of IDU reporting methamphetamine and pharmaceutical stimulant use in the past six months, 2002-2009



Source: IDRS IDU interviews

Note: Pharmaceutical stimulants include use of licit and illicit prescription amphetamines: this item asked from 2003 onwards

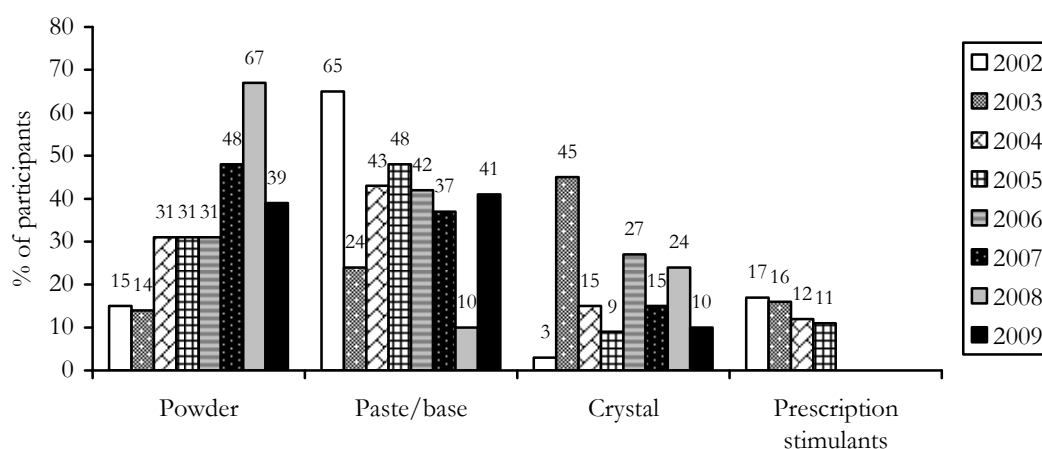
Figure 18: Use of various forms of methamphetamine and prescription stimulants among IDRS IDU participants who reported recent use of a form of methamphetamine, 2002-2009



Source: IDRS IDU interviews

Note: Pharmaceutical stimulants include use of licit and illicit prescription amphetamines

Figure 19: Forms of methamphetamine and prescription stimulants most often used among IDRS IDU participants that had recently used a form of methamphetamine or prescription stimulant, 2002-2009



Source: IDRS IDU interviews.

Note: Prescription stimulants were not included in this question in 2006-2009

The patterns of use of the differing ‘forms’ of methamphetamine and pharmaceutical stimulants in the preceding six months by IDRS IDU participants across the 2002 to 2009 studies (Figures 17-19) display the changing face of the local methamphetamine market in this time. There are three major changes apparent in these data.

The first has revolved around the availability, and therefore use, of crystalline methamphetamine. In the 2002 study, use of crystal was quite rare, consumed by just 22% of amphetamine-using IDU in the preceding six months, with only 3% nominating it as the methamphetamine form they had most often used in this time. However, in the 2003 study, not only had recent use of this form more than trebled to 75% of those recently using amphetamine but it was also the form most commonly used by the largest proportion of those using the drug (45%).

In the 2004 and 2005 samples, both the proportion of the cohort reporting recent use of crystal methamphetamine (55% of all amphetamine consumers in 2004 and 52% in 2005) and the proportion reporting this as the form they had predominantly used in the preceding six months (15% in 2004 and 9% in 2005) were substantially lower, representing a decline from the level of availability and use of crystalline methamphetamine since the 2003 survey. In 2006, a slight increase in the use of crystal methamphetamine was reported, with an increase in both the proportion of the amphetamine-using cohort reporting recent use of this form (52% in 2005 and 64% in 2006) and an increase in the proportion reporting crystal methamphetamine as the form they had used most often (9% in 2005 and 27% in 2006). Since 2007, overall use of crystal methamphetamine has been declining. In 2007, the proportion of recent amphetamine-using participants who reported recent use of crystal declined sharply, from 64% in 2006 (95%CI: 54-74%) to 41% (95%CI 31-51%) in 2007, a statistically significant decline, clearly suggesting a notable recent change in the crystal methamphetamine market. Similarly, the proportion of this group of participants reporting crystal methamphetamine as the form most used in the last six months also declined, from 27% in 2006 to 15% in 2007. In 2008, the proportion of recent amphetamine-using participants who reported recent use of crystal remained largely unchanged since 2007 (41% in 2007 and 43% in 2008), however, the proportion of participants reporting crystal methamphetamine as the form most used in the last six months increased slightly from 15% in 2007 to 24% in 2008. In 2009, this trend was reversed, with a significant decrease in the proportion of this group reporting crystal as the form most used (24% in 2008 and 10% in 2009:

95%CI of difference 2-26%), and a small decrease was observed in the proportion of recent users reporting recent use of crystal (43% to 32%).

Trends in the use of the base/paste form of methamphetamine have generally been the opposite of that for the use of crystal: in 2002, base was the form recently used by the majority of the IDU cohort (83% of those recently using amphetamine), and was similarly the form of the drug most often used by the majority of consumers (65% of those recently using amphetamine). Both overall use (51% of all recent methamphetamine consumers) and predominant use (24%) declined sharply in 2003 when the availability of crystal methamphetamine increased; however, these rebounded to a stable level in the 2004 and 2005 studies, consistent with that in 2002, with the majority of amphetamine consumers reporting recent use of this form (77% in 2004 and 81% in 2005), and 'base/paste' returning as the form typically reported as being predominantly used by consumers (43% in 2004 and 48% in 2005). Between 2006 and 2008, the proportion of participants reporting recent use of base/paste decreased significantly from 63% (95%CI: 52-73%) to 34% (95%CI: 23-45%) as did the proportion of participants reporting this as the form of methamphetamine most used (from 42% in 2006 (95%CI: 32-53%) to 10% in 2008 (95%CI: 3-16%). However, in 2009, the proportion of amphetamine-using participants reporting recent use of base increased significantly, from 34% (95%CI: 23-44%) to 67% (95%CI: 57-77%), as did the proportion reporting base as the main form used (2008: 10%, 95%CI: 3-17%, 2009: 41%, 95%CI: 31-52%).

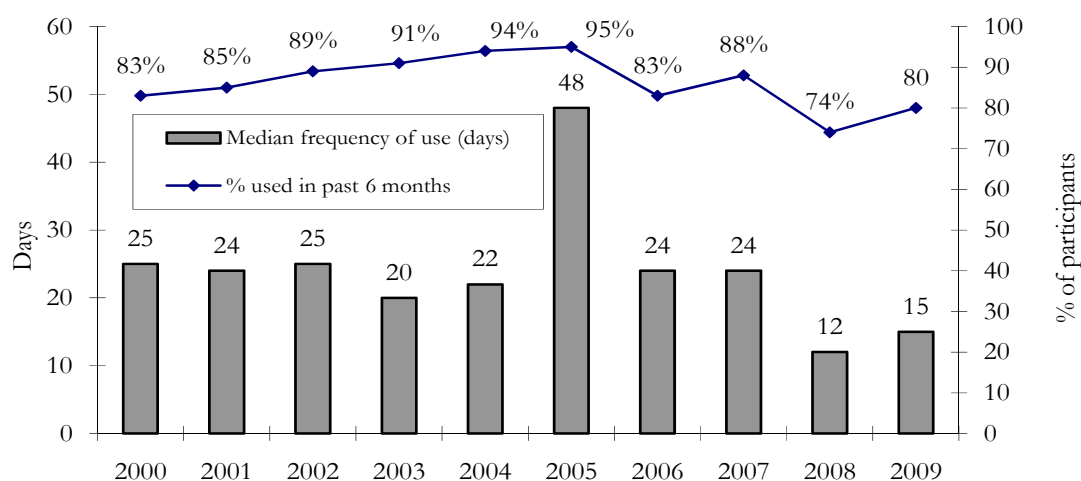
As use of both crystal and base/paste forms of methamphetamine decreased in 2007, use of powder form increased. Between 2002 and 2005, recent use of powder amongst current users of any form of amphetamine gradually increased from 39% to 78%. Over this period, the proportion of amphetamine-using participants reporting powder as the predominant form they had used doubled from 14% to 31%. In 2006, use of powder methamphetamine by this group decreased to 62% (95%CI of difference 3-29%); however, the proportion reporting powder as the predominant form used remained unchanged. In 2007, the proportion reporting any use of powder was similar (68%), whereas, the proportion reporting predominant use of this form increased markedly, to 48%, making powder methamphetamine the form most used by the current cohort for the first time since 2002. This trend of increasing use of powder form continued into 2008, with 82% of amphetamine-using participants using this form, and 67% reporting powder as the predominant form they had used in the preceding six months. This trend has been reversed in 2009, with a significant decrease in the proportion of amphetamine users reporting powder as the form most used, decreasing from 67% in 2008 (95%CI: 57-78%) to 41% in 2009 (95%CI: 31-52%).

While prescription stimulants such as methylphenidate and dexamphetamine are not themselves methamphetamine, given that almost without exception those that had used diverted prescription stimulants had also used methamphetamine (only two of those participants that had recently used pharmaceutical stimulants had not used some form of methamphetamine in 2009), these pharmaceuticals form an important part of the overall picture of stimulant use amongst these IDU cohorts. The use of these prescription stimulants had remained relatively stable across the 2002 to 2004 IDRS studies, being used in the preceding six months by 53%, 55% and 54% of recent methamphetamine/pharmaceutical stimulant consumers interviewed in each study respectively. This level of recent use has remained lower since 2004, ranging between 34% and 44% of each sample.

Eighty percent of the 2009 IDU sample reported using some form of methamphetamine in the six months prior to interview (a further two participants reported using diverted pharmaceutical stimulants but not methamphetamine), with all but two of these individuals reporting recently injecting these drugs. The median frequency of use of any form of methamphetamine was 15 days in the preceding six months (which relates to use approximately once per fortnight on

average), ranging between one and 180 days in this time (Figure 20). The results for both 2008 and 2009 indicate lower levels of use of methamphetamine than were reported in previous local IDRS studies. Prior to 2008, between 83% and 95% of each cohort reported recent use of methamphetamine, at a median frequency of between 20 and 48 days. The consistently high proportions of the IDU cohorts reporting recent use of methamphetamine has occurred despite similar proportions of the IDU cohorts in each study reporting an opioid as their drug of choice (two-thirds or more in each sample, except in 2005 (53%) 2007 (58%) and 2009 (59%) reported an opioid).

Figure 20: Prevalence and frequency of use of methamphetamine in the preceding six months, 2000-2009



Source: IDRS IDU interviews

Almost all participants interviewed (98%) had used some form of methamphetamine at some stage in their lives, and, as noted above, 82% of the current cohort had used some methamphetamine or pharmaceutical stimulant in the preceding six months. Despite this, just one-fifth of the sample (20%) indicated that methamphetamine was their drug of choice. Of these consumers, the minority (35%, n=7) reported a form of amphetamine as the drug they had injected most often in the month prior to interview. Of the 13 IDU that had not used their drug of choice most often in the previous months, most had predominantly used depressant drugs, i.e. opioids (n=12) instead. These participants were asked to report on reasons for the discrepancy between their drug of choice and the drug most often injected; this was generally reported as being due to differences between methamphetamine and opioid markets (low methamphetamine purity, n=5; higher cost of methamphetamine, n=3; health effects, n=3; and lower relative availability, n=2). For those participants that had reported amphetamine as the drug they had most often injected in the preceding month (n=21), the drug class was used for a median of 72 days in the preceding six months (SD=46.75, range 4-180), which equates to a median use of three times per week. Of the 79 consumers that had most frequently used another illicit drug (all were primary consumers of opioids or benzodiazepines, with the exception of one), 59 had used methamphetamine in the preceding six months, at a median frequency of ten days in the preceding six months (SD=33.1, range 1-144 days), which equates approximately to use once per fortnight.

Examining the frequency of use of methamphetamine in more detail, 80% of the current cohort had used methamphetamine, at a median frequency of 15 days, which is approximately once per fortnight. As shown in Table 15 below, three-fifths of these consumers reported using some form of the drug weekly or less often (60%), with two-fifths reporting more than weekly (but not

daily) use (39%), and just 1% using the drug daily. Across all three ‘forms’ of methamphetamine, the majority reported using weekly or less (75% of those using powder and base, and 81% of those using crystal methamphetamine).

Table 15: Patterns of methamphetamine use in the last six months, by type, 2009

	Among the entire sample	Among those who had used		
Form used	% who had used	% used weekly or less	% used more than weekly, but less than daily	% used daily
Powder	56	75 (<i>n</i> =42)	25 (<i>n</i> =14)	0
Base	55	75 (<i>n</i> =41)	24 (<i>n</i> =13)	2 (<i>n</i> =1)
Ice	26	81 (<i>n</i> =21)	19 (<i>n</i> =5)	0
Any form methamphetamine*	80	60 (<i>n</i> =48)	39 (<i>n</i> =31)	1 (<i>n</i> =1)

Source: IDRS IDU interviews

* Also includes liquid methamphetamine

Sixteen KE reported on groups of consumers that primarily used methamphetamine. KE included drug treatment workers (*n*=6), law enforcement professionals/lawyer (*n*=5), youth workers (*n*=3), an NSP worker (*n*=1) and an ambulance officer (*n*=1). KE were familiar with methamphetamine consumers from virtually the whole range of Hobart suburbs, ranging from those typically considered lower socio-economic regions to the more ‘prestigious’ suburbs as well as some homeless groups, reflecting both the widespread nature of methamphetamine use and the particular target populations of the services for which the KE worked (e.g. some services specialised in work with homeless clients or in particular regional areas, while some KE worked in public or private services). The majority of KE described consumers that were uniformly from English-speaking backgrounds. Aboriginal people made up the minority of consumer groups that KE reported on (in relation to methamphetamine). The methamphetamine-consuming groups described ranged between 18-55 years in age. The consumers described by KE were predominately male and were predominantly unemployed.

The IDRS IDU data make it clear that a moderate level of methamphetamine use is common amongst IDU consumers who predominantly inject other drugs. This was supported by comments from KE reporting on groups of primary consumers of either cannabis or opioids. When discussing the groups of consumers they had recent contact with that had predominantly used pharmaceutical opioids, two KE noted a decrease in use of methamphetamine amongst this client group. KE commenting on this group reported that many of the consumers they had contact with were polydrug users, with alcohol and methamphetamine the most common drugs reported to be used by primary cannabis users.

While some KE were unfamiliar with the range of drugs used by the primary methamphetamine-consuming groups they were working with, some general usage patterns were noted. Firstly,

primary methamphetamine consumers described by KE were generally noted to also use cannabis, and/or benzodiazepines, often to assist with ‘comedown’ effects. One KE noted that primary methamphetamine users tended not to be polydrug users, stating *‘speed users tend to stick with speed, but if it’s not around, they’ll use cannabis or morphine’*, and when other drugs, such as benzodiazepines are used, this is in the context of easing the experience of the come-down, rather than for intoxication effects. Two KE who commented on primary methamphetamine users also noted some use of pharmaceutical opioids, predominantly illicit morphine. This group was not considered to be daily users of opioids.

5.2 Price

As discussed above, and indicated in previous Tasmanian IDRS reports, it is clear that there are three main ‘forms’ of non-pharmaceutical methamphetamine available in Hobart, each with separate pricing schedules (which traditionally become more apparent at larger purchase amounts), which will be discussed separately. However, across all forms of the drug, the majority (77%) of IDU that were able to comment on price considered that it had remained stable in the preceding six months.

Table 16: Participants’ reports of price trends of methamphetamines in the past six months, 2009

	2009 IDRS N=100		
	Powder	Base/Paste	Crystal
Price Trend			
Able to respond (%)	57	46	21
<i>Of those who responded:</i>			
Increasing (%)	7	13	10
Stable (%)	86	85	86
Decreasing (%)	4	0	5
Fluctuating (%)	4	2	0

Source: IDRS IDU interviews

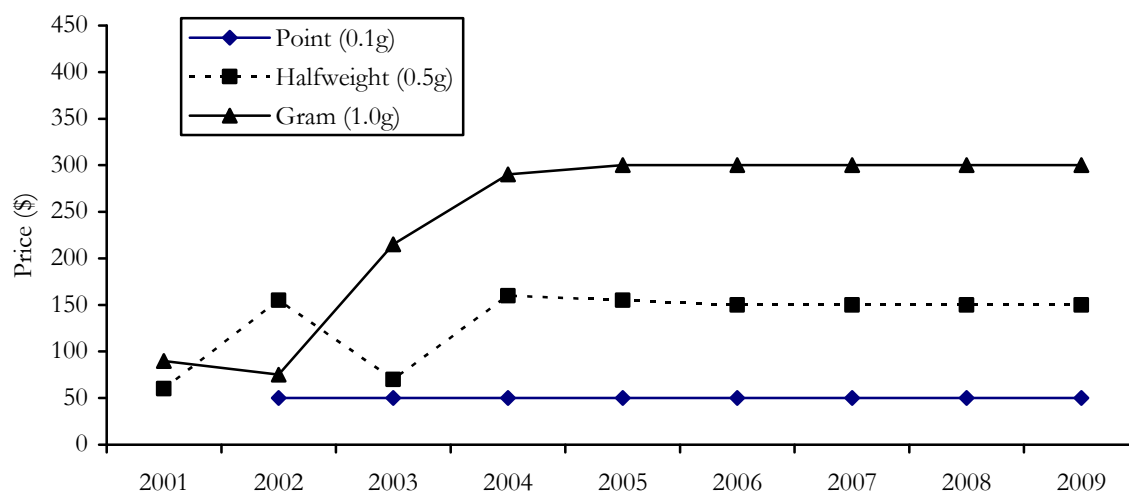
5.2.1 Methamphetamine Powder

IDU reported the median purchase price of powder methamphetamine was \$50 per 0.1 of a gram (an amount typically referred to as a ‘point’: modal price \$50, range \$40-50, n=38); \$150 for 0.5g purchases (modal price \$150, range \$100-300, n=37); and \$300 per gram (modal price \$300, range \$250-320, n=7). These prices were consistent with the prices reported in surveys between 2005 and 2008 (Table 17, Figure 21). One KE commented on the cost of methamphetamine, reporting the price of one ‘point’ to be \$50. The clear majority (86%) of those consumers that were able to comment¹² (n=49) reported stable prices for methamphetamine powder in the preceding six months, with only small minorities of IDU participants reporting either perceived recent increases (7%, n=4), decreases or fluctuating prices (4%, n=2 respectively: Table 16).

The price range for the most common purchase quantity, ‘points’, widened slightly (from \$50 in 2008 to \$40-50 in 2009). Increases in both the lower and upper-ranges of price paid for half-gram purchases were observed, increasing from \$75-200 in 2008 to \$100-300 in 2009 (Table 17). A small increase in the upper-range of price paid for gram purchases was also reported (from \$250-300 in 2008 to \$250-320 in 2009).

¹² Note that these figures do not include those that reported ‘don’t know’ in response to this question, for consistency with national IDRS data.

Figure 21: Median prices of powder methamphetamine estimated from IDU purchases, 2001-2009



Source: IDRS IDU interviews.

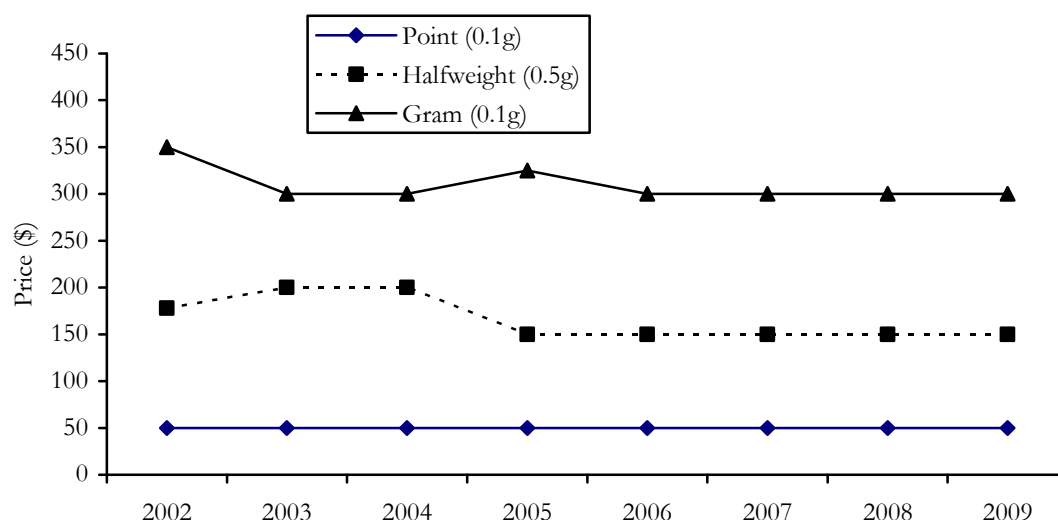
5.2.2 Base/paste methamphetamine

IDU reported the median purchase price of ‘base/paste’ methamphetamine as costing \$50 per ‘point’ (0.1g: modal price \$50, range \$40-80, n=42), \$150 per 0.5g (modal price \$150, range \$100-180, n=26), and \$300 per gram (modal price \$300, range \$250-350, n=5: Table 17).

Similar to trends for powder methamphetamine, 85% of consumers (n=21) able to comment felt that prices for ‘base/paste’ methamphetamine had remained stable in the preceding six months, with only small minorities reporting a perception of increasing (13%) or fluctuating (2%) prices for this form (Table 16).

Examining trends in reported purchase prices for ‘base/paste’ methamphetamine, prices reported overall in 2009 appear stable; however, there was considerable variation in the range of prices IDU reported paying. The price range for 0.5g purchases varied between \$100 and \$180, and gram amounts of base/paste varied between \$250 and \$350 (Table 17).

Figure 22: Median prices of base/paste methamphetamine estimated from IDU purchases, 2002-2009



Source: IDRS IDU interviews

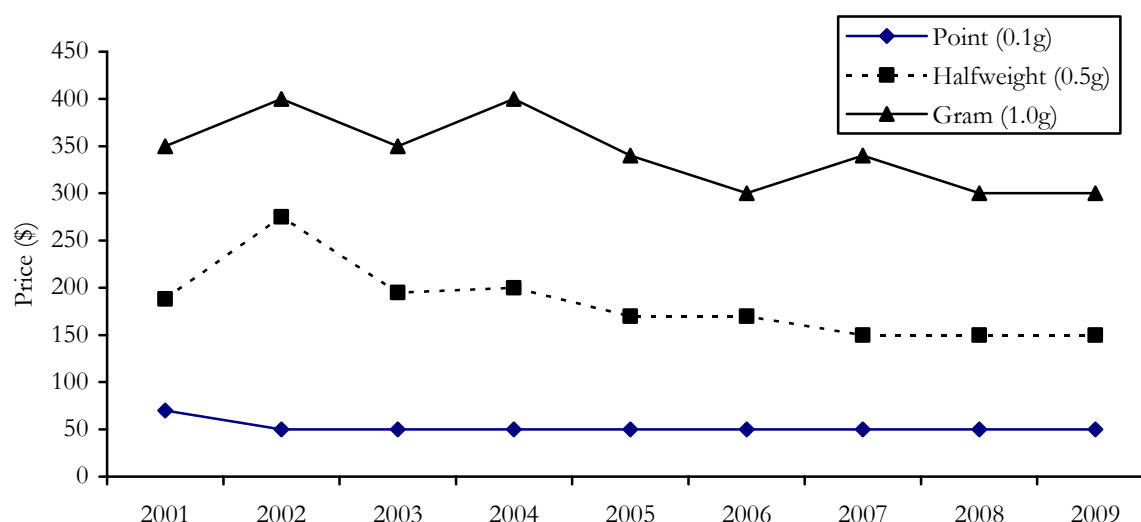
5.2.3 Crystal Methamphetamine

The median purchase price consumers reported last paying for the higher-purity crystal/‘ice’ was, again, \$50 per ‘point’ (0.1g: modal price \$50, range \$35-100, n=20), \$150 for 0.5g (modal price \$150, range \$150-200, n=7) and \$300 per gram (modal price \$300, range \$250-500, n=4: Table 17).

In terms of price changes in the preceding six months, the majority of participants who were able to comment reported prices had remained stable in this time (86%, n=18). Small minorities reported prices to have either increased (10, n=2) or decreased (5%, n=1: Table 16).

Examining overall trends in reported purchase prices for crystal methamphetamine, modal prices reported in 2009 appeared relatively stable when compared to those reported in 2008. However, when comparing the range of purchase prices reported in the 2008 and 2009 IDRS studies, there were mixed trends for crystal methamphetamine purchases. The price range for 0.5g purchases varied less in 2009 and trended lower than in 2008 (\$150-250 in 2008 and \$150-200 in 2009), however, the price range increased and trended higher for gram purchases (from \$190-450 in 2008 to \$250-500 in 2009: Table 17).

Figure 23: Median prices of crystal methamphetamine/ice estimated from IDU purchases, 2001-2009



Source: IDRS IDU interviews

Note: 'Eightballs' were not included as the number of participants reporting purchasing this amount was insufficient (n<3 each year)

5.2.4 Pharmaceutical Stimulants

Twenty-five participants could confidently comment on the last purchase price for 5mg dexamphetamine tablets, reporting a median price of \$5 (modal price \$5, range \$4-10). Thirty-one participants commented on last purchase price for methylphenidate preparations, reporting a median price of \$10 for a 10mg tablet (modal price \$10, range \$5-10: Table 17). This represents an increase in the median purchase price, which remained stable between 2004 and 2008 at \$5. Interestingly, the number of participants who were able to comment on the purchase price of methylphenidate preparations ranged from 10 to 16 in the 2004 to 2008 studies, whereas in 2009, this increased to 31 participants (95%CI of difference 3-26%). Similarly, a significant increase in the rate of recent use of methylphenidate products was observed between the 2008 and 2009 samples, which increased from 12% to 29% respectively (95%CI of difference 6-28%). These findings are suggestive of a possible increase in use of these preparations.

Almost three-quarters of consumers (70%, n=28) able to report on price changes for pharmaceutical stimulants perceived no changes in the preceding six months. However, 15% of participants perceived increases in the price of pharmaceutical stimulants (34%, n=12), and 3% (n=1 respectively) reported either decreasing or fluctuating prices over this period. One KE was able to comment on price trends for pharmaceutical stimulants, reporting prices to have been variable over the preceding 12 months, partly related to limited availability of these drugs.

5.2.5 General Trends

Tasmania Police district Drug Investigation Services gather regular information regarding current prices of illicit drugs. Since July 1999, this has been provided to the authors through the Tasmanian Police State Intelligence Services and, prior to this, such information has been attained through the Australian Bureau of Criminal Intelligence (ABCI, now the ACC). In 2007/08, the price of a 'point' (0.1g) was reported to range between \$30-50; the cost of a 'street

gram' (0.7g) was reported to be between \$100-150, a one gram purchase was reported to be between \$200-300, and one ounce purchases cost between \$5,000 and \$8,000 (Table 18).

Although the 2008/09 data were not available at the time of publication, when reviewing price trends over a longer time period, there was evidence to support IDU suggestions that the price of methamphetamine has remained stable, with the exception of ounce purchases, which had varied between \$1,200 and \$10,000 over the past decade. It should be noted, however, that the prices reported in Table 18 for the 2003/04 financial year were substantially greater than those reported for the 2001/02 financial year. It is likely that this change is due to a shift in focus in that the earlier reported prices were primarily reflective of the prices of methamphetamine powder, which was the form that Tasmania Police were primarily identifying at this time.

Table 17: Most common amounts and prices of methamphetamine purchased by IDU, 2004-2009

Descriptor*	2004 Survey Modal Price (range in parentheses)	n	2005 Survey Modal Price (range in parentheses)	n	2006 Survey Modal Price (range in parentheses)	n	2007 Survey Modal Price (range in parentheses)	n	2008 Survey Modal Price (range in parentheses)	n	2009 Survey Modal Price (range in parentheses)	n
Crystal methamphetamine												
<i>'point' or packet (0.1 g)</i>	\$50 (\$30-80)	34	\$50 (\$50-80)	24	\$50 (\$40-80)	13	\$50(\$20-80)	17	\$50 (\$40-50)	14	\$50 (\$35-100)	20
<i>half-gram (0.5 g)</i>	\$200 (\$180-250)	6	\$150 (\$120-275)	13	\$150 (\$120-300)	25	\$150(\$120-225)	12	\$150 (\$150-250)	10	\$150 (\$150-200)	7
<i>gram (1.0 g)</i>	\$400† (\$280-500)	7	\$340† (\$250-400)	6	\$300 (\$300-480)	7	\$340†(\$300-380)	2	\$300 (\$190-450)	5	\$300 (\$250-500)	4
Methamphetamine base/paste												
<i>'point' or packet (0.1 g)</i>	\$50 (\$35-80)	45	\$50 (\$30-80)	56	\$50 (\$20-70)	23	\$50(\$30-50)	30	\$50 (\$20-100)	16	\$50 (\$40-80)	42
<i>half-gram (0.5 g)</i>	\$200 (\$100-250)	21	\$150 (\$150-400)	38	\$150 (\$140-200)	25	\$150(\$120-200)	23	\$150 (\$150)	4	\$150 (\$100-180)	26
<i>gram (1.0 g)</i>	\$300 (\$200-350)	7	\$300 (\$150-400)	18	\$300 (\$250-300)	11	\$300(\$250-300)	3	\$300 (\$300)	3	\$300 (\$250-350)	5
Methamphetamine powder												
<i>'point' or packet (0.1 g)</i>	\$50 (\$40-50)	34	\$50 (\$30-50)	54	\$50 (\$30-50)	20	\$50 (\$40-50)	34	\$50 (\$50)	34	\$50 (\$40-50)	38
<i>half-gram (0.5 g)</i>	\$160† (\$30-250)	16	\$150 (\$100-200)	36	\$150 (\$80-200)	26	\$150(\$150-200)	29	\$150 (\$75-200)	28	\$150 (\$100-300)	37
<i>gram (0.8 g)</i>	\$300 (\$50-350)	10	\$300† (\$250-350)	15	\$300 (\$250-300)	8	\$300(\$270-300)	3	\$300 (\$250-300)	9	\$300 (\$250-320)	7
Pharmaceutical stimulants												
<i>dexamphetamine tablet (5 mg)</i>	\$5 (\$0-15)	52	\$4† (\$0.6-9)	28	\$5 (\$2-10)	17	\$5 (\$0.5-45)	20	\$5 (\$1.50-10)	21	\$5 (\$4-10)	25
<i>methylphenidate tablet (10 mg)</i>	\$5 (\$0-10)	12	\$5 (\$2-15)	16	\$5 (\$2-30)	12	\$5 (\$2.5-13)	10	\$5 (\$5-15)	13	\$10 (\$5-10)	31

Source: IDRS IDU interviews

* Common quantities and weight range for each purchase unit in parentheses,

† Median price was substituted where no single mode was reported.

Table 18: Methamphetamine prices in Tasmania reported by the Tasmania Police Drug Investigation Services and the ACC, 1997/98-2007/08

	Point (~0.1g)	Street gram (0.6-0.8g)	Full gram (1.0g)	Ounce (28 gms)
1997/98	<i>price not reported</i>	\$50	\$70-120	\$1,200-1,600
1998/99	<i>price not reported</i>	\$50	\$70-80	\$1,200-1,400
1999/00	\$40-50	\$40-50	\$70-80	\$1,200-1,400
2000/01	\$40-50	\$40-50	\$70-80	\$1,200-1,400
2001/02	\$40-70	\$40-50	\$70-80	\$1,200-1,400
2002/03	\$50-60	\$100-300	\$200-400	\$3,500-6,000
2003/04	\$50-70	\$100-300	\$200-600	\$3,000-10,000
2004/05	\$50	<i>price not reported</i>	<i>price not reported</i>	\$5,000
2005/06	<i>price not reported</i>	<i>price not reported</i>	<i>price not reported</i>	\$5,000
2006/07	\$50	<i>price not reported</i>	\$270-380	\$4,000-5,000
2007/08	\$30-50	\$100-150	\$200-300	\$5,000-8,000

Source: Australian Crime Commission; Tasmania Police State Intelligence Services

Note: Data for 2008/09 financial year not available at time of publication

5.3 Availability

Across all ‘forms’ of methamphetamine, most IDU reporting on availability considered that the drug was ‘easy’ (52%) or ‘very easy’ (18%) to obtain, and that availability had remained stable (63%) in the preceding six months. Trends for each form of the drug are discussed separately below.

5.3.1 Methamphetamine Powder

Most IDU sampled who could comment on the availability of powder form methamphetamine thought that it was ‘easy’ or ‘very easy’ to obtain (86%, n=51: ‘easy’ 61%; ‘very easy’ 25%) (Figure 24, Table 19). Three KE commented that according to clients they were familiar with, powder was readily available. The clear majority also perceived the availability of powder methamphetamine to have remained stable in the preceding six months (76%, n=44), with small numbers considering that it had either decreased (16%, n=9) or increased (7%, n=4) in availability in this time.

5.3.2 Base/Paste Methamphetamine

In regards to ‘base/paste’ methamphetamine, 673 (n=36) of participants who commented reported it was either ‘easy’ (55%, n=27) or ‘very easy’ (18%, n=9) for them to obtain in the preceding six months. One-quarter of participants (25%, n=12) regarded it as ‘difficult’ to access base/paste in recent months. Again, most perceived this level of availability to have remained stable in the six months prior to interview (63%, n=31), and one quarter of participants reported that availability had recently decreased (25%, n=12).

5.3.3 Crystalline Methamphetamine

Fewer participants were able to comment on availability trends for crystalline methamphetamine (24%, n=24) than for the other forms. Of this group, three-fifths (63%, n=15) reported it was either ‘difficult’ (46%, n=11) or ‘very difficult’ to access (17%, n=4), whereas 37% reported it to be either ‘easy’ (33%, n=8) or ‘very easy’ (4%, n=1) for them to obtain in the preceding six months. Two-fifths of the participants able to comment (46%, n=11) perceived availability to have remained stable in the six months prior to interview, and one-third reported that availability

had recently decreased (33%, n=8). Two law enforcement KE commented that often in the last 12 months, samples of crystal methamphetamine samples were found to be a lower-purity wet, powdery gel-like form that was more likely to be powder methamphetamine.

When observing trends in availability of this form of methamphetamine over the preceding two years, it is important to consider this in the context of a decreasing rate of participants reporting recent use of this drug (from 56% in 2006 to 26% in 2009). With this in mind, it is not surprising to note the reducing rate of availability of this drug locally. Prior to 2006, the local levels of use and availability of crystal methamphetamine changed considerably: in 2002, crystal was very uncommonly accessed by consumers, and the majority of those reporting on availability considered it as 'difficult' or 'very difficult' for them to access (Figure 24). However, in 2003, there were clear indications that the availability of this form of the drug had increased substantially, with a marked increase in the proportion of those sampled reporting recent use (rising from 20% of the IDU cohort in 2002 to 68% in 2003), and with the majority of those responding suggesting that it was either 'easy' or 'very easy' to access (86%). In 2004 and 2005, the proportion of consumers reporting recent crystal methamphetamine use remained stable (52% in 2004, 50% in 2005), however, the proportion considering that the drug was 'easy' or 'very easy' to access declined slightly (62% in 2004; 43% in 2005). In 2006, slight increases in the availability of crystal methamphetamine were apparent, with slightly larger proportions reporting recent use (50% in 2005 and 56% in 2006), and an increase in the proportion perceiving the drug as 'easy' or 'very easy' (73%) to access in the preceding six months. Since 2006, the rate of recent use has been notably lower (between 26-38%), as has the proportion of the samples reporting availability to be either 'easy' or 'very easy' over the 2007-2009 period (ranging between 32% and 38%). These findings suggest that the crystal methamphetamine market that IDRS participants are familiar with has fluctuated markedly since 2002.

Three KE in 2009 commented that very few of their clients had reported use of crystal methamphetamine, suggesting that this is '*probably due to [poor] availability and some say it's too intense*'. Three other KE based in outer-suburban services all noted hearing small numbers of comments from clients about use of crystal methamphetamine; however, this use tended to be considered a '*city drug*'. KE also commented that amongst primary users of methamphetamine, use of crystal form was relatively uncommon. Interestingly, in 2007, one consumer reported that methamphetamine dealers had stopped bringing crystal into Tasmania, as they had become aware of the increased potential harms associated with this drug, and did not want to expose their 'customers' (or themselves) to these.

5.3.4 Pharmaceutical Stimulants

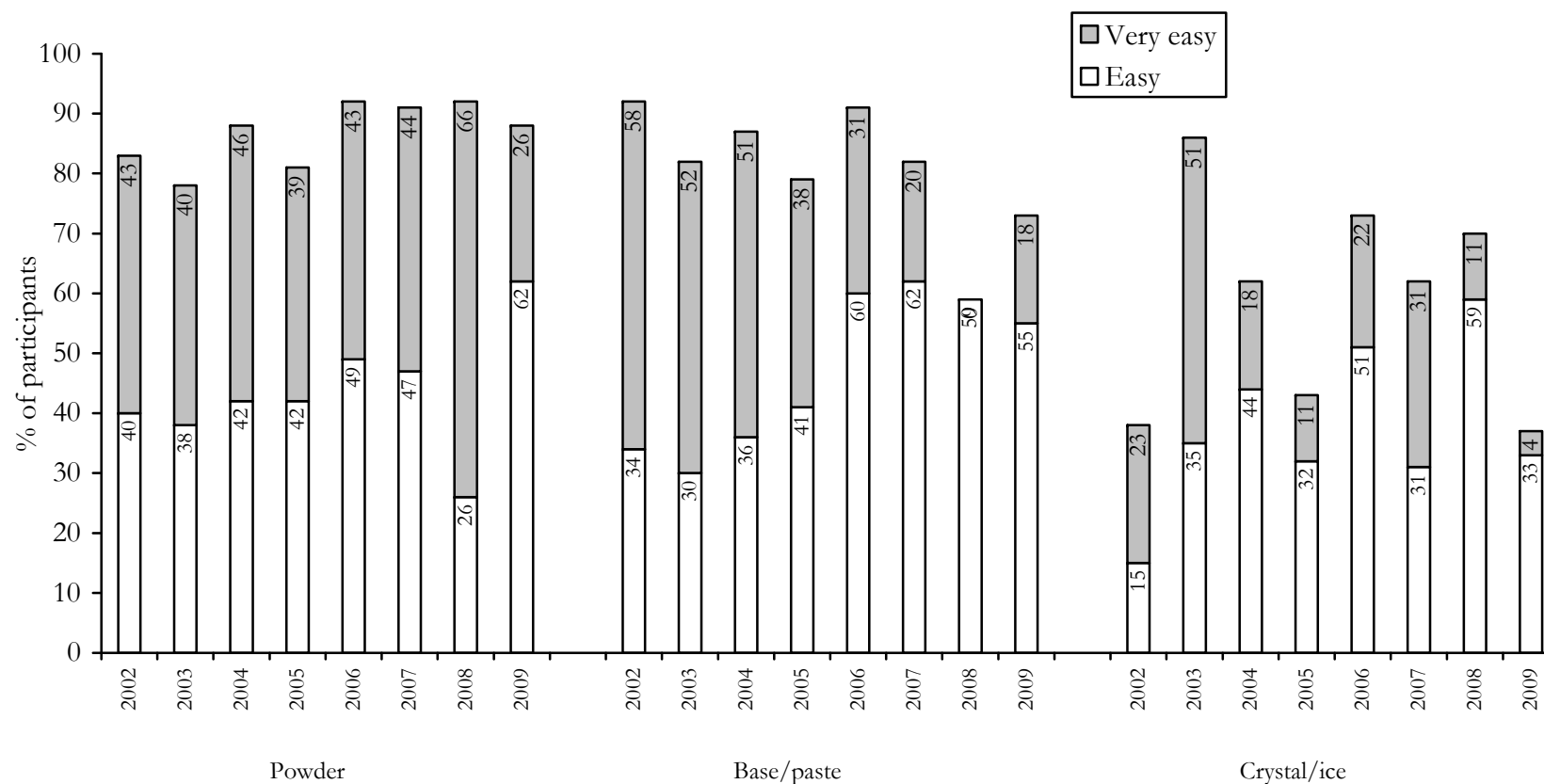
Participants were divided with regard to current availability of pharmaceutical stimulants (dexamphetamine, methylphenidate), with 50% considering these as 'difficult' (40%, n=16) or 'very difficult' (10%, n=4) to access, and 40% considering these preparations as either 'easy' (30%, n=12) or 'very easy' (10%, n=4) to access in the preceding six months. Participants were similarly divided over changes in availability over the preceding six months: 43% (n=17) noted no change in availability over the preceding six months; 35% (n=14) noted it had become increasingly difficult to access these drugs; and a small proportion noted increasing availability (13%, n=5).

5.3.5 General Trends

As can be seen in Figure 24 below, IDU consumer reports of availability of powder methamphetamine have, overall, remained relatively stable between 2002 and 2009. In 2008, the

proportion of participants reporting availability of powder to be 'very easy' increased from around two-fifths of each cohort in previous years to two-thirds. This change was not sustained in 2009, with 26% of those commenting reporting availability to be 'very easy'. Availability of base/paste methamphetamine also appears to have fluctuated across the past six surveys. Overall, base/paste had been reported to be easily accessed by consumers between 2002 and 2007; however, access decreased in 2008. Access to this form has increased in 2009, but not to the extent reported prior to 2008. Availability reports for crystalline methamphetamine have been variable between 2002 and 2009, with a notable decrease in availability in the current study.

Figure 24: IDU reports of ease of availability of different methamphetamine forms, amongst those who commented: 2002-2009



Source: IDRS IDU interviews

Table 19: Participants' reports of methamphetamine availability in the past six months, 2008-2009

	Powder		Base		Ice	
	2008 (N=100)	2009 (N=100)	2008 (N=100)	2009 (N=100)	2008 (N=100)	2009 (N=100)
Current availability						
Able to respond (%)	61	58	27	49	27	24
<i>Of those who responded:</i>						
Very easy (%)	66	26	0	18	11	4
Easy (%)	26	62	59	55	59	33
Difficult (%)	8	12	33	25	26	46
Very difficult (%)	0	0	7	2	4	17
Availability change over the last six months						
Able to respond (%)	61	58	27	49	27	25
<i>Of those who responded:</i>						
More difficult (%)	12	16	26	25	22	33
Stable (%)	85	76	74	63	70	46
Easier (%)	3	7	0	8	7	13
Fluctuates (%)	0	2	0	4	0	8

Source: IDRS IDU interviews

5.3.6 Sources of methamphetamine purchases

Participants reported that they last purchased powder in the preceding six months through known dealers (60%) and friends (28%), with a minority purchasing from acquaintances (11%: Table 20). The venues most commonly reported to be used for the last purchase of methamphetamine powder were an agreed public location (46%), dealer's home (26%), home delivery (14%) or at a friend's home (11%).

Similar pathways to access were reported for 'base/paste' methamphetamine, with 58% of those that had last purchased the drug reporting typically purchasing from a known dealer, with purchases from friends somewhat less common (28%). Eleven percent reported purchasing base/paste methamphetamine through acquaintances. The last purchase venue most commonly reported was an agreed public location (53%), with small minorities reporting a dealer's home (17%), home delivery (13%) or from a friend's home (11%: Table 20).

Crystal methamphetamine was again most commonly purchased through known dealers (56%) or friends (28%: Table 20). The most commonly cited venue used for crystal methamphetamine purchases was at an agreed public location (52%), followed by a friend's home (20%: Table 20).

Table 20: Source of last purchase of methamphetamine in the preceding six months, 2009

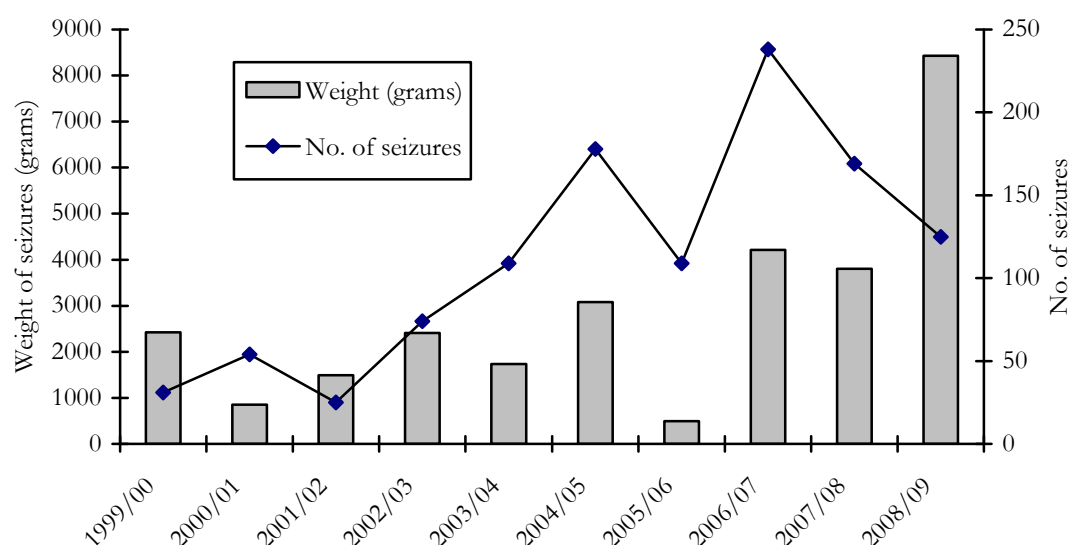
	Powder n=57 %	Base/Paste n=53 %	Crystal n=25 %
Source person			
Friends	28	28	28
Known dealers	60	58	56
Acquaintances	11	11	4
Street dealer	0	0	4
Source venue			
Friend's home	11	11	20
Dealer's home	26	17	8
Agreed public location	46	53	52
Home delivery	14	13	12
Street Market	0	0	4

Source: IDRS IDU interviews

Tasmania Police seizures (Figure 25) of drugs suspected to be methamphetamine have varied somewhat in recent years: following a reasonably stable level of seizures prior to the 2001/02 financial year, there was a steady increase in the number and weight of seizures between the 2002/03 and 2006/06 periods (notwithstanding 2005/06, where only part-year seizure data was reported). In 2007/08, there was a slight decrease with 169 seizures totalling 3,803 grams. In 2008/09¹³, the number of seizures was slightly lower (n=125), however the total weight of these seizures was notably higher than previously reported (8,430g).

¹³ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

Figure 25: Seizures of methamphetamine by Tasmania Police, 1999/00-2008/09



Source: Australian Crime Commission.

Note: 2008/09 data was provided by Tasmania Police State Intelligence Service, and are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules. This data includes only seizures weighed in grams

Note: Only part-year data were reported in 2005/06

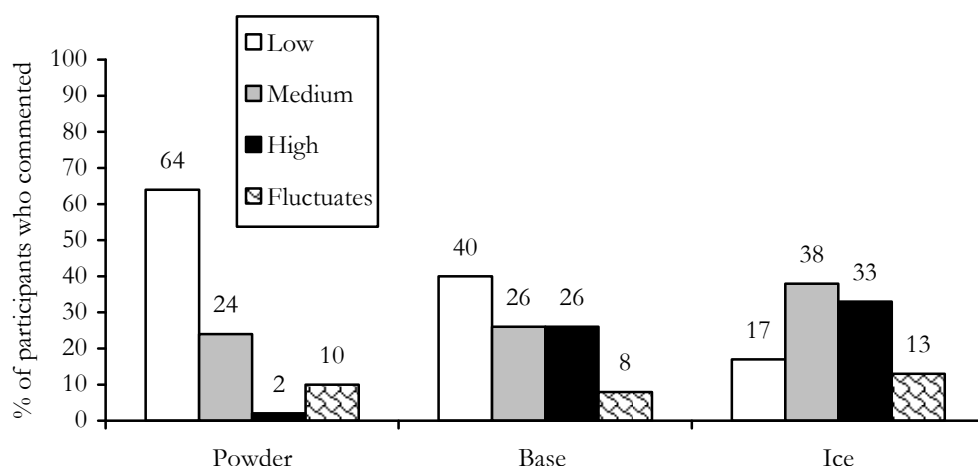
5.4 Purity

IDU participants that had recently used the various methamphetamine ‘forms’ were asked to rate their subjective purity. When asked to describe the purity of powder methamphetamine, the majority of consumers that were able to comment considered this as ‘low’ in subjective purity in the preceding six months (64%, n=37; Figure 26). One-quarter of participants reported the subjective purity of this form to be ‘medium’ (24%, n=14), and small minorities reported powder form to be ‘high’ in subjective purity (2%, n=1) or fluctuating (10%, n=6) during this time. Half of the participants who commented reported that subjective purity of powder methamphetamine had decreased over the preceding six months (51%, n=28), whilst one-quarter (26%, n=14) reported fluctuating purity over this period. Small minorities of participants reported subjective purity had either remained unchanged (16%, n=9) or increased (7%, n=4). In 2008 and 2009, several IDU participants reported a dramatic decrease in the purity of speed, and that this had occurred because *‘the main cook has recently gone to jail’*. One KE noted that in response to this decreased purity, users are often injecting larger quantities of the drug they had used previously to achieve the same effect.

In contrast, there was some mix of opinions when consumers were asked to nominate the subjective purity level of ‘base/paste’ methamphetamine. Two-fifths of participants who commented reported purity to be ‘low’ (40%, n=21), and one-quarter reported it to be either ‘medium’ or ‘high’ in subjective purity (26%, n=14 respectively). Reports on the stability of subjective purity levels over the preceding six months were also mixed: 33% (n=16) of participants reported this to have fluctuated; 31% (n=15) reported it had remained unchanged; and 29% (n=14) reported that purity had decreased over this period. No KE were able to comment on purity of ‘base/paste’ methamphetamine.

Participant reports on purity trends for crystalline methamphetamine were also mixed, with approximately one-third of participants reporting subjective purity to be either ‘medium’ (38%, n=9) or ‘high’ (33%, n=8). Small minorities reported subjective purity to be fluctuating (13%, n=3) or ‘low’ (17%, n=4). Two-fifths of the participants who were able to comment reported that purity had remained stable (40%, n=8), and 20% (n=4 respectively) reported purity to have decreased, increased or fluctuated. Twenty percent of this group (n=5) felt unable to comment on changes over time.

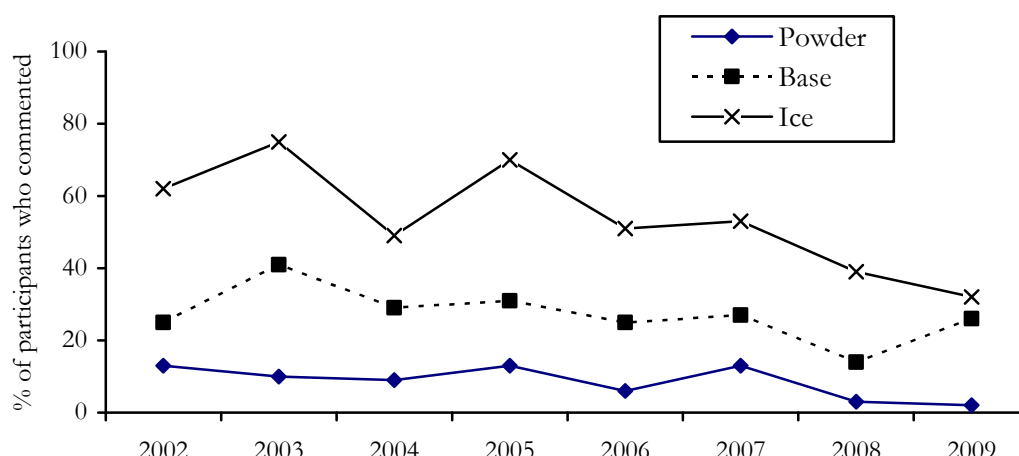
Figure 26: Participant perceptions of methamphetamine purity, among those who commented, 2009



Source: IDRS IDU interviews

Figure 27 displays the proportion of those reporting on purity levels of the different ‘forms’ of methamphetamine in the past eight years of the Tasmanian IDRS studies. This figure suggests that there has been little change in overall reports of subjective purity of powder form methamphetamine in this time. Subjective reports of ‘high’ purity of powder have remained stable over the study period, ranging between 2% and 13%. The reported purity of base/paste methamphetamine has been more variable. In 2002, one-quarter of IDU participants reported perceived high levels of purity; this increased to 41% in 2003, and trended downwards since then to 14% in 2008. This trend has been reversed in 2009, with 26% of participants reporting purity of this form to be high. Consumer reports on subjective purity of crystal methamphetamine have varied in recent surveys, with the vast majority considering this form as ‘high’ in purity in 2003 (75%), the year when local availability of the drug was at its highest, and the proportion of consumers considering this form of the drug as high in subjective purity dropped to 49% in 2004, a year when availability had markedly reduced as well (see Section 5.3). In 2005, indicators pointed to decreased availability again; however, the proportion of participants reporting purity of crystal methamphetamine as ‘high’ had returned to similar levels reported in 2003. Since 2006, both availability (Figure 24) and the proportion of the sample considering crystal methamphetamine as high in purity have declined (Figure 27).

Figure 27: Proportion of participants reporting speed powder, base and ice purity as 'high', among those who commented 2002-2009



Source: IDRS IDU interviews

Note: Data on all three forms commenced in 2002

Data for purity of methamphetamine received at police analytical laboratories have been provided for the 1997/98 to 2007/08 financial years (Tables 21 and 22; data for 2008/09 were not available at the time of publication). All amphetamine-type stimulants seized in Tasmania and tested for purity during 2003/04 and 2006/07 were methamphetamine rather than amphetamine. Drugs seized by Tasmania Police are not routinely tested for composition and purity, hence, purity data for drug seizures in the state are minimal. This very restricted sample size renders it difficult to make clear inferences about trends in purity of methamphetamine. However, examining purity data over the five-year period between 2002/03 and 2007/08, average purity levels have remained relatively low, around 12%. Notably, during 2004/05, purity was somewhat greater, at 32%, and this coincided with increased use of methamphetamine in the IDRS IDU cohort, and was in line with IDU reports of 'medium' purity levels overall for the two most commonly used forms of the drug in the 2005 IDRS study. This is tempered, however, by the analysis of a very small number of seizures in 2004/05 ($n=10$), and the fact that they were all of small seizures of the drug (two grams or less), which have, in previous years, been higher in purity than seizures of larger amounts (purity range of 2-81% for seizures of two grams or less, and 4-22% for larger seizures analysed in 2003/04). In 2007/08, purity data suggested a small decrease in overall purity (8.5%).

Table 21 also indicates substantial variability in the purity range of analysed seizures, with some particularly high purity seizures reported over the 2001/02-2003/04 period (up to 80.5%). These are unusual by national standards (ACC, 2005), and may reflect the selection of particularly unusual seizures of the drug for analysis by police¹⁴.

A law enforcement KE in the 2008 study noted Tasmania Police targeted amphetamines and amphetamine-related offences in early 2007, resulting in a peak in seizures and arrests for serious offences. Overall, however, the number of seizures over recent years has remained relatively stable. In previous years, Tasmania Police have reported that the majority of methamphetamine in the Tasmanian illicit drug market is imported into the state, most commonly by members of particular criminal groups, via post, or domestic sea or air terminals. In keeping with these reports, a law enforcement KE interviewed for the 2007 study suggested that most

¹⁴Anecdotal reports from Tasmania Police in previous IDRS surveys have suggested that these particularly high-purity samples may have been seizures of small amounts of crystal methamphetamine.

methamphetamine was imported into the state. However, in both 2005 and 2006, law enforcement professional KE reported that there had been indications that local production of methamphetamine may have been increasing. These earlier reports were supported by data regarding interceptions of illegal methamphetamine production laboratories (also called 'clan' (clandestine) or 'box' labs). In 1998/99 and 1999/00, no such laboratories were identified in Tasmania, one was identified in the 2000/01 financial year, three in 2002/03, two in 2002/03, one in 2003/04, three in 2004/05, five in 2005/06, nine in 2006/07 and 2 in 2007/08. Data for the 2008/09 financial year were not available at the time of publication. From a national perspective, detection of clandestine labs increased between 1998/99 and 2005/06: from 131 to 390. Over the following two financial years, this has stabilised, with 356 clandestine labs having been detected in each period (ACC, 2009b). Law enforcement professionals participating in the 2006 study reported that the methamphetamine produced in these 'laboratories' is based on pharmaceutical pseudoephedrine (a situation unchanged from previous years), and pharmacy-grade reagents (iodine in particular) were often used in the production of the drug. This pseudoephedrine was typically accessed from individuals purchasing a small number of boxes of the drug (a common component of cold-relief medication) from a large number of pharmacies.

In both the 2003 and 2004 studies, law-enforcement KE reported that there was no evidence for local production of crystal methamphetamine (with local producers generally producing base/paste or powder), but that this form of the drug was commonly imported from other Australian jurisdictions. Certainly, given that the majority of pharmaceutical products containing pseudoephedrine were combination drugs, the refinement process required to produce the highly pure crystalline form of methamphetamine would be exceptionally complex and require a detailed understanding of organic chemistry, a skill level which is not required for the production of powder or base/paste methamphetamine.

These multiple pathways of access and production sources may underlie the fluctuating nature of the forms and potency of methamphetamine in the local illicit drug market. In previous IDRS studies, consumers have reported that the presentation (colour and consistency as well as potency) of the form of methamphetamine available from their regular provider would fluctuate regularly, with some providers having two or more different presentations of the drug available for sale at one time.

Table 21: Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 1997/98-2007/08

	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08
≤2g											
<i>n</i>	4	31	9	10	20	30	9	10	6	15	7
<i>avg % purity</i>	5 %	5 %	7.4 %	10.4%	26.6%	12.7%	25.6%	32.3%	15%	24.6%	7.6%
>2g											
<i>n</i>	2	8	11	14	28	13	14	-	3	23	32
<i>avg % purity</i>	7 %	21 %	6.6 %	3.6 %	19.2%	11.2%	9.8%	-	6.9%	6.5%	8.5%
Total											
<i>n</i>	6	39	20	24	48	43	23	10	9	38	39
<i>avg % purity</i>	6 %	8 %	7 %	6.4 %	22.2%	12.2%	16.9%	32.3%	13.1%	12.4%	8.5%
<i>range in % purity</i>	(3-8%)	(2-59%)	(2-26%)	(0.5-50%)	(0.1-70.6%)	(1.9-78.5%)	(2.4-80.5%)	(18.5-35.5%)	(1.7-58.7%)	(2.4-27.7%)	(1.9-39.5%)

Source: Australian Bureau of Criminal Intelligence; Australian Crime Commission; Tasmania Police State Intelligence Services

Note: No seizures made by the Australian Federal Police in the state were analysed between 1997/98 and 2007/08. All analysed seizures of amphetamines in this period revealed methamphetamine rather than amphetamine

Table 22: Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, January 2002-June 2008

	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Jan-Mar 2003	Apr-Jun 2003	Jul-Sep 2003	Oct-Dec 2003	Jan-Mar 2004	Apr-Jun 2004	Jul-Sep 2004	Oct-Dec 2004	Jan-Mar 2005	Apr-Jun 2005
≤2g														
<i>n</i>	12	1	3	4	4	19	2	2	4	1	10	-	-	-
<i>median % purity</i>	26.0	6.7	6.4	5.9	13.1	13.1	40.0	28.4	50.6	16.9	32.3	-	-	-
>2g														
<i>n</i>	13	2	1	4	7	1	8	1	5	-	-	-	-	-
<i>median % purity</i>	20.0	18.5	6.3	10.4	12.8	7.6	17.4	15.4	4.1	-	-	-	-	-
Total														
<i>n</i>	25	3	4	8	11	20	10	3	9	1	10	-	-	-
<i>avg % purity</i>	24.9	6.7	6.4	10.4	12.8	13.0	17.4	25.6	4.1	16.9	32.3	-	-	-

Source: Australian Bureau of Criminal Intelligence; Australian Crime Commission; Tasmania Police State Intelligence Services

- No seizures in this period

Note: no seizures made by the Australian Federal Police in Tasmania were submitted Oct/Dec 2004-April/June 2005 for purity testing. All analysed seizures of amphetamines in this period revealed methamphetamine rather than amphetamine. Figures represent the purity of seizures received at the laboratory within the relevant quarter, and the interim between the date of seizure by police and the date of receipt at the laboratory may vary between one day and several months

Table 22: Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, January 2002-June 2008 (continued)

	Jul-Sep 2005	Oct-Dec 2005	Jan-Mar 2006	Apr-Jun 2006	Jul-Sep 2006	Oct-Dec 2006	Jan-Mar 2007	Apr-Jun 2007	Jul-Sep 2007	Oct-Dec 2007	Jan-Mar 2008	Apr-Jun 2008
≤2g												
<i>n</i>	1	-	5	-	-	14	-	1	2	1	1	3
<i>median % purity</i>	25.6	-	13.1	-	-	24.6	-	7.3	12.0	9.7	7.6	6.6
>2g												
<i>n</i>	1	-	-	2	3	8	1	12	6	6	13	7
<i>median % purity</i>	38.7	-	-	5.5	9.9	2.4	8.4	7.0	9.6	8.0	9.1	7.1
Total												
<i>n</i>	2	-	5	2	3	21	1	13	8	7	14	10
<i>avg % purity</i>	32.2	-	13.1	5.5	9.9	24.6	8.4	7.3	10.1	8.5	9.1	6.9

Source: Australian Bureau of Criminal Intelligence; Australian Crime Commission; Tasmania Police State Intelligence Services.

- No seizures in this period.

Note: no seizures made by the Australian Federal Police in Tasmania were submitted Oct/Dec 2004-April/June 2005 for purity testing. All analysed seizures of amphetamines in this period revealed methamphetamine rather than amphetamine. Figures represent the purity of seizures received at the laboratory within the relevant quarter, and the interim between the date of seizure by police and the date of receipt at the laboratory may vary between one day and several months.

5.5 Trends in methamphetamine use

Use of any form of methamphetamine amongst local IDRS samples gradually increased from 83% in 2000 (median of 25 days used) to 95% in 2005 (median of 48 days used), as did the proportion of non-pharmacy NSP transactions, which increased from 30% in 2000/01 to 59% in 2004/05. This trend was reversed in the 2006 IDRS sample, with 83% of participants reporting recent use (median of 24 days used). This continued into 2008, (74% of the sample reporting recent use at a median frequency of 12 days - the lowest level of reported use by a local IDRS sample) and 2009 (80% of the sample reporting recent use at a median frequency of 15 days). Somewhat similarly, the rate of methamphetamine-related NSP transactions remained relatively stable in 2004/05 and 2005/06 (59% and 56% respectively); however, since 2006/07, the rate of these transactions decreased sharply, to 31%. As previously discussed, this marked reduction of NSP transactions may be related to policy changes within the NSP, and to the closure of the only 24-hour NSP outlet in Hobart in February 2006, which recorded on average, more than 1,200 transactions per month, predominantly related to methamphetamine. It is possible that these transactions are now occurring in pharmacy outlets, and, as such, are not captured in this dataset. Despite this caveat, the consistency of this trend with IDRS data is noteworthy.

When observing use of different forms of methamphetamine, two main trends emerge. First, use of crystal methamphetamine has varied greatly amongst local IDRS samples. In 2003, a markedly increased availability of crystal/ice provided a major shift in the local methamphetamine market, at least amongst the demographic sampled in the Tasmanian IDRS, with most participants who reported recent use of methamphetamine reporting this to be the predominant form they had used. In late 2003, Tasmania Police reported making two key arrests that disrupted the supply of the drug into the state. In the following 2004 IDRS survey, availability and recent use (52% in 2004 and 69% in 2003) of crystal had clearly dropped. The level of use of crystal remained relatively stable until 2007, when the rate decreased to 38%. This trend toward decreasing use of crystal has continued, with 26% reporting recent use in 2009.

A second trend identified relates to use of powder and base/paste forms of methamphetamine. Between 2002 and 2006, base/paste had been the predominant form used by all IDRS cohorts (with the exception of 2003, when crystal methamphetamine use and availability peaked). In 2007 and 2008 IDRS surveys, powder was the form most commonly used by participants. In 2009, both powder and base/paste forms were used at very similar rates by IDU. Traditionally, the higher purity forms of methamphetamine (e.g. base/paste) have been more popular locally. The predominance of use of powder methamphetamine is particularly surprising when taken in the context of low and decreasing levels of subjective purity of powder and similar price for all methamphetamine forms (\$50 for 0.1g and \$300 for 1g for all forms).

Several consumers commented on subjective purity of speed (powder form), reporting this to be low. One consumer noted that *'people are mixing speed with ice to improve the strength'*. One KE noted that consumers were increasing the quantity of speed used in order to experience the desired effects. When asked to describe the presentation of the last powder methamphetamine they used, four consumers noted the presence of crystals. The presence of crystals in powder may represent higher purity methamphetamine, or alternatively it may be explained by the use of an adulterant (methylsulfonylmethane, MSM) in the late stages of production. This introduction of MSM forms crystals, giving the powder a crystalline

appearance (Fetherston & Lenton, 2006). One consumer noted an increased demand for pharmaceutical stimulants, and considered that this may be related to low purity speed and perceived guaranteed quality from pharmaceuticals. Another consumer also noted an increased demand for these tablets, specifically from pharmaceutical opioid users. A KE, employed in an NSP, noted that many clients had reported a decrease in quality of speed, but that it did not impact on the numbers of people using this drug. A second KE commented, in relation to methamphetamine purity that *'there's a lot of crap going around and people are getting more cautious about what they're using'*.

In terms of recent shifts in the demographics of those using methamphetamine, in previous years, consumers noted 'younger' people, commonly described as ranging between 14-16 years of age, using methamphetamine at an increased rate (most notably in 2005: 22%). This trend was reported by just one participant in the current study. Similarly, in previous IDRS studies, consumers noted a broadening of the socio-economic groups using methamphetamine (described as *'middle class'* people, and *'rich and poor'*). No participants commented on such changes in the current study.

Reports amongst the regular consumers of ecstasy interviewed for the 2008 Tasmanian Ecstasy and related Drug Reporting System (EDRS: Matthews & Bruno, 2009) have demonstrated a notable decrease in the proportion reporting recent use of methamphetamine – gradually decreasing from 82% of the 100 consumers interviewed in 2003, to 52% in 2009. Taken together, decreasing rates of methamphetamine use amongst both the independent IDRS and EDRS samples, as well as declining rates of methamphetamine-related NSP transactions, suggest a constricting of the methamphetamine market in Hobart.

5.6 Summary of methamphetamine trends

Table 23: Summary of trends in methamphetamine use

	Methamphetamine 'powder'	'Base/paste' methamphetamine	Crystalline methamphetamine
Price (mode) <i>'point'</i> (~0.1g) <i>gram</i>	\$50, stable \$300, stable	\$50, stable \$300, stable	\$50, stable \$300, stable
Availability	- Easy/very easy to obtain - Availability stable	- Easy to obtain, but not as easy as other forms of methamphetamine - Availability stable to decreasing	- Difficult/very difficult to obtain, - Availability stable to decreasing
Purity	- IDU reported low purity - Purity notably decreased and fluctuating in preceding 6 months - Anecdotal consumer report of recent incarceration of 'cooks' impacting on decreased quality	- IDU reports mixed: low/medium purity - Reports on changes in purity in last 6 months are also mixed: fluctuating/stable/decreasing	- IDU reports mixed: medium/high purity - Reports on changes in purity in last 6 months are also mixed: overall stable
Use	- Powder was the predominant form used over past 2 years, now used similarly to base. 56% recently used this form and 39% (of those using methamphetamine) used this predominantly	- Use dramatically decreased over the past 4 surveys, from 79% in 2005 to 25% in 2008, however this has increased to 55% in 2009. 41% (of those using methamphetamine) used this predominantly	- Trend toward decreasing levels of use since 2006. 26% recently used this form and 10% (of those using methamphetamine) used this predominantly
Other trends: - Lower rate of recent use and frequency of use amongst the 2008 and 2009 cohorts; non-pharmacy NSP data show a marked drop in methamphetamine transactions over the past three financial years. This may partially be due to the closure of a large NSP, and clients using pharmacy NSPs instead - A dramatic, short-lived decrease in the use of base/paste methamphetamine was found in the 2008 study: use of this form has increased to levels reported prior to 2008 among the current cohort - Ongoing reports that local drug consumers are often polydrug users, using opioids, benzodiazepines, cannabis and alcohol - Reports that purity of the most commonly used form, powder, is low, and some consumers are changing to pharmaceutical stimulants as a result of this			

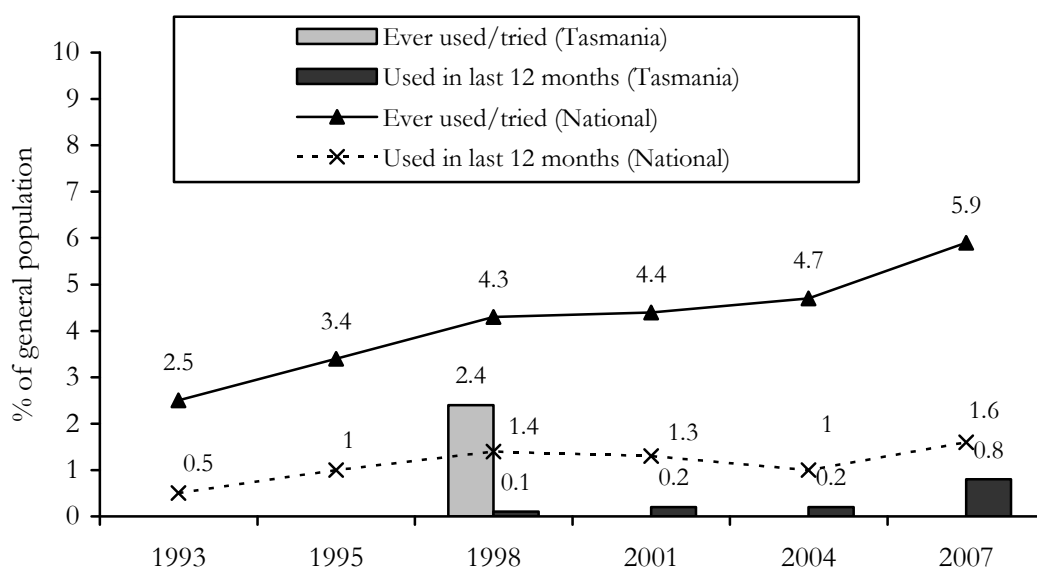
6.0 COCAINE

6.1 Use

6.1.1 Prevalence of use

According to the findings of the 1998 National Drug Strategy Household Survey (AIHW, 1999), 2.3% of surveyed Tasmanian residents (n=29) reported ever trying cocaine, while only 0.1% (n=3) had used it in the 12 months prior to interview. Findings of the 2001 and 2004 surveys (AIHW, 2002, 2005b) were very similar, with 0.2% of those sampled reporting using the drug in the preceding year. According to the findings of the 2007 NDSHS (Figure 28; AIHW, 2008) 0.8% (95%CI 0.6%-0.9%) of surveyed Tasmanian residents reported using cocaine in the preceding year, which is significantly greater than the proportion of the 2004 Tasmanian sample (0.2%, 95%CI 0.1%-0.3%), but significantly lower relative to the national sample in 2007 (1.6%, 95%CI 1.55%-1.64%). A significantly greater proportion of the 2007 national sample also reported lifetime (5.9%) and past year use (1.6%) of cocaine relative to the 2004 sample (4.7% and 1% respectively), suggesting national increases in the prevalence of use of cocaine between 2004 and 2007.

Figure 28: Prevalence of cocaine use in Australia and Tasmania among those aged 14 years and over, 1993-2007



Source: National Drug Strategy Household Survey 1993-2007

6.1.2 Cocaine use among IDU

There were only 16 transactions where clients of non-pharmacy NSP outlets in 2008/09 indicated that cocaine was the drug they most often injected. This figure has remained very small over the past 12 financial years (Table 24), relating to around 10-40 transactions each year. However, it is important to note that, despite there being some discrepancy between NSP outlets in the question asked (some asking 'what is the drug you most often inject?', while others prefer 'what is the drug you are about to inject?'), it is likely that the question 'what is the drug you most often inject?' will tend to underestimate the extent of use of cocaine, as none of the IDU sampled in the IDRS survey reported it as the drug they most often used in the preceding month, despite two recently using the drug.

Table 24: Percentage of Tasmanian non-pharmacy Needle and Syringe Program clients reporting cocaine as the ‘drug most often injected’, 1997/98-2008/09

Year	1997 /98	1998 /99	1999 /00	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09
Number of transactions reporting cocaine	12	28	19	13	20	36	29	16	15	40	17	16
% of total transactions reporting cocaine	0.2	0.3	0.2	0.1	0.1	0.1	0.1	>0.1	>0.1	0.1	>0.1	>0.1

Source: Population Health, Department of Health and Human Services

None of the Tasmanian participants in any of the 1995-1999 Australian Needle and Syringe Program Surveys (MacDonald & Zhou, 2002; National Centre in HIV Epidemiology and Clinical Research, 2007) have reported cocaine as the last drug they injected, although, in 2000, one participant reported last using a combination of heroin and cocaine, with the same report occurring again in 2001 and 2002. Between 2003 and 2005, no participants reported last injecting cocaine, and in 2006 (from a sample of 150) and 2007 (from a sample of 168), just one participant in each study reported last injecting this drug (Thein et al., 2005; Iverson, et al., 2008; National Centre in HIV Epidemiology and Clinical Research, 2009). No participants from the 2009 study (n=57) reported cocaine as the last drug injected.

6.1.3 Current patterns of cocaine use

Just 2% of participants (n=2) in the current IDRS study reported use of cocaine in the six months preceding interview, at a median frequency of use of three days, which equates to use approximately once per two months (range 2-3 days: Table 25). Both consumers reported recent injection of cocaine, and one reported also snorting in this period. Despite this very low level of recent use of cocaine, 51% of the sample indicated that they had tried cocaine at some stage in their lives. This use generally involved injecting (35%, n=35) or snorting (31%, n=31), whilst small minorities reported lifetime use of cocaine via smoking (10%, n=10) or swallowing (3%, n=3). No KE reported recent cocaine use among the consumers with whom they were familiar.

Amongst Tasmanian IDRS participants, low levels of recent use of cocaine have been reported since 2000, ranging between 2% and 12% of each sample. Similarly, the median frequency of use has also remained very low: between two and five days, which equates to use less than once per month. Despite these low levels of use, between 39% and 52% of each sample since 2000 has reported lifetime use of cocaine, with the exception of 2006, when 61% of the sample reported this (Table 25).

Due to the extremely small number of respondents who were able to provide information on cocaine, the data provided in this section should be interpreted with caution. Five participants reported that cocaine was their drug of choice (one in combination with heroin); however, no participants reported cocaine as the drug most injected in the month preceding the interview. These all cited lack of availability as the reason they had used cocaine more frequently.

Table 25: Patterns of cocaine use among Tasmanian IDRS IDU participants, 2000-2009

Year (n=100 per annum)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Proportion using cocaine in preceding 6 months (%)	6	8	12	9	4	8	12	5	4	2
Median days used (range)	4 (1-40)	5 (1-20)	2 (1-12)	4 (1-74)	2 (1-3)	5 (1-24)	3 (1-11)	2 (1-3)	5 (1-48)	3 (2-3)
Proportion of IDU sample ever using cocaine (%)	39	39	47	52	48	46	61	46	47	51

Source: IDRS IDU interviews

6.2 Price

No participants in the current study could provide information on the price of cocaine. Cocaine was reportedly provided by peers to be shared. In 2008, two participants commented on the last price they had paid in the preceding six months - reporting that 1g cost a median price of \$350 (no single mode, range \$300-400).

Similarly, no participants in the current study could comment on trends in cocaine prices over time. In 2008, one IDU participant commented that prices had remained stable over the preceding six months. None of the KE interviewed could comment on current prices or price changes of cocaine in the preceding six months.

Tasmania Police had been unable to report prices of cocaine between 1995/96 and 1999/00; however, in 2001 Southern Drug Investigation Services estimated the price of cocaine as \$250 per gram. Price information for cocaine was not provided to the ACC between 2002/03 and 2004/05. In 2005/06, the ACC reported that one gram of cocaine in Tasmania cost between \$300 and \$400. In 2006/07, no price data was reported by the ACC. In 2007/08, the ACC reported that 1g cocaine cost \$350, and 0.25 ounce purchases cost \$1,100. Data from 2008/09 was not available at the time of publication. These very limited reports of cocaine prices reflect the lack of a local market of the drug.

6.3 Availability

Reflecting the very low level of use of cocaine amongst the current sample, no participants were able to comment on the local availability of cocaine in the preceding six months. In 2008, the two IDU participants who commented on the local availability of cocaine in the preceding six months were divided: reporting it was either 'very difficult' or 'easy' for them to access the drug in the preceding six months. Both participants commented there had been no change in perceived availability over the preceding six months.

Tasmania Police reported no seizures of cocaine between 1995/06 and 2004/05, with the exception of a single 1g seizure in 2000/01. In 2005/06, the ACC reported one seizure of a drug believed to be cocaine (1g), and in 2006/07, two seizures were reported, amounting to 7g. In 2007/08, no seizures of cocaine were reported by Tasmania Police, and in 2008/09¹⁵ two seizures were made, amounting to 7.6g.

¹⁵ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

The combination of few IDU reporting recent cocaine use ($n=2$, at a median frequency of use of three days, range 2-3), along with no participants being able to comment on trends relating to price, purity or availability, and no KE reporting contact with clients using cocaine, together suggest that there is a very low availability of cocaine in Tasmania, at least among the demographic sampled in this survey.

6.4 Purity

No participants felt confident to comment on the purity of cocaine. In 2008, only two participants who had purchased and used cocaine locally were able to report on cocaine purity, both commenting that it was 'high'. These participants also reported that this had not changed over the preceding six months. The last analysed sample of cocaine seized within the state by Tasmania Police was from the first quarter of 2001. This was an amount of less than two grams, and was analysed during the first quarter of 2002 at 44% purity.

6.5 Trends in cocaine use

Examining the extent of use of cocaine among the Tasmanian IDRS IDU participants over the past nine years (Table 25), it would appear that the level of use of cocaine in this demographic has remained largely similar during this time. Generally, it was used by only a minority of participants in the preceding six months (2-12%), and, in the main, used very infrequently (median frequency of less than monthly use in the preceding six months).

Reports amongst the regular consumers of ecstasy interviewed for the 2009 Tasmanian Ecstasy and related Drug Reporting System (EDRS: Matthews & Bruno, 2010) showed a notable increase in the proportion reporting recent use of cocaine – increasing from 7% of the 100 consumers interviewed in 2003, 20% in 2005, and around one-third (31-35%) in each annual cohort since 2006. However, similar to the IDRS injecting drug consumer cohort, the use of cocaine amongst the EDRS participants was infrequent, with a median frequency of just two days in the preceding six months.

6.6 Summary of cocaine trends

In summary, it appears that the availability and use of cocaine in Hobart is very low, at least within the populations surveyed in the current study or accessing government services. These patterns seem to have remained reasonably stable over the past few years. However, it is noteworthy that between 47% and 61% of the cohorts between 2002 and 2009 have reported lifetime use of cocaine, an increase from patterns seen in the 2000 and 2001 surveys. There are also indications of increasing use among different populations of Tasmanian drug consumers (Matthews & Bruno, 2007), and an increasing prevalence level of use in the general population. As such, trends in cocaine markets in the state merit continued examination.

7.0 CANNABIS

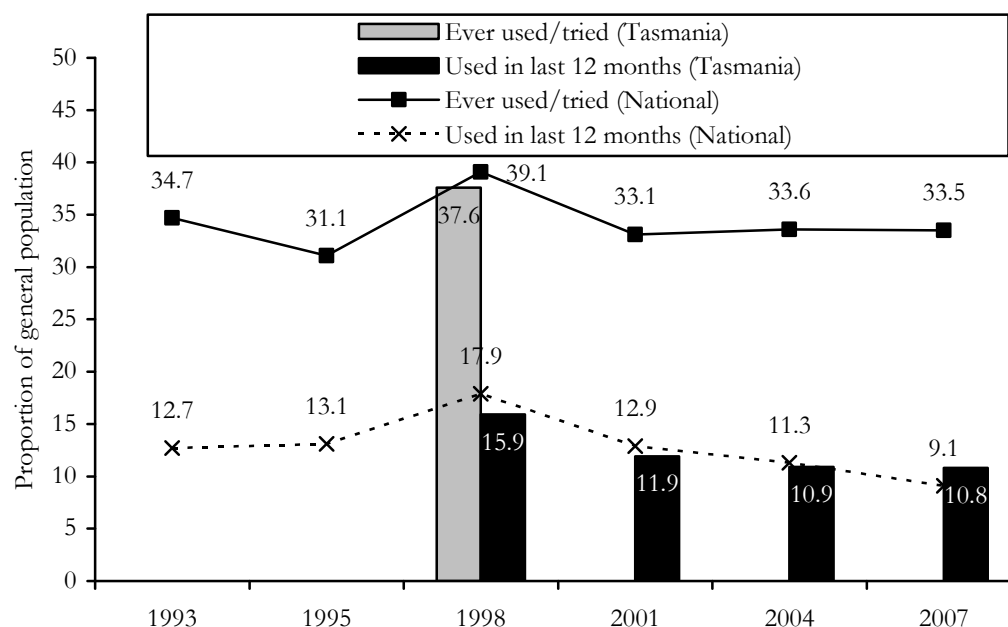
7.1 Use

7.1.1 Prevalence of cannabis use

The 1998 National Drug Strategy Household Survey (AIHW, 1999), which sampled 1,031 Tasmanian residents, indicated that 37.6% had ever used cannabis, while 15.9% had used the drug in the 12 months prior to interview (Figure 29). In the 2001 NDSHS (AIHW, 2002), a decline in the proportion of participants reporting past year use of cannabis was apparent, reported by 11.9% of the 1,349 participants sampled. In 2004, this remained relatively stable, at 10.9% of Tasmanians aged 14 years and over, based on a sample of 1,208 participants.

In the 2007 NDSHS (AIHW, 2008b), the estimated prevalence of cannabis use in the year prior to interview was 10.8% of Tasmanians aged 14 years and over (based on a sample of 1,143 participants), comparable to the national prevalence rate of 9.1% (based on a sample of 22,912 participants). For Tasmanian samples, this marks a statistically significant decline in the prevalence of recent use of the drug, in comparison to 15.9% of the sample in 1998 (1998: 15.9%; 95%CI 13.6-18.0%; 2007: 10.8%; 95%CI 9.0-12.7%).

Figure 29: Prevalence of cannabis use in Australia and Tasmania among those aged 14 years and over, 1993-2007



Source: National Drug Strategy Household Survey 1993-2007

7.1.2 Cannabis use in particular populations

Cannabis has made up the vast majority of positive urine-screen tests amongst Tasmanian prison inmates since the inception of such screens in 1993. The proportion of all positive urine screens indicating cannabis use has remained at around 70-80% between 1997/98 and 2003/04, despite the number of positive tests varying substantially (from 97 in 1997/98 to 215 in 2000/01, although dropping to 136 in 2001/02 and 109 in 2003/04) during this period. In the 2004/05 financial year, the proportion of positive tests for cannabis fell to around half of all urine drug screens; however, in 2005/06, the proportion increased, returning to levels seen previous to 2004/05, with 76% of all tests returning positive for cannabis. Since 2006/07, the proportion of positive tests for cannabis have remained stable, ranging between 59% and 66% (2008/09: 59%, n=131 of 221 positive tests).

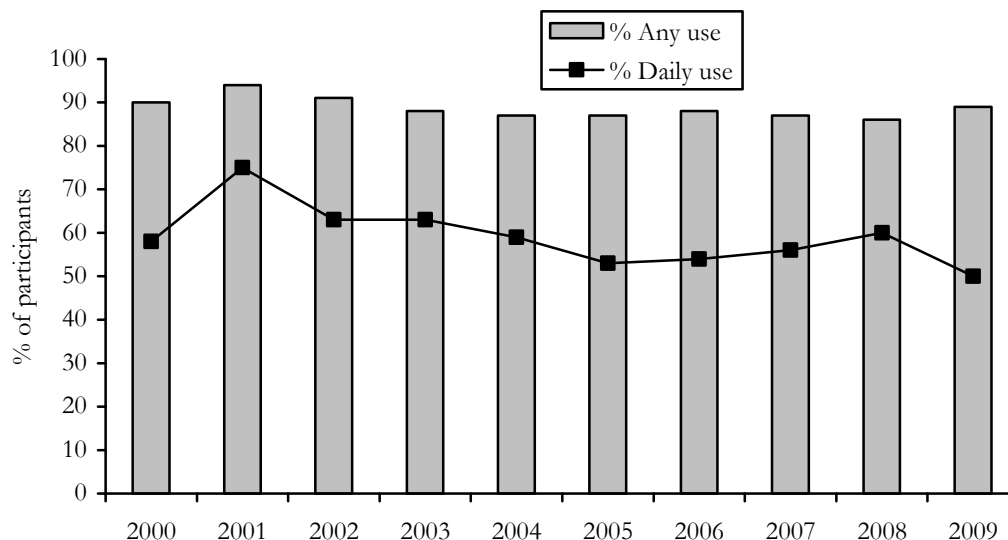
7.1.3 Cannabis use among IDU participants

Among the IDRS IDU respondents in 2009, cannabis was the most commonly used illicit drug, with 97% of participants using it at some time in their lives, and 89% using in the six months prior to interview. Among those that had recently used cannabis, the median frequency of use in the past six months was 180 days (range 1-180), which equates to daily use of the drug, on average.

Most KE reported, or suspected (some did not directly discuss cannabis use due to the nature of their professional roles) some level of cannabis use within the populations they had contact with. Ten KE reported on groups that were primary users of cannabis. These KE included four drug treatment workers, three youth workers, two general health workers and one law enforcement worker. KE were familiar with cannabis users from all suburbs of Hobart and surrounding areas. The cannabis users that KE were familiar with ranged in age from teenagers to people in their mid fifties, with the majority being in their late teens to mid thirties. The groups of cannabis users described by KE ranged from around 50% to 75% male, although in general they were slightly male predominant. In keeping with the general demographic profile of Hobart, the cannabis consumers discussed by KE were predominantly of an English-speaking background, with very small proportions of indigenous consumers. There were quite mixed patterns of employment among those described, ranging from almost all unemployed to most either working or engaged in formal education. Most KE referring to primary consumers of opioids or methamphetamine reported, or suspected, some level of cannabis use within the populations they had contact with.

While seven participants in the current study reported cannabis as their drug of choice, 89% of the entire sample reported some use of cannabis in the preceding six months. Examining recent cannabis use in the ten Tasmanian IDRS IDU cohorts (2000-2009: Figure 30), there has been little change in the proportions reporting use of the drug across these samples. Of note, in particular, is that while the median frequency of cannabis use in the six months prior to interview has remained at 180 days in each of the 2000-2009 consumer cohorts, the *proportion* of the samples reporting daily use slowly declined from 75% in 2001 to 53% in 2005, and has remained stable in the subsequent years (50-60%: Figure 30).

Figure 30: Proportion of Tasmanian IDRS IDU cohorts reporting use of cannabis in the six months prior to interview, 2000-2009



Source: IDRS IDU interviews

Participants who reported recent use of cannabis were asked to comment on the last occasion they consumed cannabis, providing information on the method and quantity of this use. Of the 86 consumers who commented, 81% (n=70) reported to have smoked a 'cone' on the last occasion. A cone is used with either a standard pipe or a water-pipe ('bong') into which cannabis is placed. The exact amount of cannabis per 'cone' will vary between individuals depending on preference for strength and whether other components, such as tobacco, are added. Among this group of participants, the median number of cones smoked on the last occasion was 6 (range 1-30 cones, SD=6.4). Fourteen percent of cannabis consumers (n=12) reported smoking a cannabis-cigarette (joint) on the last occasion; the median number of 'joints' was two (range 0.5-5 'joints', SD=1.5). Two participants reported smoking a combination of 'cones' and 'joints'.

7.1.4 Forms used

IDRS IDU participants were asked to comment on the forms of cannabis they had used in the last six months. Of this group, 93% (n=83) reported use of outdoor-cultivated/bush cannabis, 89% (n=79) indoor-cultivated/hydroponic cannabis, 5% (n=4) reported use of hashish and 1% (n=1) reported recent use of hashish oil.

The cannabis used in the past six months by those participating in the IDU survey was cannabis head (the flowering top sections of the female plant), with most cannabis-using IDU (n=89) reporting some use of both hydroponically/indoor-cultivated and outdoor crops (82% of those using cannabis, n=73). Small minorities reported exclusive use of outdoor-cultivated cannabis (11%, n=10) or indoor-cultivated cannabis (7%, n=6). Participants were also asked to comment on the main form they had used in preceding six months: 55% (n=47) reported indoor-cultivated cannabis and 45% (n=38) reported outdoor-cultivated cannabis. This is consistent with previous IDU cohorts, in which slightly greater proportions of participants reported predominant use of indoor rather than

outdoor-cultivated cannabis (81% in 2003; 69% in 2004; 68% in 2005; 64% in 2006; 58% in 2007; and 68% in 2008).

Two KE reported the predominant ‘form’ of cannabis consumed by the groups of clients that they were familiar with was hydroponic cannabis, with one commenting that clients in rural areas tended to smoke more outdoor-cultivated cannabis than metropolitan-based clients.

In 2001, Tasmania Police reported an increasing trend toward hydroponic, or indoor¹⁶, cultivation of cannabis, and supporting evidence for this trend was available in terms of an increasing proportion of Indian Hemp plant seizures being of indoor crops between 1999/00 and 2001/02 (from 16% in 1999/00 to 41% in 2001/02¹⁷). However, Tasmania Police officers interviewed in 2005 noted some indications that the preference among both consumers and producers may be shifting back toward outdoor-cultivated cannabis. In 2006, law enforcement officers reported that indoor-cultivated cannabis was the predominant form used (n=3), with one report that this may be due, in part, to outdoor-cultivated cannabis being out of season at the time of the interview. Law enforcement officers did not comment on this distinction in 2009.

7.2 Price

Participants were asked to comment on the last purchase price of cannabis and the amounts/weight of these. For their last purchase of bush/outdoor-cultivated cannabis, a \$25 ‘deal’ was reported to contain a modal amount of 1.0g (median 1.8g, range 1.0-3.0g, n=18) of cannabis, and a \$50 deal was reported to contain a modal amount of 7.0g (median 4.0g, range 3.0-14.0g, n=13) of the drug. The modal last purchase price for a quarter-ounce of outdoor cannabis was \$50 (median \$70, range \$50-90, n=22), and the modal last purchase price for an ounce was \$250 (median \$200, range \$100-300, n=20). The most common amounts of outdoor cannabis purchased by the IDU interviewed were quarter-ounce (n=22) and ounce (n=20). In the preceding nine years of IDRS interviews – with the exception of 2008- quarter-ounce amounts have consistently been the most commonly purchased quantities by the consumers interviewed (Tables 26 & 27).

KE reported similar prices of \$25 for 1.0-2.0g of indoor or outdoor cannabis (n=2) and \$250 for one ounce of hydroponic cannabis (n=1). One KE noted that ounce purchases were cheaper for outdoor-cultivated cannabis than indoor-cultivated. One KE noted that the price for cannabis had remained stable over the preceding twelve months. In previous years, KE noted an increase in availability of small purchase amounts: ‘fiver’ (\$5) and ‘tenner’ (\$10) purchases of cannabis. In the current study, two IDU participants reported purchases for \$10 and one for \$8.

In general, purchase costs for indoor/hydroponically-cultivated cannabis were slightly higher than the reported costs for bush/outdoor cannabis. ‘Deals’ costing \$25 contained a modal amount of 1.0g (median 1.0g, range 0.8-3.0g, n=38) of indoor-cultivated cannabis, with \$50 ‘deals’ containing a modal amount of 3.0g (median 3.0g, range 2.0-7.0g, n=9). The commonly purchased quarter-ounce amounts of hydroponically-cultivated cannabis were

¹⁶ For the purpose of reporting, Tasmania Police record all cannabis plants seized that had been grown indoors as hydroponically-cultivated, rather than just those plants that are grown without the use of soil.

¹⁷ Cannabis seizures after 2001/02 were not divided according to cultivation type due to inconsistencies in recording on exhibit sheets.

reported to cost a modal price of \$90 (median=\$90, range \$50-100, n=29), \$40 more than the comparable modal figure for outdoor cannabis and \$20 more than the median cost. The modal last purchase price for an ounce of hydroponically-cultivated cannabis was \$300 (median \$300, range \$200-350, n=22). Again, these estimates are greater than reported for outdoor-cultivated cannabis: the modal price estimate for indoor-cultivated cannabis being \$50 more and the median price \$100 more. The modal prices of indoor/hydroponically-cultivated cannabis reported by IDU in the past years of the local IDRS studies are summarised in Tables 28 and 29 below. Twenty-five dollar deals and quarter-ounce amounts were the most commonly purchased quantities (n=38 and 29 respectively in the preceding six months: Table 29).

The majority of IDU (68% overall, 60%, n=45 in relation to outdoor cannabis and 76%, n=57 in relation to hydroponic cannabis) reported that the price of cannabis had not changed in the last six months. A noteworthy minority reported decreasing prices for outdoor-cultivated cannabis (13%, n=10) in this time, and similar proportions reported increasing prices for indoor-cultivated cannabis (9%).

Despite the majority of IDU respondents reporting a stable price trend for outdoor cannabis, the modal price for one ounce of outdoor cannabis had ranged from \$150 to \$200 between 2003 and 2008, however, in 2009 this has increased to a modal price of \$250. Conversely, the modal price estimates for quarter-ounce purchases of outdoor-cannabis increased from \$50 in 2006 to \$70 in 2008, but in 2009 this trend was reversed, with the modal price decreasing to \$50 (Table 27, Figure 31). Reported purchase prices for indoor/hydroponic-cultivated cannabis also increased since 2007, with the median price for one ounce purchases increasing from \$250 in 2007 to \$300 in 2009 (no modal price estimate in 2007: Table 29, Figure 31).

Table 26: Modal prices and quantities of ‘bush’/outdoor-cultivated cannabis purchased by IDU in Hobart, 2003-2005

Unit	2003 IDRS			2004 IDRS			2005 IDRS		
	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n
\$10 deal	1.0g (1.0-3.0g)	\$10	4	1.0g (0.5-1.0g)	\$10	3	1.0 g [†] (1.0 g)	\$10	2
\$25 deal	2.0g (1.0-7.0g)	\$25	27	1.0g (1.0-3.0g)	\$25	24	1.0 g (1.0-28.0 g)	\$25	11
\$50 deal	7.0g [†] (3.5-14.0g)	\$50	15	7.0g [†] (5.5-7.0g)	\$50	9	7.0 g [†] (2.0-7.0 g)	\$50	9
Quarter ounce	7.0g	\$60* (\$25-90)	29	7.0g	\$60 [†] (\$35-85)	30	7.0 g	\$50 (\$50-90)	24
Half ounce	14g	\$80 [†] (\$50-130)	7	14g	\$100 (\$70-120)	6	14 g	\$120 (\$100-200)	5
Ounce	28g	\$150 (\$100-200)	20	28g	\$200 (\$100-260)	21	28 g	\$200 (\$25-350)	24

Source: IDRS IDU interviews

Note: Range in parentheses

[†] Median substituted, as no single mode exists

Table 27: Modal prices and quantities of ‘bush’/outdoor-cultivated cannabis purchased by IDU in Hobart, 2006-2009

Unit	2006 IDRS			2007 IDRS			2008 IDRS			2009 IDRS		
	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n
\$10 deal	1.0g	\$10	2	1.0g	\$10	3	-	-	-	1.0g* (0.7-1.3)	\$10	2
\$25 deal	1.7g* (1.5-2.0g)	\$25	8	1.0g (1.0-2.0g)	\$25	14	2.0g (1.0-3.0g)	\$25	18	1.0g (1.0-3.0g)	\$25	18
\$50 deal	7.0g	\$50	8	7.0g (1.0-7.0g)	\$50	9	7.0g	\$50	4	7.0g (3.0-14.0g)	\$50	13
Quarter ounce	7.0g	\$50 (\$25-100)	28	7.0g	\$60 (\$50-90)	29	7.0g	\$70 (\$50-90)	17	7.0g	\$50 (\$50-90)	22
Half ounce	14.0g	\$130* (\$120-140)	3	14.0g	\$113* (\$100-125)	2	14.0g	\$100 (\$75-100)	4	14.0g	\$150 (\$50-160)	14
Ounce	28.0g	\$170* (\$90-250)	19	28.0g	\$150 (\$150-300)	9	28.0g	\$200 (\$75-300)	20	28.0g	\$250 (\$100-300)	20

Source: IDRS IDU interviews

Note: Range in parentheses

* Median substituted, as no single mode exists

Table 28: Modal prices and quantities of hydroponic/indoor-cultivated cannabis purchased by IDU in Hobart, 2003-2006 IDRS

Unit	2003 IDRS			2004 IDRS			2005 IDRS			2006 IDRS		
	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n
\$10 deal	0.6g* (0.5-1.0 g)	\$10	3	0.5g (0.3-0.5g)	\$10	4	0.9g* (0.7-1.0 g)	\$10	2	1.0g (1.0-2.0g)	\$10	4
\$25 deal	1.0g (1.0-2.0 g)	\$25	46	1.0g (1.0-2.0g)	\$25	37	1.0g (1.0-2.0 g)	\$25	22	1.0g (1.0-2.0g)	\$25	12
\$50 deal	3.5g (2.0-7.0 g)	\$50	16	3.0g (2.5-3.5g)	\$50	6	3.0g (2.0-3.5g)	\$50	4	3.0g	\$50	2
Quarter ounce	7.0g	\$80 (\$50-250)	47	7.0g	\$80 (\$60-100)	48	7.0g	\$90 (\$70-100)	37	7.0g	\$90 (\$60-120)	43
Half ounce	14.0g	\$150 (\$140-250)	16	14.0g	\$150 (\$100-180)	10	14.0g	\$150 (\$100-200)	9	14.0g	\$160 (\$120-200)	6
Ounce	28.0g	\$300 (\$200-350)	27	28.0g	\$250 (\$150-350)	27	28.0g	\$300 (\$220-350)	26	28.0g	\$250 (\$200-450)	21

Source: IDRS IDU interviews

Note: Range in parentheses

* Median substituted, as no single mode exists

Table 29: Modal prices and quantities of hydroponic/indoor-cultivated cannabis purchased by IDU in Hobart, 2007-2009 IDRS

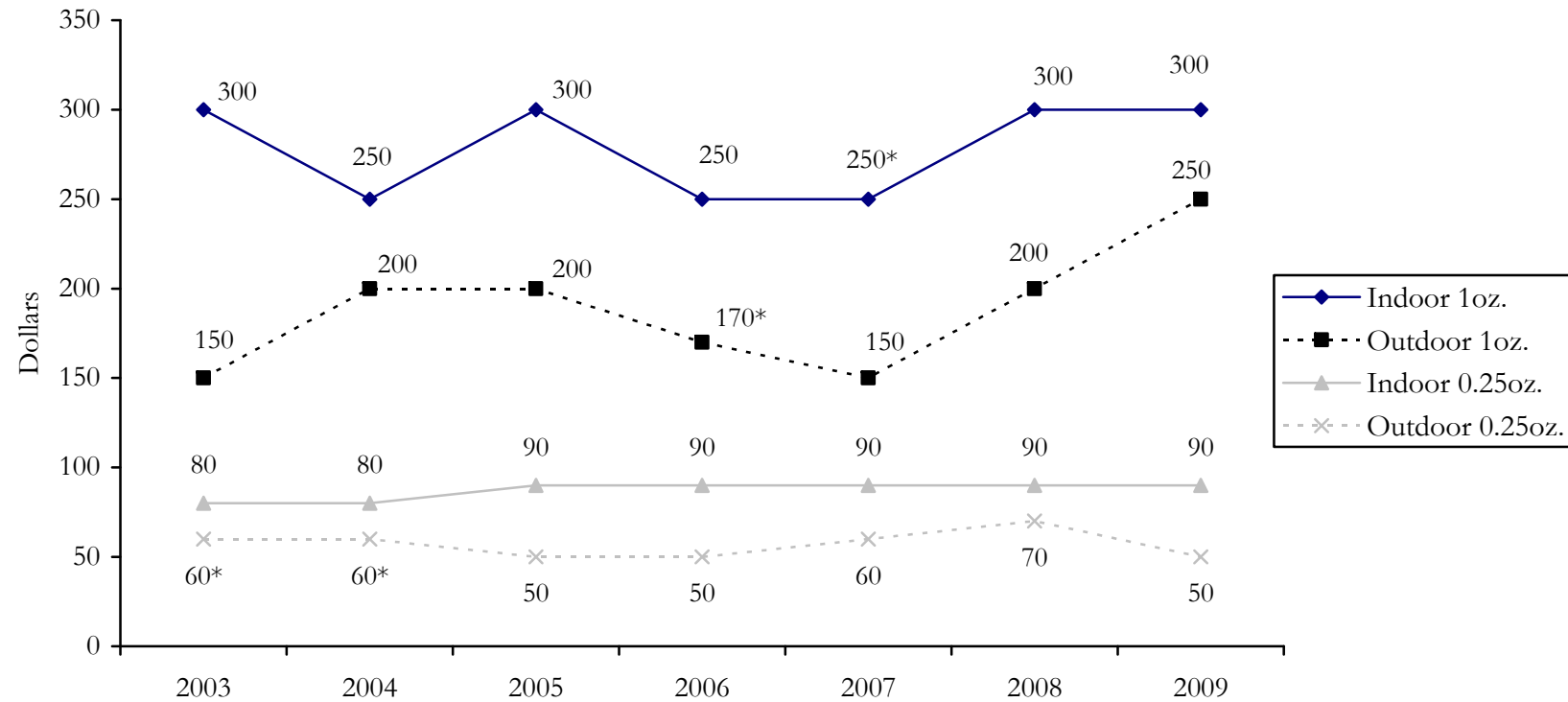
Unit	2007 IDRS			2008 IDRS			2009 IDRS		
	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n	Modal amount (grams)	Modal price	n
\$10 deal	0.8g (0.5-0.8g)	\$10	4	-	-	-	0.5g (0.5-0.7g)	\$10	3
\$25 deal	1.0g (1.0-2.0g)	\$25	24	1.0 g (1.0-2.0 g)	\$25	16	1.0g (0.8-3.0g)	\$25	38
\$50 deal	3.0g (1.0-7.0g)	\$50	8	3.0 g* (2.0-7.0 g)	\$50	3	3.0g (2.0-7.0g)	\$50	9
Quarter ounce	7.0g	\$90 (\$20-120)	29	7.0g	\$90 (\$50-100)	31	7.0g	\$90 (\$50-100)	29
Half ounce	14.0g	\$160* (\$125-200)	4	14.0g	\$150 (\$100-160)	7	14.0g	\$150 (\$120-180)	15
Ounce	28.0g	\$250* (\$140-350)	14	28.0g	\$300 (\$200-340)	25	28.0g	\$300 (\$200-350)	22

Source: IDRS IDU interviews

Note: Range in parentheses

* Median substituted, as no single mode exists

Figure 31: Modal prices of quarter and one ounce purchases of indoor and outdoor cultivated cannabis, 2003-2009



Source: IDRS IDU interviews

* Median substituted as no single mode

Table 30: Cannabis prices in Tasmania reported to the Australian Crime Commission, 2000/01 – 2007/08

	Deal (1 gm approx)		1/4 Bag (7 gms)		1/2 Bag (14 gms)		1 Ounce (28 gms)	
	Head	Hydro	Head	Hydro	Head	Hydro	Head	Hydro
2000/01	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$200-300	\$300-350
2001/02	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$160-220	\$200-300	\$300-350
2002/03	\$20-25	\$25	\$65-90	\$85-100	\$125-150	\$150-180	\$250-300	\$300
2003/04	\$25	\$25	\$65-90	\$85-100	\$125-150	\$150-180	\$250-300	\$300
2004/05	\$20-25	\$25	\$70-100	\$80-100	\$100	\$150-200	\$150-300	\$300-350
2005/06	\$25	\$25	\$75	\$75	\$120	\$120	\$250-350	\$250-350
2006/07	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
2007/08	\$25	\$25	\$80-100	n/r	\$120-150	\$150-200	\$250-300	\$300-350

Source: Australian Crime Commission (previously the Australian Bureau of Criminal Intelligence), Tasmania Police State Intelligence Services

n/r: not reported

Note: Data for 2008/09 not available at time of publication

Tasmania Police and the ACC provide annual reports on the price of illicit drugs. In 2007/08, the prices for 1g purchases of both head and hydro have remained stable in comparison to previous years (\$25 respectively; data for 2008/09 was not available at the time of publication). Since 2000/01, the price of quarter-ounce purchases of cannabis head have increased only slightly, from \$80-90 to \$80-100. Similarly, the price for one ounce of head has also increased slightly over this period, from \$200-300 in 2000/01 to \$250-300 in 2007/08. Conversely, the price for a half-ounce of head has decreased slightly, from \$150-160 in 2000/01 to \$120-150 in 2007/08, as has the price for a half-ounce of hydro: \$170-220 in 2000/01 to \$150-200 in 2007/08. The price for an ounce of hydro has remained relatively unchanged since 2000/01, costing between \$300 and \$350. Overall, these findings are similar to the 2008 IDRS, which reported on cannabis prices for the same period. Small differences were noted for the median price of a quarter gram of outdoor-cultivated cannabis (referred to in the police price data as 'head'), which the 2008 IDRS reported to cost a median price of \$70, slightly less than reported by the ACC for Tasmania (\$80-100), and similarly, the 2008 IDRS reported one ounce purchases of head to cost a median price of \$200, again slightly less than reported by the ACC for this period (\$250-300: Tables 27 & 30).

Tasmania Police reported the price of 1g of cannabis hash/resin as \$30-\$50 in the 2001/02 financial year, \$20-25 during the 2002/03 and 2003/04 financial years, and \$25 in 2004/05. No data was reported in 2005/06 or 2006/07, however, in 2007/08, this price estimate had increased to \$50-\$100. In the current IDRS study, five participants reported on the purchase price of one gram of hashish, costing a modal price of \$30 (median \$30, range \$25-50). These prices for gram purchases of hashish have remained relatively consistent across recent studies: \$50 (n=1) in 2007 and \$50 (range \$20-75, n=3) in 2006, with minimal reports in preceding years. Three participants reported on purchase price for hashish oil, reporting a 'cap' to cost a median price of \$25 (no single mode, range \$20-50).

7.3 Availability

For both indoor- and outdoor-cultivated cannabis, the majority of the IDU sample who reported recent use perceived that cannabis was 'very easy' (45%) or 'easy' (41%) to obtain, and that the availability of cannabis had remained stable (65% of reports across both cannabis forms: Table 31). One KE noted that availability for cannabis was very easy, commenting that *'it's very rare for availability to decrease'*. Trends in availability and routes of access will be discussed separately for each type of cannabis.

Table 31: Participants' reports of cannabis availability in the past six months, 2008-2009

Current availability	Hydro		Bush	
	2008 (N=100)	2009 (N=100)	2008 (N=100)	2009 (N=100)
Able to respond (%)	78	75	68	71
<i>Of those who responded:</i>				
Very easy (%)	36	47	40	47
Easy (%)	56	45	54	38
Difficult (%)	8	8	6	16
Very difficult (%)	0	0	0	0
Availability change over the last six months				
Able to respond (%)	78	75	68	71
<i>Of those who responded:</i>				
More difficult (%)	15	8	3	7
Stable (%)	63	76	69	58
Easier (%)	19	7	25	30
Fluctuates (%)	3	9	3	6

Source: IDRS IDU interviews

^ 'Don't know' refers to participants who were able to respond to survey items on price and/or purity, but had not had enough contact with users/dealers to respond to items concerning availability

In regard to outdoor or 'bush' cannabis, the majority of the IDU commenting believed this to be 'very easy' (47%, n=33) or 'easy' (38%, n=27) to access in the preceding six months, and that this situation had remained stable in this time (58%, n=41). More than one-quarter of participants reported that availability had increased (30%, n=21) over this period (Table 31). Most IDU reported last purchasing this type of cannabis from friends (60%, n=43) or from a known dealer (26%, n=19; Table 32). Venues in which these purchases were last made were primarily reported to be a friend's home (39%, n=28), via home delivery (22%, n=16) or at a dealer's home (19%, n=14).

Almost all participants who commented (92%, n=69) reported that hydroponic/indoor-cultivated cannabis had been either 'very easy' or 'easy' (47%, n=35 and 45%, n=34 respectively) for them to access in the preceding six months (Table 31). Three-quarters of these respondents (76%, n=57) believed that the availability of this type of cannabis had remained stable in the preceding six months. As per trends reported for outdoor-cultivated cannabis, hydroponically-cultivated cannabis was more commonly purchased from friends (47%, n=35) or from a known dealer (45%, n=33; Table 32). Participants also commented on the last venue in which they purchased hydroponic cannabis, of which the majority purchased at either a friend's home (36%, n=27) or a dealer's home (35%, n=26). Twelve percent of respondents (n=9 respectively) had the cannabis either home delivered or purchased it at an agreed public location.

Table 32: People and venues from which cannabis was last purchased in the preceding six months, 2009

	Bush/outdoor cannabis n=72	Hydroponic cannabis n=74
Friends	60% (n=43)	47% (n=35)
Known dealers	26% (n=19)	45% (n=33)
Acquaintance	6% (n=4)	5% (n=4)
Street dealer	0	1% (n=1)
	Bush/outdoor cannabis n=72	Hydroponic cannabis n=74
Friend's home	39% (n=28)	36% (n=27)
Dealer's home	19% (n=14)	35% (n=26)
Home delivery	22% (n=16)	12% (n=9)
Agreed public location	14% (n=10)	12% (n=9)
Acquaintance's home	1% (n=1)	4% (n=3)
Street market	0	0

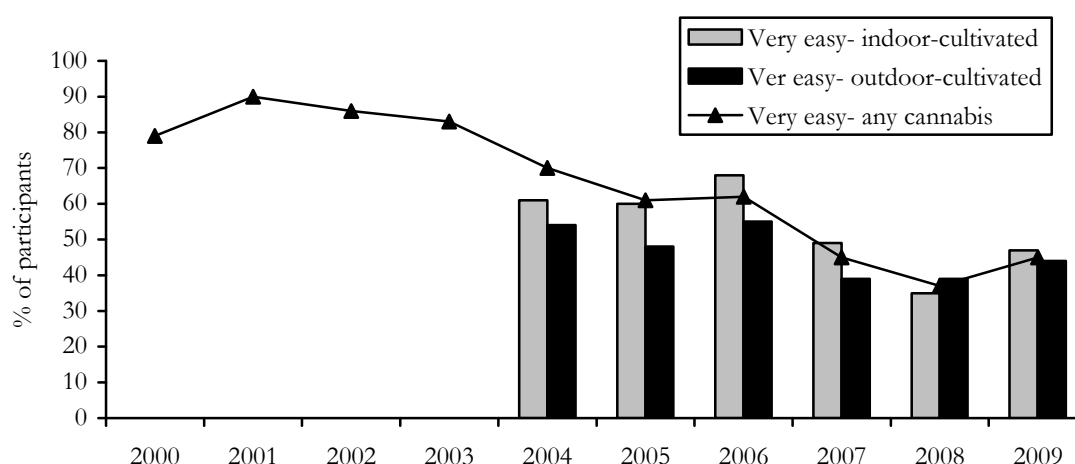
Source: IDRS IDU interviews

Note: multiple responses allowed

As depicted in Figure 32 below, since 2001 there has been a gradual decline in the proportion of IDRS IDU respondents who have considered cannabis (any form) as 'very easy' to access. The proportion of respondents reporting 'very easy' availability of indoor-cultivated cannabis ranged between 60% and 68% from 2004 to 2006. This rate decreased significantly in the subsequent two studies, to 35% in 2008 (95%CI of difference 17%-46%: Figure 32), but has increased slightly in the current study to 47%.

The proportion of respondents reporting 'very easy' availability of outdoor-cultivated cannabis was relatively stable between 2004 and 2006 (ranging between 48% and 55%); however this rate decreased over the following two years to 39%. Similarly to indoor-cultivated cannabis, the proportion of participants reporting 'very easy' access to outdoor-cultivated cannabis increased slightly in 2009, with 44% reporting this.

Figure 32: Participant reports of current cannabis availability, among those who recently used cannabis, 2000-2009

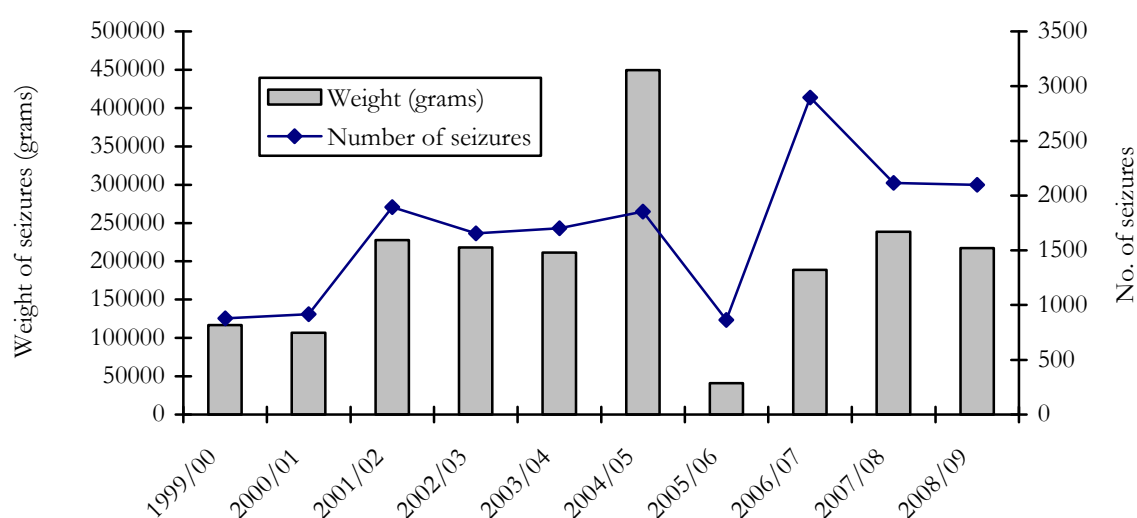


Source: IDRS IDU interviews

Note: A distinction between hydroponic and bush cannabis was introduced in 2004. Prior to this time, survey items referred to any form of cannabis

Examining cannabis seizures made by Tasmania Police¹⁸, between 2001/02 and 2003/04, the volume of cannabis seized remained relatively stable (between 211,000 and 228,000 grams per financial year); however, in 2004/05, the volume of seizures substantially increased to 450,000g (Figure 33). Possibly in relation to this, in the 2004 IDRS study, a slightly decreased proportion of participants reported cannabis as ‘very easily’ accessed in comparison to 2003 (2003: 67% reported ‘very easy’ access to outdoor cannabis and 85% reported this for indoor cannabis; 2004: 54% reported ‘very easy’ access to outdoor cannabis and 61% reported this for indoor cannabis). While seizure data for Tasmania Police was only reported to the ACC for part of the 2005/06 financial year, the volume of cannabis seizures in this period was notably lower: less than 10% of that reported in the previous financial year (down to 41,000g), and somewhat correspondingly, IDU participant reports of availability increased slightly (66% reported outdoor cannabis as ‘very easy’ to access and 70% reported this for indoor cannabis). Since this time, the volume of seizures have increased¹⁹, returning to similar levels as reported between 2001/02 and 2003/04, and similarly, there has been a decrease in the proportion of participants reporting availability to be ‘very easy’.

Figure 33: Seizures of cannabis by Tasmania Police, 1999/00-2008/09



Source: Australian Crime Commission.

Note: Seizures for 2005/06 were only reported to the ACC for part of the financial year.

Note: In 2007/08, the AFP made 3 seizures of cannabis, amounting to 21g.

Note: Data in 2008/09 was provided by Tasmania Police State Intelligence Service. This data is preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

¹⁸ Data reported in this paragraph has been provided by the Australian Crime Commission and Tasmania Police State Intelligence Services.

¹⁹ In addition to the seizures shown in Figure 33 for 2007/08, Tasmania Police reported 526 seizures of plants (480 seizures totalling 6970 plants and 33 seizures totalling 28,495.3 grams) and single seizures of oil (1.3 grams) and resin (0.3 grams). In 2008/09, an additional 7,964 units of cannabis were also seized by Tasmania Police. Data provided by Tasmania Police for 2008/09 are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

7.4 Potency

The potency of cannabis across both modes of cultivation was generally rated as 'high' (45%, n=67) or 'medium' (43%, n=64) by the IDU sample, with most respondents indicating that this potency had remained stable (63%, n=95) in the preceding six month period. Just one KE could comment on cannabis potency, reporting this to have been medium. These reports from both consumers and the KE are similar to those provided in the recent IDRS studies.

Potency of outdoor or 'bush' cultivated cannabis was regarded by IDU as generally being 'medium' (59%, n=44), with smaller proportions reporting 'high' (24%, n=18) or 'low' (15%, n=11) potency in the preceding six months. This level of potency was regarded as having remained stable (59%, n=44) in the preceding six months, although one-fifth of IDU felt that potency had fluctuated (21%, n=16).

Hydroponically-cultivated cannabis, however, was generally reported by IDU as being 'high' (68%, n=49) in potency, and one-quarter of participants reported potency to be 'medium' (27%, n=20). Potency was predominantly regarded as remaining stable in the preceding six months (68%, n=51), although notable minorities reported recent fluctuations (17%, n=13) in potency. Seizures of cannabis by Tasmania Police are not analysed for potency, and, as such, no empirical data are available to examine trends.

7.5 Trends in cannabis use

In general, KE commenting on primary cannabis using consumers reported that use of cannabis amongst the consumers they were familiar with had remained stable over the preceding six months. Use was generally reported to be common, and thought to be widespread throughout the community. Several KE noted many cannabis consumers experiencing respiratory health problems such as bronchitis, chronic coughing and emphysema. Mental health problems were also commonly cited, particularly depression, anxiety and paranoia. One KE also noted several clients experiencing difficulty with anger management and emotional regulation, and three key experts reported clients experiencing relationship problems related to their cannabis use. Several KE noted widespread polydrug use amongst primary cannabis consumers, predominantly alcohol, tobacco and pharmaceutical opioids.

7.6 Summary of cannabis trends

Table 33: Summary of cannabis trends

	Outdoor / 'bush'	Indoor / hydroponic
Price <i>Gram</i> <i>Quarter-ounce</i> <i>Ounce</i>	• \$25 (modal), stable since 2003 survey • \$50 (modal), price has decreased by \$20 since 2008 survey • \$250, modal price increase of \$100 since 2007 survey	• \$25 (modal), stable since 2003 survey • \$90 (modal), stable since 2005 survey • \$300 (median and modal), stable price since 2008
Availability	Both indoor- and outdoor-cultivated cannabis: • Very easy - easy to obtain • Availability stable in recent months, but possibly slightly increased for outdoor cannabis in comparison to the 2008 survey	
Potency	• Medium (based on IDU estimates) • Potency level stable over the preceding six months	• High (based on IDU estimates) • Potency level stable over the preceding six months
Use	• Most widely used illicit drug • Indications of decreasing prevalence of use of cannabis in recent years in the general Tasmanian community (NDSHS), but relatively stable extent of use in IDRS IDU samples • High level of daily use among IDU sample and groups discussed by KE • Indoor-cultivated cannabis used more commonly than outdoor-cultivated form.	

8.0 OPIOIDS

The IDRS investigates patterns of use, harms and the 'black market' characteristics of a number of pharmaceutical products, including opioids, benzodiazepines and stimulants, amongst people that inject drugs. The aim of the IDRS system in relation to these drugs is to document these patterns of use and associated harms in order to provide an evidence base for drug services and policymakers.

When considering such issues in relation to pharmaceutical products, it is necessary to consider the fact that some individuals may be receiving these drugs as part of a medical treatment program; some may be accessing and using these drugs without medical oversight; and that some may access these drugs from a combination of these two sources. The combination of all of these sources is important when considering issues such as health outcomes (e.g. issues of overdose).

In the IDRS reports, the distinction is made between 'licit' use: that is, use of a pharmaceutical drug that has been directly prescribed to the person using the drug; and 'illicit' use: use of a pharmaceutical drug that had not been prescribed to the person using the drug (see Black et al, 2008, for a more detailed discussion of this distinction and related issues).

It is important to note that in making such a distinction, the authors are not expressing any particular stance in relation to the use of these drugs. Indeed, previous research in the IDRS and other contexts (e.g. Bruno, 2007; Winstock, et al., 2008; Treloar et al., 2007) have clearly identified that within each of these broad categories there exists a spectrum of methods and reasons for use. Among those using 'licit' pharmaceuticals, many of the IDRS participants may be using these in strict adherence with their prescriber's regime; others may be administering these drugs in a different manner (e.g. intravenously), on a different dosing schedule, or at a different dose than prescribed. Similarly, among those accessing 'illicit' pharmaceuticals, there may be a spectrum of reasons and motivations underlying such use, including intoxication, self-medication for physical or psychological complaints, to self-manage a detoxification process, to self-medicate when drug treatment is undesirable or unavailable (e.g. in the case of long waiting times or physically distant treatment services, or where shame or fear of discrimination at being identified as a 'drug user' prevent the seeking of formal treatment), or to replace doses of licitly prescribed medications (e.g. where doses have been missed due to theft, the experience of external threat or pressure to provide their medication to others, or due to practical issues such as transport, dosing times, employment or lack of childcare interfering with a person's ability to pick up maintenance pharmaceuticals dispensed on a daily basis).

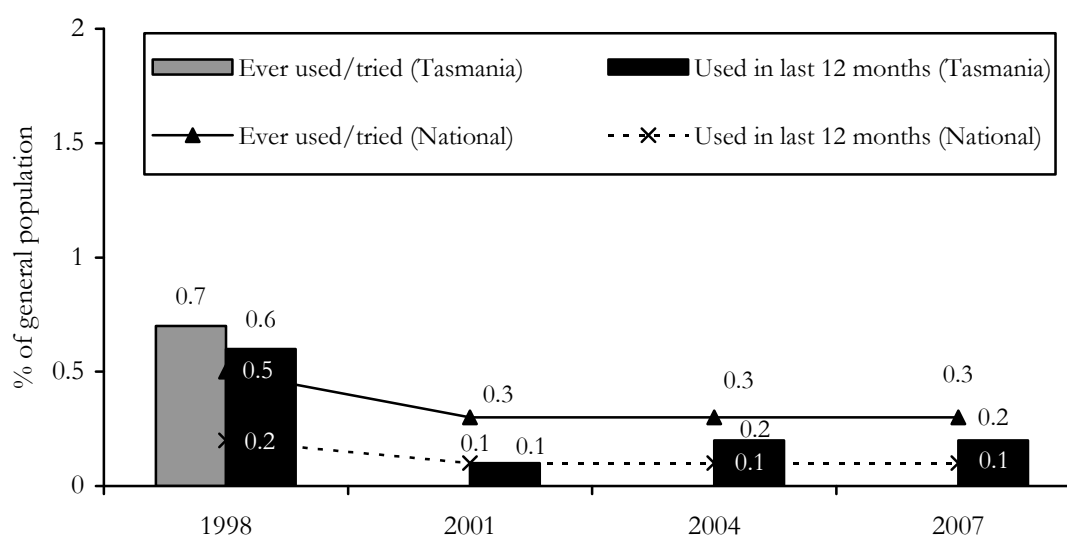
The use of pharmaceutical products such as opioids outside of medical supervision, or in ways other than prescribed, is currently an area of considerable debate, and the reader is encouraged to acquaint themselves with this literature before drawing conclusions or making policy decisions with regard to the prescription of these drugs. For example, specific research has examined the complexities of not-as-prescribed methadone use and methadone dispensing policy (Ritter & di Natale, 2005; Fraser et al, 2007; Treloar et al., 2007), barriers to accessing drug treatment (Treloar et al. 2004), and the importance of the availability of appropriate treatment for the management of pain (Brennan, Carr & Cousins, 2007).

8.1 Use

8.1.1 Prevalence of opioid use

The 2007 National Drug Strategy Household Survey interviewed 1,143 Tasmanians aged 14 years or above about their drug use. This study identified that 0.2% of those sampled (n~2) reported using methadone or buprenorphine for non-maintenance purposes in the year prior to interview, and 0.4% (n~5) had used other types of opioids for non-medical purposes in this time (AIHW, 2008b: Figures 34 and 35). Similarly, the 2004 NDSHS identified that 0.2% of those sampled (n~2) reported using methadone for non-maintenance purposes in the year prior to interview (from a sample of 1,208 Tasmanians aged 14 years or above), and 0.6% (n~7) had used other opioids for non-medical purposes in this time (AIHW, 2005b). In the 2001 NDSHS study, 0.1% of the 1,349 respondents reported using methadone for non-maintenance purposes and 0.7% reported use of other opiates in the year prior to interview (AIHW, 2002). In the 1998 NDSHS (AIHW, 1999), 0.6% of the 1,349 respondents reported using methadone illicitly in the 12 months prior to interview. Given the degree of variance due to sampling issues around each of these proportions, it is not possible to suggest any change in the local population prevalence of each of these drugs.

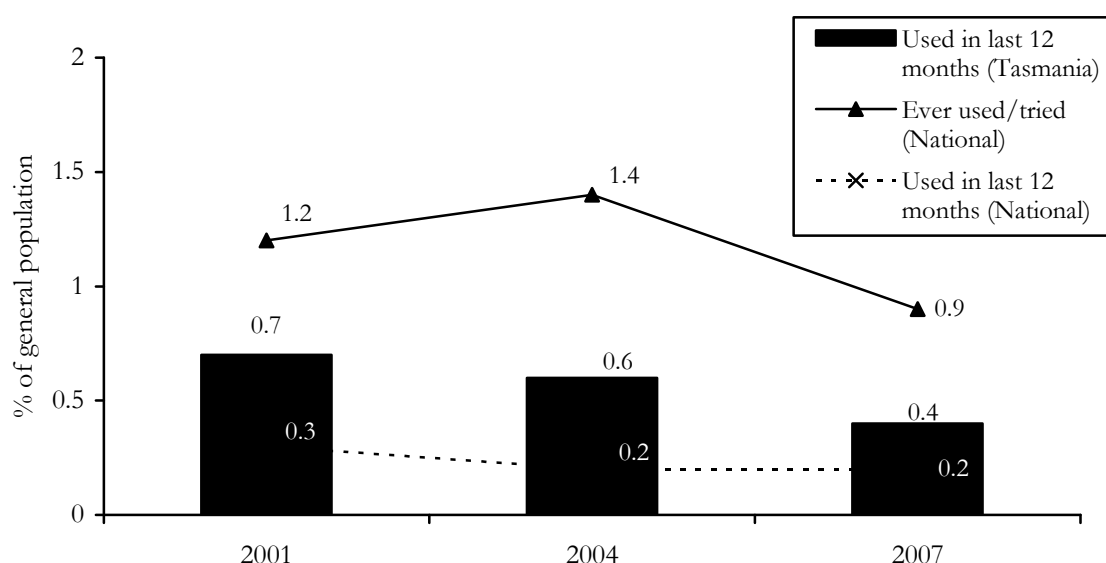
Figure 34: Prevalence of methadone or buprenorphine* use in Australia and Tasmania among those aged 14 years and over, 1998-2007



Source: National Drug Strategy Household Survey 1998-2007

* Use of buprenorphine was only included in the 2007 survey

Figure 35: Prevalence of other opioid use (excluding heroin and methadone) in Australia and Tasmania among those aged 14 years and over, 2001-2007



Source: National Drug Strategy Household Survey 2001-2007

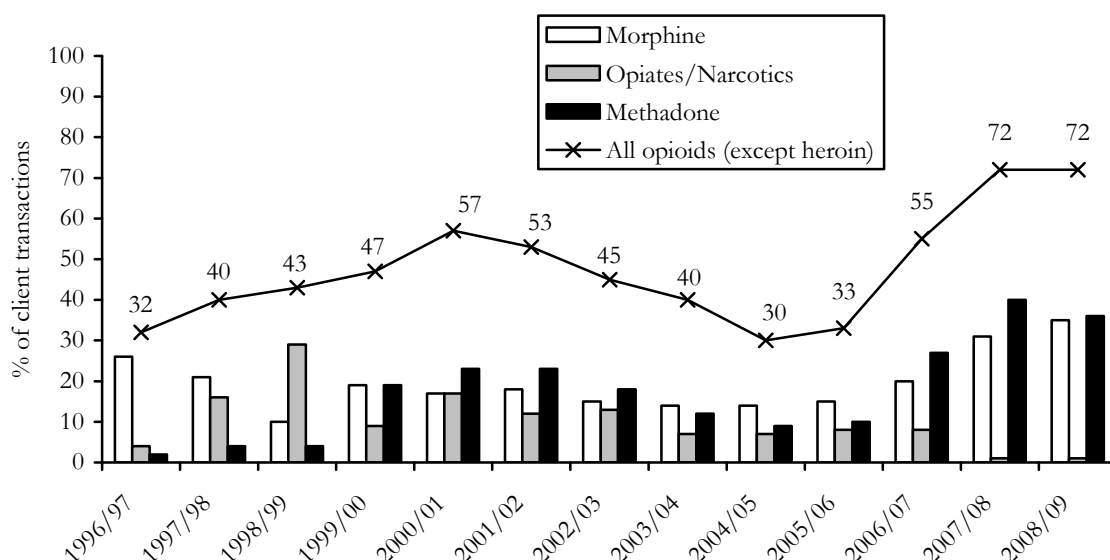
8.1.2 Pharmaceutical opioid use among IDU and other groups

Data from clients of non-pharmacy NSP outlets reporting an opioid as the drug they most often inject have been highly variable over the past eight years (Figure 36), due primarily to clients nominating the catch-all ‘opiates-narcotics’ category rather than indicating a specific single drug. When these data are collapsed, a trend becomes clearer, with the percentage of clients reporting opioids (excluding heroin) as the drug they most often injected steadily increasing from 32% in 1996/97 to 57% in 2000/01, then steadily decreasing to 30% in 2004/05. This was followed by more dramatic increases from 33% in 2005/06 to 72% in 2008/09. This is the inverse of the trend noted for methamphetamine use among non-pharmacy NSP clients (see Section 5.1.3).

While this appears to represent a substantial change in the market over time, these data should be interpreted with caution. Firstly, prior to 2001/02, these drug use data were reported by only around 40% of total non-pharmacy NSP clients, predominantly those larger, inner-city outlets, which are biased toward regular, opiate consumers – in recent years, this figure has risen to more than 90% of these clients. As such, data in recent years may be more representative of patterns of use among non-pharmacy NSP outlet clients, with one caveat: during 2006, Hobart’s only 24-hour NSP outlet, which primarily distributed equipment used for methamphetamine injection and making over 1,200 transactions per month, closed. This client load did not filter to other non-pharmacy NSP outlets in following months, and as such, part of this increase in the proportion of non-pharmacy NSP clients apparent in Figure 36 may partially reflect an artefact of the closure of this service. Also noteworthy is the indication that, although injection of morphine had consistently been reported as more popular than injection of methadone to 1997/98, there has been some subsequent variation, with methadone more commonly reported as the ‘drug most often injected’ between 2001/02 and 2002/03, and again in 2006/07 and 2007/08 (Figure 36). This recent increase in the proportion of NSP transactions for methadone may reflect policy changes impacting on the availability of some equipment. Late in 2006, a policy was introduced by the Department of Health and Human Services (Population Health) to limit the availability of winged-infusion sets (butterflies) to those clients injecting large quantities of liquid (i.e. methadone syrup). Over recent years, there has been a local culture of using winged-infusion sets for a broad range of drugs, including methamphetamine, benzodiazepines

and pharmaceutical opioids. As a result of this change in availability, according to KE working in NSP outlets who participated in the 2007, 2008 and 2009 studies, many clients are reporting injecting use of methadone to access this equipment, when in fact they are most probably using another substance. Given this, the exact nature and meaning of these changes are unclear.

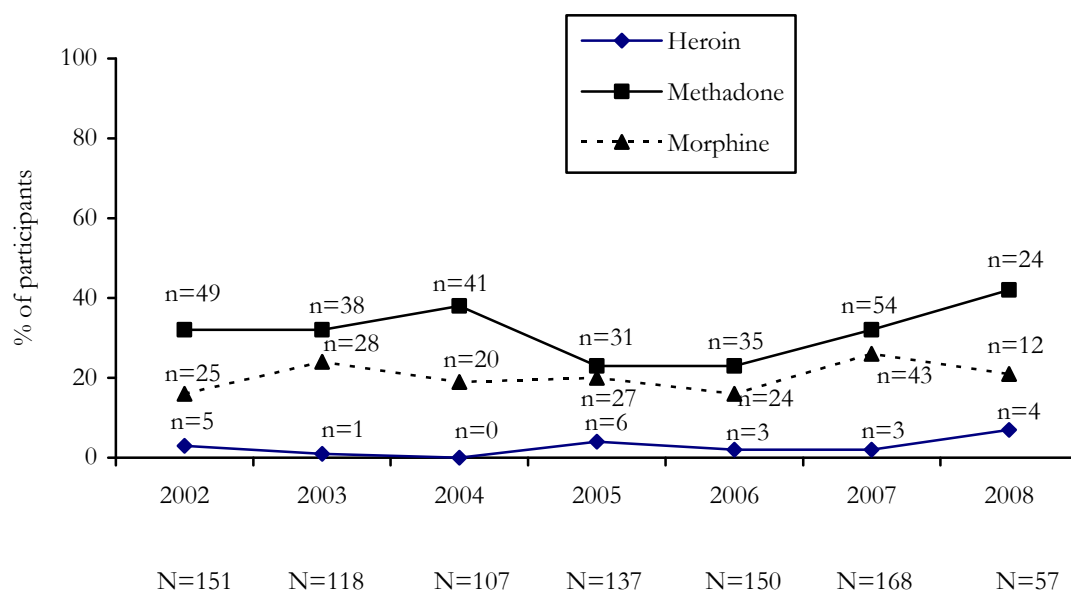
Figure 36: Percentages of Tasmanian non-pharmacy Needle and Syringe Program clients reporting opioids as their ‘drug most often injected’, 1996/97-2008/09



Source: Population Health, Department of Health and Human Services

The Australian Needle and Syringe Program Survey (MacDonald & Zhou, 2002; Iverson et al., 2008; National Centre in HIV Epidemiology and Clinical Research, 2009) identified opioids as the last drug injected by 50% or more of the Tasmanian participants for the 1996-2004 surveys, with small decreases in 2005 and 2006 (to 47% and 41% respectively: Figure 37). Over the subsequent two survey periods, this trend was reversed, with 60% of the sample in 2007 and 70% in 2008 reporting an opioid as the last drug injected. The small overall decline in 2005 and 2006 in the reports of last use of opioids represents a decline in those using methadone, falling from 38% in 2004 to 23% in 2006, whereas morphine use remained relatively stable in this time (19% in 2004 and 16% in 2006). The increase in use of opioids in 2007 and 2008 was related to increases in reports of use of methadone (23% in 2006 to 42% in 2008) and morphine (16% in 2006 and 21% in 2008). It should be noted that the very small sample size in 2008 (n=57) means caution should be used when interpreting these data, however, the consistency with the NSP data above (Figure 36) is noteworthy.

Figure 37: Australian Needle and Syringe Program (NSP) Survey: Prevalence of opioids within 'last drug injected', 2002-2008



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

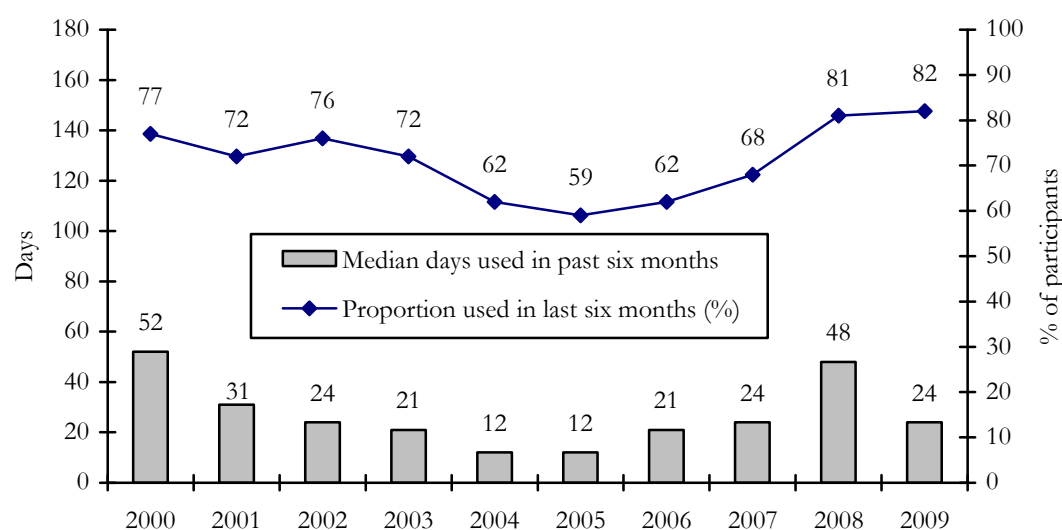
8.1.3 Current patterns of opioid use amongst the IDU sample

Morphine

Morphine was reported as the drug of choice of 12% of the IDU sample, with 81% of the entire sample reporting use of illicit morphine in the preceding six months. Of those who had used illicit morphine, the median frequency of use in the past six months was 24 days (range 1-178), which equates to once weekly use of the drug on average. Just 2% (n=2) of the sample reported recently injecting morphine that had been prescribed to them (one of whom also reported recent use of illicit morphine). Morphine was reported as the last drug injected prior to interview by 37% of the IDU sample, and as the drug most injected by 33% of the sample in the past month.

As shown in Figure 38, these figures show a trend toward decreasing levels of use of morphine between 2003 and 2005, as well as a declining frequency of use amongst consumers. This occurred despite a relatively stable proportion of the IDU samples receiving maintenance pharmacotherapies (approximately 50%) and reporting an opioid as their drug of choice (approximately 60%). Since 2005, there has been a trend to increasing morphine use, with particularly notable increases between the 2007 and 2008 samples in terms of proportions reporting recent morphine use (68% and 81% respectively) and in the frequency of this use (24 v. 48 days respectively). In 2009, 82% of the sample reported recent use; however the frequency of this use halved to 24 days. When data from the 2006 and 2009 surveys are compared, a statistically significant increase is apparent in the proportion of the cohort reporting recent use of illicit morphine (58% in 2006 and 82% in 2009; 95%CI of difference 17%-42%).

Figure 38: Proportion of Tasmanian IDRS IDU cohorts reporting use of morphine, and the median frequency of this use, in the six months prior to interview, 2000-2009



Source: IDRS IDU interviews

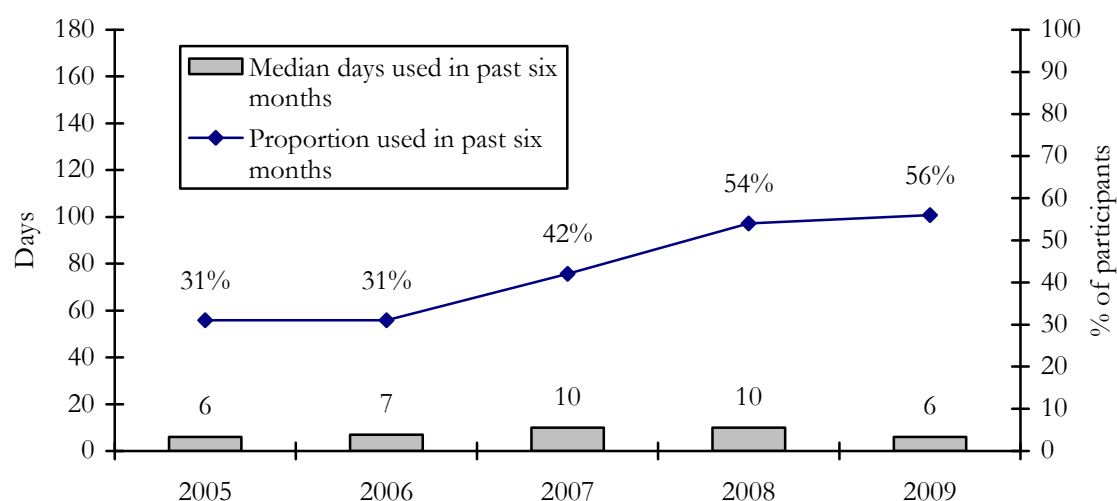
Of the IDU sample, 97% reported they had tried illicit morphine at some stage in their lives, with all having injected the drug. Eighty-one percent of participants reported use of morphine in the preceding six months, with all except one reporting injecting the drug over this period. This single participant reported oral use only, and seven participants had both injected and swallowed the drug.

The demographics of the group that had used illicit morphine (n=81) in the past six months were similar to that of other IDU (see Section 3.1) in terms of age, cultural background, treatment and employment status, prison history, sexual preference, sources of income, duration of injection career, age at first injection and frequency of injection. However, the group that reported recent use of morphine was significantly more likely to be male than female (65% v. 26%: $\chi^2(1_{n=100})=9.67$, $p=0.002$), and reported a greater duration of schooling, a difference that was approaching significance (10.2years v. 9.4years; $F(1,98)=3.818$, $p=0.54$).

Oxycodone

While more than half of the participants interviewed in the current study had used illicit oxycodone in the six months prior to interview (56%), just 5% reported this as their drug of choice, and 3% reported oxycodone as the drug they had most injected in the month preceding the interview. The median frequency of use of illicit oxycodone was 6 days in the last six months (range 1-180), which equates to use once per month. Use of oxycodone among the Tasmanian IDRS IDU cohorts has increased in the past five years (Figure 39), rising to 56% of participants in 2009 from only anecdotal reports of use in 2002. One KE in the current study, a general health worker, noted that '*Oxycodone is readily prescribed. We're seeing more use and prescribing of it than we did two years ago - we're running out of pain management options*'.

Figure 39: Proportion of Tasmanian IDRS IDU cohorts reporting use of oxycodone, and the median frequency of this use, in the six months prior to interview, 2005-2009



Source: IDRS IDU interviews

Four-fifths of IDU consumers sampled (80%) had ever used illicit oxycodone tablets, with all but one of this group having injected oxycodone at some stage (99%, $n=79$). Just over half (56%) of the current cohort reported using illicit oxycodone in the preceding six months, with all of this group reporting recent injection. In addition to this, four participants had also swallowed oxycodone and two reported snorting it in this period. Injecting use of prescribed oxycodone was reported by just 3% ($n=3$) of the sample (all of whom had also used illicit oxycodone), at a median frequency of 2 days, which equates to use approximately once per three months.

The demographics of the group that had used illicit oxycodone ($n=56$) in the past six months were similar to that of other IDU (see Section 3.1) in terms of age, sex, cultural and educational background, employment status, income source, prison history, drug of choice, first drug injected, drug most injected and duration of injection career. However, those that had recently used oxycodone were significantly more likely to be daily injectors (37.5% v. 21.1%: $\chi^2(1_{n=100})=3.409$, $p=0.051$) and to have been younger when they first injected any drug (18.0 years v. 20.1 years: $F(1,98)=5.613$, $p=0.020$) than those who reported no recent use of oxycodone.

Methadone

Methadone was reported as the drug of choice of 9% of the IDU sample, with 78% of the entire sample reporting some use of methadone (syrup and tablet forms) in the preceding six months. Consistent with previous reports, methadone was injected in the preceding six months by almost all of the consumers interviewed reporting recent use of the drug (99%, $n=51$ of 52)

In regard to use of methadone syrup, 48% of the sample had been prescribed this drug in the preceding six months, using it at a median frequency of 180 days in this time (range 1-180). Across IDRS IDU cohorts, the proportion of participants reporting recent use of licit methadone syrup had declined slightly (but not statistically significantly), falling from 59% in 2003 to 48% in 2009 (Figure 40²⁰). It is noteworthy that the majority of participants who reported use of prescribed methadone - both recent and lifetime use - had injected this drug

²⁰ Levels and frequencies of use of methadone were not broken down clearly into separate categories of licit and illicit use of tablets and syrup in the Tasmanian IDRS until 2003, so trends over longer time periods are not able to be examined.

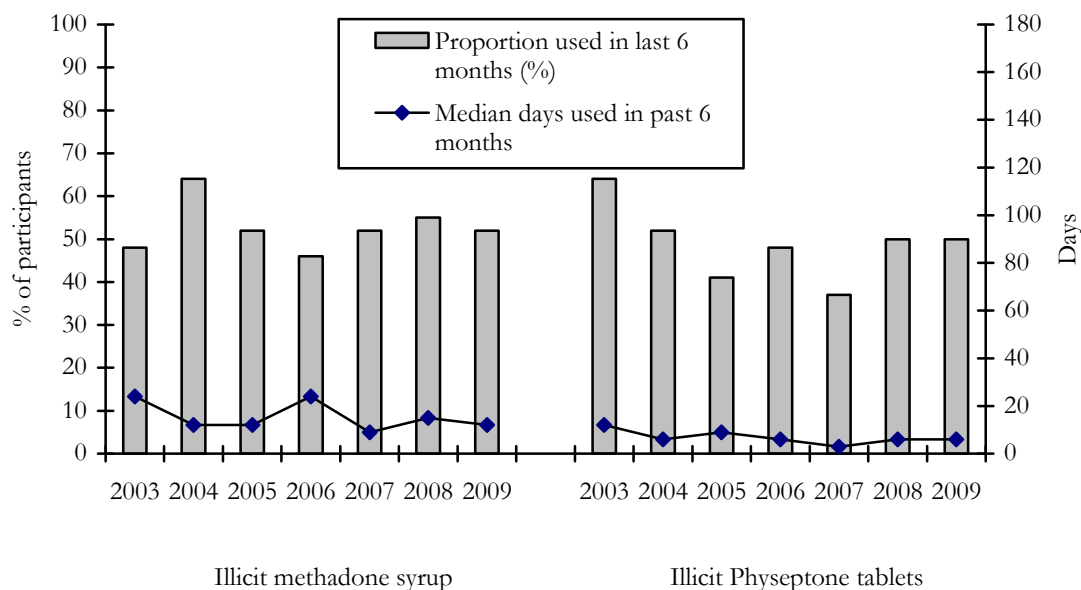
(90% of those reporting recent use and 89% of those reporting lifetime use). This practice is not consistent with the policy or the mode of dispensing of the drug within the Tasmanian methadone maintenance program. It is important to note that participants in the IDRS are recruited on the basis of their regular injection, and as such, this pattern of use of illicit methadone syrup is not representative of any general pattern amongst clients of the program.

The median frequency of use of illicit methadone syrup was similar for participants who had been enrolled in a methadone program in the six months preceding the interview (11 days, range 1-120 days, n=27) and those who had not accessed this form of treatment (13 days, range 2-122 days, n=25). It is important to recall that the individuals participating in the IDRS are selected on the basis of their regular injection of drugs, and, as such, are not representative of all those enrolled in maintenance pharmacotherapy programs. There may be a spectrum of reasons for the use of illicit syrup by those themselves enrolled in the program (as discussed in Section 8.1.4), including a desire for intoxication, but it is important to also consider the role of incomplete stabilisation, unmet pain management requirements and of problems in the systems around flexibility of dose dispensing in these situations. For a recent, detailed investigation of these types of issues, see, for example, Fraser et al. (2007).

The proportion of the cohort reporting recent use of illicit methadone syrup has remained relatively stable in recent years (48% in 2003; 52% in 2009). Median frequency of use in the current study was 12 days over the preceding six months (which equates to approximate use once per fortnight), similar to reports in preceding years, in which use of illicit methadone syrup had remained relatively infrequent, with median frequency ranging between 9 and 24 days of the preceding six months. Amongst those participants reporting recent use of illicit syrup (n=52), all except one reported having recently injected this drug, and 17% also reported swallowing it in this time. Just one participant reported exclusively swallowing it. It is particularly noteworthy that almost half of those recently using illicit syrup (46%, n=24) were themselves receiving methadone maintenance treatment. The frequency of illicit methadone syrup use also appeared lower amongst those who were enrolled in methadone maintenance treatment (9 days v. 14 days in the preceding six months).

Lifetime use of illicit Physeptone (methadone tablets) was reported by four-fifths of IDRS participants (79%) and half of the sample (50%) reported use in the six months preceding the interview. This rate is unchanged from the 2008 IDRS study, but is slightly higher than reported in 2007 (37%). Use of illicit Physeptone was generally infrequent, with participants reporting a median frequency of six days in the last six months (range 1-60 days), which equates to use approximately once per month. Of the participants reporting recent use, all reported recent injection of Physeptone, at a median frequency of 6 days (range 1-60 days). In addition to this, single participants reported also snorting and smoking this preparation. The frequency of use of illicit Physeptone has remained at relatively stable low levels over recent years: ranging between three and 12 days between 2003 and 2009 (Figure 40).

Figure 40: Proportion of Tasmanian IDRS IDU cohorts reporting use of methadone, and the median frequency of this use, in the six months prior to interview, 2003-2009



Source: IDRS IDU interviews

The demographics of those that had used any form of methadone by either licit or illicit means in the past six months ($n=78$) were similar to that of other IDU (see Section 3.1) in terms of sex, age, cultural background, prison history, employment status, sexual preference, sources of income, frequency of injection, age of first injection and duration of injecting career. However, those that had recently used methadone reported longer engagement in education than participants who had not recently used methadone (10.2 years, $SD=1.3$ v. 9.4 years, $SD=1.9$ respectively: $F(1,98)=5.628$, $p=0.020$). In addition, participants reporting recent use of methadone were also more likely to report an opioid as the drug most injected in the month prior to the interview (83% v. 50%: $\chi^2(1_{n=100})=12.833$, $p=0.002$), and that the drug first injected was more likely to be a pharmaceutical opioid (28% v. 5%: $\chi^2(1_{n=100})=7.974$, $p=0.019$) than participants who reported no recent use of methadone.

Prescribed pharmaceutical opioids

Participants were asked about use of prescribed opioids in the 12 months preceding the interview. Sixteen percent ($n=16$) of the sample had been prescribed one or more of these preparations in this period, most commonly oxycodone (44%, $n=7$), tramadol (31%, $n=5$) and morphine (25%, $n=4$). All except one of these participants reported having been prescribed these preparations for treatment of pain (94%, $n=15$). Pain conditions that were either acute/short term or chronic, non-malignant were most commonly reported (47%, $n=7$ respectively). Less than one-third of this group (31%, $n=5$) reported they had shared, sold or traded the pharmaceutical opioids they were last prescribed. Participants were also asked to comment on any health problems they experienced as a result of their use of these prescribed pharmaceutical opioids in the last 12 months. Of this group, only one-quarter ($n=4$) reported no health problems: 56% reported difficulty injecting or finding veins; 28% experienced a 'dirty hit'; and experience of a non-fatal overdose; abscess or infection from injection and a thrombosis were reported by 19% ($n=3$) respectively of this group.

Primary users of opioids described by KE were commonly polydrug consumers, who regularly used different types of pharmaceutical opioids, cannabis, benzodiazepines, alcohol and methamphetamine. Several KE commented that polydrug use amongst predominant opioid users is common, particularly when they are unable to access their opioid of choice. Oral use of benzodiazepines was regarded as common among these groups, and less commonly injecting use of both alprazolam and diazepam. In 2008, several KE noted that many primary opioid users are aware of the harms associated with injecting use of alprazolam (Xanax), and as a result use has declined amongst some groups. Despite this, injection of benzodiazepines was continuing to occur concomitantly with pharmaceutical opioids (discussed in Section 9.3).

Similar trends were noted among the IDU sample, as there was a substantial overlap between people reporting recent use of different types of opioids: of those who reported use of morphine in the six months prior to interview, 84% (n=68) also reported use of some form of methadone (either tablets or syrup, licit or illicitly accessed: Table 34), with more than three-fifths using diverted oxycodone (64%, n=52). Additionally, of those who had used morphine in the six months prior to interview, two-fifths reported methadone (41%, n=33) as the drug they most often injected in the past month, followed by morphine (40%, n=32: Table 35). Because of this substantial level of overlap, trends for these drugs are discussed together here.

Table 34: Use of other drugs by those reporting use of illicit morphine in the past six months (n=81)

Drug	% of morphine users reporting use	Median days used by those who had used the drug (range in parentheses)
Heroin	11	4 (2-10)
Methadone (any)	84	153 (1-180)
<i>Prescribed syrup</i>	48	180 (1-80)
<i>Illicit syrup</i>	56	13 (1-122)
<i>Illicit Physeptone</i>	57	6 (1-60)
Oxycodone (illicit)	64	7 (1-180)
Codeine (over-the-counter)	42	22 (1-180)
Homebake	0	-
Benzodiazepines (illicit)	69	17 (1-180)
Cannabis	89	180 (4-180)
Methamphetamine (any)	78	13 (1-144)
<i>Powder</i>	52	8 (1-96)
<i>Base/paste</i>	53	10 (1-100)
<i>Crystal</i>	23	7 (2-96)
Ecstasy	37	2 (1-96)
Alcohol	63	24 (2-180)

Source: IDRS IDU interviews

Table 35: Drug of choice and drug most often injected among those reporting use of morphine in the past six months (n=81)

	Drug of choice %	Drug most often injected %
Heroin	33	0
Methadone	9	41
Morphine	15	40
Methamphetamine	16	9
Oxycodone	6	4
Pharmaceutical stimulants	0	4
Subutex	0	1
Benzodiazepine	5	1
Methadone and benzodiazepines	0	1

Source: IDRS IDU interviews

KE were familiar with users of opioids from all Hobart suburbs, but they were often from inner-city suburbs, or lower socio-economic areas, likely reflecting the nature of the services that the key experts worked in (largely government-run health services). The majority of KE described opioid users from a predominantly English-speaking background, ranging in age between 20s and 60s; however, in general, the groups that key experts were referring to were in their 20s to 40s. KE reported that the majority of primary opioid using consumers they were familiar with were male. The majority of the opioid users described by key experts in the current study had completed 10 years of schooling; and some had also completed tertiary education. KE commented that the majority of primary opioid using consumers they were familiar with were unemployed, again largely reflecting the nature of the KE's professional roles.

8.1.4 Reasons for use of illicit pharmaceutical opioids

In order to gain contextual understanding of the use of illicit pharmaceutical opioids amongst this cohort, new questions were included in the 2008 and 2009 questionnaires pertaining to reasons for use of these drugs (Table 36). Participants who reported recent use of pharmaceutical opioids were asked to comment on the reasons for this use over the preceding six months. These were open-ended questions which were then coded by the interviewers.

Morphine

Two-fifths of the 77 participants who commented on reasons for recent use of illicit morphine reported 'self-treatment' as a reason (42%, n=32; Table 36). Examining this more closely: 23% (n=18) of recent illicit morphine users reported they had used this drug to self-treat opioid dependence; 12% (n=9) reported pain management; and 4% (n=3 respectively) reported alleviating opioid withdrawal symptoms and self-treatment of mental health problems (such as depression and anxiety). Two-thirds of recent users of illicit morphine reported 'intoxication' as a reason for use (65%, n=50). A small minority of participants (16%, n=12) reported using illicit morphine as a substitute for another drug.

Oxycodone

Almost half of the participants commenting on reasons for recent use of illicit oxycodone reported 'self-treatment' as a reason (45%, n=22; Table 36). Similar to the morphine group, 29% (n=14) of recent illicit oxycodone users reported they had used this drug to self-treat opioid dependence; 14% (n=7) had used the drug to self-treat pain; and 4% (n=2) had used oxycodone

to alleviate withdrawal symptoms. Just over half of the recent users of illicit oxycodone reported 'intoxication' as a reason for use (55%, n=27), and 18% (n=9) had used oxycodone as a substitute for another drug

Methadone syrup

One-quarter of participants commenting on recent use of illicit methadone syrup (n=49) reported 'self-treatment' as a reason (27%, n=13: Table 36). Looking at this more closely: self-treatment for opioid dependency was reported as a reason by 18% (n=9), self-treatment for pain was reported by 8% (n=4) and a single participant (2%) reported they had used illicit methadone syrup to alleviate opioid withdrawal symptoms. Three-fifths of participants reporting recent use of illicit methadone syrup reported 'intoxication' as a reason for use (63%, n=31). Almost one-third of participants (29%, n=14) reported they had used illicit methadone as a substitute for other drugs.

Table 36: Reasons for use of pharmaceutical opioids, 2009

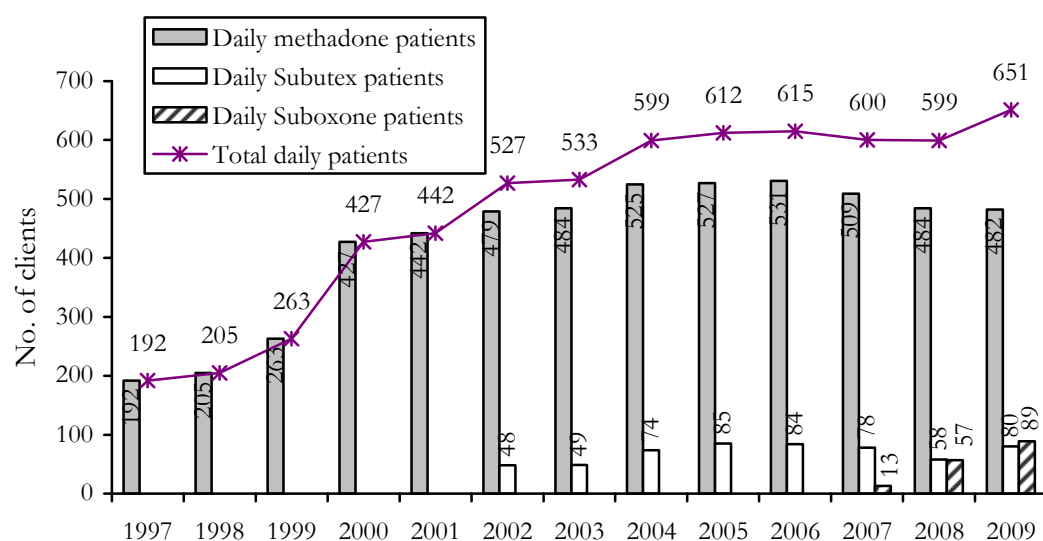
	Illicit morphine % n=77	Illicit Oxycodone % n=49	Illicit methadone syrup % n=49
Self Treatment	42	45	27
Self-treat dependence	23	29	18
Alleviate pain	12	14	8
Alleviate opioid withdrawal symptoms	4	4	2
Self-treat depression/anxiety	4	0	0
Intoxication	65	55	63
Substitute for other drugs	16	18	29

Note: Multiple responses allowed

8.1.5 Prescription rates of opioid pharmaceuticals in Tasmania

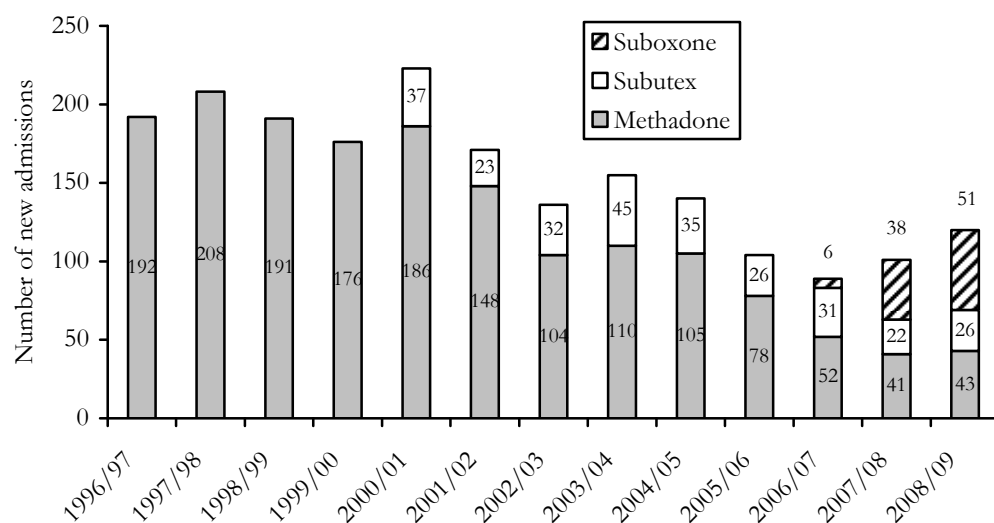
There has been little change in the number of clients on Tasmania's pharmacotherapy program in recent years, in contrast to the steady growth in the early years of the program (Figure 41). Currently, there are 482 daily recipients of methadone, slightly lower than the figures reported between 2004 and 2007, which ranged from 509 to 531. The number of new admissions to the methadone program has declined from 186 in 2000/01 to 43 in 2008/09 (Figure 42). The uptake of Subutex and Suboxone treatments account for the recent decline in numbers of methadone maintenance clients. There are currently 80 daily recipients of Subutex (buprenorphine) treatment - which was made available as a treatment option for the first time in 2000/01 - and the number of new admissions has remained relatively unchanged since 2000/01 (26 in 2008/09). The number of clients receiving Suboxone (buprenorphine-naloxone) maintenance treatment- which was locally introduced as a treatment option in 2007- has increased from 13 in 2007 to 89 in 2009. The number of clients receiving pharmacotherapy treatment remained largely unchanged between 2004 and 2008, ranging between 599 and 615; however in 2009 this figure has increased slightly to 651 clients.

Figure 41: Clients of the Tasmanian pharmacotherapy programs, 1997-2009



Source: Pharmaceutical Services, Department of Health and Human Services, Tasmania

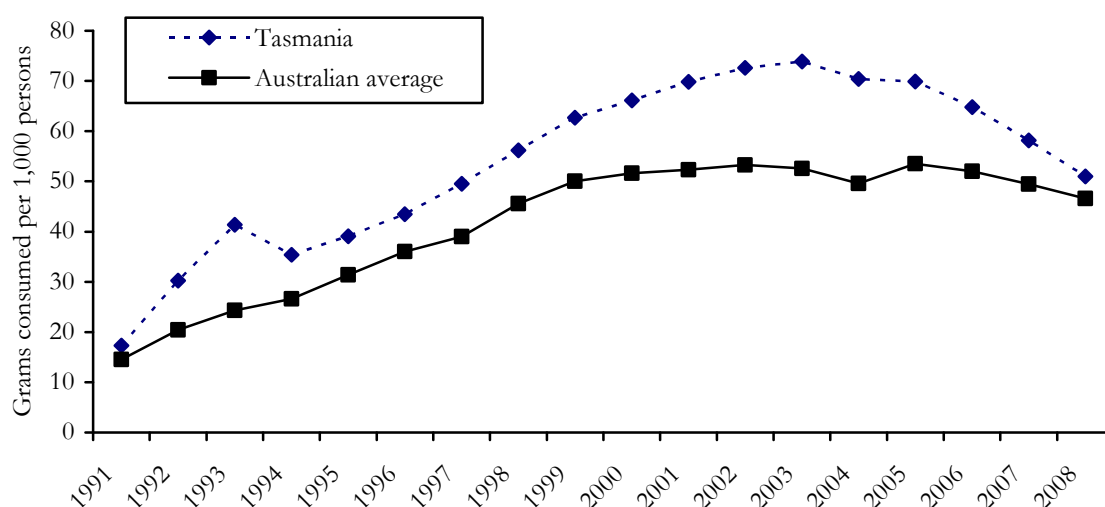
Figure 42: New admissions to pharmacotherapy treatments in Tasmania, 1996/97-2008/09



Source: National Drug System and Pharmaceutical Services, Department of Health and Human Services, Tasmania

Tasmanian prescription rates for Schedule 8 pharmaceuticals²¹ since 1991 were also provided by Pharmaceutical Services (Tasmanian Department of Health and Human Services). During this time, Tasmanian consumption of morphine has been consistently 110% or more of the national average, although the volume of use has been clearly declining in Tasmania since 2003, in contrast to a smaller decline nationally since 2005 (Figure 43). In keeping with this high level of use, the number of applications received by Tasmanian Pharmaceutical Services for approval to prescribe narcotics²² had steadily increased, almost exponentially, in recent years, from 351 in 1989/90 to 2,644 applications in 2005/06²³, with a particularly marked increase in applications in 2006/07 to 4,317. In 2008/09, 5,012 applications were received (Figure 44).

Figure 43 Consumption of morphine per 1,000 persons, 1991-2008



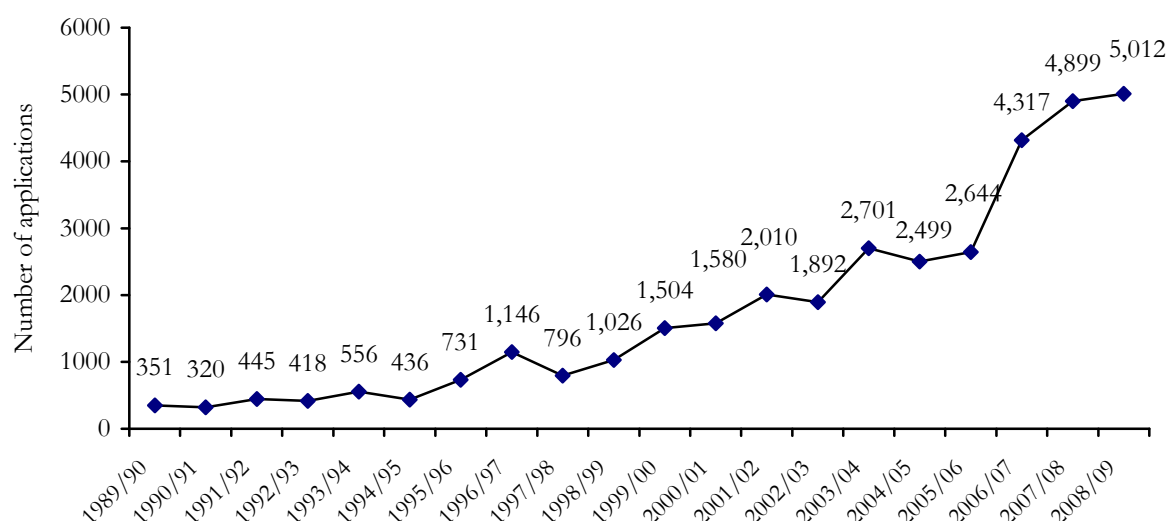
Source: National Drug System and Pharmaceutical Services, Department of Health and Human Services

²¹ Pharmaceuticals classed under Schedule 8 are variously classed as narcotic substances or drugs of addiction/dependence in differing jurisdictions.

²² The *Alcohol and Drug Dependency Act 1968* requires medical practitioners to seek the approval of the Secretary of Pharmaceutical Services when narcotics are prescribed for a patient for more than two months, or for a person who is drug dependent.

²³ It is worth noting that the level of compliance in regard to submission of applications is significantly dependent on reminders being sent to doctors, and as such these figures are unlikely to reflect the absolute number of cases requiring such a submission.

Figure 44: S22 applications received by Pharmaceutical Services, Tasmania: 1989/90-2008/09



Source: Pharmaceutical Services, Department of Health and Human Services.

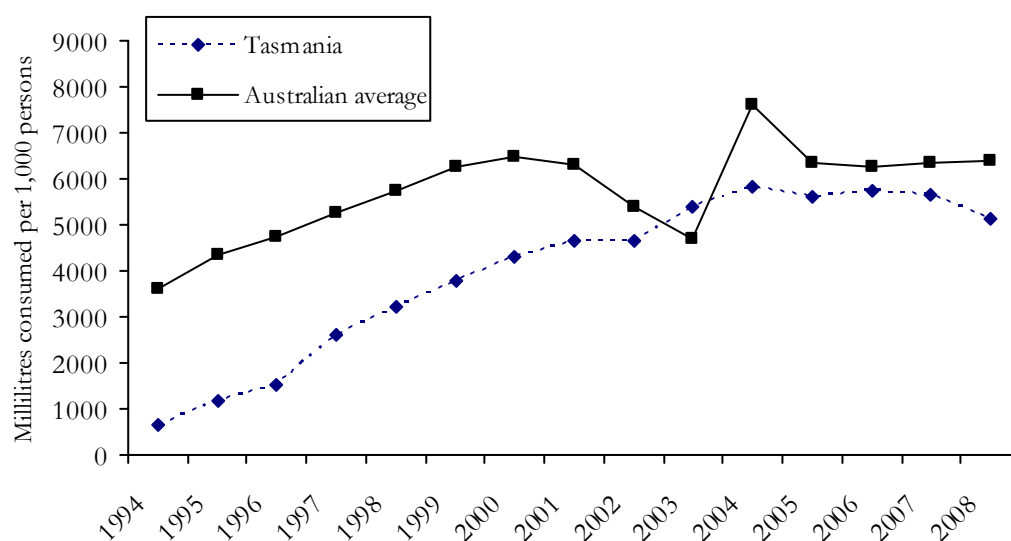
Note: Applications are for approval to prescribe narcotics to a patient for more than two months or for a person who is drug dependent

Despite the use of methadone syrup amongst a large proportion of the IDU sample in Tasmanian IDRS studies, local population rates of consumption of methadone syrup were continuously below that of the national average until 2002 (Figure 45). This partially reflected a sharp decline in consumption of methadone syrup nationally, beginning in 2001 with the wide introduction of buprenorphine maintenance treatment. Following some fluctuations in the extent of use of methadone syrup nationally, consumption has stabilised, with Tasmanian population rates of consumption at a level slightly below that seen nationally in 2008 (80% of the national average: Figure 45).

Tasmanian consumption of methadone 10mg tablets, in contrast to the level of use of methadone syrup, has been consistently above 200% that of the national average since 1995 (Figure 46) with a rapid increase in use to 2000 (where local prescription rates were 260% of the national average), and again from 2003 to 2006 (from 253% of the national average to 278%: Figure 46). In 2008, the level of Tasmanian consumption of Physeptone remained relatively stable: at 256% of the national average.

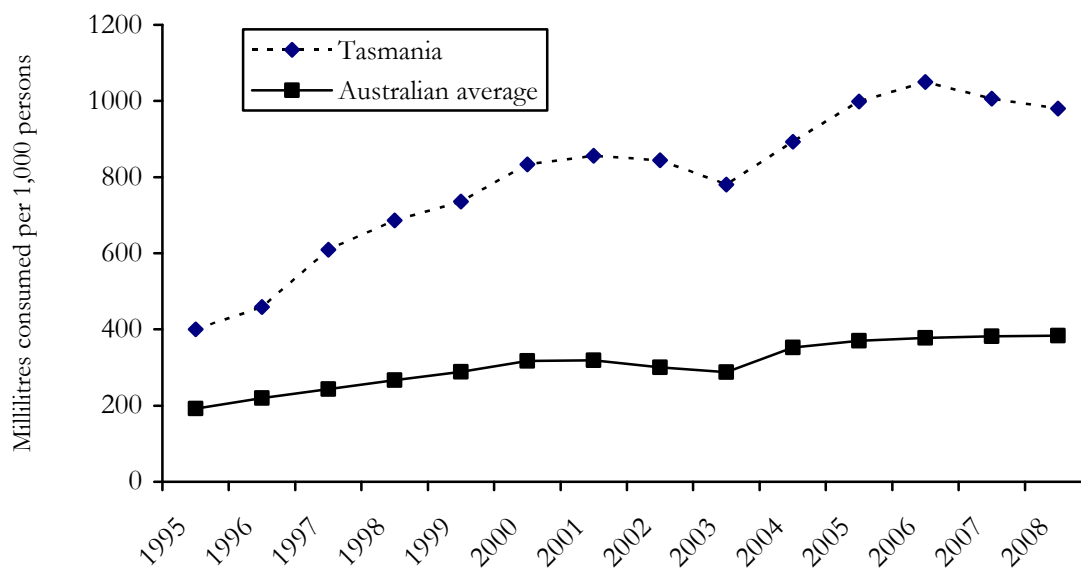
When trends across both preparations of methadone are combined, overall consumption of methadone in Tasmania remained below that of the Australian average until 2002, and in 2003 grew to 130% of the national average, due to a sharp decrease in the national rate of consumption (Figure 47). Between 2004 and 2007, the national and local rates of consumption had stabilised, with Tasmanian rates approximately 110% of the national average (Figure 47). In 2008, however, rates of use in Tasmania were comparable with the national average following a small increase in the national rate of consumption and a decrease in the Tasmanian rate.

Figure 45: Consumption of methadone syrup per 1,000 persons, 1994-2008



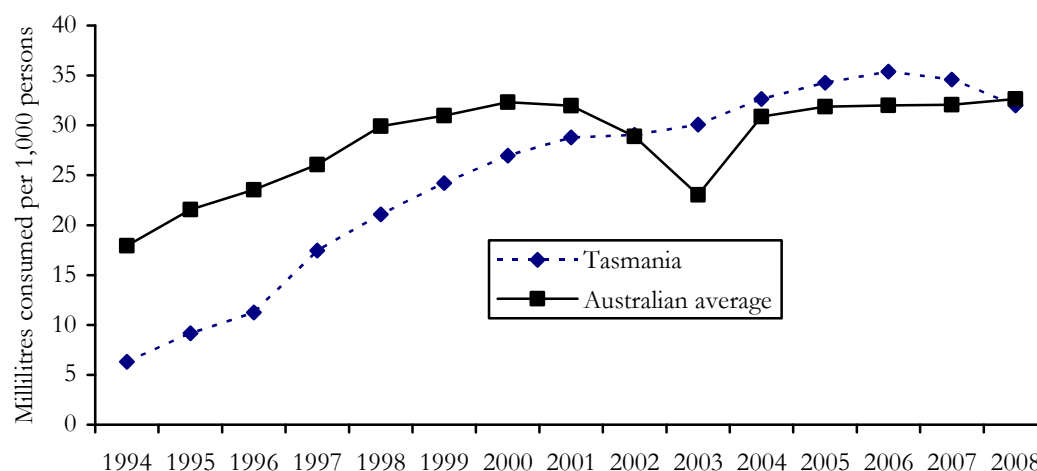
Source: National Drug System and Pharmaceutical Services, Department of Health and Human Services

Figure 46: Consumption of methadone 10mg tablets per 1,000 persons, 1993-2008



Source: National Drug System and Pharmaceutical Services, Department of Health and Human Services

Figure 47: Consumption of methadone per 1,000 persons, 1994-2008



Source: National Drug System and Pharmaceutical Services, Department of Health and Human Services

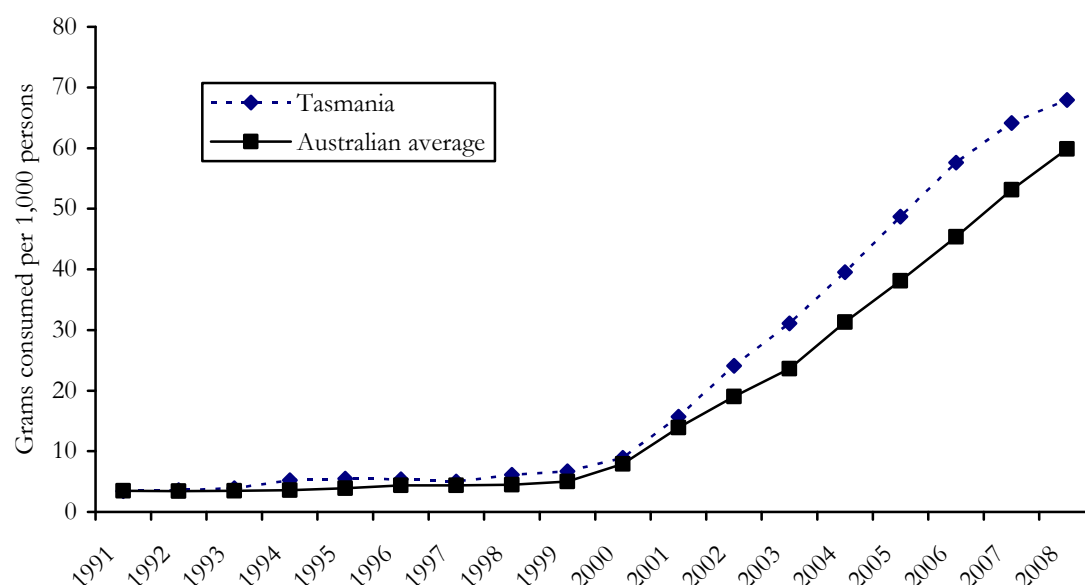
Finally, prescriptions of oxycodone are detailed in Figure 48. Nationally, there has been a rapid uptake in the use of this drug since 1999, with uptake in Tasmania being particularly enthusiastic: prescription rates have increased seven-fold in the nine years between 2000 and 2008. In 2008, local consumption of oxycodone was 114% of the national average.

A proportion of these differences in consumption rates can be accounted for by idiosyncrasies in prescription practices and the aging nature of the Tasmanian population. It is important to note that higher-than-average levels of prescription of opioid products certainly do not necessarily imply inappropriate patterns of clinical practice – indeed, there are many indications that, internationally, chronic pain (for which opioids are appropriately prescribed) is often under-recognised and unrelieved (see Brennan et al., 2007 for a review on this issue).

Similarly, higher-than-average levels of opioid prescription do not indicate that IDU are responsible for these elevated rates. Indeed, a near-negligible proportion of IDU reported accessing opioids via licit means²⁴ in the six months prior to interview: with the exception of methadone as part of a maintenance program, only 10 of the current IDU cohort reported accessing morphine, oxycodone or methadone tablets via licit means in this time (four Physeptone, three morphine, three oxycodone). More detailed examinations of the issue of doctor shopping and local IDUs' experience with access to analgesia from medical practitioners (Bruno, 2007) concur with the fact that IDU are generally not accessing opioids from medical practitioners directly via 'doctor shopping'.

²⁴ During interviewing, 'licit means' was defined as having the drug prescribed directly to the individual. By this definition, doctor-shopping would be considered as 'licit means', which suggests that there is a stable illicit source of these drugs to IDU.

Figure 48: Consumption of oxycodone per 1,000 persons, 1991-2008



Source: National Drug System and Pharmaceutical Services, Department of Health and Human Services

8.2 Price

8.2.1 Morphine

The modal price that users paid for their most recent purchase of morphine was \$1 per mg. Modal prices for MS Contin were \$30 for a 30mg tablet (median \$25, range \$15-30, n=30), \$60 per 60mg tablet (median \$50, range \$40-60, n=69), and \$100 for 100mg MS Contin tablets (median \$90, range \$60-100, n=46: Table 37). Purchase prices for Kapanol were similar: 50mg capsules cost a modal price of \$50 (median \$50; range \$30-80, n=46), and 100mg Kapanol capsules cost a modal price of \$100 (median \$100, range \$60-100, n=23). These modal purchase prices are higher in 2009 than reported in recent local IDRS surveys: 60mg MS Contin tablets cost a modal purchase price of \$50 between 2002 and 2008, increasing to \$60 in the current study; similarly, the modal purchase price for 100mg MS Contin tablets increased from \$70 during 2003 to 2005 to \$80 between 2006 to 2008, and in 2009 the price has again increased to \$100. The modal purchase price for Kapanol has also increased: 50mg capsules cost a modal price of \$35 in 2005, and have increased to \$50 in 2008 and 2009. Similarly, the modal purchase price for 100mg capsules has increased from \$70 (between 2003 and 2007) to \$100 in the current study. One KE commented on the price for morphine: in general tablets/capsules cost \$1 per mg, however, 100mg MS Contin tablets were reported as being slightly cheaper, costing around \$80 for one tablet.

The majority of consumers reporting on morphine prices (63%, n=50 of those able to comment) believed that these had remained stable in the preceding six months. However, one-third of consumers (32%, n=25 of those able to comment) noted an increase in price during this period, with small minorities reporting decreasing (3%, n=2) or fluctuating price trends (1%, n=1). Compared with previous years, purchase prices indicate more of an increase in price than was indicated by participant perceptions over the preceding six months.

8.2.2 Oxycodone

Prices for purchases of illicit oxycodone were first examined in the 2005 IDRS study²⁵. In the current study, consumers reported a modal purchase price of \$1 per mg: modal prices for a 20mg OxyContin tablets was \$20 (median \$20, range \$5-20, n=12: Table 37); \$40 per 40mg tablet (median \$40, range \$15-40, n=28), and \$80 per 80mg tablet (median \$75, range \$40-80, n=26). When examining reported prices for OxyContin over time, it is clear that modal price estimates have increased, particularly regarding 80mg tablets, which increased from \$50 in 2006 to \$80 in 2008 and 2009. An increase in the modal price for 40mg tablets has also been observed: increasing from \$25 in 2006 to \$40 in the three years following this (Table 37).

Participants were asked to comment on perceived changes in price over the preceding six months. Amongst those participants who were able to comment on price trends for oxycodone, two-thirds reported the price to have remained stable (69%, n=34). A small minority commented that the price for oxycodone had increased (14%, n=7). Comparison of the modal prices for most recent purchases of the drug amongst the 2008 and 2009 survey respondents provides support for reports of stable to increasing prices (Table 37).

8.2.3 Methadone

Since the nature of access to methadone syrup does not easily allow for standard purchase amounts to be made, IDU were asked to report the amounts and costs of their most recent purchase of methadone, and these were divided into purchases of less than 80mg, or 80mg and above. This was chosen on the basis of a clear split in the data that was apparent in previous studies, where the modal purchase price of methadone syrup per 1mg was found to be greater for smaller quantities (i.e. less than 80mg) than for larger purchase amounts (i.e. 80mg or greater). However, since 2007 this difference in the modal price estimate has not been observed, with purchases, irrespective of quantity, costing a modal amount of \$1 per mg (Table 38). More than three-quarters of the participants who commented on price trends for methadone syrup in the preceding six months (n=45) indicated that the purchase price had remained stable (78%, n=35). A small minority of this group noted a trend toward an increasing price (18%, n=8). When purchase prices for illicit syrup are compared over time, a stable trend can be clearly seen, which shows a purchase price for \$1.00 per mg, except for 2005, when the cohort reported \$0.80 per mg of syrup (Table 38).

The median purchase price for illicit 10mg Physeptone tablets of methadone was \$12.50 (no single mode, range \$5-25, n=44). This median price is slightly higher than reported in previous IDRS reports: between 2003 and 2007, the median purchase price was \$10 and in 2008 this increased to \$12 (modal price \$10: Table 38). This is consistent with participant reports indicating that half of those who commented (52%, n=26) thought that prices had increased over the preceding six months, and less than one-third reported prices to have remained stable (30%, n=15). Six percent of participants reported fluctuating price trends over this period (n=3) and 29% (n=18) of participants reported they 'did not know' if the price had changed in the preceding six months.

²⁵ In IDRS studies prior to 2005, oxycodone price data have been collected where offered but not in a systematic fashion.

Table 37: Modal last purchase price for most recent purchase of morphine and oxycodone, 2002-2009

Preparation	2002 IDRS		2003 IDRS		2004 IDRS		2005 IDRS	
	Price	<i>n</i>	Price	<i>n</i>	Price	<i>n</i>	Price	<i>n</i>
MS Contin								
10 mg tablet	\$7.50 (\$5-10)	2	\$5(\$5-15)	3	\$4 (\$3-15)	3	\$10 (\$10)	2
30 mg tablet	\$20 (\$10-30)	45	\$20 (\$20-30)	18	\$20 (\$1-25)	26	\$25 (\$15-35)	21
60 mg tablet	\$50 (\$18-60)	86	\$50 (\$15-60)	51	\$50 (\$4-58)	50	\$50 (\$25-60)	42
100 mg tablet	\$80 (\$20-100)	73	\$70(\$12-100)	44	\$70 (\$5-80)	44	\$70 (\$50-90)	47
Kapanol								
20 mg capsule	\$20 (\$10-20)	14	\$15 (\$10-30)	9	\$13 (\$5-20)	9	\$13* (\$5-20)	6
50 mg capsule	\$40 (\$15-50)	43	\$35 (\$12-50)	35	\$40 (\$15-50)	35	\$35 (\$15-50)	29
100 mg capsule	\$80 (\$50-100)	36	\$70(\$17-100)	22	\$70 (\$30-80)	20	\$70 (\$30-90)	25
Anamorph								
30 mg tablet	\$25 (\$10-30)	44	\$20*(\$10-30)	9	\$30 (\$15-30)	16	\$25*(\$22-45)	3
OxyContin								
10 mg tablet	-	-	-	-	-	-	\$7.50*(\$5-10)	2
20 mg tablet	-	-	-	-	-	-	\$15(\$10-20)	5
40 mg tablet	\$15	1	\$20 (\$20)	4	\$40	1	\$20(\$15-30)	11
80 mg tablet	-	-	-	-	-	-	\$40*(\$30-80)	9

Source: IDRS IDU interviews

Note: reported price range in parentheses

*Median substituted for mode, as no single mode existed.

Table 37: Modal last purchase price for most recent purchase of morphine and oxycodone, 2002-2009 (continued)

Preparation	2006 IDRS		2007 IDRS		2008 IDRS		2009 IDRS	
	Price	<i>n</i>	Price	<i>n</i>	Price	<i>n</i>	Price	<i>n</i>
MS Contin								
10 mg tablet	\$5 (\$5-10)	3	\$5	1	\$5	2	\$10(\$10-20)	4
30 mg tablet	\$25 (\$15-30)	25	\$20(\$15-50)	20	\$25 (\$15-35)	28	\$30 (\$15-30)	30
60 mg tablet	\$50 (\$20-60)	14	\$50(\$30-80)	53	\$50 (\$20-70)	69	\$60 (\$40-60)	69
100 mg tablet	\$80 (\$50-120)	16	\$80(\$30-90)	40	\$80 (\$60-100)	40	\$100 (\$60-100)	46
Kapanol								
20 mg capsule	\$10 (\$5-20)	11	\$10(\$8-20)	7	\$20 (\$15-30)	7	\$20(\$10-25)	9
50 mg capsule	\$35 (\$10-80)	31	\$40(\$20-50)	24	\$50 (\$30-55)	49	\$50(\$30-80)	46
100 mg capsule	\$70 (\$20-120)	34	\$70(\$50-95)	22	\$80 (\$50-100)	23	\$100(\$60-100)	23
Anamorph								
30 mg tablet	-	-	-	-	\$30	1	\$30(\$20-30)	5
OxyContin								
10 mg tablet	\$5	1	\$10(\$10-20)	3	\$10 (\$5-10)	4	\$10(\$7-10)	3
20 mg tablet	\$15*(\$10-20)	5	\$20(\$20)	4	\$20 (\$10-20)	20	\$20(\$5-20)	12
40 mg tablet	\$25 (\$5-40)	147	\$40*(\$15-50)	9	\$40 (\$20-50)	26	\$40(\$15-40)	28
80 mg tablet	\$50 (\$40-50)		\$40(\$30-100)	11	\$80 (\$50-80)	13	\$80(\$40-80)	26

Source: IDRS IDU interviews

Note: reported price range in parentheses

*Median substituted for mode, as no single mode existed.

Table 38: Modal last purchase prices of methadone reported by IDU, 2002-2009

Preparation	2002 IDRS		2003 IDRS		2004 IDRS		2005 IDRS	
	Price	n	Price	n	Price	n	Price	n
Methadone syrup (price per mg)								
<i>Amounts less than 80 mg</i>	\$1.0 (\$0.4-1.0)	19	\$1.0 (\$0.3-1.0)	21	\$1.0 (\$0.4-1.0)	30	\$0.8 (\$0.5-4.0)	24
<i>Amounts ≥80 mg</i>	\$0.8 (\$0.4-0.9)	24	\$0.8 (\$0.5-1.0)	22	\$0.8 (\$0.4-1.0)	42	\$0.75 (\$0.4-1.0)	14
<i>All purchase amounts</i>	\$1.0 (\$0.4-1.0)	43	\$1.0(\$0.3-1.0)	43	\$1.0 (\$0.4-1.0)	72	\$0.8 (\$0.4-1.0)	38
Physeptone								
<i>5 mg tablet</i>	\$5	1	-	-	\$10	2	\$5	1
<i>10 mg tablet</i>	\$10 (\$5-15)	53	\$10 (\$3-20)	62	\$10 (\$5-15)	43	\$10 (\$5-15)	33

Source: IDRS IDU interviews

Note: reported price range in parentheses

*Median substituted for mode, as no single mode existed.

Table 38: Modal last purchase prices of methadone reported by IDU, 2002-2009 (continued)

Preparation	2006 IDRS		2007 IDRS		2008 IDRS		2009 IDRS	
	Price	n	Price	n	Price	n	Price	n
Methadone syrup (price per mg)								
<i>Amounts less than 80 mg</i>	\$1.0(\$0.4-2.0)	7	\$1.0(\$0.5-2.0)	19	\$1.0 (\$0.5-2.0)	17	\$1.0(\$0.5-1.0)	22
<i>Amounts ≥80 mg</i>	\$0.85*(\$0.3-2.0)	36	\$1.0(\$0.56-1.25)	32	\$1.0 (\$0.5-1.2)	37	\$1.0(\$0.4-1.0)	23
<i>All purchase amounts</i>	\$1.0(\$0.3-2.0)	43	\$1.0(\$0.5-2.0)	52	\$1.0 (\$0.5-2.0)	53	\$1.0(\$0.4-1.0)	46
Physeptone								
<i>5 mg tablet</i>	\$4.25*(\$3.5-5.0)	2	\$5	1	\$5	1	-	0
<i>10 mg tablet</i>	\$10 (\$7-150)	36	\$15(\$5-20)	17	\$10 (\$5-20)	35	\$12.5*(\$5-25)	44

Source: IDRS IDU interviews

Note: reported price range in parentheses

*Median substituted for mode, as no single mode existed.

8.3 Form

8.3.1 Morphine

Consumer respondents were asked to nominate the preparations of morphine that they had used in the preceding six months. Of the 81 participants reporting use of non-prescribed morphine in the preceding six months, use of MS Contin was the most common (95%, n=77), followed by Kapanol (69%, n=56). Smaller proportions reported recent use of MS Mono (25%, n=20), liquid morphine (e.g. Ordine²⁶: 21%, n=17), Anamorph (10%, n=8) and hydromorphone (4%, n=3).

When asked to nominate which form they had used most often in the preceding six months, three-quarters (74%, n=60) reported illicit MS Contin, and 20% reported illicit Kapanol (n=16), with small minorities nominating illicit MS Mono (4%, n=3) and illicit Ordine (3%, n=2).

All participants reporting use of morphine in the last six months (both licit and illicit, n=82), with the exception of three, had accessed morphine from sources other than a medical practitioner. Of these three participants, two reported also using illicit morphine over this period. It is clear from these figures that the majority of morphine used by participants in the current study does not come directly from medical practitioners.

8.3.2 Oxycodone

Just over half (56%, n=56) of the current IDU sample reported use of some preparation of non-prescribed oxycodone in the six months prior to interview. Oxycontin was the most commonly reported form of the drug, with all but three participants recently using the drug (95%, n=53), and one-third of participants reported recent use of Endone (32%, n=18). A small proportion of participants reported recent use of OxyNorm (4%, n=2). When asked which form they had used most often in the preceding six months, 96% (n=54) reported illicit OxyContin, and 4% reported illicit Endone (n=2).

All participants reporting use of oxycodone in the last six months (both licit and illicit, n=56), had accessed morphine from sources other than a medical practitioner. Three participants reported use of oxycodone that was prescribed to them. As noted for morphine, the majority of oxycodone used by participants in the current study does not come directly from medical practitioners.

8.3.3 Methadone

Seventy-three percent of the IDU sample had reported use of methadone syrup in the past six months, the majority of whom had been on a methadone maintenance program within this time (66%, n=48). Amongst those participants who reported having accessed methadone maintenance treatment in the preceding six months (n=48), more than half of this group had also used illicit methadone syrup (56%, n=27).

Use of the diverted tablet preparation of methadone, Physeptone, was reported in a slightly smaller percentage of the sample (50% of the sample) in the preceding six months. The majority of participants reporting use of Physeptone in the last six months (both licit and illicit, n=51), had accessed it from a source other than a medical practitioner. Four participants reported use of Physeptone that was prescribed to them, three of whom also reported using

²⁶ Ordine is morphine hydrochloride in aqueous (water) solution, and contains sugar as a preservative.

diverted tablets in this period. Similar to the trend for morphine and oxycodone, the majority of Physeptone used by participants does not come directly from medical practitioners.

When asked to describe the form of methadone they had predominantly used in the preceding six months, the majority of participants reported licit methadone syrup (57%, n=44), almost one-third reported illicit syrup (30%, n=23), 10% (n=8) reported illicit Physeptone tablets and 3% (n=2) reported licit tablets.

8.3.4 Other pharmaceutical opioids and related substances

Due to recent developments of new opioid-based, or strong analgesic pharmaceuticals, and the known interest/preference among the Tasmanian illicit drug market for pharmaceutical drugs, IDU were also asked about use of other pharmaceutical opioids and related substances in the preceding six months. Fourteen percent of participants reported using illicit/diverted Tramadol in the six months prior to interview. No participants reported recent use of illicit pethidine or Fentanyl.

Questions regarding use of over-the-counter codeine products (OTC-codeine), such as Nurofen Plus and Panadeine, were added into the 2009 questionnaire. Harms related to misuse of these drugs have been increasingly reported in the past few years: perforated gastric ulcers have been reported in association with misuse of ibuprofen, and liver damage has been associated with misuse of paracetamol (Nielsen & Cameron, 2009). Participants were asked a range of questions regarding their use of these products. Only individuals using OTC-codeine in unsanctioned ways are examined here, with this defined as: regular, frequent use (i.e. those who had consistently used more than 3 days per week in the last 6 months); using for reasons other than for pain control; and concomitant use with other drugs. Twenty-nine percent of participants reported misuse of codeine in the previous six months, and the median frequency of this use was 24 days (range 1-180 days), which equates approximately to weekly use. Amongst this group, the most commonly used brands of OTC-codeine were Nurofen Plus (codeine and ibuprofen: 28%, n=8), Mersyndol (paracetamol, codeine phosphate, doxylamine succinate: 17%, n=5), Fiorinal (paracetamol, codeine phosphate, doxylamine succinate) and Chemist's Own Brand pain tablets (paracetamol and codeine: 14%, n=4 respectively). Smaller proportions of this group of participants reported use of Dolased (paracetamol, codeine phosphate, doxylamine succinate: 10%, n=3), Panafen Plus (ibuprofen and codeine) and Panalgesic (paracetamol, codeine phosphate, doxylamine succinate: 7%, n=2 respectively). See Section 10.3 for a more detailed discussion on use of over-the-counter codeine products.

8.3.5 Use of different forms of pharmaceutical opioids across IDRS studies

Use of the different types of pharmaceutical opioids across the IDRS IDU samples is presented in Figures 49 and 50 below. It should be noted that these figures report on the proportion of the IDU participants reporting accessing these drugs illicitly (rather than directly from a doctor's prescription for them) in the six months prior to interview; and as such these results differ somewhat from the total proportion of the IDU samples in each study reporting any use of these products. Moreover, to allow for more consistent comparisons, Figure 49 presents illicit use of each pharmaceutical opioid type as a proportion of the number of pharmaceutical opioid consumers in each cohort, while Figure 50 presents illicit use as a proportion of the entire IDRS sample each year.

Figure 49 indicates that the proportion of the sample reporting recent use of illicit morphine – which was the predominant non-prescription pharmaceutical opiate used by IDRS IDU participants in all years with the exception of 2004 – had been in decline from 2001 to 2006. Over the past three years this trend has been reversed, with statistically significant increases

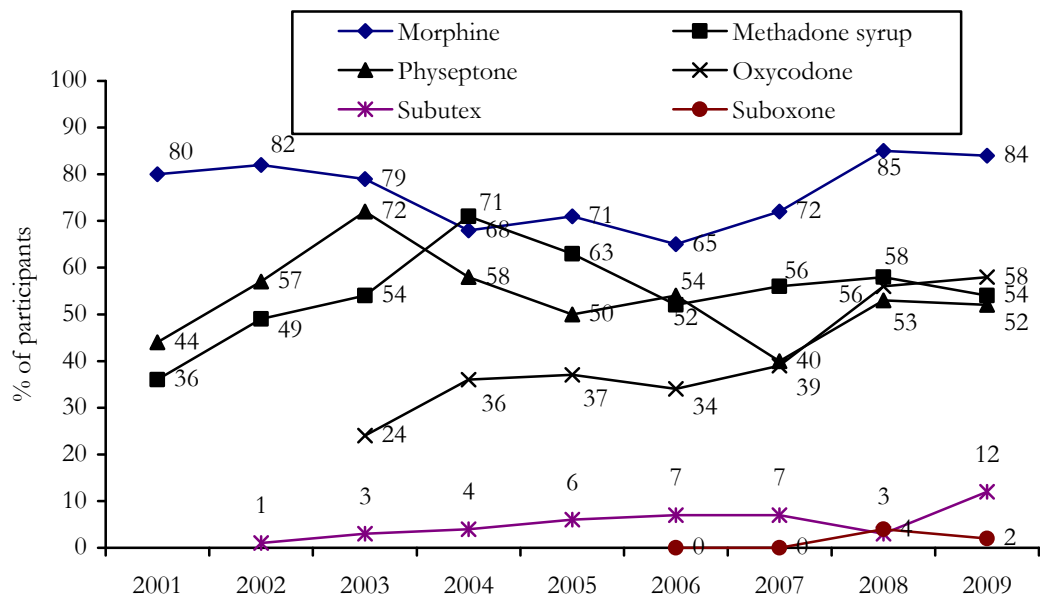
between 2006 and 2008 in both the proportions of the entire cohort (58% in 2006, 81% in 2009: 95%CI of difference 10%-35%: Figure 50) and of opioid consumers (65% in 2006; and 84% in 2009; 95%CI of difference 7%-31%: Figure 49) reporting recent use of illicit morphine.

Use of illicit methadone (Physeptone) tablets steadily increased from 2001, where 40% of the sample had recently used the drug, rising to 64% in 2003, with use subsequently declining in 2004 and further still in 2005 to just 41%. Since 2005, the rate of use of Physeptone has varied between 37% and 48% (Figure 50).

Across the early years of the IDRS study locally, the proportion reporting recent use of illicit methadone syrup increased (32% in 2001 to 64% in 2004); however, this was most commonly used amongst those already enrolled in the methadone maintenance program. In 2005, the proportion of participants reporting recent use of methadone syrup declined to 52%, and has remained relatively stable since then (ranging between 46% and 55%). It is important to note that amongst all cohorts (with the exception of 2008), the majority of those reporting illicit purchases of methadone syrup remain individuals who are themselves also receiving methadone maintenance treatment (52%, n=27 in 2009).

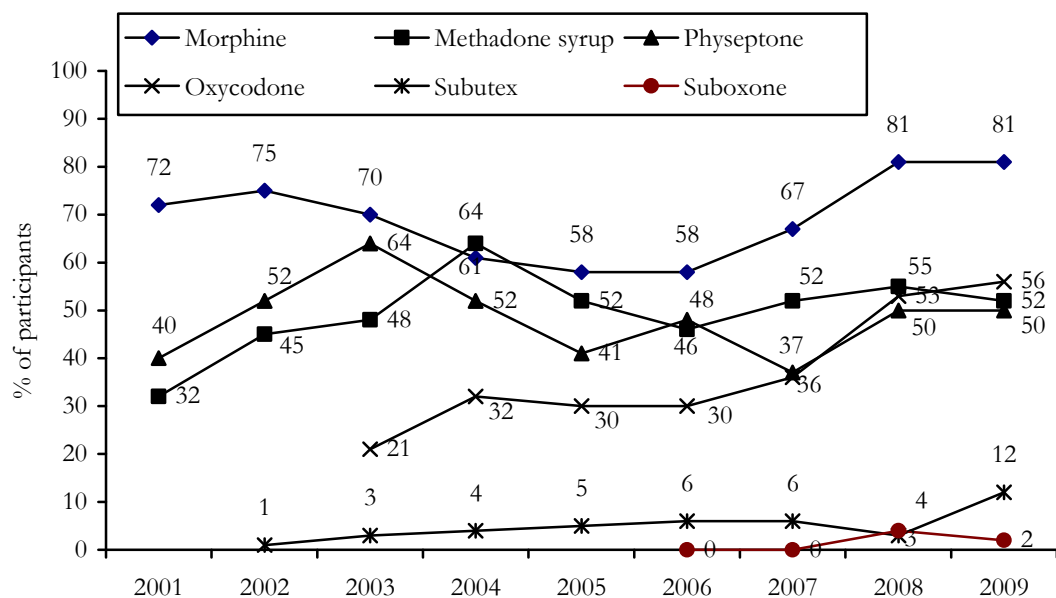
Use of illicit buprenorphine (Subutex) has remained very low across the six years where the drug has been available for pharmacotherapy. In 2002, just one participant reported illicit use of this drug, and in 2009 this had increased to 12% (95%CI of difference 4-19%). Frequency of use of this drug also remains low in 2009: 12 days in the last six months, which equates to approximate use once per fortnight (range 1-180 days). Finally, there had been a notable increase in reported use of illicit oxycodone (from 21% in 2003 to 32% in 2004), which plateaued at around one-third of participants in 2005 and 2006 (30% of both cohorts). Since 2006, the proportion of participants reporting recent use of oxycodone has continued to increase, with 56% of the current sample reporting recent use in 2009 (Figure 50).

Figure 49: Proportion of opioid consumers within the Tasmanian IDRS IDU cohorts reporting non-prescription use of pharmaceutical opioids in the six months prior to interview, 2001-2009



Source: IDRS IDU interviews

Figure 50: Proportion of Tasmanian IDRS IDU cohorts reporting use of different types of diverted pharmaceutical opioids or related products in the six months prior to interview, 2001-2009



Source: IDRS IDU interviews

8.4 Availability

8.4.1 Morphine

The majority of the consumers interviewed who could comment on availability trends for morphine (n=78) reported that morphine was ‘easy’ or ‘very easy’ for them to obtain (79%: 60% ‘easy’; 19% ‘very easy’), and that the availability of morphine had remained stable (63%) in the six months prior to interview, with 27% reporting access had decreased. Among the IDRS consumer sample, participants reported last purchasing morphine from a known dealer (54%, n=42) or from a friend (31%, n=24), with a small minority purchasing from an acquaintance (12%, n=9).

Participants were also asked to comment on the last venue in which these recent purchases occurred: 36% (n=28) reported purchasing at an agreed public location, 30% (n=23) last purchased morphine in a dealer’s home and 24% (n=19) last purchased in a friend or acquaintance’s home.

Seizures of morphine and other narcotic pills by Tasmania Police remained reasonably stable between 1999/00 and 2002/03: 215 tablets (100 of these being morphine) in 1999/00; 322 tablets in 2000/01 (21 morphine tablets); 254 tablets (63 morphine) in 2001/02; and 211 morphine tablets in 2002/03. Perhaps partially due to more specific coding of seizures of pharmaceuticals, a marked increase in the number of morphine tablets seized in 2003/04 was noted, with 686 morphine tablets seized in this period. However, in 2004/05, seizures had returned to their previous level at 230 tablets, and 6mL of liquid morphine. This decline in seizures continued, with 51 morphine tablets seized in 2005/06 and in 2006/07, 58 tablets and 14 units of liquid morphine were seized. In 2007/08, this trend was reversed, with 150 tablets and two ampoules of liquid morphine being seized, continuing into 2008/09²⁷, with 230 tablets and 4mL of liquid morphine seized.

8.4.2 Oxycodone

Almost half (46%) of the consumers interviewed in the 2009 IDRS study could confidently report on availability trends for oxycodone in the preceding six months, with three-fifths commenting that it was either ‘easy’ or ‘very easy’ to access (61%: 41% ‘easy’ and 20% ‘very easy’). One-third of participants who commented reported that it was ‘difficult’ for them to access oxycodone (37%). The rate of participants reporting access to this drug to be ‘difficult’ had remained relatively unchanged since 2006 (ranging between 33% and 35%), however, these rates were notably lower than reported in the 2005 study, when three-fifths of participants (61%) who commented reported this. Just over half of the 2009 cohort (55%, n=27) who commented reported that this situation had remained stable and 31% (n=15) reported that access had become more difficult in the preceding six months.

Participants had most commonly last purchased oxycodone from a friend (53%, n=26) or a known dealer (41%, n=20). Almost one-third of participants reported they had last purchased oxycodone from a friend’s home (31%, n=15), and approximately one-fifth reported the venue for this last purchase to be a dealer’s home (25%, n=12), an agreed public location (22%, n=11) or via home delivery (20%, n=10).

²⁷ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

8.4.3 Methadone

In a continuation of trends identified in the 2004 study, the majority of participants reporting on the availability of illicit Physeptone tablets considered these as ‘difficult’ or ‘very difficult’ to access (82%, n=36; 66% ‘difficult’; 16% ‘very difficult’), with only a minority considering the drug as ‘easy’ (14%, n=6) or ‘very easy’ (5%, n=2) to access in the preceding six months. Participants were divided with regard to changes in availability in the preceding six months, with 41% (n=21) reporting no change, and 35% (n=18) reporting decreasing availability. Most IDU reported last purchasing Physeptone through a friend (47%, n=24), a known dealer (28%, n=14) or an acquaintance (24%, n=12). Venues which were most commonly cited for these transactions included an agreed public location (45%, n=23) or a friend’s home (24%, n=12). Small minorities reported accessing Physeptone via home delivery (12%, n=6), or from a dealer’s or an acquaintance’s home (8%, n=4 respectively).

Three-fifths of the participants who commented considered illicit methadone syrup as ‘easy’ or ‘very easy’ to access (62%: 58% ‘easy’, n=29; 4% ‘very easy’, n=2), whilst 38% considered it as ‘difficult’ or ‘very difficult’ to access (30% ‘difficult’, n=15; 8% ‘very difficult’, n=4). Again, as noted by IDU in previous years, the degree of availability is highly dependent on standing arrangements, with one participant from a previous study describing the situation as such: *‘it is very easy to access if you have a pre-existing arrangement, but very difficult if you try to find it on a whim’*. More than half of those participants reporting on trends in availability of illicit syrup perceived it as remaining stable in the preceding six months (58%, n=29); however, 40% (n=20) noted that it had become more difficult to access the drug in this time. One KE noted that the drug had become more difficult for consumers to access over the preceding six months, and two KE had heard anecdotal reports of an increase in ‘stand-overs’ (intimidation used in order to access someone’s take-away dose of methadone) outside well-known methadone dosing pharmacies, at least one of which involved violence.

IDU that had used illicit methadone syrup recently, generally last purchased the drug from a friend (57%, n=26), with small minorities purchasing from acquaintances (26%, n=12) and known dealers (9%, n=4). Seventeen participants reported they had recently used illicit methadone syrup, but had not purchased it (i.e. gift, swap or trade). The venue in which these purchases tended to occur included agreed public locations (52%, n=24) and a friend’s home (26%, n=12). Due to concerns among some KE in previous years about use of ‘spat out’ doses of methadone syrup, IDU were asked about the source of their last illicit purchase of methadone syrup, with 96% (n=44) of those who responded reporting that the drug had come from a ‘take-away’²⁸ dose. The remaining 4% (n=2) of participants reported they ‘didn’t know’ the source of illicit methadone they had last used.

In the 2001 IDRS, one KE (a user group representative), and two IDU, reported a trading system amongst a group of IDU on the methadone program, where, in cases where people picked up two or three take-away doses of methadone, some would give the doses not required for that day to friends, with the expectation of reciprocation later in the week. This system protects users from ‘bingeing’ and using all their take-away doses in one day, thus having to find a replacement opioid to hold them until their next methadone dose (and avoids the risk of being ‘stood over’ for their methadone, or the risk of it being stolen). Similar ‘in-kind’ and pre-organised systems were described in subsequent IDRS studies. In the 2004 study, two KE working with younger IDU reported that their clients at times used up their take-away doses

²⁸ Within the Tasmanian Methadone Maintenance Program, individuals predominantly receive their daily doses in a supervised manner. However, where appropriate, prescribers may authorise a limited number of take-away doses, where daily doses can be picked up in advance and consumed as is convenient for the individual.

within one or two days (rather than the three days they were provided for) and then had to buy, or otherwise access some amounts of methadone illicitly, to avoid experiencing opiate withdrawal. These patterns may be reflected in the pathways to access of illicit methadone syrup (discussed above and in Table 39), with most reporting accessing illicit methadone through a friend, while purchases through known dealers – most commonly methadone program clients approached outside a pharmacy for their take-away dose – were substantially less common.

Table 39: Pathways to illicit methadone access, 2009

	Illicit methadone syrup (n=46)	Illicit Physeptone tablets (n=48)
Last source person of illicit purchase		
<i>Friend</i>	57%	47%
<i>Acquaintances</i>	26%	24%
<i>Known dealers</i>	9%	28%
Last source venue for illicit purchase		
<i>Agreed public location</i>	52%	45%
<i>Friend's home</i>	26%	24%
<i>Home delivery</i>	7%	12%
<i>Acquaintance's home</i>	4%	8%
Source of last illicit syrup[#]	96% (n=44)	n/a
<i>Take-away dose</i>		

Source: IDRS IDU interviews

[#] for those reporting source

8.4.4 Trends in availability of different forms of pharmaceutical opioids across IDRS studies

When IDU reports of the availability of illicit pharmaceutical opioids are compared across the 2003²⁹ and 2009 IDRS studies (Figure 51), several changes are notable. Firstly, in regard to morphine availability, between 2003 and 2009 there has been only slight variation in the overall proportion reporting that availability was 'easy' or 'very easy'. However, in 2008 and 2009, there was a small decrease in the proportion reporting access as 'very easy' (20% and 19% respectively, compared with 23% to 31% between 2004 and 2007). In 2009, the overall proportion of participants reporting 'easy' or 'very easy' access remained stable (81% in 2008 and 79% in 2009).

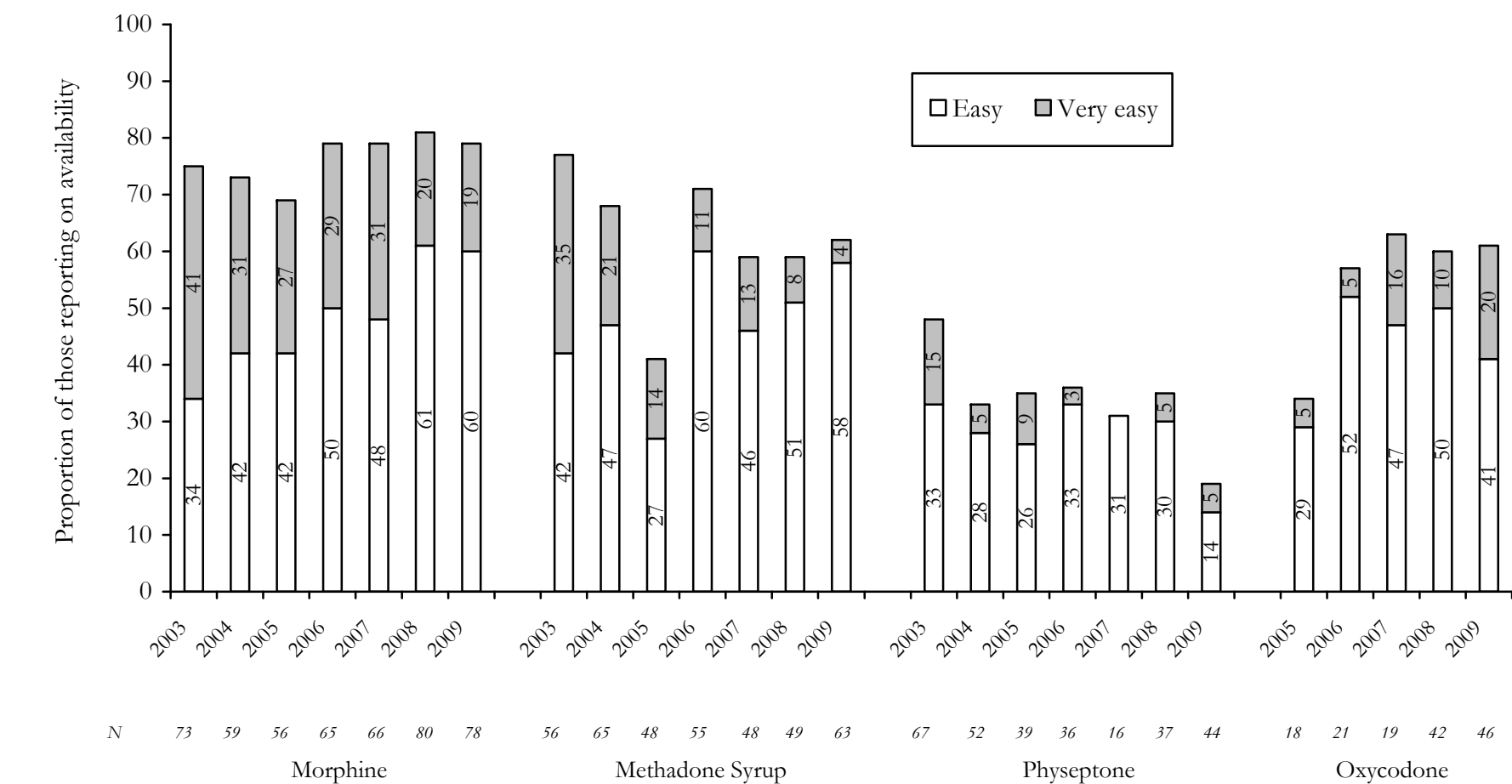
Availability of illicit methadone syrup has been more variable. Between 2003 and 2005, a steady decline in the proportion of consumers considering the drug as 'easily' or 'very easily' available was observed, however, this trend was reversed temporarily in 2006. Since 2007, availability of methadone syrup has been more stable, with between 59% and 62% of each sample reporting access to be either 'easy' or 'very easy'.

²⁹ 2003 was the first year in which explicit differentiation was made between methadone syrup and Physeptone tablets in regard to availability.

Availability reports for Physeptone were relatively stable between 2004 and 2009 (between 31-36% reporting 'easy' or 'very easy' access), with the exception of 2009, when 'easy' and 'very easy' availability decreased to 19%.

Finally, while data on availability of oxycodone has only been collected since 2005, there appears to be a trend toward increasing availability over this period, although this change is not statistically significant. In 2005, 34% of participants who commented reported access to be 'easy' or 'very easy', this rate has increased to 61% in the current study.

Figure 51: IDU reports of ‘easy’ or ‘very easy’ availability of illicit pharmaceutical opioids 2003-2009



Source: IDRS IDU interviews

8.5 Trends in patterns of opioid use

Most IDU participants who commented on changes in the number of people using morphine reported an increase (n=5), generally referring to an increase in morphine use amongst both males and females, between ages 20 to 45. Two IDU also noted people changing from use of methamphetamine to morphine, possibly as a result of recent low quality methamphetamine. This trend is the reverse of reports in the 2002-2005 IDRS surveys, in which a great number of consumers interviewed reported IDU they were familiar with recently shifted from primary morphine use to primary methamphetamine use. This trend was not reported in 2008.

The perception of an increase in the number of opioid consumers is in keeping with a number of trends in different datasets. Overall, there have been increases in the proportion of IDRS IDU cohorts reporting opioid use in the 2006-2009 studies, following declines among the 2005 cohort. Reported use of opioids amongst clients of the NSP had been in steady decline between 2000/01 and 2004/05, but since 2006/07 the proportion of opioid consumers amongst NSP transactions had increased markedly. As discussed in earlier sections, there may be alternative explanations for this change in NSP client data, including the closure of a high-traffic outlet primarily supplying equipment for methamphetamine injection; and changes in equipment supplied through NSP; however, the consistency between IDRS, NSP client data and the NSP survey data leads to greater confidence of a market shift toward increased use of opioids among regular IDU.

KE in the current and previous IDRS surveys reported particular concern with opioid consumers using methadone-alprazolam combinations, and 15% of consumers reported using such a combination in recent months. This combination of use is of considerable concern, not solely due to the deleterious effects of injection of benzodiazepines (see Fry & Bruno, 2002) but also due to the increased risk of overdose on use of multiple central nervous system depressant drugs. In previous IDRS reports, respondents have noted extremely disinhibited behaviour following such combined use. As such, the non-prescription combination use of opiates and benzodiazepines merits careful attention in the coming months, particularly from front-line health intervention workers.

8.6 Summary

Table 40: Summary of trends in opioid use

	Morphine	Methadone	Oxycodone
Modal Price	• \$100/100mg MS Contin, increased \$20 since 2008 • \$100 for 100mg Kapanol, increased \$20 since 2008 • Stable/increasing price trend	• \$1/mg, stable (syrup) • \$12.50/10mg, increasing to stable (Physeptone)	• \$80/80mg OxyContin • Price stable
Availability	• Easy to very easy • Stable/decreasing over the last 6 months	• Mixed reports: syrup ‘easy’ to access (if pre-arranged and purchased from friends or acquaintances); ‘difficult’ and decreasing in availability otherwise • Illicit Physeptone access difficult to very difficult – stable to increasingly difficult	• Easy to very easy to access • Stable to decreasing over the past six months
Form	• MS Contin and Kapanol predominant; • Virtually all accessed illicitly rather than by doctor shopping by IDU • Ordine use is increasing slightly (after fluctuating use in previous years)	• Both Physeptone tablets and methadone syrup accessed illicitly • Illicit syrup use more common amongst (non-stabilised) people engaged in methadone treatment	• OxyContin is the predominant form used; most is illicit

Use	• Proportion of IDRS participants reporting recent use of morphine was higher across 2008 and 2009 studies than previous years. This is consistent with NSP client transaction data. The price of morphine tablets has increased in 2009. • Illicit oxycodone use increasing (21% in 2003 to 56% in 2009), price and availability have stabilised. • Approximately half of those accessing methadone syrup illicitly are themselves receiving methadone maintenance treatment. • Fifteen percent of the cohort had concomitantly injected opioids and benzodiazepines in the past six months. This practice carries a dramatically increased risk of overdose and disinhibited behaviour.
Other trends	• Opioids accessed for illicit use by IDU are not coming from direct doctor-shopping by IDU themselves

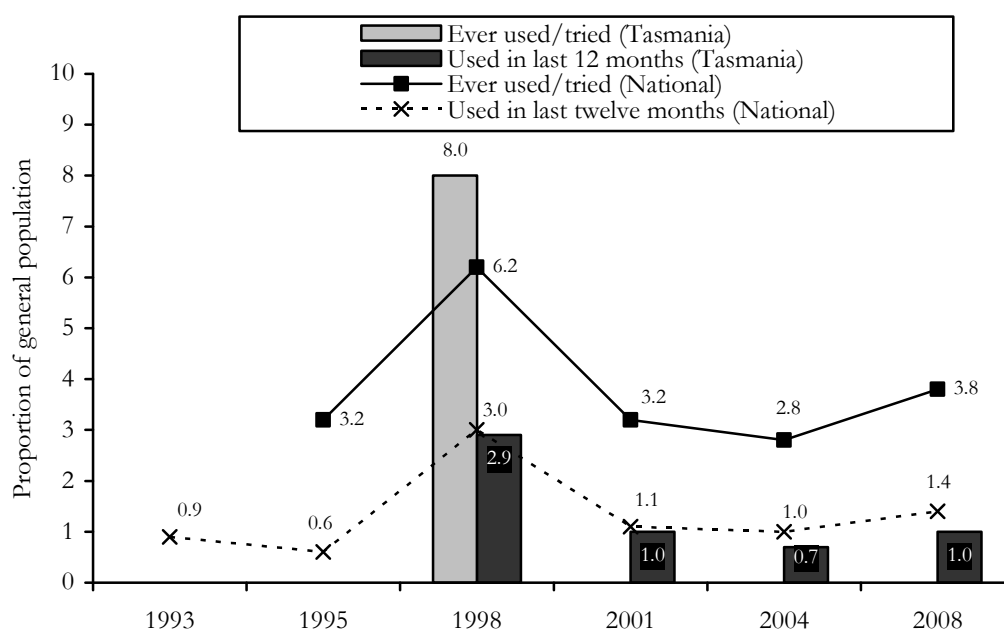
9.0 BENZODIAZEPINES

9.1 Use

9.1.1 Prevalence of benzodiazepine use

Of the 1,208 Tasmanians surveyed in the 1998 National Drug Strategy Household Survey (AIHW, 1999), 7.9% (n=75) indicated that they had ever tried benzodiazepines for non-medical purposes, and 2.9% (n=28) reported use in the year prior to the survey. Somewhat smaller proportions of the 2001 (1.0%, n=13 of 1,349: AIHW, 2002) and 2004 surveys (0.7%, n=8 of 1,208 participants, AIHW, 2005b) reported using benzodiazepines in the preceding year. Similarly, in 2007, 1.0% of respondents (n~11) of a sample of 1,143 reported using benzodiazepines in the preceding year. While these are low base rates of reported benzodiazepine users, this does seem to suggest little evidence for a change in non-medical benzodiazepine use at the general population level between the 2001 and 2007 surveys (Figure 52).

Figure 52: Prevalence of benzodiazepine use in Australia and Tasmania among those aged 14 years and over, 1993-2007



Source: National Drug Strategy Household Survey 1993-2007

9.1.2 Use in particular populations

Benzodiazepines have consistently comprised approximately 10-16% of all positive urine screens for illicit drug use among Tasmanian prisoners between 1996/97 and 2000/01, despite markedly increasing numbers of positive urine screens during this period³⁰. However, in 2001/02, the proportion of positive urine screens indicating use of

³⁰ These figures only include positive urine screens for benzodiazepines that were not prescribed to the prisoner.

benzodiazepines had dropped to 7% (n=9), the lowest proportion since 1995/96 (6%). During 2002/03, however, the proportion of positive urine screens testing positive for benzodiazepines returned to 14%, a similar level to that in the 1996/97-2000/01 period, with the number of positive screens remaining at similar levels in subsequent years (12% in 2003/04; 20% in 2004/05; 16% in 2005/06). In 2006/07, this rate increased slightly, to 24% of all positive urine screens and in 2007/08 and 2008/09, this rate fell to 7% and 9% respectively of all positive drug screens. It should be noted that an increasing proportion of urine screens are conducted on suspicion of use rather than random screens (e.g. in 2008/09, of those identified as positive for benzodiazepines, 100% of these cases were identified on suspicion), so these figures will necessarily be an overestimate of the prevalence of drug use in this context.

9.1.3 Benzodiazepine use among IDU

Reported use of benzodiazepines as the main drug injected by non-pharmacy NSP outlet clients has undergone subtle changes in the past nine years. In 2000/01 and 2001/02, 3.5% and 3.8% of NSP transactions respectively were reported for use of benzodiazepines (Table 41). Between 2002/03 and 2005/06, reports of benzodiazepines as the main drug injected had remained at less than 0.5% of non-pharmacy client transactions per annum, with small numbers of transactions relating to benzodiazepines. In 2006/07 and 2007/08, more than 300 transactions per annum occurred related to benzodiazepines (around 1% of total transactions), a notable increase from previous years. In 2008/09, this rate has decreased to 0.4%, as has the number of transactions (n=147: Table 41). It should be noted, however, that there are limitations with this dataset (see Section 2.3) and that data from the NSPs are likely to underestimate the true level of injection of benzodiazepines (as the question usually asked is ‘what is the drug you usually inject?’, and data from the IDRS indicates that benzodiazepine-injecting IDU will often report another drug as the drug they most often injected).

Table 41: Percentage of benzodiazepines reported as ‘drug most often injected’ by Tasmanian non-pharmacy Needle and Syringe Program clients, 2000/01-2008/09

Year	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09
Number of transactions reporting benzodiazepines	505	761	52	139	36	52	304	399	147
Percent of total transactions reporting benzodiazepines	3.5%	3.8%	0.2%	0.4%	>0.1%	0.2%	0.9%	1.2%	0.4%

Source: Population Health, Department of Health and Human Services

Almost all (95%) of the IDU sample had used benzodiazepines at some stage in their lives. Similarly, 92% had ever swallowed benzodiazepines, with 75% swallowing a benzodiazepine in the preceding six months. While this indicates a high level of use of these drugs amongst IDU, of particular note is the fact that 51% of the sample had ever injected benzodiazepines, with 25% injecting in the six months prior to interview. As is

shown in Figure 53, rates of overall recent use have remained fairly stable (79%-88% across the 2000 to 2009 surveys), while recent injection rates in the IDRS IDU cohorts fell slightly between 2002 and 2005 (from a stable 37-38% between 2000 and 2002, to 23% in 2005). These rates increased in 2006 to 34%, and were slightly lower in 2009, with 25% of participants reporting recent injection of benzodiazepines.

The reduction in injection rates between 2002 and 2003 occurred following a policy change to reduce the availability of gel capsules of temazepam, the benzodiazepine and formulation most preferred for injection by IDU at this time, through the Pharmaceutical Benefits Scheme (PBS) in mid-2002. The effect of this policy change was more marked in other jurisdictions, with rates of recent benzodiazepine injection across the national IDRS samples declining from 24% in 2001 to 14% in 2004 (in contrast to the local change from 38% to 30% in this period: Stafford et al., 2005). The overall stable level of injection in the Tasmanian IDRS IDU in recent years is higher than that seen in the national IDRS cohort (25% v. 8%: Stafford, et al, 2010) and reflects a shift in the preference of the type of benzodiazepine injected (discussed below)

In 2009, data was collected on use of licitly-accessed benzodiazepines (those prescribed directly to the individual using the drug) and illicit benzodiazepines (use of benzodiazepines that had not been prescribed to the individual). Three-quarters of the cohort reported ever having been prescribed a benzodiazepine (78%, n=78), with the majority having used the drug orally (76%, n=76), and less than one-third reporting ever having injected licit benzodiazepines (31%, n=31). Recent injection of prescribed benzodiazepines was reported by 9% of the cohort, at a median frequency of 24 days, which equates to use approximately twice per week (range 3-180).

Lifetime use of illicit benzodiazepines was reported by 83% of participants (n=83), with the majority of the cohort reporting oral use (76%, n=76), and two-fifths reporting ever having injected this type of drug (44%, n=44). In the preceding six months, 66% of participants reported use of illicit benzodiazepines, at a median frequency of 16 days (range 1-180 days), which equates to approximate use once per 10 days on average. Recent injection of illicit benzodiazepines was reported by 24% of participants, at a median frequency of 6 days over this period (range 1-110 days). There was a large amount of overlap in the use of licit and illicit benzodiazepines: in the current cohort, 44% of those who had recently used benzodiazepines reported use of illicit benzodiazepines only (n=34), 15% reported licit use only (n=12), and 41% had recently used benzodiazepines accessed both licitly and illicitly (n=32). Participants were also asked to comment on the form they had predominantly used in the preceding six months: a slightly greater proportion of participants reported they had most often used illicit benzodiazepines (54%, n=42), compared with 46% (n=36) most frequently using licit benzodiazepines.

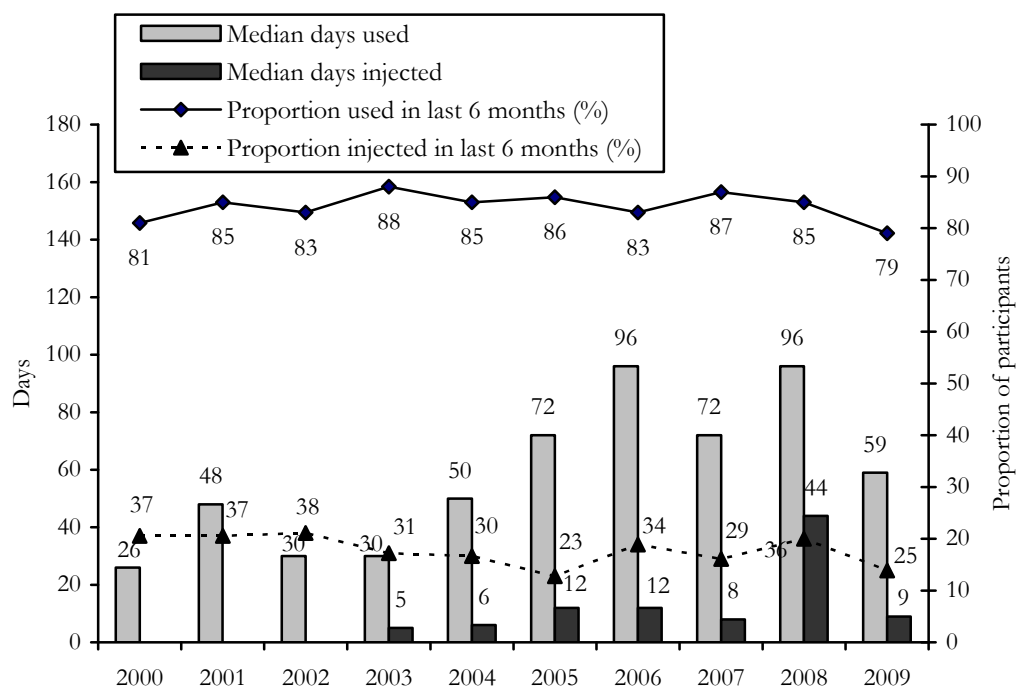
The demographic characteristics of those that had used benzodiazepines in the past 6 months were similar to those of other IDU (see Section 3.1) in terms of age, sex, cultural background, education, employment, income sources, prison history, sexual preference, age of first injection, duration of injecting career, drug of choice, and engagement in drug treatment. However, those that had used benzodiazepines in the preceding six months were more likely to inject once daily or more often than participants who reported no recent use of these drugs (35% v. 14%: $\chi^2(1_{n=100})=3.596$, $p=0.046$).

Those that had recently injected benzodiazepines were similar to the other IDU consumers sampled in terms of age, sex, cultural background, sexual preference, employment, income sources, prison history, age of first injection, duration of injecting career and drug of choice. However, those that had recently injected benzodiazepines were significantly more likely to report a pharmaceutical opioid as the first drug they had injected (40% v. 21%, $\chi^2(1_{n=100})=8.102$, $p=0.017$), and to report unstable accommodation (36% v. 14%, $\chi^2(1_{n=100})=4.469$, $p=0.037$) than those that had not.

The median frequency of use of any form of benzodiazepine was a median of 59 days in the preceding six months amongst those using the drug (SD=74.5, range 2-180). Between 2000 and 2006, the overall median frequency of use increased, from 26 days in 2000 to 96 days in 2006. Since then, the median frequency had varied between 59 days (2009) and 96 days (2008: Figure 53).

Among the 25 participants that had recently injected any form of benzodiazepines, the median frequency of injection was 9 days in the preceding six months (range 1-180 days). This is a substantially lower median frequency of use than reported in 2008 (44 days), but is similar to reports in previous years.

Figure 53: Proportion of participants reporting recent use of benzodiazepines and median frequency of this use, 2000-2009



Source: IDRS IDU interviews

Note: Frequency of injection of benzodiazepines was not collected prior to 2003.

High levels of oral benzodiazepine use in the last six months were seen amongst those IDU who had most often injected methadone (83%), morphine (79%) and methamphetamine (61%). Injection of benzodiazepines was reported by similar proportions of each group: amongst primary users of methadone (29%), morphine (24%), and methamphetamine (22%: Table 42).

Table 42: Patterns of use of benzodiazepines amongst primary users of other drugs in the IDU sample, 2009

Drug most injected in the past month	Swallowed benzodiazepines in past 6 months	Injected benzodiazepines in the past 6 months
Methadone (n=35)	83% (n=29)	29% (n=10)
Morphine (n=33)	79% (n=26)	24% (n=8)
Methamphetamine (n=18)	61% (n=11)	22% (n=4)

Source: IDRS IDU interviews

Note: N=100, number of respondents in parentheses

Participants were asked to comment on the main reasons they had used illicit benzodiazepines in the last six months. Of the 62 participants who responded, almost half reported use for the purpose of self-treatment (48%, n=30). Looking at this more closely, 23% (n=14) reported use of illicit benzodiazepines to self-treat a mental health problem, most commonly anxiety, and 16% reported they were self-treating opioid or benzodiazepine dependence. More than one-third of participants reported use for the purpose of intoxication as the main reason (37%, n=23), and small minorities reported use of illicit benzodiazepines as a 'substitute' for another drug (10%, n=6), to assist with sleep (8%, n=5), to alleviate opioid withdrawal symptoms and to reduce 'come-down' effects following use of amphetamines (3%, n=2 respectively).

Examination of Table 43 clearly indicates that, as per trends in previous IDRS cohorts, diazepam is the most commonly used benzodiazepine among those swallowing the drug (used by 96% of those swallowing a benzodiazepine in the preceding six months, n=72). Oral use of alprazolam (Xanax, Kalma, Aprax) in the preceding six months steadily increased among IDRS IDU cohorts between 2001 and 2006 (16% of those reporting recent benzodiazepine use in 2001; 63% in 2006); however, this rate has been decreasing slightly in subsequent years (49% in 2009). Use of oxazepam (Serepax, Murelax, Alepam) was also common (49%, n=37), with rates of reported use in 2009 similar to previous years, which ranged between 37% and 44%. Oral use of temazepam tablets (Temtabs, Normison, Temaze) remained relatively stable, with 19% (n=14) reporting recent use in the current cohort. Reports of oral use of nitrazepam (Mogadon, Alodorm) amongst the IDU samples have remained relatively low since 2005: between 9 and 25% reporting recent use of this drug.

Table 43: Benzodiazepine and related formulations used by IDU orally in the six months prior to interview: 2005-2009 IDRS

Benzodiazepines	Proportion using this benzodiazepine or related drug				
	2005 (n=86) %	2006 (n=83) %	2007 (n=87) %	2008 (n=75) %	2009 (n=75) %
Alprazolam	44	63	46	55	49
Bromazepam	-	-	-	-	3
Clonazepam	5	6	5	7	17
Diazepam	85	80	82	97	96
Flunitrazepam	7	10	6	9	7
Nitrazepam	10	25	11	9	21
Oxazepam	37	43	44	37	49
Temazepam					
Capsules	3	1	5	1	3
Tablets	10	20	23	24	19
Doxylamine	-	-	3	1	-
Zolpidem	-	-	2	1	1

Source: IDRS IDU interviews.

In contrast to trends reported for oral use of benzodiazepines, use of alprazolam tablets was far more common amongst those injecting benzodiazepines than diazepam. Comparing the injection of the main types of benzodiazepines used for injection across IDRS IDU cohorts over time (Tables 44 and 45), it is clear that use of gel capsule formulations of temazepam has decreased over time (36% of the sample in 2001, falling to 4% in 2005 and no reports of this in 2009), reflecting their restriction and eventual removal from the market.

Rates of injection of diazepam have remained relatively stable over time (6-12% of the cohorts between 2002 and 2009). The proportion of the IDU cohorts reporting recent injection of alprazolam steadily increased between 2001 and 2008, from 4% to 30%, however in 2009 this trend was reversed, with a small, but not statistically significant decline in the proportion of participants reporting this (20%). Given that the proportion of local IDRS participants reporting recent benzodiazepine injection had returned to rates similar to that noted prior to the restriction and removal of temazepam gel capsules, it is clear that the local market's response to these availability changes had simply been to replace temazepam with alprazolam as benzodiazepine of choice for injection.

Table 44: Types of benzodiazepines injected amongst IDU reporting recent injecting of these drugs, 2005-2009

Benzodiazepine	Proportion using this benzodiazepine/brand intravenously in the preceding six months				
	2005 (n=23) %	2006 (n=34) %	2007 (n=29) %	2008 (n=36) %	2009 (n=25) %
Alprazolam	83	79	97	94	80
Clonazepam	9	6	7	8	16
Diazepam	35	32	17	33	44
Flunitrazepam	9	6	7	11	8
Oxazepam	22	12	7	8	4
Temazepam					
Capsules	17	3	3	-	-
Tablets	9	12	3	3	8

Source: IDRS IDU interviews

Table 45: Types of benzodiazepines commonly injected by IDU, 2001-2009 (N=100)

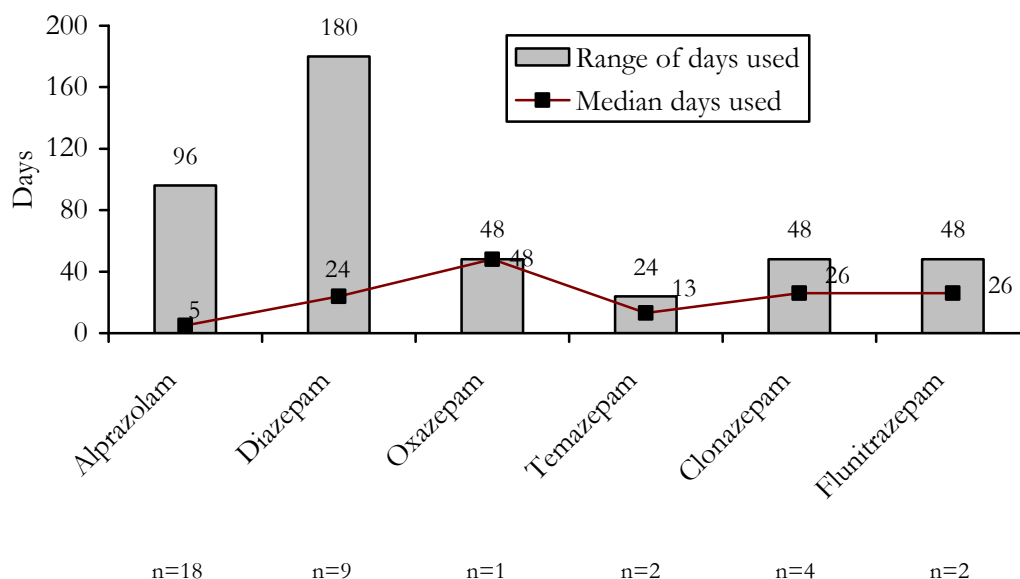
	2001	2002 [#]	2003	2004	2005	2006	2007	2008	2009
<i>Temazepam gel capsules</i> % injecting in past 6 months	36	30	14	19	4	-	1	-	-
<i>Alprazolam</i> % injecting in past 6 months	4	3	11	17	19	27	25	30	20
<i>Diazepam</i> % injecting in past 6 months	3	6	6	10	8	10	6	12	11

Source: IDRS IDU interviews

[#]2002 data are for the five-month period Jan-April and June, 2002

Participants who reported recent injecting use of benzodiazepines were asked how frequently they had injected each type of preparation. As shown in Figure 54, among those who commented, diazepam was injected at a median frequency of 24 days, which equates to weekly use (n=9), and alprazolam was injected at a median frequency of five days (n=18), which equates to use approximately once per month. Very small numbers of participants (i.e. <5) commented for other types of benzodiazepines (Figure 54).

Figure 54: Median frequency and range of days of injecting use of benzodiazepines, 2009



Source: IDRS IDU interviews

Participants were also asked if they had injected a benzodiazepine concomitantly with an opioid. This combination of use is of considerable concern, not solely due to the deleterious effects of injection of benzodiazepines (see Fry & Bruno, 2002), but also due to the increased risk of overdose following use of multiple CNS depressant drugs, and moreover the extremely disinhibited behaviour that can occur following such combined use. Thirteen participants reported injecting a combination of benzodiazepine and methadone syrup in the preceding six months, at a median frequency of 11 days (range 1-96 days, SD=30.8), which equates to use approximately once per fortnight. Of these participants, most reported alprazolam as the benzodiazepine used (n=10), two reported clonazepam and one participant reported diazepam. Physeptone tablets were less commonly injected with benzodiazepines, with just four participants reporting such use, at a median frequency of three days (range 1-4 days). Three participants reported the benzodiazepine to be alprazolam, and one participant reported diazepam. Injection of morphine and benzodiazepines in combination was reported by a single participant; alprazolam was the benzodiazepine reportedly used.

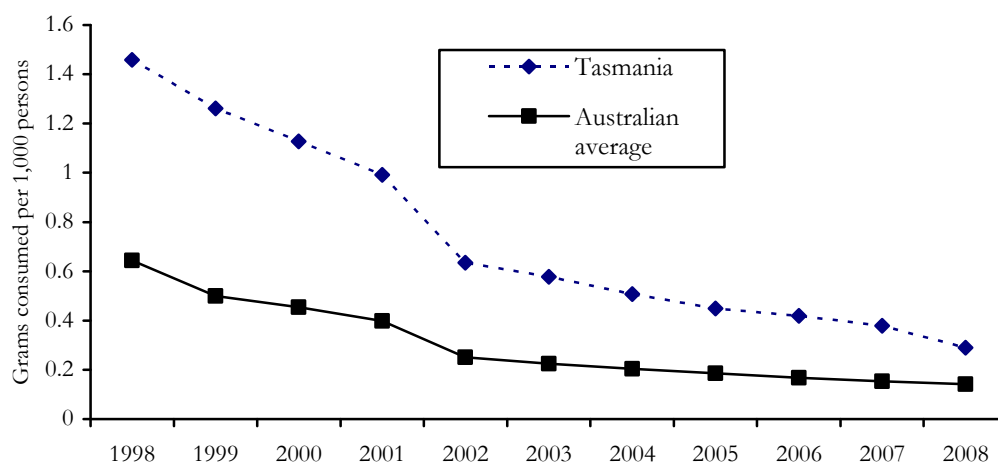
KE commenting on predominant opioid users noted that use of both licit and illicit benzodiazepines was common in these groups. And similarly, KE reporting on groups of primary methamphetamine users also reported that benzodiazepine use was common in these groups, used to 'come down' from stimulant use and as a replacement drug when the drug of choice was not available. In 2008, a KE working in a non-pharmacy NSP commented that cases of benzodiazepine injectors experiencing gangrene, and in some cases amputation of the affected area, over the preceding two years have raised awareness among users of the dangers of injecting benzodiazepines, in particular alprazolam. In the current study, two KE and one IDU noted that the changes made by Pharmaceutical Services to decrease misuse of alprazolam had been effective, and that they had noticed a decrease in the level of reported use of alprazolam.

KE in NSPs, drug treatment and general health settings noted a decrease in reports of injecting use of alprazolam. One KE noted *'late last year [2008] there was an increase in arterial injuries from injecting Xanax. Since then this has dropped off, we've also seen an overall decrease in venous damage'*.

Several KE reported that overall use of benzodiazepines had remained stable over the preceding six to 12 months amongst the consumers they were familiar with, with some consumers changing from use of alprazolam to diazepam. In 2006, one KE raised concerns regarding some consumers believing that as benzodiazepines are pharmaceutical drugs, they are less harmful to use. This view was supported by one KE in the 2008 study who noted that many consumers who present to treatment for opioid dependence often do not mention they are also dependent on benzodiazepines, despite high levels of both oral and injecting use. In 2009, one KE referred to benzodiazepines as being *'a secondary drug'*, with few people attending treatment for primary benzodiazepine dependence.

Flunitrazepam (Hypnodorm, previously sold as Rohypnol) is a benzodiazepine that is preferred by some IDU due to its potent and quick-acting effect. Despite the prescription of this drug being tightly defined through the Pharmaceutical Benefits Scheme and its classification as a Schedule 8 drug, participants in recent local IDRS and related studies have continued to report some oral and intravenous use of Hypnodorm tablets, albeit in small amounts. Prescription rates of flunitrazepam in Tasmania (Figure 55) show low and declining levels of prescription of the drug both in the state and nationally, although prescription rates of flunitrazepam in Tasmania have remained consistently above 200% that of the national average between 1999 and 2008.

Figure 55: Consumption of flunitrazepam per 1000 persons, 1998-2008



Source: National Drug System (formerly DRUMS), Pharmaceutical Services, Department of Health and Human Services

9.2 Availability and access

In some instances KE found it difficult to separate licit and illicit use of benzodiazepines amongst the groups of consumers they were reporting on, as often there was a substantial amount of overlap in use, with, for example, some people receiving illicit

medications as a gift from a friend, or others bingeing on a benzodiazepine prescription then having to purchase illicit benzodiazepines to maintain their usual base level of use. When IDU were asked what their usual source of benzodiazepines was in the preceding six months, two-thirds reported accessing these drugs through friends as either a gift or purchase (67%, n=38), and half (52%, n=39) reported predominantly accessing benzodiazepines via licit means (for genuine symptoms). Smaller proportions reported accessing the majority of the benzodiazepines they had recently used by swapping them with other drugs (13%, n=10), purchasing from a dealer (12%, n=9) or through a doctor for 'faked' symptoms (9%, n=3: Table 46). When considering all modes of access to benzodiazepines in the preceding six months, the majority of respondents reported accessing tablets from friends as a gift or a purchase (65%, n=49) or via legitimate access through prescription (56%, n=42). One-quarter of participants who commented reported accessing benzodiazepines by purchasing from a dealer (24%, n=18), 19% (n=14) by swapping for other drugs, and small minorities reported access from a doctor for 'faked' symptoms (9%, n=7), via theft (4%, n=3) or via a forged prescription (1%, n=1).

When compared with the usual modes of access to benzodiazepines reported in previous IDRS cohorts, the rate of access via friends as either a gift or purchase is slightly greater in the last three years (2007-2009), ranging between 52% and 67%; prior to this the rate varied between 19% and 42% (Table 46).

Those participants that had accessed illicit benzodiazepine tablets in the six months prior to interview were asked about their ease of access to such drugs in this time. Similar proportions commented that it was either 'easy' or 'very easy' (49%: 40% 'easy', 9% 'very easy') or 'difficult' or 'very difficult' (42%: 40% 'difficult', 2% 'very difficult'). Almost half of the participants who commented reported availability had become more difficult in the preceding six months (48%, n=31); however, 34% (n=22) reported availability had become easier in this period. Fourteen percent of participants noted no recent change in availability of illicit benzodiazepine tablets.

Trends from Tasmania Police in regard to benzodiazepines appeared to have remained relatively stable between 2000/01 and 2001/02, with seizures of 2,511 pills associated with Schedule 4 drugs in 2001/02, in comparison to 2,374 pills in 2000/01. During the 2003/04 financial year a new series of exhibit sheet rules were instigated for Tasmania Police seizures, which allowed the explicit recording of the types of tablets seized. In 2003/04, 443 tablets were seized. In subsequent years, there has been a declining number of benzodiazepine seizures reported: 200 in 2004/05 (96 being diazepam, 54 temazepam, 49 oxazepam and one flunitrazepam, 95% of which were seized in the south); 59 in 2005/06 (all diazepam); and six seizures of benzodiazepine, totalling 24 tablets, all of which were believed to be diazepam in 2006/07. In 2007/08, 139 tablets believed to be benzodiazepines were seized. Of these, 63 were believed to be diazepam, 54 were temazepam and 22 were flunitrazepam. In 2008/09³¹, 347 tablets were seized: of these 265 were believed to be diazepam, 50 were believed to be flunitrazepam and 32 temazepam. The majority of tablets were seized in the Southern district (n=279), with 42 tablets seized in the North-West and four in the Northern District.

³¹ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

Table 46: Methods of obtaining benzodiazepines in the six months prior to interview, 2001-2009

All modes of access	2001 (n=69) %	2002 [#] (n=75) %	2003 (n=88)* %	2004 (n=85) %	2005 (n=86) %	2006 (n=81) %	2007 (n=77) %	2008 (n=83) %	2009 (n=75) %
Doctors (genuine symptoms)	57 (n=39)	53 (n=40)	n/a	59 (n=50)	64 (n=55)	59 (n=48)	62 (n=47)	49 (n=41)	56 (n=42)
Doctors (fake symptoms)	9 (n=6)	8 (n=6)	n/a	2 (n=2)	0	2 (n=2)	9 (n=7)	2 (n=2)	9 (n=7)
Forged prescriptions	0	0	n/a	0	0	0	1 (n=1)	0	1 (n=1)
Friends (gift or purchase) [†]	67 (n=46)	59 (n=44)	n/a	56 (n=48)	53 (n=46)	69 (n=56)	75 (n=57)	60 (n=50)	65 (n=49)
Friends (purchase) [†]	†	†	n/a	40 (n=34)	30 (n=26)	44 (n=36)	21 (n=16)	47 (n=39)	41 (n=30)
Dealer / street (purchased)	23 (n=16)	28 (n=21)	n/a	22 (n=19)	9 (n=8)	12 (n=10)	21 (n=16)	30 (n=25)	24 (n=18)
Dealer / street (swap drugs)	4 (n=3)	12 (n=9)	n/a	31 (n=26)	17 (n=15)	37 (n=30)	28 (n=21)	12 (n=10)	19 (n=14)
Theft	n/a	n/a	n/a	2 (n=2)	1 (n=1)	0	9 (n=7)	2 (n=2)	4 (n=3)

Source: IDRS IDU interviews

[#] 2002 data refer to a four-month period of accessing benzodiazepines (January-April 2002), due to the nature of the survey questions

^{*}Data were only collected on 79 participants: proportions are calculated with reference to this number

[†]In 2003, data were divided according to purchase from friend or gift from friend to clarify trends from previous years

Table 46: Methods of obtaining benzodiazepines in the six months prior to interview, 2001-2009 (continued)

Primary mode of access	2001 (n=69) %	2002 [#] (n=75) %	2003 (n=88)* %	2004 (n=85) %	2005 (n=86) %	2006 (n=80) %	2007 (n=76) %	2008 (n=83) %	2009 (n=75)
Doctor (genuine symptoms)	45 (n=31)	47 (n=35)	48 (n=38)	44 (n=37)	56 (n=48)	53 (n=42)	61 (n=46)	49 (n=41)	52 (n=39)
Doctor (fake symptoms)	9 (n=6)	1 (n=1)	1 (n=1)	2 (n=2)	0	3 (n=2)	7 (n=5)	2 (n=2)	9 (n=3)
Forged prescriptions	0	0	0	0	0	0	0	0	0
Friends (gift or purchase) [†]	42 (n=29)	35 (n=26)	27 (n=21)	26 (n=22)	20 (n=17)	19 (n=15)	64 (n=49)	52 (n=43)	67 (n=38)
Friends (purchase) [†]	†	†	20 (n=16)	13 (n=11)	14 (n=12)	18 (n=14)	25 (n=19)	37 (n=31)	27 (n=20)
Dealer/street (purchase)	3 (n=2)	13 (n=10)	4 (n=3)	5 (n=4)	5 (n=4)	4 (n=3)	17 (n=13)	23 (n=19)	12 (n=9)
Dealer/street (swap drugs)	0	1 (n=1)	n/a	7 (n=6)	6 (n=5)	5 (n=4)	16 (n=12)	4 (n=3)	13 (n=10)
Theft	n/a	n/a	n/a	0	0	0	3 (n=2)	0	0

Source: IDRS IDU interviews

[#] 2002 data refer to a four-month period of accessing benzodiazepines (January-April 2002), due to the nature of the survey questions

^{*}Data were only collected on 79 participants: proportions are calculated with reference to this number

[†]In 2003, data were divided according to purchase from friend or gift from friend to clarify trends from previous years

Alprazolam

As discussed in Section 9.1.3, injecting use of alprazolam increased from 3% of the IDRS cohort in 2002 to 30% in 2008 (and decreased slightly in 2009 to 20%) - along with concomitant injecting use of alprazolam and opioids. Both KE and IDU participants have provided anecdotal reports of harms associated with this use, such as gangrene, amputations of limbs and overdose. Partly as a result of this, on 1 September 2007, Pharmaceutical Services Branch (of the Tasmanian Department of Health and Human Services) implemented regulatory changes regarding the prescribing and dispensing of alprazolam. These changes included restricting alprazolam prescribing amongst patients receiving opioid medication: prescribers for patients enrolled in methadone maintenance or buprenorphine treatments were required to obtain approval from the Clinical Director of Alcohol and Drug Services in order to prescribe alprazolam; and prescribers for patients receiving other types of opioid medications required authority from Pharmaceutical Services in order to continue prescribing alprazolam for longer than four weeks.

In response to these regulatory changes, new questions were included in the 2008 and 2009 IDRS questionnaires to measure the impact upon use of alprazolam amongst IDRS participants. Participants who reported use of illicit alprazolam over the preceding 12 months were asked to comment on availability. Of those that responded (n=38), two-thirds of participants reported illicit alprazolam to be either 'difficult' or 'very difficult' for them to access (64%: 'difficult' 40%, n=15; 'very difficult' 24%, n=9), and the remaining one-third reported availability to be 'easy' or 'very easy' (26% and 8% respectively). These reports are the reverse of reports from the 2008 study, in which two-thirds reported illicit alprazolam availability to be either 'easy' or 'very easy', and one-third reported it to be either 'difficult' or 'very difficult'.

Over the preceding 12 months, the majority of participants felt that access to illicit alprazolam had become more difficult (78%, n=29), and 16% (n=6) reported no change. Small minorities of participants reported access to have become easier (3%, n=1) or had fluctuated (3%, n=1) over this period. These figures are similar to those reported in the 2008 report, in which 71% reported access had become more difficult in the preceding six months.

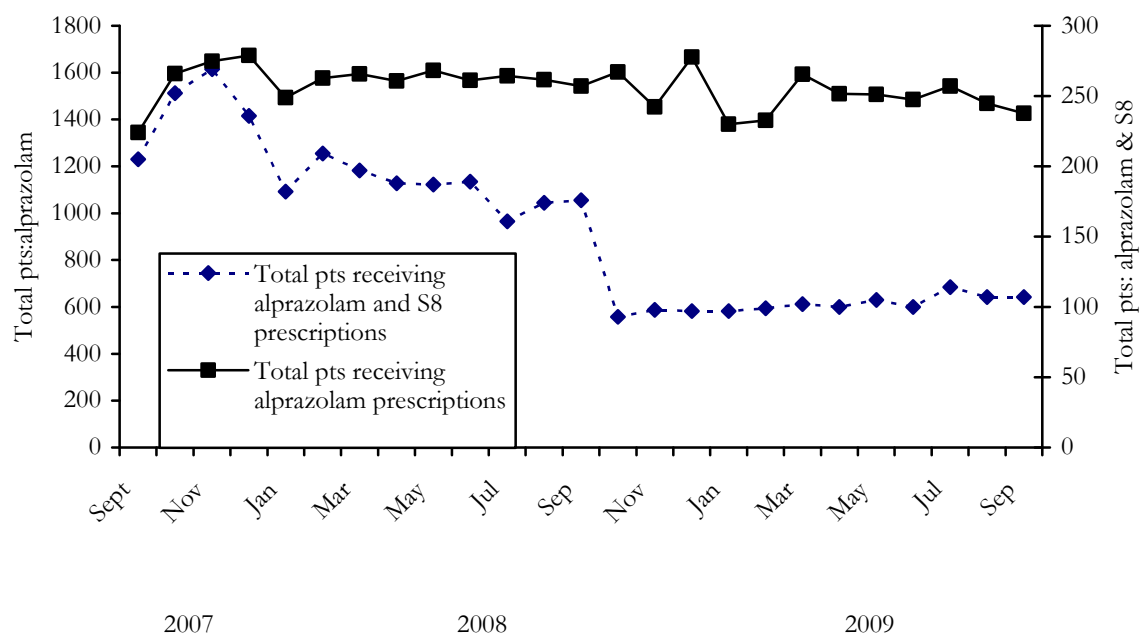
Participants were also asked to comment on price trends for illicit alprazolam. The modal price for a 2mg alprazolam tablet was \$10 (median \$10.75, range \$5-15, n=18). Of the 36 participants who were able to comment, three-quarters reported the price of illicit alprazolam to have increased over the preceding 12 months (78%, n=28), with small minorities reporting either no change (14%, n=5) or fluctuating prices (3%, n=1).

Pharmaceutical Services (Tasmanian Department of Health and Human Services) has provided data summarising alprazolam prescription changes from September 2007 (when the regulatory changes were implemented) to September 2009. The total number of patients receiving prescriptions for alprazolam in September 2007 was 1,345 (Figure 56). This number increased slightly over the following three months to 1,673 in December, and then decreased by 11% to 1,493 patients receiving alprazolam in January 2008. Since this time, the total number of Tasmanian patients receiving alprazolam prescriptions has remained relatively stable (between 1,426 and 1,609 patients per month), with the exception of the period between November 2008 and February 2009, which saw more variable numbers of prescriptions (ranging between 1,380 and 1,666 per month: Figure 56).

The total number of patients receiving prescriptions for both alprazolam and a Schedule 8 (S8) drug increased from 205 in September 2007 to 269 in November 2007. This was followed by a sharp decrease over the following two months (182 patients in January 2008). Since early 2008,

the total number of patients receiving prescriptions for both alprazolam and an S8 gradually declined, however, in October 2008, a sharp decline was recorded, with 93 patients receiving this combination of prescriptions. This lower level of patients receiving prescriptions for both alprazolam and an S8 has been sustained through to September 2009. According to information provided by Pharmaceutical Services, this decrease may in part be explained by patients ceasing their treatment with a pharmaceutical opioid in order to continue receiving alprazolam prescriptions.

Figure 56: Total numbers of Tasmanian patients receiving alprazolam and both alprazolam and a Schedule 8 drug: September 2007- September 2009



Source: Pharmaceutical Services, Department of Health and Human Services

9.3 Trends in patterns of benzodiazepine use

KE and IDU consumers interviewed noted several recent trends in association with benzodiazepine use amongst IDU groups, with most revolving around use of Xanax³² (alprazolam).

IDU consumers reported decreasing availability and increasing price for alprazolam tablets. KE reports suggested an overall decrease in injecting use of alprazolam, partly due to regulatory restrictions and consumers increasing knowledge of the harms associated with this practice, and possible increase in injecting of diazepam. KE commenting on primary opioid and methamphetamine consumers generally noted that most of the clients they were familiar with reported some use of benzodiazepines. The most commonly cited benzodiazepine being used amongst these groups was alprazolam, followed by diazepam.

Fifteen participants in the current cohort reported coincident injection of benzodiazepines and opioids in the past six months, at a median frequency of six days out of the previous 180 (range 1-96 days). This combination of use is of considerable concern, not solely due to the

³² All KE and consumers referred to the drug as 'Xanax' rather than the more generic alprazolam, and as such, the authors have maintained this convention in this report.

deleterious effects of injection of benzodiazepines (see Fry & Bruno, 2002) but also due to the increased risk of overdose on use of multiple CNS depressant drugs. Additionally, in previous studies, consumers and KE have reported incidents of extremely disinhibited behaviour following coincident benzodiazepine and opiate use. Given such reports, these patterns of use merit careful ongoing attention, particularly from frontline health intervention workers.

9.4 Summary

There are clear indications that, following a reduction of the injection of benzodiazepines among IDU between 2002 and 2003, arising from the restriction and eventual removal of the preferred temazepam gel capsules from the market, injection of benzodiazepines remains an ongoing part of the local drug culture, with Tasmanian IDU consumers continuing to inject at rates relatively higher than those identified in other Australian jurisdictions. As noted in previous IDRS reports, it is also clear that alprazolam (Xanax in particular) has largely replaced the local illicit market for temazepam gel capsules among those IDU particularly interested in benzodiazepine injection, with this drug being used in similar ways to temazepam capsules by consumers, such as in simultaneous combination with methadone syrup or other opioids. Between the 2003 and 2008 studies, the proportion of the IDU samples reporting recent injection of alprazolam increased from 11% to 32%, however, in 2009, a small decrease to 20% has been observed. The regulatory changes regarding alprazolam prescribing that were implemented by Pharmaceutical Services in September 2007 may account for recent indications of decreased availability and increased price of illicit alprazolam. Anecdotal reports from both IDU consumers and KE points to an increasing awareness amongst consumers of the physical and psychological harms associated with alprazolam injection. Additionally, the level of use and availability of benzodiazepines generally remains high for local IDU, particularly among primary users of opioids, which is again of concern given the increased risk of overdose when the two substances are combined. As such, patterns of benzodiazepine use and injection in the state continue to warrant very close attention.

10.0 OTHER DRUGS

10.1 Tobacco

Almost all participants in the current study reported lifetime use of tobacco (98%), with a similarly high proportion reporting use in the preceding six months (97%). The median frequency of this use was 180 days, equating to daily use. Ninety percent of the sample reported daily use of tobacco, a notably higher rate than was reported in the 2007 National Drug Strategy Household Survey, which estimated that 20.8% of the Australian population and 34.6% of the Tasmanian population aged between 30 and 39 (mean age of IDRS IDU cohort in 2009 was 34 years) smoked tobacco on a daily basis in the preceding 12 months (AIHW, 2008).

10.2 Alcohol

Based on data from the 2007 National Drug Strategy Household Survey, it was estimated (from the sample of 1,143 participants) that approximately 40.5% of Tasmanians had used alcohol on a weekly basis in the year prior to interview, compared with 41.3% Australians nationally (AIHW, 2008). The proportion of the Tasmanian NDSHS sample that had used alcohol daily in the year prior to interview was slightly lower in comparison to the national estimate (6.8% vs. 8.1%). Among those aged between 30 and 39 in the national NDSHS sample, 47.5% had used alcohol on a weekly basis and 4.6% had used alcohol on a daily basis in the past 12 months.

Almost all participants in the 2009 IDRS study reported lifetime use of alcohol (97%), and 63% of the cohort had done so in the preceding six months. The median frequency of use amongst those who had recently consumed alcohol was 24 days, which equates to use once per week. Five percent of participants (n=5) reported daily alcohol use in the preceding six months. Less than one-third of the sample (29%) had used alcohol at least weekly (but not daily) during the six months preceding the interview, which is substantially lower than both the Tasmanian (40.5%) and national (41.3%) estimates of prevalence for the general population. However, the proportion reporting recent daily use of alcohol (5%) is lower than both the Tasmanian (6.8%), and national (8.1%) estimates of prevalence in the general population (aged 14 years and over), but similar to the estimate among those aged 30-39 nationally (4.6%).

IDRS participants were also asked to complete the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al. 1993) which is a brief screening scale to identify individuals with alcohol problems, including those in early stages. It is a 10-item scale, which assesses three conceptual domains: alcohol intake; dependence; and adverse consequences (Reinert & Allen, 2002). Total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence (Babor et al. 2001). Higher scores indicate greater likelihood of hazardous and harmful drinking; such scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor et al., 2001). Across the whole sample, the overall mean AUDIT score was 7.3 (median 4.0, range 0-36, SD=8.56, n=100), and amongst participants who reported use of alcohol in the preceding six months, the overall mean score of the AUDIT was 11.0 (median=8; range 0-36, SD=8.84, n=63). Males were significantly more likely to report a higher mean AUDIT score than females (9.3 v. 4.7: $F(1,98)=7.537$, $p=0.007$).

The total AUDIT score places respondents into one of four 'zones', or risk levels. Three-fifths of the IDRS sample scored in the low risk zone (60%), a level reflecting low risk drinking or abstinence. One-quarter (24%) scored in zone 2, indicative of alcohol use in excess of low-risk guidelines, 5% scored in zone 3, harmful or hazardous drinking, and 11% scored in zone 4,

indicating that those in this zone may be referred to assessment and possible treatment for alcohol dependence.

10.3 Codeine Products

In the 2009 IDRS survey, new questions were introduced to investigate use of over-the-counter (OTC) codeine products. These questions were added in response to reports of misuse of these products (such as Nurofen Plus and Panadeine), and the harms related to this, such as perforated gastric ulcers (reported in association with misuse of ibuprofen) and liver damage (associated with misuse of paracetamol: Nielsen & Cameron, 2009). These products contain codeine phosphate in combination with either paracetamol, ibuprofen or doxylamine succinate, and can be purchased in pharmacies without a script.

Participants were asked a range of questions regarding their use of these products. Only individuals using OTC codeine in unsanctioned ways are examined here, with this defined as: regular, frequent use (i.e. those who had consistently used more than 3 days per week in the last 6 months); using for reasons other than for pain control; and concomitant use with other drugs. Twenty-nine percent of participants reported misuse of codeine in the previous six months, and the median frequency of this use was 24 days (range 1-180 days), which equates approximately to weekly use. All participants reported exclusively swallowing these preparations. The most commonly used brands of OTC-codeine were Nurofen Plus (codeine and ibuprofen: 28%, n=8), Mersyndol (paracetamol, codeine phosphate, doxylamine succinate: 17%, n=5), Fiorinal (paracetamol, codeine phosphate, doxylamine succinate) and Chemist's Own Brand pain tablets (paracetamol and codeine: 14%, n=4 respectively). Smaller proportions of this group reported use of Dolased (paracetamol, codeine phosphate, doxylamine succinate: 10%, n=3), Panafen Plus (ibuprofen and codeine) and Panalgesic (paracetamol, codeine phosphate, doxylamine succinate: 7%, n=2 respectively). Of these participants who responded, 50% (n=14) reported they had been refused supply of OTC-codeine products at a pharmacy.

Participants were asked to comment on reasons for misuse of OTC-codeine products in the preceding six months. Of the 28 participants who commented, the majority had used these products for pain relief (68%, n=19), and two-fifths had used them to relieve opioid withdrawal symptoms (39%, n=11). Small minorities reported use of OTC-codeine for intoxication (11%, n=3) and as a substitute for another opioid (4%, n=1).

Participants were also asked if they had used another drug in combination with the OTC-codeine. Of the 29 participants who commented, almost one-third reported cannabis (31%, n=9) and one-fifth reported concomitant use of benzodiazepines (21%, n=6). Small minorities reported methadone and/or alcohol (17%, n=5 respectively) and 14% (n=4) reported use of methamphetamine in combination with OTC-codeine.

The demographics of those that had misused OTC-codeine in the past six months did not differ greatly from those of the larger IDU sample (see Section 3.1), in terms of sex, cultural background, education, employment, income sources, prison history, frequency of injection and drug of choice. However, recent OTC-codeine misusers in the current IDU cohort were younger (31.2 years v. 35.3 years respectively: $F(1,98)=5.371$, $p=0.023$), more likely to report being heterosexual (89% v. 72%: $\chi^2(1_{n=100})=4.080$, $p=0.046$) and reported a shorter injecting career (13.1 years v. 16.2 years: $F(1,98)=3.793$, $p=0.054$) than participants who had not recently misused these products. In addition, recent misusers of OTC-codeine were more likely to report a pharmaceutical opioid as the first drug injected (38% v. 17%: $\chi^2(1_{n=100})=6.062$,

p=0.048) and to have been engaged in methadone maintenance treatment in the six months preceding the interview (62% v. 42%: $\chi^2(1_{n=100})=3.239$, p=0.057) than participants who reported no misuse of these products.

Nine KE commented on clients that they had contact with who reported misuse of OTC codeine products. Four of these KE noted an increase in presentations of primary OTC-codeine misusers for treatment (pharmacotherapy and counselling). Nurofen Plus and Panafen Plus were the most commonly cited preparations, and the majority of this use was thought to be oral, with only a small minority of clients reporting injecting use of these tablets. The clients were described by one KE as typically reporting *'five to six years of daily use of these tablets, 24 to 48 per day, some using up to 96 per day'*. One KE commented that this client group tended to report a history of illicit drug use, and was now favouring use of OTC codeine products as they are *'a cheap and easy option'*. Two other KE noted that OTC-codeine misusers were often employed, and some had no prior history of drug misuse. One KE, working in the pharmacotherapy treatment field, noted that primary OTC codeine misusers tended to not benefit from oral pharmacotherapy treatment as well as users of other types of opioids. A KE, also employed in the drug treatment field, noted this client group reported a range of health problems related to misuse of OTC codeine products, such as stomach pains, nausea and vomiting, contributing to increased sick leave from their employment. Another KE was aware of clients, particularly young people (i.e. aged 25-30) who had experienced gastric bleeds as a result of misuse of these products, and felt that this group tended to be blasé about the harms related to misuse of these drugs.

10.4 Ecstasy and related drugs

Key experts reported largely infrequent, oral use of 'ecstasy'³³ among a small minority of users of other illicit drugs, most commonly amongst groups that were primarily methamphetamine consumers, although reporting some use amongst primary cannabis-consuming groups and primary opioid-using groups.

From the 1998 National Drug Strategy Household Survey for Tasmania (AIHW, 1999), 2.4% of those surveyed reported ever using ecstasy (n=28), while 0.7% (n~8) had used it in the year prior to the survey. A very similar rate (0.8%, n~10) reported use of ecstasy in the year prior to interview in the 2001 NDSHS (n=1,349: AIHW, 2002). In the 2004 survey, 1.6% (n~19) of the 1,208 people sampled over the age of 14 years reported use of ecstasy in the previous year (AIHW, 2005b). In the 2007 survey, 2.4% Tasmanians (n~28) reported use of ecstasy in the previous year (of a sample of 1,143), less than the rate reported nationally (3.5%: AIHW, 2008b). While this may, on the surface, appear to suggest an increase in the prevalence of ecstasy use, given the small numbers of cases involved, this variation is well within that expected for sampling error, and, as such, it is not possible to conclude that any reliable change in prevalence of ecstasy use had occurred between the studies.

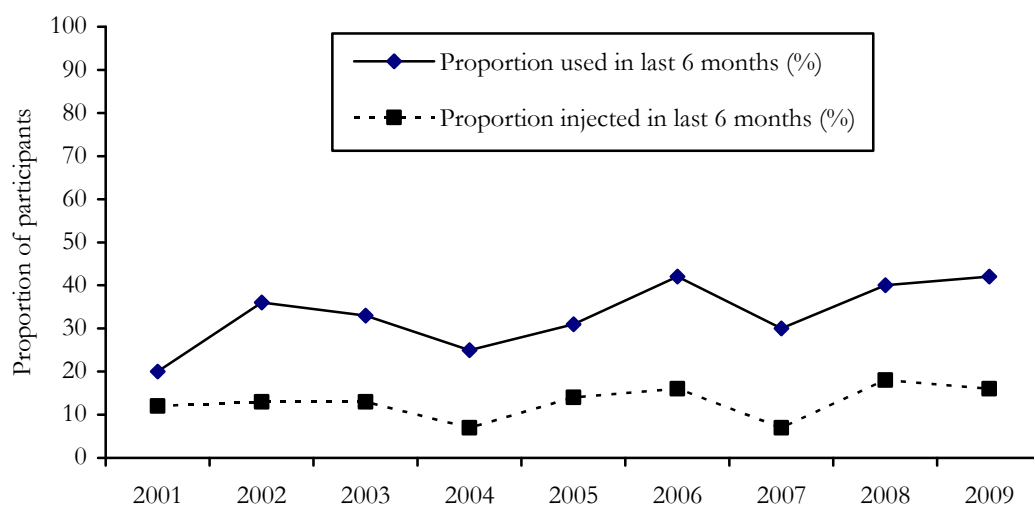
In the IDU sample, 73% had used ecstasy at some stage in their lives. Swallowing of the drug was most common, reported by 61% of the sample at some stage, and 27% in the preceding six months. Injection of ecstasy was reported by 42% of the sample at some stage in their lives, while 16% had injected the drug in the past six months, at a median frequency of two days in

³³ Intelligence reports from police in previous years suggest that many of the tablets sold as 'ecstasy' may not necessarily contain methylenedioxymethamphetamine (MDMA) as the primary active ingredient, although in recent years local seizures have increasingly identified the presence of tablets containing MDMA. As such, in this section, the term 'ecstasy' will be used to refer to tablets or powder sold under that name, rather than necessarily referring to MDMA.

this period (range 1-96 days). In total, 42% of the sample reported using ecstasy in the six months prior to interview, at a median frequency of two days (range 1-96 days) in this period. As shown in Figure 57 below, these indications of use suggest a slightly higher (but not statistically significant) proportion of participants reporting recent use of ecstasy than in previous local IDRS studies, with the exception of 2006.

The demographics of those that had used ecstasy in the past six months did not differ greatly from those of the larger IDU sample (see Section 3.1), in terms of sex, age, cultural background, sexual preference, prison history, duration of injecting career, frequency of injection, drug of choice and first drug injected. However, recent ecstasy consumers in the current IDU cohort had completed a greater number of years of schooling (mean 10.5 years v. 9.7 years respectively: $F(1,98)=7.888$, $p=0.006$), and were more likely to report being engaged in some form of employment: either part-time/casual, full-time or a combination of work and study (31% v. 8%: $\chi^2(1_{n=100})=8.591$, $p=0.004$) than participants who had not reported recent ecstasy use. Correspondingly, recent ecstasy users were more likely to report a wage or salary as the main source of income in the month preceding the interview (21% v. 3%: $\chi^2(1_{n=100})=9.811$, $p=0.020$) than participants who reported no recent use of ecstasy.

Figure 57: Proportion of IDU reporting ecstasy use and injection in the preceding six months, 2001-2009



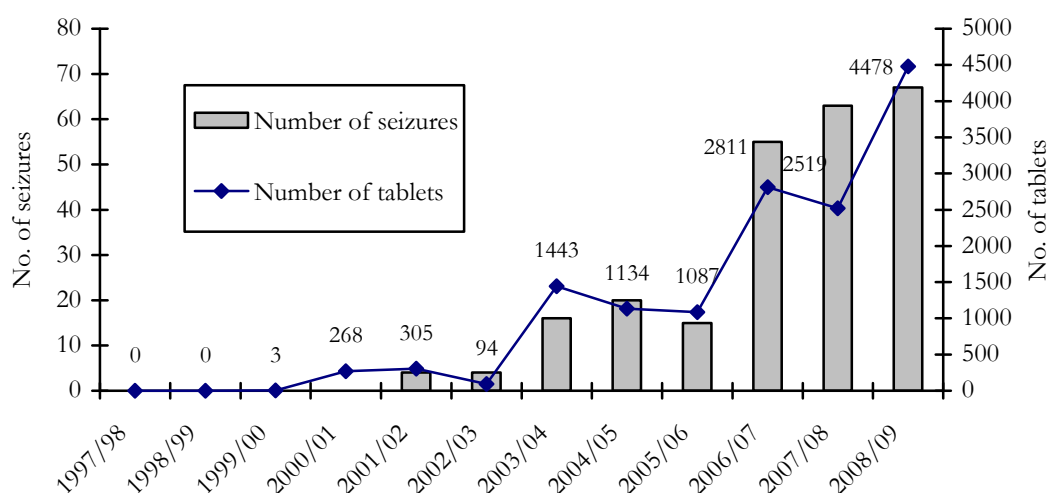
Source: IDRS IDU interviews

Trends in regard to price, purity and availability of ecstasy are not examined in detail within the IDRS study. However, a study conducted during a similar time-frame and methodology to the current study, using regular ecstasy users (REU) as the drug user cohort, has been conducted (Matthews & Bruno, 2010), and examines trends in ecstasy and other 'party drug' use in greater depth. This study suggests that ecstasy is 'easy' or 'very easy' to obtain for consumers in Hobart, and that this level of availability has remained stable or increased somewhat during the early months of 2009. Subjective reports from consumers of the drug suggest that the purity of ecstasy available in Hobart during the early months of 2009 was medium with some fluctuations, and that it cost, on average, \$35 per tablet. These figures appear relatively stable in terms of price, purity and availability, in contrast to indications of an expanding market between 2003 and 2004 (Bruno & McLean, 2004b; Matthews & Bruno, 2005), that are not apparent when examining a primary injecting-drug consumer cohort.

Seizures of ‘ecstasy’ tablets by Tasmania Police have been increasing over recent years. Between 2000/01 and 2002/03, the number of tablets seized ranged between 94 and 268 per financial year. This increased substantially in 2003/04 to 1,443 ‘ecstasy’ tablets, which corresponded with suggestions of a slightly tightening ecstasy market in Tasmania (Bruno, 2004a). The number of tablets seized remained stable over the following two financial years (1,134 in 2004/05 and 1,087 tablets in 2005/06), but have continued to increase to: 2,811 tablets in 2006/07; 2,519 tablets in 2007/08; and 4,478 ‘ecstasy’ tablets in 2008/09³⁴ (Figure 58).

There were three samples of phenethylamines (the class of drugs that ecstasy, or MDMA, and drugs such as MDA, MDEA and mescaline belong to) seized by Tasmania Police analysed for purity in 2003, returning a median purity of 28.5% (range 28.5-28.6%: ACC, 2004). Similar results were returned from seizures analysed in 2003/04 (median purity 26.0%, range 10.4-44.5%, n=33: ACC, 2005). No seizures were analysed for purity in 2004/05 or 2005/06. In 2006/07, four seizures were analysed, returning a median purity of 27.1% (range 26.0-54.7%), and in 2007/08, three seizures were analysed, returning a median purity of 24.6% (range 6.4-26.6%). Data for 2008/09 was not available at the time of publication.

Figure 58: Total number of tablets suspected to contain ecstasy seized by Tasmania Police, 1997/98-2008/09



Source: State Intelligence Services, Tasmania Police

Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

Note: Number of seizures was not available for the 1999/00 and 2000/01 periods; data includes only those seizures that were recorded in tablet form

Findings of the recent dedicated study into ecstasy use in Hobart (Matthews & Bruno, 2010) clearly indicate that ecstasy remains relatively easily available locally, and used by a broadening demographic group of individuals. This, and the information from Tasmania Police seizures, suggests that the availability of ecstasy – recent constrictions notwithstanding – has increased in Hobart during recent years, just as it has across the country. With this greater availability of the drug in Tasmania, local IDU samples have shown an increasing lifetime exposure to the drug over time. However, the very low median frequency of use, along with only a minority of this regular injecting drug user cohort reporting recent use of ecstasy, suggests that ecstasy use is

³⁴ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

generally a limited, recreational event among such groups, with regular injecting drug users tending to preferentially use opioids or methamphetamine at substantially greater frequency.

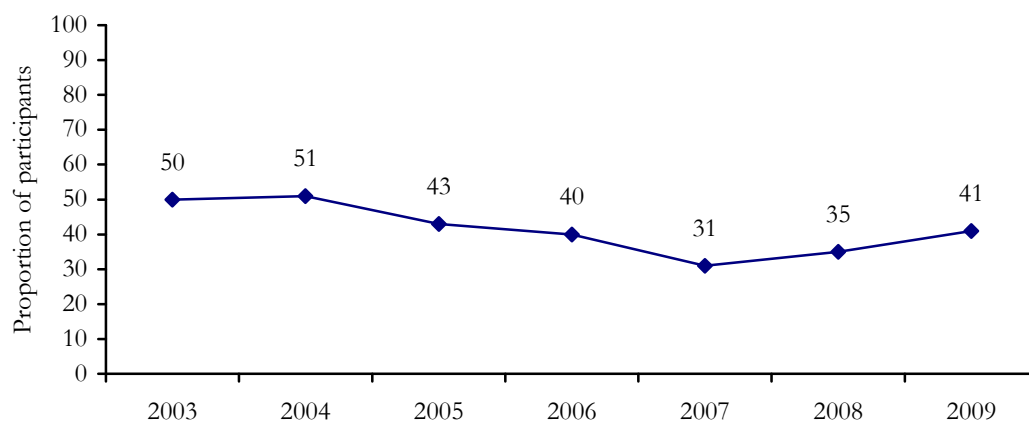
10.5 Prescription stimulants (dexamphetamine, methylphenidate)

While it was very uncommon for the KE to report any use of prescription stimulants such as methylphenidate (Ritalin, Attenta) or dexamphetamine amongst the substance using groups they had recent contact with, two-fifths (41%) of the IDU consumers interviewed had recently used these drugs. Of those who commented on the main type of pharmaceutical stimulant used (n=38), 55% (n=21) of participants reported recent use of dexamphetamine and 45% (n=17) had used methylphenidate.

In the 2009 IDU sample, 82% had used illicit prescription stimulants at some stage in their lives. Injection of these drugs was most common, reported by 73% of the sample at some stage of their lives, and 36% in the preceding six months, at a median frequency of six days in this period (range 1-120). Swallowing of prescription stimulants was reported by 30% of the sample at some stage in their lives, while 10% had swallowed these drugs in the past six months. In total, 41% of the sample reported using illicit prescription stimulants in the past six months, with a median frequency of use of five days (range 1-120 days) in this period. While use of these drugs appears common among the IDU cohort, it appears that they are predominantly used as a second-line drug, as just three participants reported prescription stimulants as the drug they had most commonly used in the preceding month.

Looking at use of pharmaceutical stimulants over time, one notable trend is evident. In 2004, 51% of the sample used pharmaceutical stimulants compared with 31% in 2007. This was a statistically significant reduction (20%, 95%CI of difference 6-33%). This trend was not sustained subsequent to 2007, with small (but not statistically significant) increases in this rate (41% in 2009: Figure 59).

Figure 59: Recent use of illicit pharmaceutical stimulants amongst IDRS participants, 2003-2009



Source: IDRS IDU interviews

The demographic characteristics of those who had used prescription stimulants in the past six months did not differ from those of the larger IDU sample (see Section 3.1) in terms of age, sex, cultural background, sexual preference, education, treatment and prison history, employment status, source of income, frequency of injection, age at first injection, drug first injected and drug most injected. KE in previous IDRS studies have suggested that such

prescription stimulants are more commonly used by younger (predominantly school-age) people. This was not supported in the current cohort, with no significant differences in age identified between those that had recently used pharmaceutical stimulants (33.6 years) and those that had not (34.9 years).

Twenty-five participants could confidently comment on the last purchase price for 5mg dexamphetamine tablets, reporting a modal price of \$5 (median price estimate \$5, range \$4-10). Thirty-one participants commented on last purchase price for methylphenidate preparations, reporting a modal price of \$10 for a 10mg tablet (median price estimate \$10, range \$5-10: Table 17). This represents an increase in the median purchase price, which remained stable between 2004 and 2008 at \$5. Interestingly, the number of participants who were able to comment on the purchase price of methylphenidate preparations ranged from 10 to 16 in the 2004 to 2008 studies, whereas in 2009, this increased to 31 participants (95%CI of difference 3-26%). Similarly, a significant increase in the rate of recent use of methylphenidate products was observed between the 2008 and 2009 samples, which increased from 12% to 29% respectively (95%CI of difference 6-28%). These findings are suggestive of a possible increase in use of these preparations

Almost three-quarters of consumers (n=28) able to report on price changes for pharmaceutical stimulants perceived no changes in the preceding six months. However, 15% of participants perceived increases in the price of pharmaceutical stimulants (34%, n=12).

Participants were divided with regard to current availability of pharmaceutical stimulants (dexamphetamine, methylphenidate), with 50% considering these as 'difficult' (40%, n=16) or 'very difficult' (10%, n=4) to access, and 40% considering these preparations as either 'easy' (30%, n=12) or 'very easy' (10%, n=4) to access in the preceding six months. Participants were similarly divided over changes in availability over the preceding six months: 43% (n=17) noted no change in availability over the preceding six months; 35% (n=14) noted it had becoming increasingly difficult to access these drugs; and a small proportion noted increasing availability (13%, n=5).

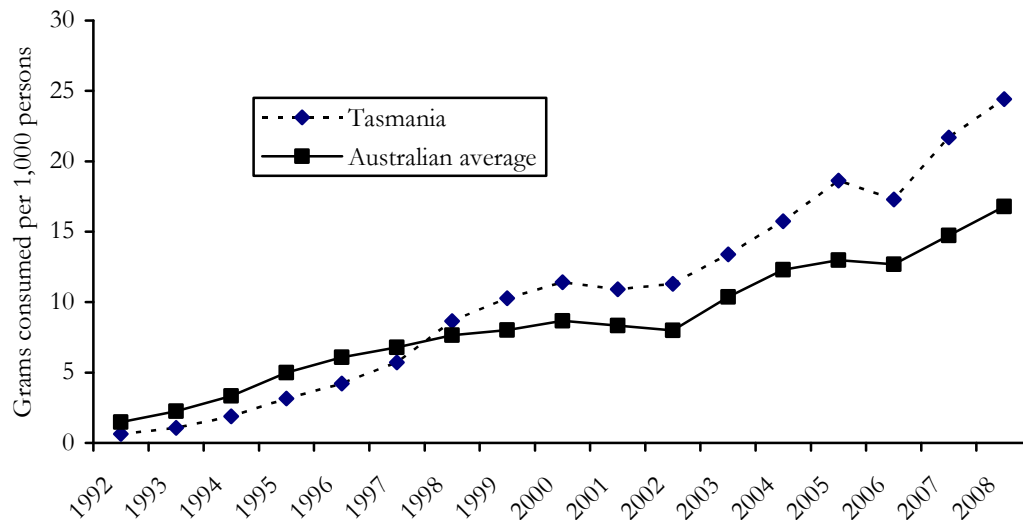
When asked the source of their last purchase of illicit prescription stimulants, 47% (n=24) of participants reported purchasing from a friend, 28% (n=14) from a known dealer and 24% (n=12) purchased from an acquaintance. Participants were also asked to comment on the venue where they last purchased illicit prescription stimulants: 45% (n=23) purchased in an 'agreed public location', 24% (n=12) in a friend's home and small minorities reported purchasing via home delivery (12%, n=6), a dealer's or acquaintance's home (8%, n=4 respectively).

Tasmanian prescription rates of methylphenidate and dexamphetamine (Figures 60 and 61) provide some context for these reports. Over the past decade, prescriptions of these stimulants have steadily grown nationally, most markedly for methylphenidate. Tasmanian consumption rates of methylphenidate had been consistently below that of the Australian average until 1998, and rose to 128% of the national average in 1999, slowly continuing to rise to 145% of the national level in 2008 even in the context of an increasing national prescription rate over this time.

Tasmanian consumption rates of dexamphetamine were comparable to that of the national level between 1997 and 1999, rising to 120% that of the steadily increasing Australian average between 2000 and 2003. However, in the first decline in prescription rates seen in these data, rates of dexamphetamine prescription fell to a level comparable to the national rate in 2004. In 2005, this decline in the Tasmanian consumption rates of dexamphetamine continued, falling

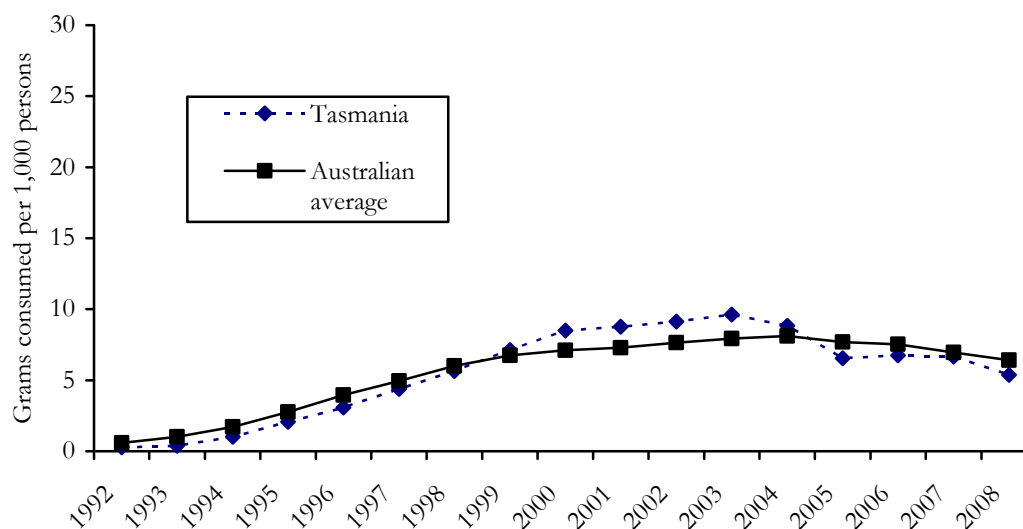
to 85% of the Australian average. Between 2006 and 2008, the rates of prescriptions in Tasmania have remained between 84% and 96% of the national level.

Figure 60: Consumption of methylphenidate (Ritalin) per 1,000 persons, 1992-2008



Source: National Drug System (formerly DRUMS), Pharmaceutical Services, Department of Health and Human Services

Figure 61: Consumption of dexamphetamine per 1,000 persons, 1992-2008



Source: National Drug System (formerly DRUMS), Pharmaceutical Services, Department of Health and Human Services

10.6 Inhalants

While 35% of the IDU respondents reported ever using inhalants, only 15% had used them in the six months prior to interview. The inhalants reported included nitrous oxide, amyl nitrate, glue and paint. However, the use of these substances was extremely infrequent, with a median frequency of just two days in the preceding six months (range 1-10 days).

KE were not aware of any recent use of inhalants amongst the drug users they had contact with. In previous IDRS studies, KE reported that the substance users they were associated with were extremely negative toward use of inhalants, regarding it as a 'primary school thing'.

10.7 Hallucinogens

Twenty-one percent of the IDU respondents in the current study reported use of hallucinogens in the six months prior to interview, although four-fifths (79%) had used this class of drugs at some stage in their lives. The current frequency of use was rare, at a median of one day in the past six months (range 1-15 days). The majority of participants had used these drugs only once (n=16) or twice (n=3) in this time. The types of hallucinogens most commonly used amongst this group were LSD (58%, n=11) and psychedelic mushrooms (42%, n=8). These indications of use are all similar to those reported in previous Hobart IDRS samples, with recent use remaining generally stable at around 20% of each cohort over this time, and the median frequency of use remaining at just one or two days in the preceding six months across each of these samples.

One IDU consumer noted there was lot of LSD available in Hobart at the time of the interview. One KE commented on use of mushrooms, reporting several clients had presented for treatment due to the acute effects of use, i.e. hallucinations, and that these people had been brought to treatment by either friends or police. In previous years, KE reports noted irregular use, most commonly of psychedelic mushrooms and LSD/'trips' amongst a small proportion of the consumers that they had contact with, with such reports more common amongst primary cannabis or methamphetamine consumers rather than groups that primarily used opioids. In support of this, the Ecstasy and Related Drugs Reporting System – using similar methods to the IDRS but a primary ecstasy-using group as its consumer sample and conducted in Hobart (Matthews & Bruno, 2005, 2006, 2007, 2008, 2009, 2010) – found higher levels of hallucinogen use relative to the IDRS IDU cohort (albeit also at a low frequency) among frequent ecstasy users (34% of the 100 ecstasy users using LSD in the six months prior to interview in 2009; and 21% using mushrooms). More details in regard to patterns of hallucinogen use in such demographic groups can be found in Matthews and Bruno (2010).

Price information in regard to LSD has not been reported by the ACC in their annual reports since 2001/02, but was reported as costing \$20-25 in this period. ACC arrest and seizure data for hallucinogens includes tryptamines such as LSD and psilocybin (mushrooms). There have been a small number of arrests in Tasmania in relation to hallucinogens between 1997/98 and 2007/08, ranging between one and three per financial year. In the 2008/09³⁵ period, Tasmania police reported two consumer arrests in relation to hallucinogens. The number of seizures of hallucinogens has also been low (ranging between none and five per financial year). In 2008/09 Tasmania Police reported six seizures: two seizures of mushrooms totalling 28 grams; and 4 seizures of LSD totalling 19 tabs. These quantities seized are so variable, and the level of use of hallucinogens among the IDRS cohort so low, that it is difficult to infer any clear trends in availability for this class of drugs from these figures.

³⁵ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

10.8 Alkaloid poppies

In the 2009 IDU sample, 18% reported using an opioid other than morphine, methadone, buprenorphine, oxycodone, heroin or codeine at some stage in their lives. Of those who commented, 11 participants reported predominant use of some preparation of alkaloid poppies (described by the IDU as opium, poppy tea or tar), with the remainder reporting use of tramadol (n=4), or Capadex (Dextropropoxyphene: n=1).

Eleven percent of the current cohort reported use of alkaloid poppies at some stage in the preceding six months. This level of recent use of alkaloid poppies is similar to that reported between 2006 and 2008 (8-10%), but remains somewhat less than that identified in the preceding five local IDRS IDU cohorts (12-21%: Table 47).

Tasmania Police State Intelligence Services reported stable prices of \$10 and \$20 per 'ball' of poppy tar between January 2000 and June 2001, but have not reported price information for alkaloid poppy preparations since this time. In 2008/09³⁶, Tasmania Police reported making 12 seizures of poppy products, amounting to 445g and 231 units of a poppy product. In 2007/08, Tasmania Police reported seizing 234 units of a poppy product (144 plants, 26 capsules and 64g), and in 2006/07, 238.2g of poppy capsules were seized, along with 363 poppy capsules³⁷, 290mls of liquid, eight plants and eight seeds (Table 47). In 2005/06, fewer poppy seizures were made (59 capsules, three seeds, 33 plants and 224.7g poppy products), however, the quantities of seizures in both 2005/06 and 2006/07 are markedly lower than reported in previous years. During 2004/05, Tasmania Police reported seizing 626 capsules, 473 plants, and 2,530g of capsules and related matter. This is comparable with seizures in recent years: in 2003/04, Tasmania Police seized 601 capsules, 31 poppy plants and 18g of poppy tar/resin; in 2002/03, seven capsules, 1,473.3g of capsules, 84 poppy plants and 2g of poppy tar; in 2001/02, 382 capsules and 9.319kg of capsules; in 2000/01, 3,522 capsules; and 3,933 capsules and 50g of poppy tar in the 1999/00 financial year. This mixture of reporting renders it difficult to clearly identify trends in seizure data.

The diversion rate of Tasmanian alkaloid poppy crops, shown in Table 47 below, had been in steady decline between 1996/97 and 1997/98. Contrary to this trend, however, 1998/99 and 1999/00 saw a substantial amount of poppies stolen from crops. It should be noted that a small number of particularly large hauls were largely responsible for these rates of diversion (in one case, a single haul of approximately 50,000 capsules were stolen). In concert with trends suggesting a decline in alkaloid poppy use amongst IDU during 2001, there was a major decrease in the numbers of poppies stolen during 2000/01, when compared to the two earlier financial years (7,765 capsules in comparison to over 60,000 in 1998/99 and 1999/00). The 2001/02 financial year saw a doubling of the number of stolen poppy capsules (15,946) in comparison to the previous year, and thefts had continued to rise in 2002/03 and 2003/04 (to 20,223 and 24,128 capsules stolen per annum respectively). However, since 2003/04, the number of capsules stolen and the number of theft incidents recorded has declined markedly, with 2,280 capsules stolen in 2008/09, and 17 incidents of theft reported.

Tasmania Police KE in previous IDRS studies report that the declines in diversion following 1999/00 are likely to be attributed both to a more proactive approach by Tasmania Police poppy task forces and the decision by producers not to specifically identify thebaine poppy crops. This is a substantial deterrent to illicit use, as thebaine poppies are physically identical to morphine-producing crops, with the exception that thebaine acts as a CNS stimulant

³⁶ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

³⁷ Seizures of poppies were recorded either by weight or number.

(morphine behaves in the opposite way, and is a CNS depressant), causing adverse strychnine-like convulsions after high doses. In support of this, in 2001, one KE, a user group representative, noted negative experiences with thebaine-based illicit poppies amongst the IDU they were familiar with, with the individuals concerned not returning to use of poppy preparations.

Table 47: Tasmanian alkaloid poppy crop diversion rates, 1996/97-2008/09

	1996/ 97	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09
Number of capsules stolen	42,426	30,424	66,013	62,700	7,765	15,946	20,223	24,128	16,201	10,263	9,344	820	2,280
Cost per hectare of securing poppy crops	\$45	\$39	\$33	\$27	\$28	\$28	\$30	\$47	\$44	\$62	\$68	\$71	\$33
Number of capsules stolen per hectare sown	3.95	2.44	4.41	2.99	0.39	0.81	1.11	1.97	1.25	1.06	1.04	0.07	0.14
Number of theft incidents reported	46	38	34	39	20	27	27	39	35	13	7	8	17
% of IDU sample reporting use	-	-	-	34	13	14	12	13	21	8	10	10	11
Median days used (among IDU using)	-	-	-	6 (1-151)	6 (1-81)	4 (1-45)	5 (1-48)	3 (1-96)	3 (1-144)	3 (1-100)	2 (1-45)	7 (1-100)	3 (1-90)
TASPOL seizures	-	-	-	3,933 capsules*; 50g tar	3,522 capsules*	382 capsules*; plus 9,319g of capsules	7 capsules plus 1,473.3g capsules; 84 plants; 2g tar	601 capsules; 18g resin; 31 plants; *	626 capsules; 2,515.4g capsules; 2.7g resin; 473 plants; 11.7g seed	59 capsules; 33 plants; 3 seeds; 224.7g poppy products	363 capsules; 283.2g of capsules; 290ml liquid; 8 plants; 8 seeds	144 plants; 26 capsules; 64g	445 g of poppy products; 231 units

Source: Poppy Board, Justice Department of Tasmania, Tasmania Police State Intelligence Services.

Note: 2008/09 data from Tasmania Police is preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

*May be an overestimate of seizures as Tasmania Police data are an amalgamation of plants, capsules and weight of seizures. Data reported here are the best estimate of seizure quantity

10.9 Other Substances

10.9.1 Buprenorphine

With the advent of Subutex (buprenorphine) as a maintenance treatment option for opioid dependence in the 2000/01 financial year, trends in buprenorphine use among regular IDU groups have been examined since the 2002 IDRS survey. In the current cohort of IDU 47% reported ever using Subutex with 26% ever receiving the drug licitly, and 28% ever using illicit Subutex. Twelve percent of the current IDU participants reported recent use of illicit buprenorphine in the six months prior to interview, at a median frequency of three days (range 1-180 days). All except one of this group of participants reported injecting illicit buprenorphine in the six months prior to the interview (11%), at a median frequency of two days (range 1-180 days). Of those 12 participants reporting recent use of illicit buprenorphine, just one (8%) reported engagement in buprenorphine treatment in the preceding six months. Of the eight participants reporting engagement in buprenorphine treatment in the preceding six months, just two reported injecting this, at a median frequency of 51 days (range 1-100 days).

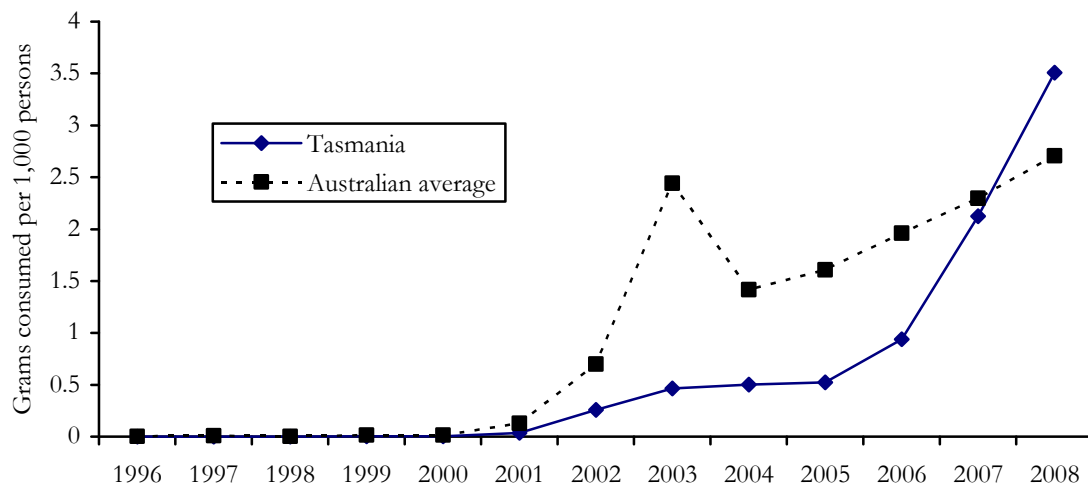
Participants were also asked if they had used Suboxone, which is a combination of buprenorphine and naloxone. Suboxone is a substitution treatment for opioid dependence that is designed for oral use. When taken as recommended (i.e. orally) its effects are virtually the same as Subutex; however, if the tablet is injected, the naloxone is likely to precipitate intense withdrawal symptoms. Twenty participants in the current study reported lifetime use of Suboxone. Of this group, 13 had ever been prescribed the drug; four had used it illicitly, and three had used both licit and illicit Suboxone. Just two participants had used illicit Suboxone in the six months preceding the interview at a median frequency of 25 days (range 2-48 days). One participant reported exclusive oral use, and the second participant reported exclusive injecting use over this period.

As noted in Section 8.1.5 above, Subutex (buprenorphine) first became available as a pharmacotherapy in the state in 2000/01. Following an influx of individuals that were previously receiving treatment shifting to Subutex in the first year of availability of the drug (n=37 in 2000/01), the number of new admissions to Subutex maintenance in Tasmania has stabilised between 2002/03 and 2007/08 (n=32 in 2002/03, n=45 in 2003/04, n=35 in 2004/05, n=26 in 2005/06, n=31 in 2006/07, n=22 in 2007/08 and 26 in 2008/09). Suboxone (buprenorphine-naloxone) was introduced into Tasmanian treatment settings in 2006/07, leading to an increase in new admission to this treatment (six in 2006/07, 38 in 2007/08, 51 in 2008/09), possibly accounting for the small decrease in the number of new admissions to Subutex maintenance. In 2006, one KE working in drug treatment commented that the number of buprenorphine prescribers had declined, which may provide one possible explanation for the stable and low number of new admissions into this form of treatment between 2004/05 and 2007/08.

Between 2002 and 2009, the number of daily Subutex patients in the state grew from 48 as of July 2002 to 80 in July 2009. Similarly, the number of daily Suboxone patients has increased from 13 in 2006/07 to 89 in 2008/09. Tasmanian prescription rates of buprenorphine are detailed below in Figure 62. Following the trends in buprenorphine maintenance admissions, the rate of prescription of the drug in the state increased tenfold between 2001 and 2003 from 0.04g to 0.46g per 1,000 persons, and again between 2005 and 2008, increasing seven-fold from 0.5g to 3.5g per 1,000 persons. National prescription rates have also increased remarkably rapidly since 2001, largely due to the enthusiastic uptake of buprenorphine treatment in Victoria. Despite this, for the first time, the Tasmanian population rate of prescriptions is greater than the national rate (130%).

Reports from KE regarding illicit use of buprenorphine have been rare in Tasmania. In the current study, one KE was aware of anecdotal reports of people finely cutting up buprenorphine patches, making a suspension from this and injecting it. Given the high use of illicit pharmaceutical opioids among the regular IDU population locally, and the notable rates of diversion of buprenorphine in other jurisdictions (Stafford et al., 2010), trends in use of buprenorphine merit continued attention as the drug continues to be more widely adopted as a treatment option locally in the coming years.

Figure 62: Consumption of buprenorphine per 1,000 persons, 1996-2008



Source: National Drug System (formerly DRUMS), Pharmaceutical Services, Department of Health and Human Services

10.10 Summary of trends for other drugs

The IDRS methodology is not particularly well-suited to gathering data regarding trends in use of other illicit drugs such as ecstasy, hallucinogens and inhalants, as these populations often do not come into contact with the services KE are involved with, or they do not meet the criteria for inclusion in the IDU survey. As such, trends identified here should be interpreted with due caution and may merit further investigation using more appropriate methodologies.

The main trends identified for these categories of drugs are outlined below:

- Tobacco remains the most commonly used drug amongst the sample, with almost all participants reporting recent use.
- More than three-fifths of the 2009 cohort reported recent use of alcohol, with the median frequency of this use being weekly. Sixteen percent of the sample reported harmful or hazardous drinking levels, or possible alcohol dependence, as scored by the AUDIT.
- Prescription stimulants were used by 41% of the participants in the current study on an infrequent basis and were generally not the stimulant drug most commonly used by such individuals.
- Multiple sources of information suggested that the availability of ecstasy had increased in Hobart during recent years, just as it had across the country. Forty-two percent of the IDU consumers interviewed had recently used ecstasy, relatively similar to rates reported by previous IDRS samples. Use of ecstasy amongst IDU participants remains infrequent. However, there are clear indications of increasing use of this drug in other demographic groups in the state (Matthews & Bruno, 2005, 2006, 2007, 2008, 2009, 2010).
- Twenty-one percent of the 2009 cohort reported recent use of hallucinogens, and frequency of use was very low. LSD and mushrooms were the predominant forms used.
- Use of illicit alkaloid poppies among the IDRS IDU cohort has remained low and stable since 2006, ranging between 8% and 11%. Consistent with this, reports of thefts from poppy crops declined dramatically in 2007/08 and 2008/09.
- Use of illicit buprenorphine amongst the 2009 IDRS IDU cohort continues to be a rare occurrence and restricted to a small minority of participants.

11.0 HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE

11.1 Overdose and drug-related fatalities

11.1.1 Opioids

Non-fatal overdose

All participants reported that they had used some form of opioid in their lifetime, and two-fifths of these (40%, n=40) had ever experienced a (non-fatal) opioid overdose. Among these 40 individuals that had ever experienced an opioid overdose, 25 (63%) had overdosed on heroin, 10 (25%) with morphine, and five (13%) on methadone. Eleven participants in the current cohort had overdosed on any opioid in the year prior to interview (Table 48): one with heroin; 5 with morphine, 4 with methadone and one participant reported two overdoses in this period, with methadone and morphine. Of those participants who had ever overdosed on any opioid, the median number of times they had overdosed was once (for heroin overdose: median once, range 1-100 times; for morphine overdose: median once, range 1-30 times; and methadone overdose: median once, range 1-12 times). Among those that had ever experienced an opioid overdose, the median time since their last overdose was five years: amongst those that had overdosed on heroin, it was 10 years (range 10-252 months); for morphine, it was 18 months (range 0.5-122 months); and for methadone 21 months (range 2-120 months).

It is notable that, in recent years, the rates of overdose amongst the Tasmanian consumers interviewed in the IDRS have been comparable with those reported in other jurisdictions. For example, in the 2007 IDRS, 7% of both the national study sample (N=909) and the Tasmanian sample (N=100) had ever experienced a morphine overdose, with 2% of the national sample and 3% of the local sample reporting such an overdose in the preceding 12 months³⁸. In earlier IDRS studies, the local level of reported recent experience of non-fatal opioid overdose was lower than that experienced in the national sample, possibly reflecting the different patterns of opioid use locally, where relatively lower proportions of the consumers interviewed had used heroin, but use of pharmaceutical preparations of opioids was much more common – with this predominant use of pharmaceutical opioids (where the dose is known) having the potential to reduce the likelihood of accidental overdose. However, it may be that the high level of use of benzodiazepines, and in particular the simultaneous use of multiple CNS depressant drugs, has underpinned these overdose levels in the local cohort.

This noted, the proportion of the local sample reporting having ever overdosed on an opioid was significantly higher in 2009 (40%) than in 2008 (26%; 95%CI of difference 1-26%), and higher than reported in previous IDRS studies (ranging from 25-34% between 2000 and 2007), with the exception of 2004 (46%). Similarly, when observing the proportion of IDU participants that reported experiencing an overdose in the preceding year, slightly greater proportions of the samples reported such an event in 2000 (10%), 2004 and 2009 (11% respectively) than in other years (ranging from 4-8% in 2001 to 2008).

Participants reporting an opioid overdose in the 12 months preceding the interview were asked to comment on any treatments they received for this event. Of the nine participants who commented: five experienced an overdose from morphine; two from methadone; and single participants had overdosed after consuming a combination of morphine and oxycodone, and methadone and Subutex (buprenorphine). Five of these participants received no treatment or care, two participants received CPR and a further two participants were treated in a hospital emergency ward.

³⁸ This data was collected only in Tasmania in 2008 and 2009.

Table 48: Reported experience of non-fatal opioid overdose among the IDU sample (n=100), 2000-2009

% of IDU in past month										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Overdosed (ever)	31%	25%*	33%	34%	46% 35% heroin; 18% morphine	33% 22% heroin; 6% morphine; 9% methadone	32% 21% heroin; 8% morphine; 6% methadone	34% 17% heroin; 11% morphine; 9% methadone	26% 15% heroin; 7% morphine; 11% methadone	40% (25% heroin; 10% morphine; 5% methadone)
Median times ever overdosed	twice	once	once	twice	thrice thrice (heroin); once (morphine)	twice twice (heroin); once (morphine); once (methadone)	twice thrice (heroin); once (morphine)	once twice (heroin); once (morphine)	once twice (heroin); twice (morphine); once (methadone)	once once (heroin); once (morphine); once (methadone)
Overdosed# (last 12 months)	10%	8%	7%	5%	11%	6% 2% heroin; 4% methadone	1% heroin	7% 4% methadone; 3% morphine	4% 4% methadone; 3% morphine	11% 1% heroin; 5% morphine; 4% methadone; 1% morphine and methadone
Witnessed an overdose (ever)	50%	54%	61%	65%	65%	55%	25%	33%	52%	n/a
Median times ever witnessed overdose	twice	twice	twice	twice	thrice	thrice	four	twice	three	n/a
Witnessed an overdose (last 12 months)	24%	51%	26%	34%	20%	27%	4%	12%	17%	n/a

Source: IDRS IDU interviews.

*All but one of these cases reported overdosing on heroin, rather than any other opioid. The varying case was a reported morphine overdose.

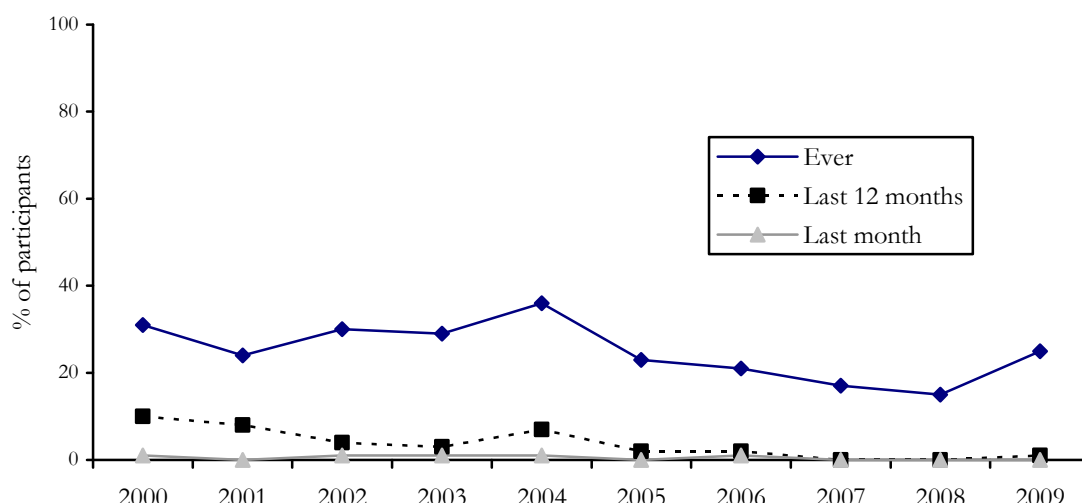
Since 2008, this question was asked of the preceding six months

Note: N/a not asked

Heroin

A single participant in the current cohort reported experiencing a non-fatal heroin overdose in the year prior to interview. Examining trends in experience of heroin overdose in the IDRS IDU cohorts over time (Figure 63), it appears that recent experience of heroin overdose has been declining over time, consistent with the decline in use of this drug in successive cohorts.

Figure 63: Proportion of IDU participants who had ever overdosed on heroin, overdosed in the past 12 months, and the past month, 2000-2009



Source: IDRS IDU interviews

Note: The one participant who reported a heroin overdose in 2006 reported concomitant use of crystal methamphetamine

Methadone

Twelve participants in the current cohort reported ever having experienced a non-fatal methadone overdose. Of this group, five participants reported experiencing a methadone overdose in the 12 months preceding the interview. The numbers of reports of experience of methadone overdoses are similar to those in 2008, where four participants had experienced a methadone overdose in the 12 months prior to interview.

Morphine

Overall, ten IDU participants (10%) in the current cohort reported ever having experienced a non-fatal morphine overdose, and five participants reported such an experience in the year prior to interview. The rate of these experiences in the current cohort is similar to those reported since 2007: non-fatal morphine overdose in the twelve months preceding the interview was experienced by between 6% and 18% of each cohort; and lifetime experience of a morphine overdose has ranged between 3% and 5% over this period.

Fatal Opioid Overdoses

The Australian Bureau of Statistics (ABS) has changed the way deaths data is collated, making comparisons to earlier overdose bulletins published by the National Drug and Alcohol Research Centre difficult. Since 2003, the ABS has progressively ceased visiting jurisdictional coronial offices to manually update causes of death that had not been loaded onto the computerised National Coronial Information System (NCIS). In 2006, the ABS began to rely

solely on data contained on NCIS at the time of closing the deaths data file. In addition, a number of jurisdictions, notably New South Wales and Queensland, reported backlogs in cases that had been finalised by the coroner (i.e. cases where the coroner had determined the cause of death), but not yet been loaded onto NCIS. This is likely to have an impact on the number of opioid-related deaths recorded at a national level in 2006, given that New South Wales and Queensland recorded the highest number of opioid-related deaths in Australia during the period 2000 to 2005. Accordingly, only drug-related deaths for 2006 and 2007 are reported here. These data should be interpreted in conjunction with the ABS Technical Note 2: *Coroner Certified Deaths*, 3303.0 2006 (Roxburgh & Burns, in press).

The following findings relate to numbers of drug-related deaths recorded at the time of closure of the 2007 ABS deaths data file. These figures may not be complete due to changes in methodology.

The number of accidental deaths in Tasmania due to opioid use in 2007 was 11, which equates to a rate of 42 per million of population age between 15 and 54 years of age. This is similar to the number of such deaths in 2006 (n=10, 38 per million population). Nationally in 2007, 266 deaths were attributed to such causes, which equate to a lower rate (22 per million population aged 15-54 years) than was reported for Tasmania (Table 49).

Table 49: Accidental deaths due to opioid use among those aged 15-54 years, 2006-2007

	2006	2007
No. of accidental deaths due to opioid use		
Tasmania	10	11
Australia	269	266

Source: Roxburgh & Burns, *in press*

11.1.2 Stimulants

Non-fatal stimulant overdoses

Participants were asked if they had ever experienced a non-fatal methamphetamine overdose. Methamphetamine overdose is often characterised by profuse sweating, increased pulse, blood pressure and body temperature, and in severe cases (which occur infrequently) can also result in cardiovascular problems, stroke, kidney failure and death. Amongst the current cohort, two participants reported ever having experienced a non-fatal methamphetamine overdose: one of these events was related to use of powder form, and another was related to base/paste methamphetamine use. In the 12 months prior to the interview, no participants reported having experienced a non-fatal methamphetamine overdose. In 2008, three participants reported ever having experienced such an overdose, and one of these had occurred in the preceding six months.

Fatal stimulant overdoses

As mentioned in Section 11.1.1, in previous IDRS reports, overdose-related fatalities data from 1998 to the present (provided by the ABS) have been discussed. Due to a change in the way deaths data is collated by the ABS, it is not possible to compare 2006 and 2007 drug-related deaths to the earlier overdose bulletins published by the National Drug and Alcohol Research Centre that cover the period 1988 to 2005 (Roxburgh & Burns, in press).

The following findings relate to numbers of drug-related deaths recorded at the time of closure of the 2007 ABS deaths data file. These figures may not be complete due to changes in methodology (Roxburgh & Burns, in press).

Nationally in 2007, fewer deaths were found to be related to methamphetamine use than opioid use (Roxburgh & Burns, in press): 20 cases of accidental death for which methamphetamine was found to be the underlying cause, and 49 deaths where methamphetamine was thought to be either the underlying or a contributory cause (Table 50).

In 2007, cocaine was noted as the underlying cause of 7 deaths nationally, and there were 11 deaths where cocaine was mentioned as either the underlying or contributory cause (Table 50).

Table 50: Number of methamphetamine or cocaine deaths among those aged 15-54 years in Australia, 2006-2007

Cause of death	2006	2007
Any mention of methamphetamine	66	49
Methamphetamine underlying cause	18	20
Any mention of cocaine	13	11
Cocaine underlying cause	6	7

Source: Roxburgh & Burns, in press

11.2 Drug treatment

11.2.1 Information-seeking: Alcohol and Drug Information Service (ADIS)

The Tasmanian Alcohol and Drug Information Service (ADIS) has been administered by Turning Point Alcohol and Drug Centre in Victoria since May 2000. Turning Point systematically records data for each call received; however, data has been reported over differing time periods due to the requirements of the Department of Health and Human Services. Thus, for comparative purposes (and since these annual data are the only information available to the authors), these slightly differing reporting periods will each be treated as financial year periods. The number of calls made to ADIS have slowly declined in recent years: there were 2,422 calls made to the service between 15 May 2000 and 30 June 2001; 2,208 in the 2000/01 financial year; 1,827 in 2001/02; 1,984 during the period April 2002 to March 2003; 1,837 during 2003/04; 1,498 in 2004/05; 1,469 in 2005/06; 1,474 in 2006/07; 1,525 in 2007/08; and 1,556 in 2008/09.

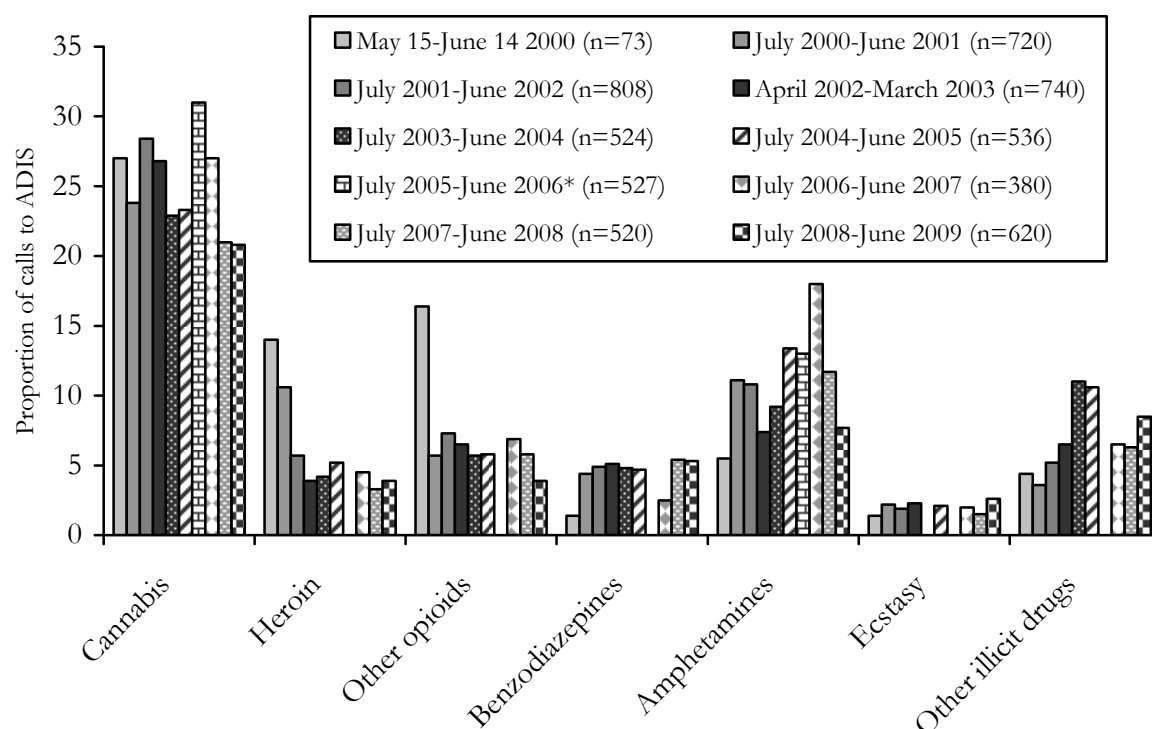
Among calls in 2000/01 where the demographics of a specific drug consumer were identified, there was an approximately equal gender distribution (50.1% male), which was particularly noteworthy, given that statistics from similar services in Victoria have consistently demonstrated a preponderance of male drug users in calls to their services, usually in the order of two-thirds male. In 2001/02, the drug users identified in calls to ADIS fell more closely to this 'traditional' bias, with 58% of calls relating to males, a ratio that has continued into recent years (56-62% male between 2002/03 and 2008/09).

Trends in the age of drug consumers identified in calls to ADIS over time are difficult to identify due to differences in the age groupings adopted across reports. During 2000/01, the majority of drug users identified were aged between 22 and 40 years of age (59%), although a sizeable proportion of calls related to people in the 16 to 18 year age group (15.5%). In subsequent years, it would appear that there has been a slow shift towards an increasing age of drug consumers identified in ADIS calls: over time the proportion over age 40 has increased (19% were over 40 in 2001/02 to 56% in 2008/09). Additionally, the proportion of ADIS calls referring to a young person's (i.e. aged less than 20 years) drug use was stable at around 10%

between 2001/02 and 2004/05, however, this rate rose slightly to 17% in 2006/07. In the two subsequent reporting periods, this rate had decreased to just 3% and 1% respectively.

In terms of the types of drugs that were enquired about in ADIS calls, again, it is difficult to make clear inferences regarding trends due to shifts in reporting criteria; however, in all sets of ADIS data, the bulk of calls pertaining to illicit drugs in each year are in regard to cannabis use, followed by amphetamine. A relative increase in the proportion of calls relating to cannabis was apparent in 2005/06 (23% in 2004/05; 31% in 2005/06), possibly reflecting media campaigns in regard to an association between cannabis use and mental health problems. The rate of calls in relation to cannabis use decreased to approximately 20% in both 2007/08 and 2008/09. A slight increase was apparent in calls in relation to methamphetamine in 2006/07 (13% in 2005/06; 18% in 2006/07), however, over the subsequent two financial years this rate has returned to levels previously reported (12% in 2007/08 and 8% in 2008/09).

Figure 64: Percentage of calls to ADIS referring to persons using specific drugs, May 15, 2000-June 2009



Source: ADIS Tasmania Reports, Turning Point Alcohol and Drug Centre

Note: Calls referring to ecstasy were not specified in the 2004 reporting, and may have been collapsed into the 'other' column).

* 2005/06 data were only provided for amphetamines and cannabis

11.2.2 Treatment: Tasmanian Alcohol and Other Drug Treatment Minimum Data Set

The National Minimum Data Set (NMDS) for Alcohol and other Drug (AOD) Treatment Services was developed as a nationally consistent response to data collection for AOD treatment services. Data collection began on 1 July 2000, and data from Tasmanian government and non-government agencies across the state are presented in Table 51 below. Data from clients receiving only methadone maintenance treatment, and admitted patients in psychiatric hospitals or general hospital wards, are not included in these figures.

The findings from the 2007/08 data show 69% of those receiving services were male and 11% identified as being ATSI. Figures for the reported principal drug of concern in 2007/08 show 45% of clients reported cannabis and 32% alcohol, followed by amphetamine (11%) and morphine (5%: Table 51).

There are several notable changes in the NMDS figures between the 2000/01 and 2007/08 datasets (Figure 65). Chief amongst these are the changes regarding alcohol being the predominant drug identified as primary drug of concern. Between 2000/01 and 2002/03, alcohol was commonly reported as the principal drug of concern for the largest proportion of drug treatment clients (approximately 40% of cases), with cannabis the next most commonly reported principal drug of concern, by a substantially smaller proportion (approximately 20% of clients). Between 2003/04 and 2005/06, alcohol and cannabis were the principal drugs of concern for equal proportions of treatment clients (approximately 30% of clients respectively); however, in 2006/07 and 2007/08, more episodes were reported for cannabis as the principal drug of concern than alcohol (39% and 36% respectively in 2006/07 and 45% and 32% respectively in 2007/08). Variations in the proportion of treatment episodes related to nicotine have also occurred. In 2000/01, just 2.4% of episodes were reported for nicotine as the primary drug of concern. Between 2001/02 and 2004/05, this was the principal drug of concern for approximately one-sixth of clients (approximately 17%); however, in 2006/07, no treatment episodes were reported for nicotine. Specific changes in relation to other drug types are discussed separately in following sections.

Table 51: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set, 2000/01-2007/08

Total Data Set	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08*
n	1,404	1,735	2,568	2,357	1,921	1,512	1,564	2,302
% receiving service for their own use	91% (n=1,279)	97% (n=1,691)	89% (n=2,286)	68% (n=1,603)	71% (n=1,364)	90% (n=1,357)	95% (n=1,478)	92% (n=2,124)
For those receiving services for their own use								
Sex (% male)	65% (n=826)	66% (n=1,116)	66% (n=1,509)	58% (n=930)	59% (n=805)	60% (n=814)	64% (n~950)	69% (n~1455)
Aboriginal and/or Torres Strait Islander	8% (n=103)	7% (n=123)	8% (n=183)	6% (n=96)	7% (n=95)	7% (n=95)	11% (n~165)	11% (n~232)
Principal drug of concern								
<i>Alcohol</i>	38.8% (n=496)	36.7% (n=620)	40.8% (n=933)	28.9% (n=463)	31.0%(n=423)	38.0%(n=515)	36.0% (n=532)	32.1% (n~682)
<i>Nicotine</i>	2.4% (n=31)	16.6% (n=280)	18% (n=412)	12.5% (n=200)	16.6%(n=226)	2.0% (n=27)	0%	n/r
<i>Cannabis</i>	22.7% (n=290)	24.7% (n=418)	18.6% (n=426)	37.0% (n=593)	31.0%(n=423)	34.0% (n=462)	39.4% (n=583)	45.3% (n~936)
<i>Amphetamine</i>	12.1% (n=155)	9.5% (n=161)	7.9% (n=180)	8.5% (n=136)	9.8%(n=134)	12.0% (n=160)	12.9% (n=190)	11.3% (n~239)
<i>Cocaine</i>	0.2% (n=3)	0.0%	0%	0.1% (n=2)	0%	0.1% (n=1)	0%	0%
<i>'Ecstasy' and related</i>	0.1% (n=1)	0.3% (n=5)	0%	0.7% (n=11)	0.7%(n=10)	1.1% (n=15)	1.7% (n=25)	1.7% (n~36)
<i>Heroin</i>	2.3% (n=30)	1.1% (n=18)	0.5% (n=12)	0.8% (n=13)	0.2%(n=3)	0.8% (n=11)	0.4% (n=6)	0.3% (n~7)
<i>Morphine</i>	6.6% (n=84)	7.2% (n=121)	n/r	n/r	5.9%(n=80)	4.7% (n=64)	2.7% (n=40)	4.6% (n~97)
<i>Metadone</i>	6.0% (n=77)	0.2% (n=3)	3.5% (n=79)	3.0% (n=48)	2.0%(n=27)	3.4% (n=46)	1.7% (n=25)	1.1% (n~23)
<i>Other opioids</i>	4.1% (n=53)	1.1% (n=19)	7.6% (n=173)	n/r	0.9%(n=12)	n/r	n/r	0.6% (n~12)
<i>Benzodiazepines</i>	2.9% (n=37)	1.7% (n=29)	0.7% (n=16)	1.0% (n=16)	0.8%(n=11)	1.3% (n=18)	1.4% (n=21)	1.3% (n~27)
<i>Other</i>	0.8% (n=10)	0.4% (n=7)	2.4% (n=55)	7.1% (n=114)	1.1%(n=15)	1.1% (n=15)	3.2% (n=48)	1.7% (n~36)

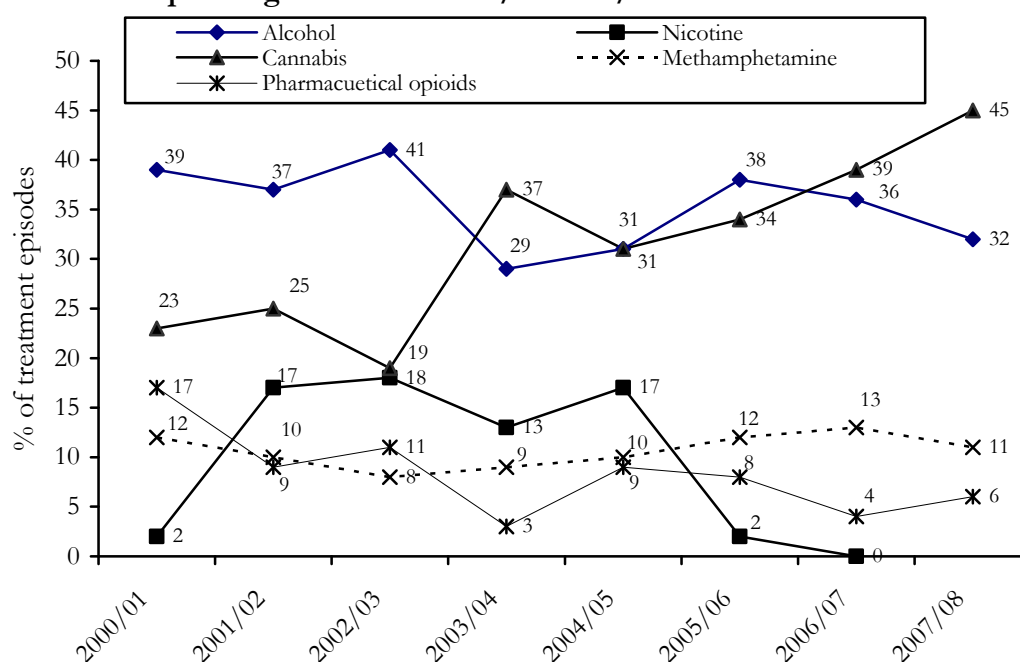
Source: Australian Institute of Health and Welfare

* The total number of closed treatment episodes may be undercounted because two agencies only supplied drug diversion data

n/r: Not recorded

Note: Multiple presentations of the same individual excluded

Figure 65: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set: Principal drug of concern 2000/01-2007/08



Source: Australian Institute of Health and Welfare

Heroin

As reported in the NMDS, the proportion of treatment episodes noting heroin as the principal drug of concern has remained very low in Tasmania, at 1% or less since 2001/02. Local rates are notably lower than those reported nationally, where 10.5% of treatment episodes were related to heroin as a principal drug of concern in 2007/08 (AIHW, 2009). Data for the 2008/09 financial year were not available at the time of publication.

Methamphetamine

In the 2007/08 NMDS, meth/amphetamine was reported as the principal drug of concern for 11.3% of treatment episodes in Tasmania and 11.2% nationally (AIHW, 2009). This local rate is relatively consistent with that reported in previous years, ranging between 7.9% and 12.9% since 2000/01 (Table 51).

Calls relating to use of amphetamine to the Tasmanian ADIS telephone service increased relatively between 2005/06 and 2006/07, from 13% to 18%, however, in 2007/08 and 2008/09, this rate returned to levels reported previous to 2006/07 (12% and 8% respectively). Amphetamine has remained the third most common drug enquired about in calls to ADIS since 2000/01, following alcohol and cannabis.

Cocaine

In 2007/08, there were no reports of treatment episodes provided in which cocaine was the principal drug of concern. Reports of cocaine as the principal drug of concern amongst Tasmanian clients of drug treatment services are uncommon, comprising just 0.2% of or less of annual treatment episodes between 2000/01 and 2006/07 (AIHW, 2008c). This is comparable with national figures: in 2007/08, just 0.3% of treatment

episodes reported in the NMDS related to individuals whose principal drug of concern was cocaine.

Cannabis

In 2007/08, 45.3% of Tasmanian drug treatment episodes reported to the NMDS related to clients reporting cannabis as their principal drug of concern (AIHW, 2009). This was significantly higher than the national rate reported for cannabis (21.6%: 95%CI of difference 20-23%). This greater proportion of episodes for cannabis use may be related to the inclusion of treatment episodes from the Illicit Drug Diversion Initiative (IDDI), which addresses cannabis use in Tasmanian jurisdictions. The proportion of treatment episodes in Tasmanian drug treatment services relating to concerns with cannabis has varied over the past eight years: between 2000/01 and 2002/03 the proportion of such episodes ranged between 19% and 25%. In 2003/04, this increased sharply to 37%, and remained around this level (ranging between 31% and 39%) until 2007/08, when this rate increased significantly to 45.3% (95%CI of difference 1-8%).

In 2007/08 and 2008/09, approximately one-fifth of calls to ADIS reported cannabis to be the primary drug of concern (21% respectively). This is relatively similar to the rates reported in preceding years, with the exception of 2005/06, when 31% of calls to ADIS reported cannabis to be the primary drug of concern (Figure 64). This increase in 2005/06 may have reflected media campaigns in regard to an association between cannabis use and mental health problems.

Methadone

The proportion of treatment episodes where methadone was the principal drug of concern was similar for Tasmanian clients (1.1%) to the levels seen nationally (1.6%) in 2007/08 (AIHW, 2009). Between 2002/03 and 2005/06, the proportion of treatment episodes in Tasmania for individuals reporting methadone as their principal drug of concern ranged between 2.0% and 3.5%, slightly higher than reported in 2006/07 and 2007/08 (1.7% and 1.1% respectively).

Morphine

During 2007/08, morphine was reported as the principal drug of concern in 4.6% of treatment episodes in Tasmania (AIHW, 2009). This was a significantly greater proportion than reported nationally (0.9%: 95%CI of difference 2.8-4.6%). The local Tasmanian rate of treatment episodes for morphine has remained relatively unchanged since 2000/01, ranging between 2.7% to 7.2%.

11.2.3 Treatment-seeking in the IDRS IDU cohort

A series of questions in regard to treatment were included in the 2009 IDRS. Nine percent of all participants reported they were on a waiting list to access opioid pharmacotherapy (methadone, Subutex or Suboxone treatments) at the time of the interview. On average, this group reported they had been waiting 3.5 months (range 0.25-8 months). These participants were asked to comment on their experiences of being on a waiting list for treatment: 89% reported this had been negative. One participant commented that they '*can't get on a waiting list, it's full*', and a second participant noted that '*I don't know when or if I can get treatment*'. A third participant noted their use of drugs had increased whilst waiting to access pharmacotherapy treatment.

Of the participants who were engaged in a form of opioid pharmacotherapy treatment at the time of the interview (n=56), almost three-quarters reported they were satisfied with this treatment. Several participants noted a satisfactory relationship with their medical practitioner and/or their pharmacist had a positive impact on their experience of treatment. Participants commented that the ability to have a degree of control over their treatment was important, such as flexibility with take-away doses and dose adjustments. Conversely, participants who noted a relationship with their medical practitioner and/or pharmacist which they described as '*discriminatory*' or '*disrespectful*' reported dissatisfaction with their treatment.

Participants who were currently accessing opioid pharmacotherapy treatment were also asked to comment on details regarding the dispensing of their medication (methadone, Subutex or Suboxone). The median frequency (per week) that participants reported attending a pharmacy or dosing centre to receive opioid pharmacotherapy was four days (range 1-7 days, n=56). Participants were also asked to estimate the direct (dispensing fees) and indirect costs (travel costs) of their last opioid pharmacotherapy dose. The median cost was reported to be \$8 (range \$0-20, n=56).

11.3 Hospital Admissions

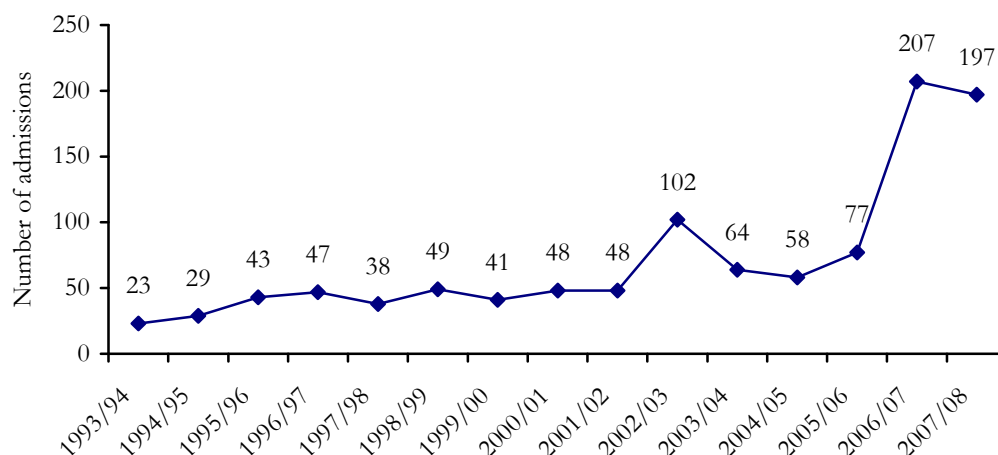
Hospital morbidity data in relation to use of drugs have been provided by the AIHW for the 1993/94 to 2007/08 financial year periods (Roxburgh & Burns, in press). These data relate to Tasmanian public hospital admissions for individuals aged between 15 and 54 years where drug use was recorded as the 'principal diagnosis'; namely, where the effect of drugs was established, after study, to be chiefly responsible for occasioning the patient's episode of care in hospital (with the exception of admissions for psychosis and withdrawal). These figures were based on diagnoses coded according to the International Classification of Diseases (ICD) 10, second edition. It is also important to note that data from the state's single public specialist detoxification centre are only included in this dataset from June 2002.

11.3.1 Heroin and other opioids

Tasmanian hospital admissions in relation to opioids are presented in Figure 66 between 1993/94 and 2001/02, primary diagnoses relating to opioid use in Tasmania had remained relatively stable, between 23 and 49 admissions per financial year. However, when data from the state's public detoxification centre were included in these figures (July 2002), there was a marked but unsustained increase in the number of admissions (rising from 48 admissions in 2001/02 to 102 in 2002/03, and falling to 64 in 2003/04). Over the following two financial years, the number of opioid-related hospital admissions remained slightly higher than seen prior to 2002 (58 and 77 admissions respectively). In 2006/07, the number of hospital admissions increased dramatically to 207. This increase was sustained in 2007/08, with 197 admissions in Tasmania. As can be seen in Figure 67, when the Tasmanian rate of opioid-related admissions per million population is compared to that of the national Australian level, prior to the inclusion of figures from the public detoxification service (July 2002), local admission rates for such cases were substantially lower than the national rates. In 2002/03, when detoxification patients were included, local admission rates were comparable to those nationally (393 v. 424 admissions per million persons between the ages of 15 and 54 years respectively). However, in 2003/04, local admission rates returned to around half that of the national level, and remained at a similar level in 2004/05 (222 v. 415 admissions per million

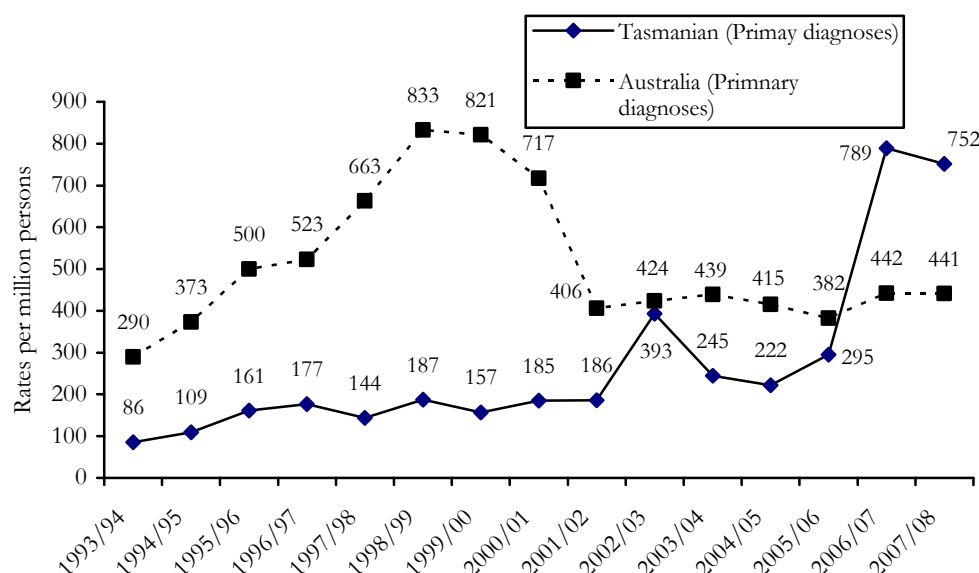
persons between the ages of 15 and 54 years respectively), reflecting the decrease in admissions locally in comparison to a stable level nationally. In 2005/06, the rate of Tasmanian admissions increased to 77% of the national rate, and over the subsequent two financial years, the rate of Tasmanian admissions increased dramatically to 164% in 2006/07 and 170% in 2007/08 of the national rate (Figure 67).

Figure 66: Public hospital admissions amongst persons aged 15-54 in Tasmania where opioid use was noted as the primary factor contributing to admission, 1993/94-2007/08



Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

Figure 67: Public hospital admissions among persons aged 15-54 where opioids were noted as the primary factor contributing to admission, rates per million population for Tasmania and Australia, 1993/94-2007/08

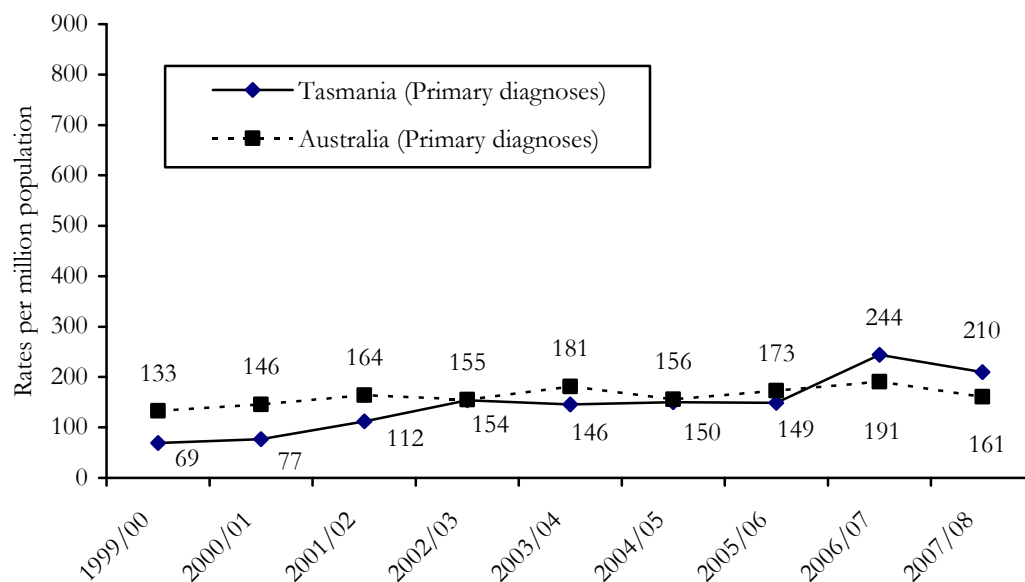


Source: Australian Institute of Health and Welfare (Roxburgh and Burns, in press)

11.3.2 Methamphetamine

Population-adjusted rates of Tasmanian public hospital admissions, where methamphetamine use was noted as the principal diagnosis, are presented in Figure 68 below. It is clear that national admission rates were generally increasing between 1999/00 and 2003/04, with Tasmanian admission rates following this pattern to 2002/03. Local population-adjusted rates were substantially lower than the national figures prior to 2002/03. However, these figures did not include data from the state's detoxification service (introduced for the first time in the 2002/03 figures). Between 2002/3 and 2005/06, local population-adjusted rates were similar to the national figures. However, in 2006/07 and 2007/08, the Tasmanian rate of admissions per million persons increased to approximately 130% of the national rate (Tasmanian rate per million persons in 2007/08: 210; national rate per million persons: 161).

Figure 68: Public hospital admissions among persons aged 15-54 where methamphetamine was noted as the primary factor contributing to admission, rates per million population for Tasmania and Australia, 1999/00-2007/08

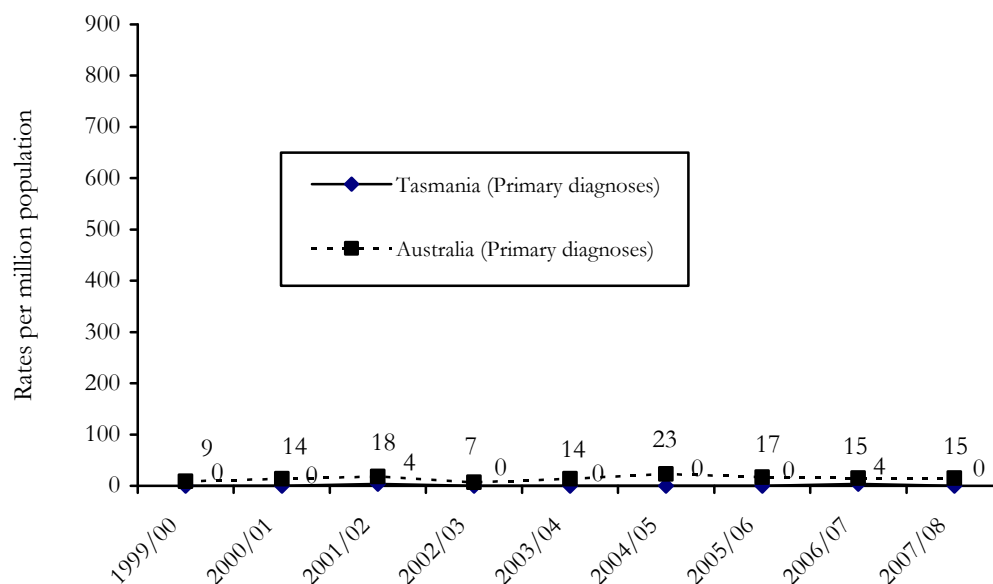


Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

11.3.3 Cocaine

Consistent with the apparent low levels of availability and use of cocaine locally, the rate of cocaine-related hospital admissions amongst those aged between 15 and 54 years in Tasmania is consistently very low (between zero and four persons per million between 1999/00 and 2007/08: Figure 69). When the local rates of cocaine-related public hospital admissions are compared to the national Australian rate (Figure 69), these are substantially lower, with the total local cases where cocaine was noted as the primary factor contributing to the admission remaining 26% or less than that of the national rate between 1999/00 and 2007/08.

Figure 69: Public hospital admissions among persons aged 15-54 where cocaine was noted as the primary factor contributing to admission, rates per million population for Tasmania and Australia, 1999/00-2007/08

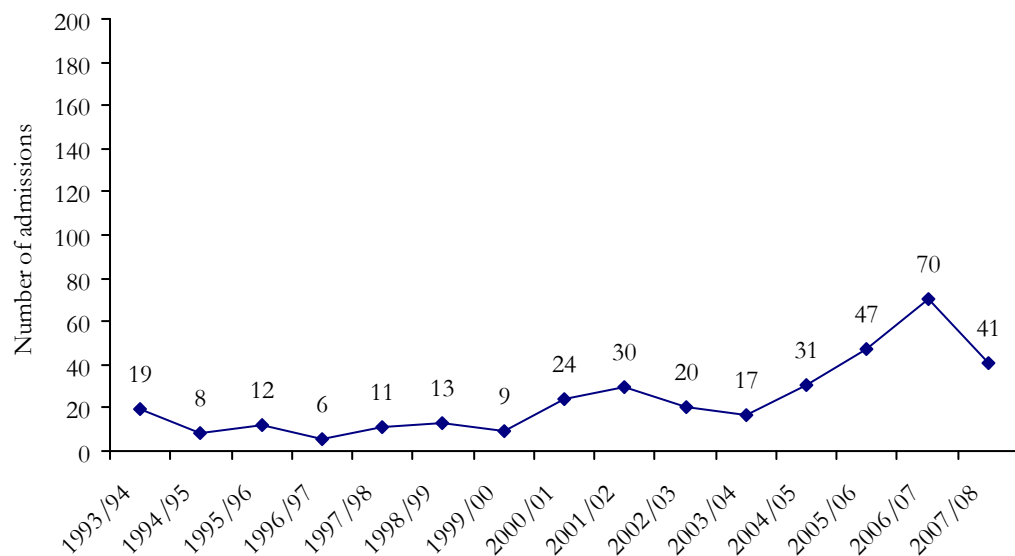


Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

11.3.4 Cannabis

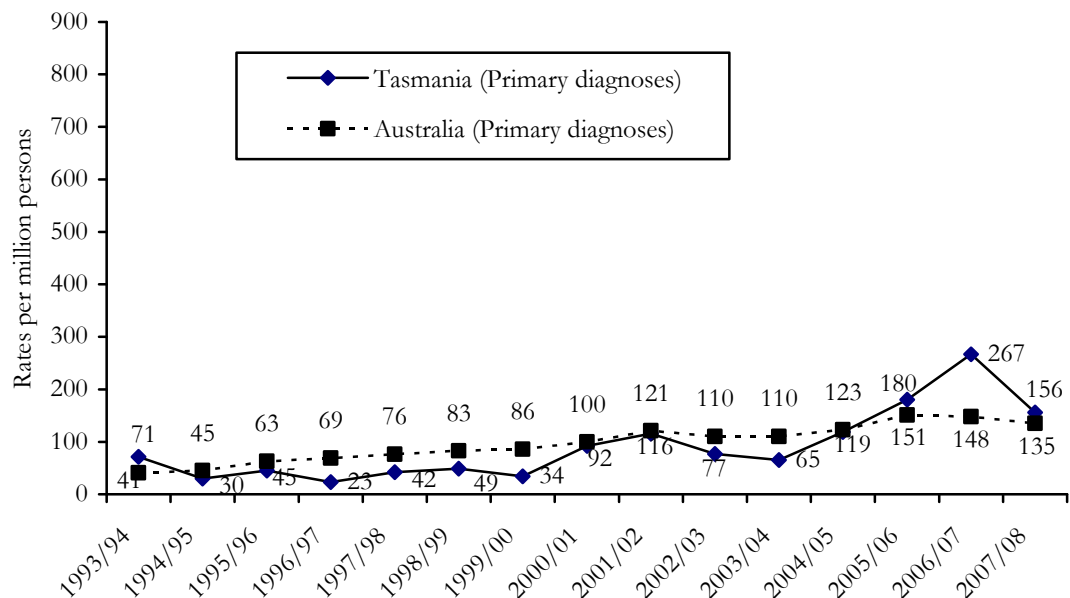
Tasmanian public hospital admissions where cannabis use was noted as the principal diagnosis among persons aged 15-54 years are presented in Figure 70. Examining these figures, it appears that the number of cases per annum has increased in recent years: between 1993/94 and 1999/00 there were around 11 cases per annum (6-19); and over the following two financial years the number of admissions increased (24 admissions in 2000/01 and 30 admissions in 2001/02). This trend towards increasing numbers of cannabis-related hospital admissions was reversed over the following two financial years (20 admissions in 2002/03 and 17 in 2003/04); however, after this period, the number of cannabis-related admissions among persons aged 15-54 years increased markedly, from 17 admissions in 2003/04 to 70 in 2006/07. In 2007/08, this number again decreased, with 41 admissions reported. The population-adjusted rates for cannabis-related admissions in Tasmania have increased overall since 1993/94; most dramatically so between 2003/04 and 2006/07, from 65 to 267 admissions per million population. In 2007/08, this trend was reversed, with 156 admissions per million persons reported. The national rate has also gradually increased - from 41 admissions per million population in 1993/94 to 135 in 2007/08. The Tasmanian admission rate per million population had consistently been lower than the national rate between 1994/95 and 2004/05, however this trend was reversed in 2005/06, with the Tasmanian admission rate increasing to 119% of the national rate. This peaked in 2006/07, with the Tasmanian rate being 180% of the national rate. In the following financial year, the Tasmanian admission rate decreased to 115% of the national rate (Figure 71).

Figure 70: Public hospital admissions amongst persons aged 15-54 in Tasmania where cannabis use was noted as the primary factor contributing to admission, 1993/94-2007/08



Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

Figure 71: Public hospital admissions among persons aged 15-54 where cannabis was noted as the primary factor contributing to admission, rates per million population for Tasmania and Australia, 1993/94-2007/08



Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

11.4 Injecting risk behaviours

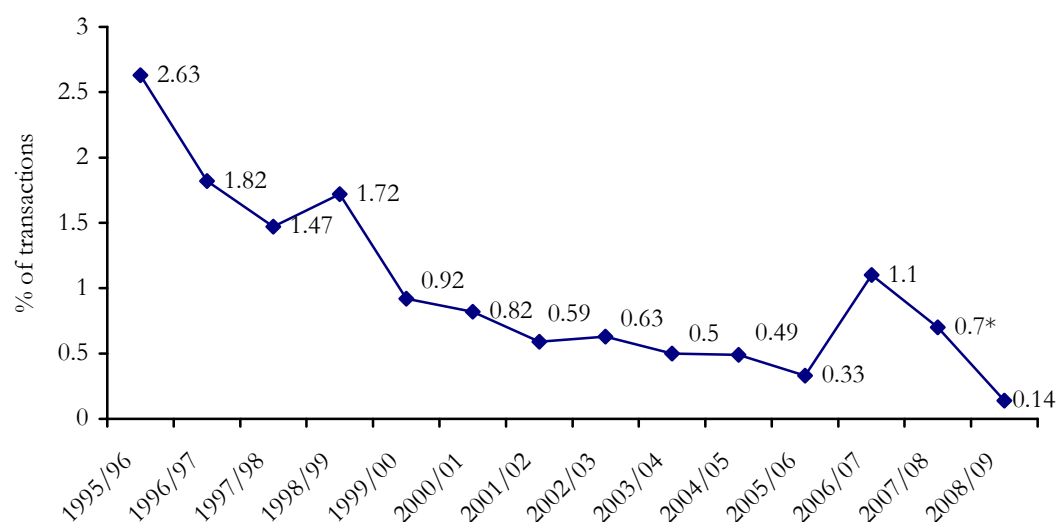
11.4.1 Sharing of injecting equipment

Needle and Syringe Program Data

The sharing of needles, syringes and other equipment associated with the preparation or injection of drugs is important with respect to the risk of exposure to blood-borne viral infections (BBVI) such as HIV, HBV and HCV. Clients of non-pharmacy NSP outlets are routinely asked whether they have shared needles and syringes or other injection equipment since their last visit to the service.

Reported sharing of needles/syringes by clients of non-pharmacy Needle and Syringe Program outlets overall in Tasmania have shown a reasonably steady decline from 2.6% in 1995/96 to 0.3% in 2005/06; however, in 2006/07, this trend was briefly reversed, and the proportion increased to 1.1%. In the two financial years following this, the rate has declined, to 0.14% in 2008/09 (Figure 72).

Figure 72: Reported sharing of needles and syringes by non-pharmacy Needle and Syringe Program clients, 1995/96-2008/09



Source: Population Health, Department of Health and Human Services

* In 2007/08, one NSP outlet, accounting for 19% of transactions, did not collect data on sharing. The transactions from this outlet were excluded from this calculation

IDRS IDU Data

Amongst the IDRS IDU sample, sharing and re-use of injecting equipment was seen at substantially lower levels in the 2009 study in comparison to the 2007 study. In 2007, many of the measures for sharing of injecting equipment increased dramatically from previous stable levels.

Among the 2009 IDRS IDU sample, 13% of participants reported providing a used needle/syringe to others in the month prior to interview. This marks a dramatic and statistically significant decrease from 2007 (29%: 95%CI of difference 5-27%), but is similar to the rates reported in IDRS reports in 2008 and preceding 2007 (Table 52).

These participants reported providing their used equipment to others either once (n=6), twice (n=2), on three to five occasions (n=3) or more than ten times (n=2) in the preceding month.

Among these samples of regular injecting drug users in Hobart, the proportion of respondents reporting using a needle/syringe after it had been used by someone else has also decreased substantially in the current study, from 16% in 2007 to 2% in 2009 (95%CI of difference 6-23%). It is noteworthy that despite a decreased rate of sharing, this level of recent sharing among a regular injecting cohort remains substantially greater than that reported in the NSP client data.

Alarming, more than three-fifths (63%) of the consumers sampled reported re-using their own injection equipment in the month prior to interview. Among the group who reported re-use of their injecting equipment, the majority had done this on either two, or three to five occasions (27%, n=17 respectively) in the month preceding the interview. One-fifth of this group reported reuse of their own injecting equipment on one occasion (21%, n=13), and 13% (n=8 respectively) had reused on either six to ten occasions, or more than ten occasions in this period. The equipment most commonly reused were winged-infusion sets ('butterflies', 32%, n=20), followed by 3/5ml barrels (25%, n=16), 1ml syringes (22%, n=14), 10ml barrels (19%, n=12) and 20ml barrels (8%, n=5). Participants noted that they had re-used because they required equipment on occasions when accessible outlets were closed (nights or weekends, 61%, n=38), because the outlet was too far away for them to access (45%, n=28), or because they were unable to access equipment due to policy limits on supply (6%, n=4). The rates of reuse due to limited supply of equipment was greater in 2007 and 2008 (28% and 34% respectively). In August 2006, the Tasmanian Department of Health and Human Services (Population Health) amended policy regarding provision of injecting equipment at non-pharmacy NSPs: provision of winged-infusion sets ('butterflies') were to be made available only to clients reporting use of large volume injections (e.g. methadone syrup and, in some instances, morphine). Previous to this change, all clients were able to access this form of equipment.

Use of winged-infusion sets ('butterflies') remains a popular practice among the IDU interviewed for this study. Three-quarters of the sample (75%) reported using this equipment in the preceding six months, at a median frequency of 72 days (range 1-180 days). The most commonly cited drugs that were used on the last occasion of use of a winged-infusion set were methadone syrup (83%, n=62), morphine (72%, n=54) and Phylseptone (45%, n=34).

Participants were also asked if they had re-used a needle/syringe from a shared sharps container. Amongst the current cohort, 10% reported having done this in the month preceding the interview, and of this group, 70% (n=7) had not cleaned the equipment with bleach using the recommended method. These results show a substantial and statistically significant improvement from the local 2006 IDRS report, in which 42% of participants respectively reported re-using equipment from a shared disposal bin (32%: 95%CI of difference 20%-43%). This is not a recommended practice, not only for the risk of blood-borne virus transmission, but also because repeated use of needles leaves them blunt, which could cause damage to the venous system, and use of non-sterile equipment can lead to the introduction of bacteria into the bloodstream, which can lead to infections, septicaemia or endocarditis.

Sharing of other types of injecting equipment in the month prior to interview (such as tourniquets, water, swabs and mixing containers) was reported by 35% of the sample in 2009. Spoons and mixing containers were shared in this time by 17% of participants, tourniquets were shared by 16%, filters were shared by 8% and water was shared by 6% of participants in this time. All rates of sharing of injecting equipment appear to have remained relatively stable since 2001, with the exception of 2007, when large increases in a range of sharing practices were recorded (Table 52). It is important to note that these reports of sharing of equipment include cases where all individuals involved were using sterile equipment (e.g. two people using sterile syringes to draw a drug mix from a spoon), however, even these practices provide some risk of exposure to BBVI.

Table 52: Proportion of the IDU sample (n=100) reporting sharing of injection equipment in the month prior to interview, 2001-2009

	Proportion of IDRS IDU in the past month								
	2001 %	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %
Borrowed used needles	10	10	6	8	5	4	16	7	2
Lent used needles to others	6	1	3	12	14	13	29	9	13
Shared spoons/containers	5	1	1	8	4	7	20	15	17
Shared water	7	1	2	11	5	11	17	11	6
Shared filters	3	1	1	8	2	5	8	6	8
Shared tourniquets	10	14	11	21	15	16	22	11	16

Source: IDRS IDU interviews

Note: Multiple responses allowed

In the current study, some aspects of injection practices were examined in more detail. Despite the current IDU cohort being regular injecting drug users, only three-quarters (74%) reported that they always injected themselves. Three percent of participants 'never' self-injected (n=3), 4% self-injected 'sometimes' (n=4), 6% 'about half the time' (n=6) and 12% 'usually' injected themselves in the preceding month (n=12). The demographic characteristics of participants that did not always self-inject were similar to participants that always self-injected in terms of age, cultural background, education, employment, sources of income, prison history, frequency of injection, drug of choice, drug most injected, frequency of injecting, injecting career and involvement in treatment. However, participants who reported always injecting themselves were significantly more likely to be male (72% v. 31%: $\chi^2(1_{n=100})=12.896$, $p<0.001$) and more likely to identify as heterosexual (89% v. 72%: $\chi^2(1_{n=100})=4.295$, $p=0.045$) than those who did not always self-inject.

11.4.2 Use of filters

Injection of pharmaceutical and illicit drugs (such as methamphetamine or heroin) carries a variety of risks to the user. The range of ingredients contained within a solution for injection in addition to the desired active ingredient varies widely, with many carrying the potential to cause harm when injected. Both pharmaceuticals and 'street' drugs contain particles that may not dissolve in solution and, when injected, may be large enough to form tissue granulomas in various body organs, particularly the liver and lungs or to cause blockage of pulmonary capillaries, which may potentially lead to pulmonary hypertension and right-sided heart failure. Larger particles, or clumps of particles can also become lodged in blood vessels, decreasing and potentially stopping the blood supply to the surrounding tissue, resulting in death of that tissue (gangrene). Use of filters in the

preparation of drugs for injection can assist in reducing some of these risks. Participants in the current study were asked to comment on their use of commercial and makeshift filters in the preparation of drugs for injection. Filter types commonly used include commercially-available syringe filters: 0.45 µm wheel filters (hereafter referred to as a 'pill filter'), 0.22 µm wheel filter ('bacterial filter'); and makeshift filters, including: filters commercially sold for use with hand-rolling tobacco ('roll-your-own filter'); filters taken from tailor-made cigarettes ('tailor cigarette filter'); and cotton buds, cotton balls, tampons, or alcohol swabs.

Opioids

Heroin

Seven participants who reported recent use of heroin commented on use of filters the last time they had injected heroin. Of this group, two participants respectively had used a roll-your-own cigarette filter, a 'tailor' cigarette filter, or cotton wool, and a single participant had not used a filter (Table 53).

Morphine

The majority of participants who commented had used some form of filter last time they prepared morphine for injection (84%, n=64). The most commonly used filter amongst this group was a roll-your-own cigarette filter (41%, n=31), followed by a pill filter (32%, n=14), a 'tailor' cigarette filter (7%, n=5), a bacterial filter (4%, n=3), or cotton wool (1%, n=1) (Table 53).

Methadone syrup

Among those able to comment on preparation of methadone syrup for injection, the majority (66%, n=40) had not used a filter last time they injected this drug. Twenty percent (n=12) reported use of a bacterial filter, 10% (n=6) reported use of a pill filter, and 5% (n=3) had used a roll-your-own cigarette filter (Table 53).

Physeptone

The majority of participants who commented on use of a filter in preparation of Physeptone to inject had not used a filter last time they injected the drug (54%, n=28), however notable minorities reported use of a pill filter (35%, n=18), a roll-your-own cigarette filter (10%, n=5) or a bacterial filter (2%, n=1) (Table 53).

Oxycodone

Of those participants commenting on use of a filter during the preparation of oxycodone tablets for injection (n=45), the majority did use some sort of filter (89%, n=40). The filter most commonly used for the last injection of oxycodone was a roll-your-own cigarette filter (40%, n=18), followed by a pill filter (31%, n=14), with minorities reporting use of a 'tailor' cigarette filter (13%, n=6), a bacterial filter or cotton wool (2%, n=1 respectively) (Table 53).

Methamphetamine

Powder methamphetamine

Participants who reported recent use of powder methamphetamine (n=58) were asked if they had used a filter the last time they injected this drug (Table 53). Almost three-quarters of this group reported no use of a filter (72%, n=42), with the remainder reporting use of a roll-your-own cigarette filter (17%, n=10), a 'tailor' cigarette filter (5%, n=3) or either a bacterial filter, pill filter or cotton wool (2%, n=1 respectively).

Base/paste methamphetamine

The majority of participants who reported recent injection of base/paste methamphetamine reported they had not used a filter the last time they injected this drug (69%, n=35). One-fifth of this group of participants reported use of a roll-your-own cigarette filter (22%, n=11), and small minorities reported use of a 'tailor' cigarette filter (4%, n=1), a bacterial filter, pill filter or cotton wool (2%, n=1 respectively) (Table 53).

Crystal methamphetamine

Amongst participants who reported recent use of crystal methamphetamine, two-thirds of those who commented on their use of a filter reported they had not used a filter the last time they had injected this drug (67%, n=16), with the remainder of participants reporting use of a roll-your-own cigarette filter (13%, n=3) or a 'tailor' cigarette filter (7%, n=4) (Table 53).

Pharmaceutical stimulants

More than half of the participants who reported recent injection of pharmaceutical stimulants reported they had used some form of a filter the last time they injected this drug (56%, n=18). The most commonly cited filter was a pill filter (41%, n=13), and small minorities reporting use of a 'tailor' cigarette filter (9%, n=3) or a roll-your-own cigarette filter (6%, n=2) (Table 53).

Benzodiazepines

Twenty-five participants commented on their use of a filter during the preparation of a benzodiazepine tablet or capsule for injection. Half of this group reported no use of a filter the last time they injected (52%, n=13). The predominant form of filter used was a pill filter (40%, n=10), with single participants reporting use of a bacterial filter, roll-your-own cigarette filter or 'tailor' cigarette filter (4%, n=1 respectively) (Table 53).

Table 53: Use of a filter the last time injected a drug, 2009 (n=100)

	No filter	0.45 µm wheel filter (<i>'pill filter'</i>)	0.22 µm wheel filter (<i>'bacterial filter'</i>)	Commercial filter for hand-rolling tobacco (<i>'roll-your-own filter'</i>)	Filter from tailor-made cigarette (<i>'tailor cigarette filter'</i>)	Cotton wool
Opioids						
<i>Heroin (n=7)</i>	14% (n=1)	-	-	29% (n=2)	29% (n=2)	29% (n=2)
<i>Morphine (n=76)</i>	21% (n=16)	32% (n=24)	4% (n=3)	41% (n=31)	7% (n=5)	1% (n=1)
<i>Methadone syrup (n=61)</i>	66% (n=40)	10% (n=6)	20% (n=12)	5% (n=3)	-	-
<i>Physeptone (n=52)</i>	54% (n=28)	35% (n=18)	2% (n=1)	10% (n=5)	-	-
<i>Oxycodone (n=45)</i>	13% (n=6)	31% (n=14)	2% (n=1)	40% (n=18)	13 (n=6)	2% (n=1)
Methamphetamine						
<i>Powder (n=58)</i>	72% (n=42)	2% (n=1)	2% (n=1)	17% (n=10)	5% (n=3)	2% (n=1)
<i>Base/paste (n=51)</i>	69% (n=35)	2% (n=1)	2% (n=1)	22% (n=11)	4% (n=2)	2% (n=1)
<i>Crystal (n=24)</i>	67% (n=16)	-	-	13% (n=3)	7% (n=4)	-
Pharmaceutical stimulants (n=32)	41% (n=13)	41% (n=13)	-	6% (n=2)	9% (n=3)	-
Benzodiazepines (n=25)	52% (n=13)	40% (n=10)	4% (n=1)	4% (n=1)	4% (n=1)	-

Source: IDRS IDU interviews

Note: Multiple responses allowed

In Tasmania, a trial of free provision of both pill and bacterial filters was commenced by Population Health (Department of Health and Human Service) in May 2007, and has since become standard practice in all primary NSPs. This involves the staff at non-pharmacy NSPs providing both pill and bacterial filters to clients, along with information regarding their correct use. Small quantities of these filters are provided at either no or minimal cost to clients. As this practice has coincided with the data collection period for this study, it is, therefore, possible that the rates of use of these commercially-available filters may be higher than would be observed locally prior to this trial.

Studies have recently been conducted in Hobart by Murray (2007, unpublished) and McLean et al. (2009) examining the effectiveness of a variety of commercial and makeshift filters at reducing particle contamination of morphine tablets and capsules prior to their injection. These studies found that both commercial filters (0.45µm pill filters and 0.22µm bacterial filters) were most effective at reducing the contamination of potentially harmful particles in samples of both MS Contin and Kapanol. An unfiltered sample of a 100mg MS Contin tablet was found to contain approximately 200 million particles large enough to cause harm in the venous system (5µm or greater). After filtration using either type of commercial filter, the proportion of particles had declined by approximately 93%. Use of a cotton ball or cigarette filter was also effective, removing approximately 90% of particles; however, this 3% difference equates to approximately six million additional particles large enough to cause harm entering the blood stream. Alcohol swabs were found to be the least effective, removing just 32% of particle contaminants. An unfiltered sample of a 100mg Kapanol capsule was estimated to contain approximately 4 million particles 5µm or greater, far fewer than found in the MS Contin sample. Filtration of Kapanol was also found to be most effective using either type of commercial filter, reducing the particle contamination by approximately 77%. Cigarette filters and cotton balls were slightly less effective, reducing approximately 63% of particles, and alcohol swabs removed just 32% of the particles. Preliminary analyses suggest that, if filtered with care, little of the active drug is retained in the filter. However, it is particularly important to note that *none* of these filtering approaches reduced the level of particulate contamination to a level considered safe for intravenous administration in a medical context.

11.5 Blood-borne viral infections

Blood-borne viral infections (BBVI), in particular HIV/AIDS, HBV and HCV, are 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 diseases. The Department of Health and Human Services, Public Health Division, records notifications of diagnoses of HIV, HBV and HCV in Tasmania, and, where possible, records the relevant risk factors for infection the person may have been exposed to. Table 54 indicates the number of cases of BBVI recorded in the state between 1991 and 2009. In regards to the markedly increased incident (new) cases of HCV infection between 1997 and 1998, this is likely to simply reflect improvement in the surveillance system. Up until 2003, incident cases of HCV have remained between 13 and 18 cases per annum, with the exception of 2000, in which 30 cases were reported. Since 2003, the number of incident cases has been slightly higher, ranging between 20 and 27 cases per annum, except in 2006 and 2009, when just 10 and 15 cases respectively were reported (Figure 73).

In contrast, unspecified (not new infections) notifications of HCV had steadily increased between 1997 and 2003 (rising from 195 to 345 cases in this period), but declined over 2004 and 2005 (falling from 345 cases in 2003 to 213 in 2005). The number of unspecified notifications has remained relatively stable since 2006 (ranging between 255 and 259 cases per annum), with the exception of a small increase in 2008 to 324 cases. All incident cases of HCV between 1996 and 2000 had injecting drug use as a recent risk factor for infection³⁹.

Similar to the pattern for incident cases of HCV, incident cases of HBV have remained between 17-21 cases per annum between 2000 and 2004, with the exception of a smaller number of cases in 2003 (n=10), and very small numbers of cases reported between 2005 and 2009 (ranging between 3 and 12 cases over this period). Reports of unspecified HBV infections (not new cases) have varied around 40 cases (22-75) per annum between 1991 and 2009, showing no clear trend in any direction.

Table 54: Rates of notifiable blood-borne viral infections in Tasmania, 1991-2009

Year	Blood-borne viral infections			
	Hepatitis C (incident)	Hepatitis C (unspecified)	Hepatitis B (incident) [#]	Hepatitis B (unspecified)
1991	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	50
1992	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	52
1993	<i>n/a</i>	<i>n/a</i>	0	33
1994	<i>n/a</i>	<i>n/a</i>	0	40
1995	2	226	8	56
1996	4	262	7	38
1997	1	195	1	22
1998	18	255	6 (5)	28
1999	17	281	4 (4)	27
2000	30	298	18 (5)	39
2001	18	316	21	20
2002	15	320	19	34
2003	13	345	10	71
2004	26	285	17	60
2005	27	213	3	52
2006	10	259	9	46
2007	20	255	9	38
2008	24	324	12	58
2009	15	257	4	75

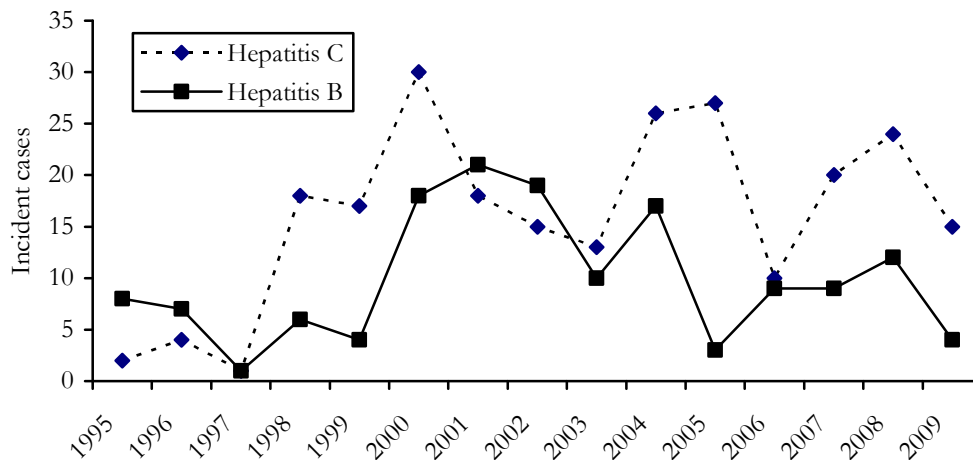
Source: Communicable Diseases Network - Australia New Zealand - National Notifiable Diseases Surveillance System, and Public Health, Department of Health and Human Services (data as of Dec 29, 2009 and subject to revision).

[#] Number of incident cases of hepatitis B infection where illicit drug use was present as a risk factor for acquiring the infection are presented in parentheses

n/a: Refers to cases where either no data were available or where recorded data were not specifically broken into incident and unspecified cases

³⁹ Such detailed information was not available to the authors for cases identified since 2001.

Figure 73: Total notifications of incident hepatitis B and C infections in Tasmania, 1995-2009



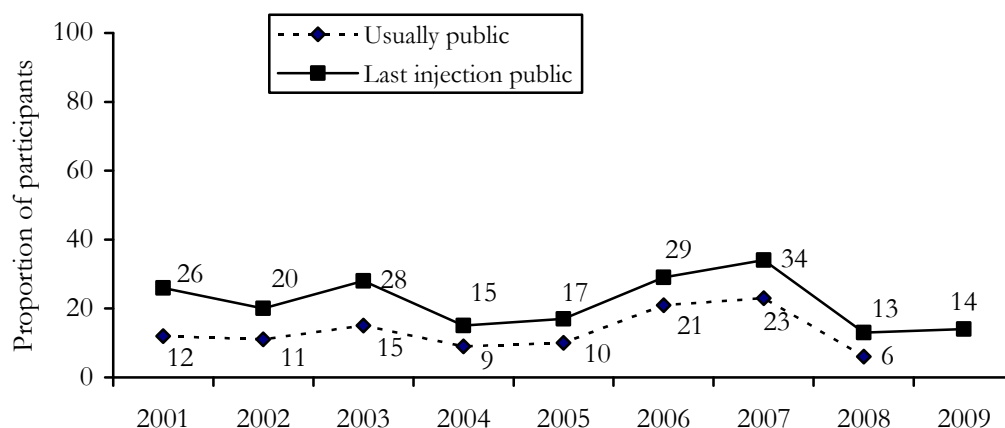
Source: Communicable Diseases Network - Australia New Zealand - National Notifiable Diseases Surveillance System, and Public Health, Department of Health and Human Services.

Note: Data as of Dec 29, 2009 and subject to revision

11.5.1 Location of injections

Participants were asked to comment on the location in which they last injected in the month preceding the interview (Figure 74). Injecting in a public space is of particular concern as it is related to increased risk of overdose and injecting related vascular problems (Darke et al., 2001). Between the 2001 and 2007 surveys, 15% to 34% of each cohort reported last injecting in public; however, in the 2008 and 2009 surveys, the proportion reporting last injecting in public locations such as a public toilet, a car, or on the street, slightly decreased (13% in 2008; 14% in 2009: Figure 74).

Figure 74: Proportion of IDU participants reporting injecting in a public place, 2001-2009



Source: IDRS IDU interviews

Note: In 2009, only 'location of last injection' was asked

Injecting in prison

Participants who reported ever having been in prison (excluding remand) were asked about injecting whilst incarcerated. Almost half of the sample reported having spent time in prison (49%, n=47), and almost two-fifths of this group reported having injected whilst incarcerated (38%, n=18). These participants were asked to comment on the frequency they injected when last in prison. Half of this group (50%, n=9) reported injecting rarely, i.e. once per three months or less, 28% injected on a monthly basis (n=5), and very small numbers injected more frequently: 11% daily (n=2); and single participants reported injecting either weekly or more than weekly but less than daily (6%).

11.5.2 Sources of new injecting equipment

Almost all participants (98%) reported having accessed clean needles/syringes from a non-pharmacy NSP in the six months preceding the interview (Table 55). This is consistent with the fact that the majority of participants were recruited and interviewed at non-pharmacy NSP outlet sites. A notable minority of participants reported purchasing clean needles/syringes from a pharmacy (19%), and less commonly accessing these from a friend (8%), a dealer (2%), a partner or a vending machine (1% respectively).

Table 55: Sources of clean needles/syringes in the preceding six months, 2009

Sources of needles/syringes	% (N=100)
Non-pharmacy NSP	98%
Pharmacy	19%
Friend	8%
Dealer	2%
Partner	1%
Vending machine	1%

Source: IDRS IDU interviews.

Note: Multiple responses allowed

In the beginning of 2009, a syringe vending machine was installed by Population Health (Department of Health and Human Services, Tasmania) in close proximity to a Hobart hospital. Nine participants reported having attempted to use this machine in the preceding six months: of this group, 56% (n=5) noted the machine was not working at the time. Two-thirds of these participants (67%, n=6) commented that the vending machine did not provide the injecting equipment they required. When asked to comment on the types of equipment that would be more useful, five participants reported water for injection, four reported winged-infusion sets and three participants reported large-gauge barrels (i.e. 5, 10 or 20ml).

11.6 Self-reported injection-related health problems

There was a substantial rate of injection-related problems reported by the IDU surveyed, with 80% reporting at least one such problem in the preceding month (Table 56). This rate of experience of injection-related health problems is higher than reported in recent cohorts. Between 2001 and 2004, between 72% and 78% of each sample reported an injection-related health problem; this decreased over the 2005 to 2008 period, with between 50% and 62% of each sample reporting this. In 2009, this increased to 80%,

which was a statistically significant increase from 2008 (54%: 95%CI of difference 13%-38%).

The most commonly reported problems among the current IDU cohort were scarring/bruising of injection sites (71%) and 'difficulty injecting' (53%), indicating vascular damage. Comparing rates of recent injection-related problems for the 2008 and 2009 Tasmanian IDU samples, of note is the significant increase in the rate of reported scarring/bruising problems, from 31% in 2008 to 71% in 2009 (40%: 95%CI of difference 26%-51%). Other injection-related health problems have remained relatively stable.

Reported rates of experience of 'dirty hits' amongst the cohorts ranged between 18% and 31% between 2001 and 2005. Since this time, the rate has been lower, ranging between 9% and 17% (Table 56). Experience of a 'dirty hit' – feeling physically unwell soon after injection – is commonly due to the injection of contaminants or impurities. In the 2009 cohort, of the 17 participants reporting experience of a 'dirty hit', five noted that this followed injection of morphine, three after injection of methadone, two after injection of a combination of methadone and benzodiazepines and single participants reported experience of a 'dirty hit' after injection of methamphetamine, or a combination of either methadone and morphine or methadone and methamphetamine. This association of 'dirty hits' with methadone injection has been reported in previous local IDRS studies, where consumers suggested that this was due to non-sterile water being used for the dilution of methadone syrup. In keeping with this suggestion, in the 2002 study, one KE – a methadone prescriber with a large client base – noted an increasing number of people feeling 'sick' from injection of methadone syrup, which they suggested as possibly due to the increased dilution of these doses in 2001.

Table 56: Injection-related health problems reported by participants in the IDU survey in the month prior to interview (n=100)

	2000 %	2001 %	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %
Scarring/bruising	59	42	53	49	42	31	29	33	31	71
Difficulty injecting	50	48	48	51	49	47	38	40	39	53
Thrombosis	18	21	5	10	8	12	5	3	4	10
“Dirty hit”	15	31	18	31 [#]	24 [~]	19 [@]	15 [^]	15 ⁺	9 ^{**}	17 ^α
Infections/abscesses	9	9	8	8	11	11	7	11	5	7
Overdose	0	0	0	0	1	1	1	4	0	4
At least one injection-related problem	78 (range 1-5, median 2*)	72 (range 1-5, median 2*)	72 (range 1-5, median 2*)	76 (range 1-5, median 2*)	72 (range 1-5, median 2*)	62 (range 1-5, median 2*)	50 (range 1-3, median 1*)	57 (range 1-5, median 2*)	54 (range 1-5, median 1*)	80 (range 1-5, median 2)
Median injection frequency	More than once per week	More than once per week	More than once per week	More than once per week	More than once per week	More than once per week	More than once per week	More than once per week	More than once per week	More than once per week
% injecting daily	31	29	29	17	27	30	37	20	29	30

Source: IDRS IDU interviews

* For those noting injection-related problems:

83% of these were due to methadone injection, 10% to morphine and 7% attributed to methamphetamine

~ 58% of these were attributed to methadone injection, 25% from morphine, 17% to methamphetamine

@ 50% of these were due to methadone injection, 28% to methamphetamine injection, 17% to morphine injection and 6% attributed to benzodiazepine injection

^ 67% of these were attributed to methadone injection, 13% to methamphetamine, 13% to morphine and 7% to benzodiazepines

+ 40% were attributed to methadone; 13% to morphine; and 7% to each to methamphetamine, methamphetamine and other opiates, methamphetamine and morphine, benzodiazepines and morphine and benzodiazepines and methadone

** 44% of these were attributable to methadone injection, 33% to morphine injection and 11% to benzodiazepine injection and homebake injection

α 47% of these were attributable to methadone injection, 41% to morphine, and 12% to methamphetamine injection and benzodiazepine injection

11.7 Mental and physical health problems and psychological distress

Mental health problems

As there exists a substantial body of work identifying increased rates of mental health issues among those who use illicit drugs, IDU participants were asked if they had experienced a mental health problem in the six months preceding the interview (Table 57). Forty-six percent of participants (n=46) self-reported experiencing a mental health problem in this period. Amongst the local cohort, this rate is slightly, but not significantly, lower than seen in studies between 2004 and 2007 (ranging between 53% and 60%: Table 57). Three-fifths of the group reporting recent experience of a mental health problem had recently attended a health professional for mental health issues (61%, n=28). The most commonly reported mental health problems amongst this group of participants were depression (67%, n=31) and anxiety (43%, n=20). These have remained the predominant issues in each of the IDRS cohorts, just as they are in the general population (ABS, 2006).

In regard to changes in self-reported mental health problems amongst IDU participants across these studies, reports of depression (among those reporting recent experience of any mental health problem) have remained relatively stable since 2004 (between 79% and 83%), with the exception of the 2007 and 2009 samples, in which 57% and 67% respectively reported recent experience of depression. This change was partially offset by a slight increase in the proportions reporting experience of bipolar affective disorder (which is related to depression). In keeping with the reducing levels of use of the more high-potency forms of methamphetamine amongst the current cohort, the proportions self-reporting experiencing anxiety have decreased. Between 2004 and 2006, this rate had been steadily increasing, from 42% to 62%; however, since this time, the rate has decreased to 43%. Similarly, reports by participants regarding experiences of paranoia, a symptom that is common following extended methamphetamine use, was higher in 2004 and 2005 (11% and 14% respectively), and has remained at very low levels since then (ranging between 0% and 4%). Self-reported rates of psychosis and related problems (psychotic episodes, schizophrenia, drug-induced psychosis) ranged between 13% and 18% between 2004 and 2007, however these have declined slightly in 2008 and 2009 (7% and 11% respectively).

Participants who reported experience of a mental health problem in the preceding six months were asked if they had been prescribed any medication for mental health problems over this period. Of those who commented (n=28), three-quarters reported being prescribed such a drug (75%, n=21). Of this group receiving medication for mental health, the majority reported taking an antidepressant (67%, n=14). There was a wide range of types of antidepressants participants named mirtazepine (n=6), citalopram, sertraline (n=2 respectively), amitriptyline, dothiepin, escitalopram and paroxetine (n=1 respectively). Five participants reported being prescribed antipsychotic medication, some of whom had received more than one type (fluphenazine, chlorpromazine, pericyazine, quetiapine, olanzapine and risperidone), and eleven participants reported being prescribed benzodiazepines for mental health treatment (diazepam n=7, oxazepam n=2, alprazolam, bromazepam and nitrazepam n=1 respectively).

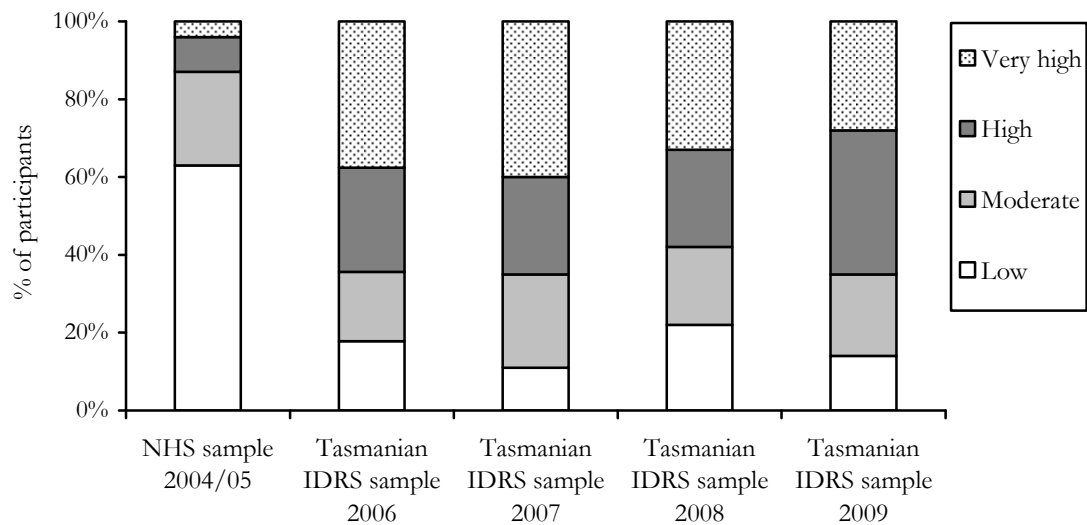
Table 57: Proportion of IDU participants attending a health professional for a mental health problem other than addiction in the six months prior to interview.

	2004 IDRS		2005 IDRS		2006 IDRS		2007 IDRS		2008 IDRS		2009 IDRS	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
% self-reporting mental health problem last 6 months	53	53	58	58	50	50	60	60	43	43	46	46
<i>Of these:</i> % attending a health prof. for a mental health problem in past 6 months	83	44	74	43	76	38	82	49	72	31	61	28
Specific type of mental health problem experienced amongst those with a self-reported mental health problem												
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
<i>Depression</i>	81	43	83	48	80	40	57	34	79	34	67	31
<i>Bipolar Disorder</i>	8	4	5	3	6	3	15	9	9	4	20	9
<i>Anxiety</i>	42	22	57	33	62	31	48	29	42	18	43	20
<i>Panic</i>	8	4	19	11	8	4	8	5	19	19	11	5
<i>Paranoia</i>	11	6	14	8	4	2	2	1	-	-	4	2
<i>Schizophrenia/ Psychosis</i>	13	7	17	10	14	7	18	10	7	3	11	5
<i>Obsessive-compulsive disorder</i>	4	2	2	1	2	1	2	1	-	-	-	-
<i>Personality disorder</i>	4	2	3	2	4	4	5	3	-	-	7	3
<i>Post-traumatic stress disorder</i>	-	-	-	-	-	-	5	3	-	-	4	2

Source: IDRS IDU interviews

With the aim of a more objective assessment of the degree of psychological distress amongst the IDU samples, participants were asked to complete the Kessler 10 Scale (K10). The K10 examines negative emotional states, with a focus on anxiety and depressive symptoms, in the four weeks preceding the interview. The scores are totalled and grouped into four categories of psychological distress: low; medium; high; very high. Participants who fall into the 'very high' category may require professional help (ABS, 2001), and demonstrate high concordance with the presence of a diagnosable mental health disorder. Ninety-two participants in the current study completed the K10 (Figure 75). Twenty-eight percent of participants (*n*=26) scored in the 'very high' category of psychological distress, 37% scored in the 'high' category (*n*=34), 21% in the 'moderate' category (*n*=19), and 14% fell into the 'low' level of psychological distress category (*n*=13). These findings are similar to those from previous IDRS studies, but are dramatically and statistically significantly different to those found in the National Health Survey (2004/05, which focused on a sample of 19,680 from the general population), in which two-thirds of the participants (63%) were classified in the 'low' level of psychological distress (compared with 22% of the Tasmanian IDRS: 95%CI of difference 40-55%), and just 4% were classified in the 'very high' level (compared with 28% in the IDRS: 95%CI of difference 16-34%), indicative of a potential need for professional assistance (Figure 75). In keeping with these findings, KE commenting on primary consumers of cannabis and methamphetamine noted mental health problems amongst these client groups including depression, anxiety, paranoia, and difficulties with emotional regulation.

Figure 75: Responses to the K10 questionnaire in the National Health Survey and IDRS, 2006-2009

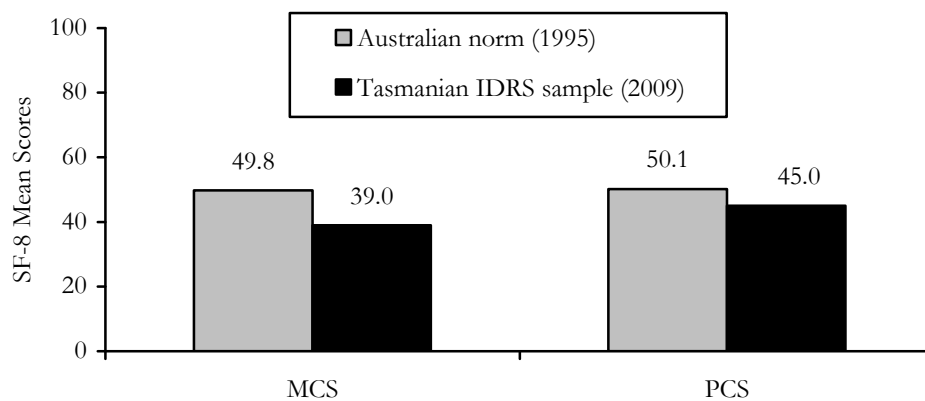


Source: IDRS IDU interviews and National Health Survey, 2004-05

Physical Health problems (SF-8)

The Short Form-8 Health Survey (SF-8) is a questionnaire designed to provide information on general health and wellbeing. It was administered for the first time in the IDRS in 2008. The SF-8 measures eight health concepts: physical functioning; role limitations due to: physical health problems; bodily pain; general health; energy/fatigue; social functioning; role limitations due to emotional problems; and psychological distress and wellbeing. The scores generated by these eight variables are combined to generate two composite scores, the physical component score (PCS) and the mental component score (MCS: Lefante J. et al., 2005). The SF-8 scoring system was developed to yield a mean of 50 and a standard deviation of 10. Participants in the 2009 Tasmanian IDRS study scored a mean of 39.0 (SD=12.4) for the MCS, one standard deviation lower than the Australian general population mean score of 49.8 (ABS, 1995), and similarly, the mean score for the PCS for the IDRS sample was 45.0 (SD=10.8), lower than the score reported for the general population (50.1: Figure 76). This indicates that IDU had both poorer mental and physical health than the population average.

Figure 76: SF-8 scores for IDU compared with the general Australian population, 2009

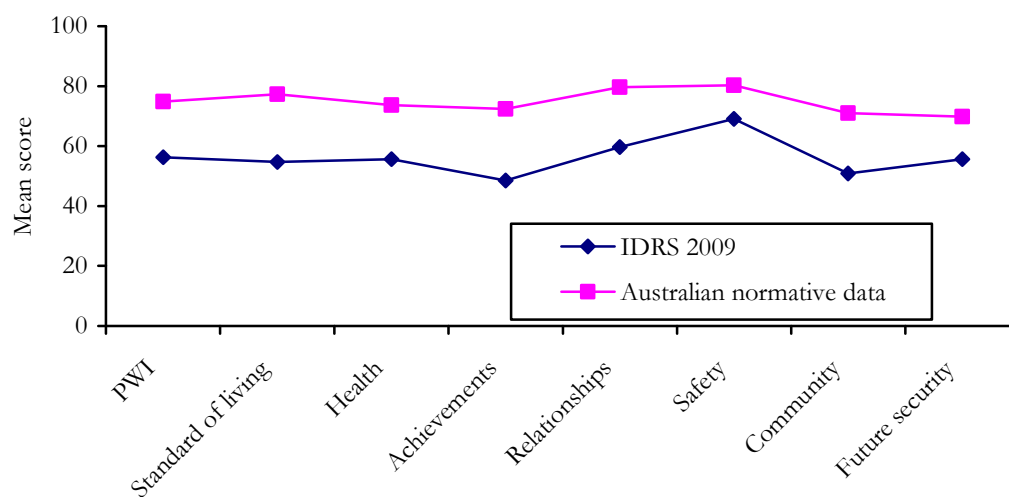


Source: IDRS IDU interviews, Australian Bureau of Statistics, 1995

Personal Wellbeing Index

The Personal Wellbeing Index (PWI) was developed by Cummins and colleagues to measure subjective wellbeing. It consists of seven domains: standard of living; health; achievements in life; personal relationships; community connectedness; safety; and future security. The Personal Wellbeing Index is the aggregated score across all these domains (Cummins, et al. 2008). The mean scores for the Tasmanian IDRS participants (n=99) for all domains were notably lower than Australian normative scores (Cummins et al., 2008: Figure 77).

Figure 77: Personal Wellbeing Index



Source: IDRS IDU interviews and Cummins et al. (2008)

Dental health

In the current study and in past years, KE have commented on poor dental health amongst IDU they were familiar with, along with difficulty accessing dental services. Questions were included in the IDU questionnaire in 2009 to investigate these issues. Participants were asked to comment on the reason for their last visit to a dentist: 49% (n=47) commented this was for an extraction of one or more teeth; 21% (n=20) attended for a check-up; and 15% (n=14) attended for one or more fillings. The median frequency of attendance to a dentist in the preceding twelve months was once (range 0-6 visits), with more than half of the sample not visiting a dentist in this period (55%, n=53). Almost two-thirds of the sample (63%, n=62) noted in the last twelve months that they needed to visit a dentist but had not done so. One-third of participants (36%, n=36) commented that they had paid for the dental service they last attended. On average, participants had lost nine adult teeth (range 0-28) at the time of the interview. Fourteen percent of participants reported they had lost all adult teeth: not surprisingly this group was significantly older (40.6 years v. 32.8 years: $F(1,98)=12.076$, $p=0.001$) and reported longer injecting careers (20.8 years v. 14.2 years: $F(1,98)=11.192$, $p=0.001$) than those participants who had not lost all their adult teeth.

Chronic health conditions

Questions regarding experience of chronic health experiences were included in the 2009 survey. Participants were asked if they had ever been diagnosed with a range of conditions (Table 58). The most commonly cited conditions amongst the IDRS sample were back or neck pain/problems (52%), migraines, liver disease (47% respectively), asthma (38%), skin problems, bronchitis (25% respectively) and joint/muscular/skeletal problems (24%).

When comparing these rates with those from the 2007/08 National Health Survey (ABS, 2009, n=20,788), some notable differences are found. It is important to consider that the NHS included participants of all ages, therefore, comparisons need to be interpreted with caution. Of particular note, however, is that the rates of several conditions were notably higher amongst the IDRS sample: migraine (47.0% v. 5.7%), asthma (38.0% v. 9.9%), skin problems (25% v. 4%), joint/muscular/skeletal problems (24.0% v. 0.2%), bronchitis and emphysema (31.0% v. 2.4%) and anaemia (11.0% v. 1.8%). The rate of experience of vision problems was lower amongst the IDRS sample than the NHS sample (22.0% v. 51.8%) (ABS, 2009). KE commenting on primary consumers of cannabis noted physical health problems amongst this client group including respiratory conditions such as bronchitis and chronic coughs, and KE commenting on primary consumers of methamphetamine and opioids noted skin problems, respiratory problems, poor diet and low weight.

Table 58: Chronic health conditions

	NHS 2007/08 N=20,788	2009 IDRS N=100		
Condition	Ever diagnosed %	Ever diagnosed %	Age at time of diagnosis (range)	Received treatment in last 12 months %
Anaemia	1.8	11	21 (11-39)	36
Asthma	9.9	38	14 (1-38)	63
Back or neck pain/problems	13.8	52	25 (4-48)	54
Bronchitis	2.4~	25	20 (2-44)	40
Cancer	n/r	9	24 (16-33)	22
Cellulitis	n/r	6	26 (12-39)	50
Diabetes or high blood sugar levels	4.0	7	33 (14-45)	57
Emphysema	2.4~	6	35 (21-45)	83
Epilepsy	0.7	6	20 (13-35)	83
Fluid problems/ retention/oedema	1.4	8	31 (10-43)	75
Gout, rheumatism, arthritis	n/r	14	22 (12-46)	43
Hay fever	15.1	22	10 (1-37)	73
Hearing problems	12.9	10	24 (10-45)	5
Heart or circulatory problems	n/r	8	18(12-39)	63
Hernias	2.1	6	19 (1-45)	50
High blood pressure	9.4	10	26 (12-39)	4
Human papilloma virus	n/r	6	20 (12-31)	-
Joint/muscular/skeletal	0.2	24	22 (1-43)	63
Kidney problems	n/r	12	27 (5-39)	25
Liver disease	n/r	47	26 (16-42)	49
Migraine	5.7	47	19 (1-40)	60
Psoriasis	2.3	8	14 (1-46)	63
Respiratory disease	0.5	4	33 (28-37)	75
Septicaemia	n/r	8	26 (12-43)	25
Sinus or sinus allergy	9.0*	20	14 (4-35)	60
Skin problems	4.0	25	16 (1-47)	48
Stomach ulcer or other gastrointestinal ulcer	2.1	7	24 (18-35)	29
Stroke (or effects of a stroke)	1.2	3	43 (40-45)	33
Thyroid trouble/goitre	2.4	4	25 (17-32)	25
Tuberculosis	n/r	1	11	0
Vision problems		22	23 (2-46)	59

Source: IDRS IDU interviews and 2007/08 National Health Survey

n/r Not reported in a comparable manner to IDRS data

* This data refers to chronic sinusitis only

~ The NHS has reported emphysema and bronchitis as one item

11.8 Driving risk behaviour

The majority of consumers interviewed in the current study had driven a car in the preceding six months (65%). Of these participants, three-quarters self-reported that they had driven within one hour of consuming illicit drugs⁴⁰ (78%, n=51), a similar proportion to that identified in the 2008 cohort (64% of the 64 that had recently driven). Table 59 summarises the drugs that were used: cannabis (51%, n=26); any form of methamphetamine (25%, n=13); illicit morphine (24%, n=12); and illicit methadone 18% (n=9) were most commonly cited.

When reviewing rates of reported driving soon after consuming a drug, one of the more notable changes is the extent of use of methamphetamine in this context. While the overall rate of reported driving under the influence of drugs has remained relatively stable, in 2005, 74% of participants who had recently drug-driven reported they had used methamphetamine, with this declining to just 7% in 2008. This trend has reversed in 2009, with 25% of participants reporting this.

Use of illicit methadone increased between 2005 and 2006 (from 38% to 56%), which may be partly explained by an increase in opioid-using consumers in the sample. This rate remained relatively stable in 2007, however, over the 2008 and 2009 period, this rate declined to 22% and 18% respectively.

Reports of driving under the influence of illicit morphine increased slightly between 2005 and 2008, from 25% to 42%, however, this trend has also been reversed, with 24% of the 2009 cohort report driving under the influence of morphine.

The extent of reports of driving while under the influence of cannabis has remained relatively stable in the 2005-2009 cohorts, ranging between 51% and 67% of those drug-driving. Given the relatively stable high rates of driving under the influence of drugs in the past five cohorts, it is important to monitor changes in such behaviour in future IDU cohorts as roadside drug testing and drug driving education campaigns are increasingly implemented in the state.

Fifty-eight participants who had recently drug-driven commented on their perceived level of impairment on the last occasion this occurred. Three-fifths of this group perceived that their drug use had had no impact on their driving ability on this occasion (60%, n=35), and one-quarter perceived slight impairment (24%, n=14). Minorities of participants noted their driving ability to be 'quite impaired' (5%, n=3), 'slightly improved' (9%, n=5) or 'quite improved' (2%, n=1).

Of the 65 participants who reported having driven a vehicle in the preceding six months, 26% (n=17) reported they had driven whilst under the influence of alcohol in this period. Of this group, the majority (23%, n=15, of those that had recently driven a vehicle) reported they had driven whilst over the legal limit for blood alcohol concentration in the preceding six months, at a median frequency of five occasions (range 1-72 occasions).

Roadside drug testing was introduced in Tasmania in 2005. Drivers who are selected for this are required to provide a saliva sample, which is then analysed, returning a result in approximately five minutes. Drivers who test positive are then requested to provide a

⁴⁰ Note that this includes prescription drugs but only if they were not prescribed to the individual using them.

blood sample for confirmation of this result. In Tasmania, drivers are typically tested for cannabis, amphetamine and MDMA. Participants in the 2009 IDRS were asked if they had ever undergone roadside drug testing by police. Fifteen participants reported they had undergone such testing, with nine reporting this had occurred on one occasion and six participants reporting this had occurred on two or more occasions. Three of these participants reported testing positive for the most recent test.

Table 59: Proportion of IDU driving a car in the preceding six months that had driven soon after using non-prescription drugs, 2005-2009

	2005		2006		2007		2008		2009	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Drove a vehicle in last 6months	84	84	73	73	57	57	64	64	65	65
Of these, % driven within 1 hour of consuming illicit drugs	63	53	68	50	74	42	64	41	78	51
<i>Opioids</i>										
Heroin	2	1	2	1	-	-	-	-	-	-
Methadone (illicit)	38	20	56	28	50	21	22	9	18	9
Morphine (illicit)	25	13	38	19	33	14	42	17	24	12
<i>Methamphetamine (any)</i>	74	39	62	31	40	17	7	3	25	13
Powder	49	26	30	15	36	15	5	2	16	8
Base	43	23	26	13	5	2	-	-	10	5
Crystal/ice	6	3	24	12	5	2	2	1	-	-
Cannabis	62	33	56	28	67	28	56	24	51	26
Benzodiazepines	30	16	18	9	33	14	22	9	6	3
Ecstasy	4	2	-	-	-	-	-	-	2	4

Source: IDRS IDU interviews

11.9 Summary of health-related trends

Overdose

Small proportions of participants reported experiencing a non-fatal overdose from use of morphine, methadone or heroin in the preceding 12 months; however, a significantly greater proportion of participants in the current study reported lifetime experience of a non-fatal overdose than was reported in 2008. The number of accidental deaths in Tasmania attributable to opioid use in 2007 was 11, which equates to a rate of 42 deaths per million population, aged between 15 and 54 years. Nationally in 2007, 266 deaths were attributed to such causes, which equates to a lower rate of 22 deaths per million population.

Drug treatment

According to the Tasmanian NMDS, cannabis was the most commonly reported illicit drug of concern among clients of Tasmanian drug treatment agencies in 2007/08, accounting for 45% of treatment episodes, significantly higher than the national rate (22%). Methamphetamine was the principal drug of client's concern in 11% of treatment episodes in both Tasmania and nationally. Problems with opioids comprised a smaller proportion of treatment episodes: morphine was the principal drug of concern noted in 5% of treatment episodes in Tasmania, significantly higher than the national rate (1%); and methadone was the principal drug of concern noted in approximately 1% of episodes locally and 2% nationally.

Hospital admissions

Between 2003/04 and 2004/05, Tasmanian rates of public hospital admission for opioids were around half that of the national level; however, in 2006/07, this increased dramatically, with the Tasmanian rate of admissions around 164% of the national rate. This increased rate has continued into 2007/08, with the Tasmanian rate of admissions being 170% of the national rate (752 v. 441 admissions per million persons between the ages of 15 and 54 years in 2007/08).

Tasmanian hospital admission rates for methamphetamine were stable between 2002/03 and 2005/06, with approximately 150 admissions per million persons (aged 15-54). In 2006/07, this increased to 244 admissions per million population, however, in 2007/08, this rate decreased to 210 admission per million population, which represents 130% of the national rate (210 v. 161 admissions per million persons between the ages of 15 and 54 years in 2007/08).

Tasmanian public hospital admission rates, where cannabis use was noted as the principal diagnosis, increased notably in 2006/07, from 65 admissions per million population in 2003/04 to 267 per million population in 2006/07. In 2007/08, this rate decreased to 156 admissions per million population. The Tasmanian admission rate per million population has been greater than the national rate since 2005/06 (120% in 2005/06; 164% in 2006/07; and 115% in 2007/08).

Injecting risks

Self-reported rates of sharing of needles or syringes among clients of non-pharmacy NSP outlets had steadily declined over time (from 2.6% of all transactions in 1995/96 to 0.3% in 2005/06); however, in 2006/07, this trend was briefly reversed (with 1.1% of client transactions reporting sharing needles or syringes) - this rate has continued to decrease since this time, to 0.14% in 2008/09.

The current Tasmanian IDRS study identified a similar pattern with rates of sharing amongst IDU participants increasing sharply in 2006/07, and decreasing over the subsequent periods. Two percent of the current cohort reported use of another person's used needle/syringe in the month prior to interview, a rate lower than was reported in 2007 (16%), but similar to rates in other years. Similarly, the number of participants reporting providing their used equipment to another person decreased from 29% in 2007 to 13% in 2009, returning to a similar level to that reported in other Tasmanian IDRS reports.

Three-fifths of the consumers interviewed (63%) reported re-using their own injection equipment in the month prior to interview, with the majority of these participants re-using on multiple occasions in this time. The main forms of equipment that consumers reported re-using were winged-infusion sets ('butterflies'), 3/5ml barrels, 10ml barrels and 1ml syringes. Requiring equipment after-hours (nights or weekends), or the distance from an outlet, were the main reasons participants provided for re-using equipment.

These are harmful injection practices, as repeated use of needles leaves them blunt, which could cause damage to the venous system, and use of non-sterile equipment can lead to the introduction of bacteria into the bloodstream, which can lead to infections, septicaemia or endocarditis. Sharing of injecting equipment greatly increases the chance of transmission of blood borne viruses such as HCV or HIV.

Self-reported mental health problems

Forty-six percent of participants reported experiencing a mental health problem in the preceding six months. In comparison to reports in earlier local IDRS IDU surveys, there had been a steadily increasing rate of individuals reporting recent experience of a mental health problem; however, this trend was reversed over 2008 and 2009. Depression and anxiety-related disorders were the most commonly cited. The rate of self-reported psychotic disorders - amongst those participants reporting recent experience of a mental health problem - remained stable between 2004 and 2007 (13-18%), however, in the subsequent reporting periods this rate has been slightly lower (7% in 2008 and 11% in 2009). It is possible that this decrease is related to lower levels of use of methamphetamine amongst these two cohorts than has been previously reported. While the self-reported rate of recent mental health problems is declining amongst the IDU cohorts locally, both the Kessler 10 and the SF-8 demonstrate substantially higher rates of psychological distress in the IDRS sample in comparison to the Australian national average

Self-reported general health problems

Self-reported general health amongst IDU participants was generally poorer than was reported for general population samples. IDRS participants scored lower on the Physical Component of the SF8 than was reported in the NHS (ABS, 1995), and lower in all measures of the Personal Wellbeing Index than has been reported as the normative Australian population scores. Chronic health conditions such as migraines, asthma, skin conditions, joint/muscular/skeletal problems, bronchitis and emphysema were reported by a higher proportion of IDRS participants than by a general population sample in the 2007/08 National Health Survey (ABS, 2009).

Driving risk behaviour

Three-quarters of the consumers interviewed that had driven a car in the past six months had done so within an hour of using illicit or non-prescribed drugs on at least one occasion. Cannabis, methamphetamine and illicit morphine were most commonly involved. While the extent of self-reported driving under the influence of drugs has remained stable in the past three local IDRS studies, the level of drug-driving involving methamphetamine has decreased from 74% of those who had driven in 2005 to 25% in 2009.

12.0 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH DRUG USE

12.1 Reports of criminal activity among IDU participants

Almost half (49%, n=48) of the IDU respondents self-reported they had been arrested in the preceding 12 months. This is consistent with the rate reported for the 2009 national IDRS sample (52%, n=458). The crimes most commonly reported were property crimes (23%), followed by driving offences (12%: Table 60).

Participants were asked to comment on the frequency of these crimes in the month preceding the interview. Among those reporting involvement in property crimes (n=33), this most commonly occurred less than once per week (48%, n=13), and smaller groups reported carrying out such activities once per week or more than once per week but not daily (24%, n=8 respectively), or daily (12%, n=4). Similar proportions of participants who reported dealing drugs in the month preceding the interview (n=37) reported doing so less than once per week (41%, n=15), once per week (19%, n=7 of sample), more than once per week (but less than daily: 32%, n=12 respectively). Three participants reported dealing drugs on a daily basis in the month preceding the interview (8%). Thirteen participants commented on the frequency of carrying out violent crimes in the month preceding the interview: with the exception of one participant, all reported such a crime occurring less than weekly.

In 2009, the rate of participants self-reporting involvement in criminal activity in the month preceding the interview was 62%, similar to rates reported in previous local IDRS studies (rates have fluctuated between 48% and 64% in previous years). It should be noted that these fluctuations are within the range expected for sampling variability.

Consistent with self-reported involvement in recent criminal activity, the proportion of consumers reporting arrest in the preceding 12 months has remained relatively stable across the years of the IDRS, involving around half of the participants (varying between 41% and 55%, a range within that expected from sampling variability: Table 60).

Table 60: Self-reported arrests among IDU, 2000-2009 (n=100)

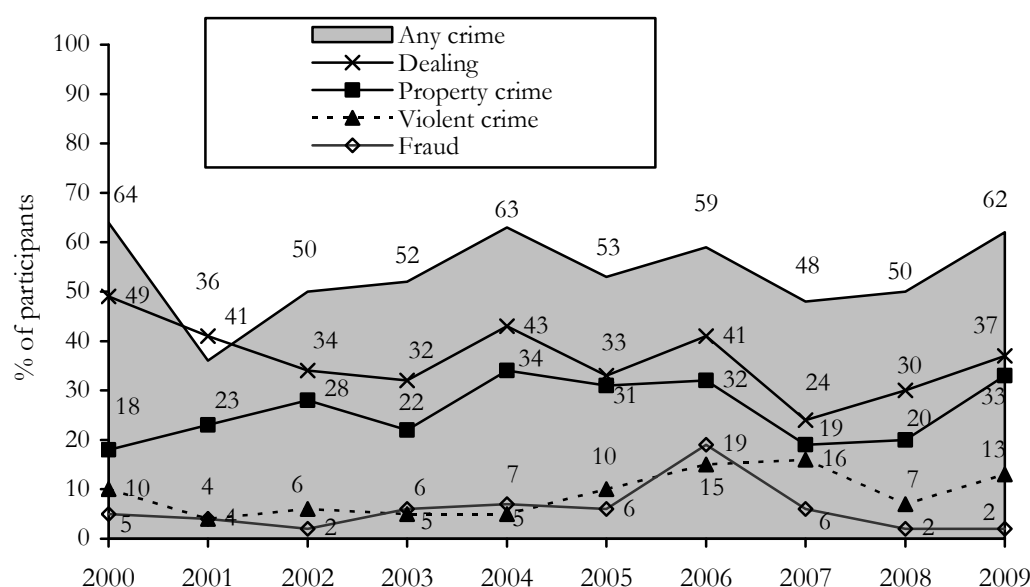
Activity	2000 %	2001 %	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %
% arrested last 12 months	43	41	41	46	51	47	55	46	47	49
<i>% arrested for:</i>										
Property crime	16	13	25	21	29	16	16	19	20	23
Use/possession-drugs	9	1	9	2	9	5	5	2	10	4
Violent crime	6	9	14	5	9	11	16	9	8	10
Fraud	2	0	0	3	2	1	3	2	1	2
Dealing/trafficking	1	2	1	0	1	2	3	1	0	4
Driving offence	*	4	5	2	6	11	10	6	10	12
Alcohol and driving	*	2	2	1	1	0	0	6	1	5
Drugs and driving	*	0	3	3	2	0	1	6	1	2
Use/possession-weapons~	-	-	-	-	-	-	-	-	2	5
Other reason	10	17	8	16	14	16	22	17	11	9

Source: IDRS IDU interviews

* Comparable data for these cells were not gathered in the 2000 IDRS study

~ This response was only included in the 2008 and 2009 studies

Figure 78: Self-reported criminal activity amongst IDU, 2000-2009



Source: IDRS IDU interviews

12.2 Arrests

Since 2000, Tasmania has had a drug diversion program (the Illicit Drug Diversion Initiative). This diversion model encompasses individuals who have been apprehended for no more than three offences in the past ten years, and follows a three-tiered approach to diversion. Individuals with a first minor cannabis offence are cautioned and provided with health and legal information, as well as contact details of referral and treatment services, and do not receive any criminal record. Second-time offenders are cautioned and diverted into a brief face-to-face intervention with a health professional. Again, there is no criminal conviction; however, if they fail to attend the brief intervention the individual is prosecuted for the drug offence. Third-time offenders are cautioned and diverted directly to assessment and treatment through the Department of Health and Human Services, Alcohol and Drugs Service. Charges are not pursued providing there is attendance and compliance with the requirements of treatment as assessed. In the case of a first offence with an illicit drug other than cannabis, individuals are immediately diverted to the third tier of diversion (as per third time cannabis offenders). As such, while diversions may be employed for consumer offences for any illicit drug, as the majority of diversions involve cannabis consumers, data from the Illicit Drug Diversion Initiative are summarised in the cannabis arrests section below (Section 12.2.4).

12.2.1 Heroin

Tasmania Police State Intelligence Services reported no arrests involving offences relating to heroin between 2000/01 and the 2003/04 financial years⁴¹. In the 2004/05 financial year there was a single arrest⁴² in the north of the state (relating to the seizure of the 0.2g of a drug believed to be heroin in the first quarter of 2005). Similarly, in

⁴¹ ACC reported six male and four female consumer arrests relating to 'heroin and other opioids' in the 2003/04 financial year, with all of these arrests relating to pharmaceutical opioids rather than heroin.

⁴² ACC reported eight consumer arrests (five males, three females) and two male provider arrests relating to 'heroin and other opioids' in the 2004/05 financial year, with all of these arrests, other than a single female consumer, relating to pharmaceutical opioids rather than heroin.

2005/06, Tasmania Police arrested one individual in the south of the state⁴³ (relating to a seizure of 2.8g in the fourth quarter of 2005). No arrests for heroin were made between 2006/07⁴⁴ and 2008/09⁴⁵ financial years. One KE from the legal field noted recent contact with an individual on heroin charges, and noted that this was the first individual on heroin charges they were aware of in 12 years. Due to the small numbers and lack of specificity of reporting of opioid-related arrests in previous years⁴⁶, the identification of trends from such data is difficult, other than to provide further support for indications from other data sources of a limited availability and use of the drug locally.

12.2.2 Methamphetamine

Arrest data for methamphetamine-related offences indicate a marked increase in the number of arrests between 1998/99 and 2001/02 (n=7 and n=89 respectively: Table 61). The main increase over this period related to those charged with 'consumer'-type offences (such as use and possession), consistent with reports of increased availability and use of methamphetamine, although there was a concomitant, albeit less marked, increase in the number of supply-type arrests in this period. The 2003/04 financial year saw a decline in the number of arrests (from n=66 in 2002/03 to n=39 in 2003/04), with this reduction primarily relating to a decline in the number of arrests for consumer-type offences rather than that of providers. Up until 2007/08, there had been increases in the number of consumer arrests (n=107 in 2007/08) and provider-type arrests (n=8 in 2003/04; n=70 in 2007/08). In 2008/09, Tasmania Police reported a decrease in total number of arrests (n=72⁴⁷): a notable decrease was reported for consumer arrests (n=25), and to a lesser extent provider offences (n=46). It is important to note that this data is preliminary and subject to revision (totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules), and as such, care should be taken when interpreting it.

⁴³ ACC reported ten consumer arrests (seven males, three females) and six provider arrests (five male and one female) relating to 'heroin and other opioids' in the 2005/06 financial year, with all of these arrests, other than a single consumer, relating to pharmaceutical opioids rather than heroin.

⁴⁴ ACC reported 11 consumer arrests (nine males, two females) and five provider arrests (two male, three female) relating to 'heroin and other opioids' in the 2006/07 financial year, with all of these arrests relating to pharmaceutical opioids rather than heroin.

⁴⁵ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

⁴⁶ Data specifically regarding heroin-related offences prior to 1999/00 is unavailable as the Australian Crime Commission reports offences related to all opioids (including, for example, morphine and methadone) within a single category.

⁴⁷ Data included 1 case of methamphetamine-related offence without data indicating if they were providers/consumers

Table 61: Consumer and provider arrests for methamphetamine and related substances, 1996/97-2008/09

	1996 /97 n	1997 /98 n	1998 /99 n	1999 /00 n	2000 /01 n	2001 /02 n	2002 /03 n	2003 /04 n	2004 /05 n	2005 /06 n	2006/ 07 n	2007/ 08 n	2008/ 09 [†] n
Consumers													
Female	3	5	0	4	9	18	8	10	9	10	24	26	7
Male	15	9	4	14	51	53	34	21	34	33	84	81	18
Unknown	0	1	2	2	0	0	0	0	0	0	0	0	0
Total	18	15	6	20	60	71	42	31	43	43	108	107	25
Providers													
Female	0	0	0	0	1	6	2	1	3	9	14	13	5
Male	2	0	1	7	9	12	17	7	23	25	55	57	41
Unknown	0	0	0	1	0	0	0	0	0	0	0	0	0
Total	2	0	1	8	10	18	19	8	26	34	69	70	46
Total arrests	20	15	7	28	70	89	66	39	69	83	179	177	72 [*]

Source: Australian Crime Commission (previously the Australian Bureau of Criminal Intelligence) and State Intelligence Services, Tasmania Police

* Data included 1 case of methamphetamine-related offence without data indicating if they were providers/consumers

† 2008/09 data is preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules. Cases here relate to both arrest and summons charges for methamphetamine-related offences

Note: 'Consumer' refers to persons charged with use-type offences (e.g. possession, administration), while 'provider' refers to persons charged with supply-type offences (e.g. supply, cultivation or manufacture). Where a person has been charged with multiple offences within a category, that person is only counted once in these statistics

Note: Includes those offenders whose consumer/provider status was not stated, so total may exceed the sum of the table cells

12.2.3 Cocaine

Arrests for cocaine-related offences in Tasmania have been infrequent. Single arrests for cocaine offences were made by Tasmania Police in 2008/09⁴⁸, 2006/07, 2001/02 and two arrests were made in 2000/01. No arrests were made between 2002/03 and 2005/06 and 2007/08 (Australian Bureau of Criminal Intelligence, 2001; Australian Crime Commission, 2002, 2003, 2004, 2005, 2006, 2007, 2008; and State Intelligence Services, Tasmania).

12.2.4 Cannabis

The Tasmanian Illicit Drug Diversion Initiative, which primarily but not exclusively relates to cannabis consumer offences has been well supported by police, with well in excess of 1,000 diversions made per annum between 2002/03 and 2008/09 (Table 62). The number of second- and third-level diversions (to health interventions) have increased overall since 2000/01, from 151 to 536 in 2008/09⁴⁹ (Table 62).

Table 62: Drug diversions or cautions issued by Tasmania Police, 2000/01-2008/09

	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07*	2007 /08	2008 /09 [#]
Number of cautions/ diversions state-wide	612	978	1,337	1,398	1,330	1,158	1,361	1,681	1,528
Number diverted to health intervention state- wide	151	n/r	263	179	365	236	369	634	536

Sources: Department of Police and Emergency Management Corporate Reporting Services Annual Corporate Performance Reports - Total District Drug Diversions; Tasmania Police Drug Offence Reporting System; Alcohol and Drug Service

[#] 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

* These figures are also included within the Alcohol and Other Drug Treatment Services Minimum Dataset statistics

n/r Refers to cases where the relevant data were not reported to the authors

Note: These figures may differ from data submitted to the Australian Crime Commission if the decision to charge persons was altered to a caution after the figures were forwarded to State Intelligence Services

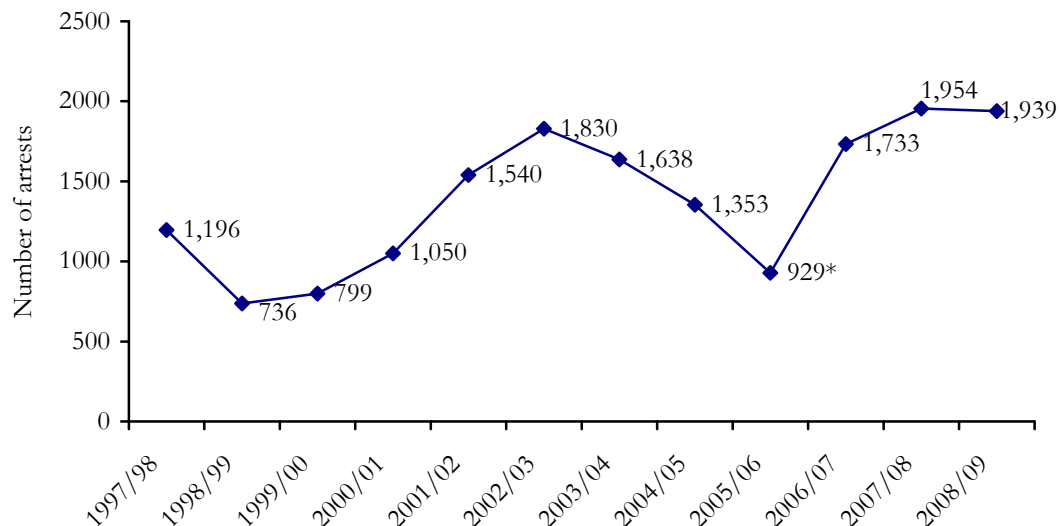
Cannabis-related arrests appeared to more than double between 1998/99 and 2002/03, from 736 to 1,830 arrests respectively (Figure 79). As this increasing trend coincided with the implementation of the Cannabis Cautioning Program, and subsequently the Illicit Drug Diversion Initiative, it was likely that much of this increase simply reflected the increase in utilisation of 'official' cautions and diversions by Tasmania Police (which are included in these statistics) over 'unofficial' warnings, which would not be recorded in these statistics in preceding years. Between 2002/03 and 2004/05, the number of cannabis-related arrests appeared to have declined to 1,353 (data from 2005/06 supplied

⁴⁸ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

⁴⁹ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

by Tasmania Police was incomplete); however, this trend has been reversed since this time with 1,939 arrests reported in 2008/09. It is important to note that this data is preliminary and subject to revision (totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules), and as such, care should be taken when interpreting it.

Figure 79: Number of arrests (including cautions and diversions) for cannabis-related offences in Tasmania, 1997/98-2008/09



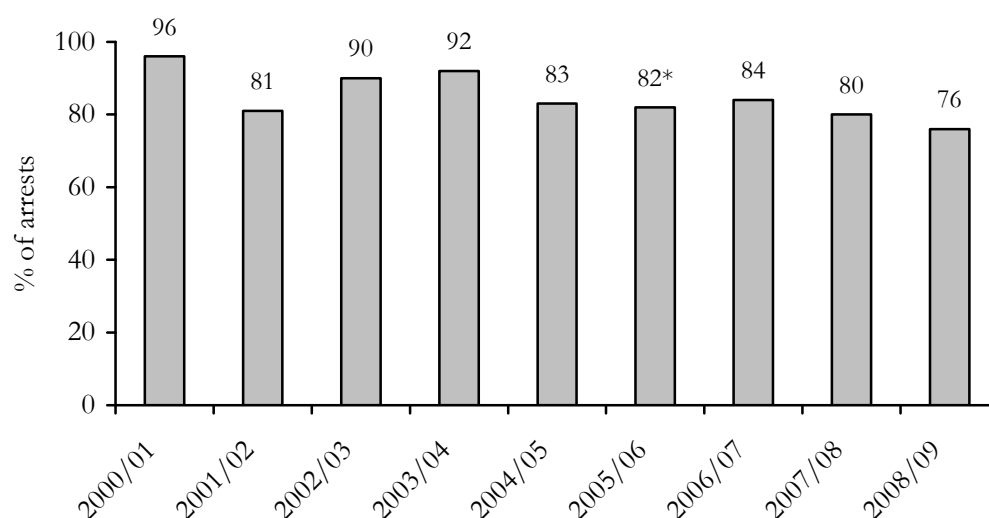
Source: Australian Illicit Drug Reports 1997/98-2007/08, Australian Bureau of Criminal Intelligence (now the Australian Crime Commission), and Tasmania Police State Intelligence Services State-wide Illicit Drug Reports

* Arrests for 2005/06 were only reported to the ACC for part of the financial year

Note: 2008/09 data supplied by Tasmania Police are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

Figure 80 indicates the proportion of arrests for offences relating to the possession or use of cannabis (consumer offences) as opposed to supply-type (provider) offences between 2000/01 and 2008/09. Between 2000/01 and 2008/09, the proportion of arrests relating to consumer-type offences has been relatively stable (ranging between 76% and 96%: Figure 80). Overall the clear majority of arrests remain consumer-related rather than provider-related.

Figure 80: Consumer arrests (including cautions and diversions) for cannabis-related offences as a proportion of all drug-related arrests in Tasmania 2000/01-2008/09



Source: Australian Illicit Drug Reports 1997/98-2007/08, Australian Bureau of Criminal Intelligence (now the Australian Crime Commission), and Tasmania Police State Intelligence Services State-wide Illicit Drug Reports.

* Arrests for 2005/06 were only reported to the ACC for part of the financial year

Note: Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

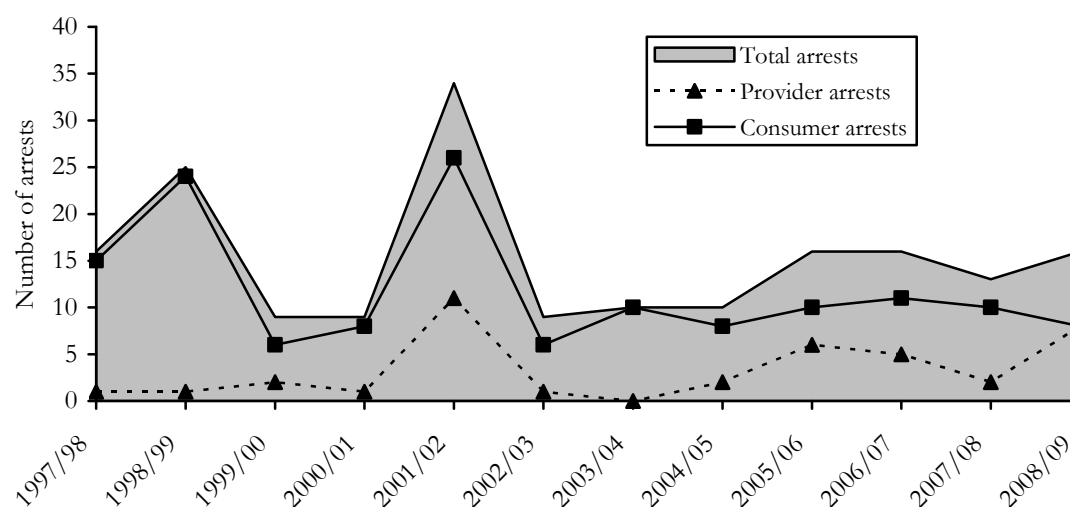
12.2.5 Other opioids

Between 1997/98 and 2001/02, there were reasonably stable and small numbers of arrests made by Tasmania Police involving offences relating to opioids (including heroin and other narcotics⁵⁰), fluctuating around 22 cases per annum (range 16-34). Amended counting rules applied from 2002/03 mean that subsequent data is not directly comparable, but again the number of arrests have remained relatively small and stable, fluctuating around 13 cases per annum (range 9-16) between 2002/03 and 2008/09⁵¹ (Figure 81).

⁵⁰ For recording purposes, Tasmania Police class any Schedule 8 drug as 'Narcotic'. Schedule 8 drugs are 'Drugs of Addiction'.

⁵¹ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

Figure 81: Number of arrests for opioid-related offences in Tasmania, 1996/97-2008/09



Source: Australian Illicit Drug Reports 1997/98-2001/02, Australian Bureau of Criminal Intelligence; Illicit Drug Data report 2002/03- 2006/07, Australian Crime Commission, and Tasmania Police State Intelligence Services State-wide Illicit Drug Reports

Note: Counting rules for arrests prior to 2002/03 differ from those applied currently, so these years are not directly comparable

Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report and ACC-IDDR due to differences in counting rules

Note: Arrests for 2005/06 were only reported to the ACC for part of the financial year.

12.2.6 Benzodiazepines

Trends from Tasmania Police in regard to benzodiazepines appeared to remain relatively stable between 2000/01 and 2001/02, with 78 arrests (72 consumers, six providers) associated with Schedule 4 drugs in 2001/02, in comparison to 93 arrests (84 consumers, nine providers) in 2000/01. Counting rules for this data had changed in 2002/03 and, as such, subsequent data are not directly comparable. Using these new processes, four consumers were arrested in relation to benzodiazepines in 2002/03 and one in 2003/04. In 2004/05, six arrests were made in relation to benzodiazepines, all of which related to consumer-type offences. In 2005/06 and 2006/07, five arrests were made per annum, four of which were consumer-type offences and one each year was a provider-type offence. In 2007/08, eight arrests were made - six consumer and two provider arrests, and similarly in 2008/09⁵², seven arrests were made - five consumer and two provider arrests.

12.2.7 Drug-Related Charges in Tasmanian Courts

As shown in Table 63, the number of individuals before the Supreme Court for selling or trafficking in drugs has increased from 20 individuals in 2003/04 to 75 in 2007/08 (data for 2008/09 were not provided to the authors at the time of publication). As part of the context of these increases, the *Misuse of Drugs Act 2001* implemented changes to the existing law and may have expanded the number of prosecutions appropriate for presentation to the Supreme Court. The act was further amended in 2004. It is thus

⁵² Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

likely that the recent apparent increase in charges (from 20 in 2003/04 to 75 in 2007/08) may largely relate to such legal changes⁵³, rather than being necessarily reflective of substantial changes in the rate of such offences. In 2003/04 and 2004/05, the majority of relevant charges before the Supreme Court related to trafficking in a controlled substance (16 individuals in 2003/04 and 19 in 2004/05) and cultivating a controlled plant for sale (three individuals in 2003/04 and 10 in 2004/05). This level of detail was not provided for the 2005/06 to 2007/08 financial years.

The number of individuals before the Magistrates Court for drug-related matters has remained relatively stable between 2003/04 and 2007/08 (Table 63, Figure 82), however, in 2008/09, the number of individuals before the court for possession and use offences increased from a range of 414-517 individuals per financial year to 886.

Since 2004/05, the number of individuals incarcerated at Hobart Prison in relation to drug offences remained stable (between 55 and 57 per financial year⁵⁴), however in 2008/09, this number increased slightly to 84 individuals. The number of offences among those incarcerated has increased from 84 in 2003/04 to 166 in 2008/09 (Table 63). These changes largely relate to increases in the numbers imprisoned on charges of trafficking in a controlled substance (seven charges in 2003/04 and 52 in 2008/09) and possession of a controlled plant or its products (21 charges in 2003/04 and 38 in 2008/09: Table 63).

⁵³ In that, in 2005 the full effect of the enactment of the *Misuse of Drugs Act 2001*, together with several prosecutions being withheld while amendments effected in 2004 were being expected, which then were the subject of a reference to the Court of Criminal Appeal to determine if there were any retrospective effect: T. Ellis S.C., (*Personal Communication*, 2005 and 2007)

⁵⁴ In 2007/08, the total number of people incarcerated in the Hobart Prison was not provided to the authors

Table 63: Number of individuals before Tasmanian courts or imprisoned on drug charges, 2003/04 -2008/09

	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09
SUPREME COURT OF TASMANIA						
Number of indictable charges relating to <i>Misuse of Drugs Act</i> *	20	33	47	66	75	n/p
HOBART MAGISTRATES COURT						
Number of individuals before the court for: (alleged number of offences in parentheses)						
dealing and trafficking in drugs	120 (138)	123 (130)	106 (118)	97 (106)	104 (114)	128 (130)
importing /exporting of drugs	1 (1)	0	2 (3)	0	0	0
manufacturing/growing of drugs	102 (105)	80 (81)	93 (96)	107 (114)	96 (102)	98 (102)
possession and/or use of drugs	414 (829)	414 (800)	422 (823)	480 (996)	517 (982)	886 (1056)
other drug offences	4 (6)	1 (1)	1 (1)	0	1 (1)	1 (1)
HOBART PRISON*						
Number of individuals incarcerated	36	55	57	56	n/p	84
Number of offences among those incarcerated	84	101	117	128	144	166
OFFENCE BREAKDOWN:						
Grow prohibited plant/substance						
Cultivate a controlled plant	4	11	4	7	10	11
Cultivate prohibited plant	0	2	9	6	1	5
Possession/use						
Possess a controlled drug	12	14	8	7	12	18
Possess a prohibited plant	2	1	2	3	0	2
Possess controlled plant or its products	21	26	36	41	42	38
Possess prohibited substance	4	1	3	1	0	1
Possess part of a prohibited plant	1	0	0	0	0	0
Possess restricted substance	0	2	1	0	0	0
Possess/Use/Administer a controlled drug	0	1	2	2	5	0
Possess narcotic substance	3	1	0	0	0	0
Use a controlled drug	3	7	6	3	9	7
Use prohibited substance	2	1	2	0	0	0
Possess thing used for administration of controlled drug	3	9	11	15	15	10

Sources: Department of Public Prosecutions (Supreme Court data); Magistrates Court (Magistrates Court data); Corrective Services (Prison data), Department of Justice and Industrial Relations

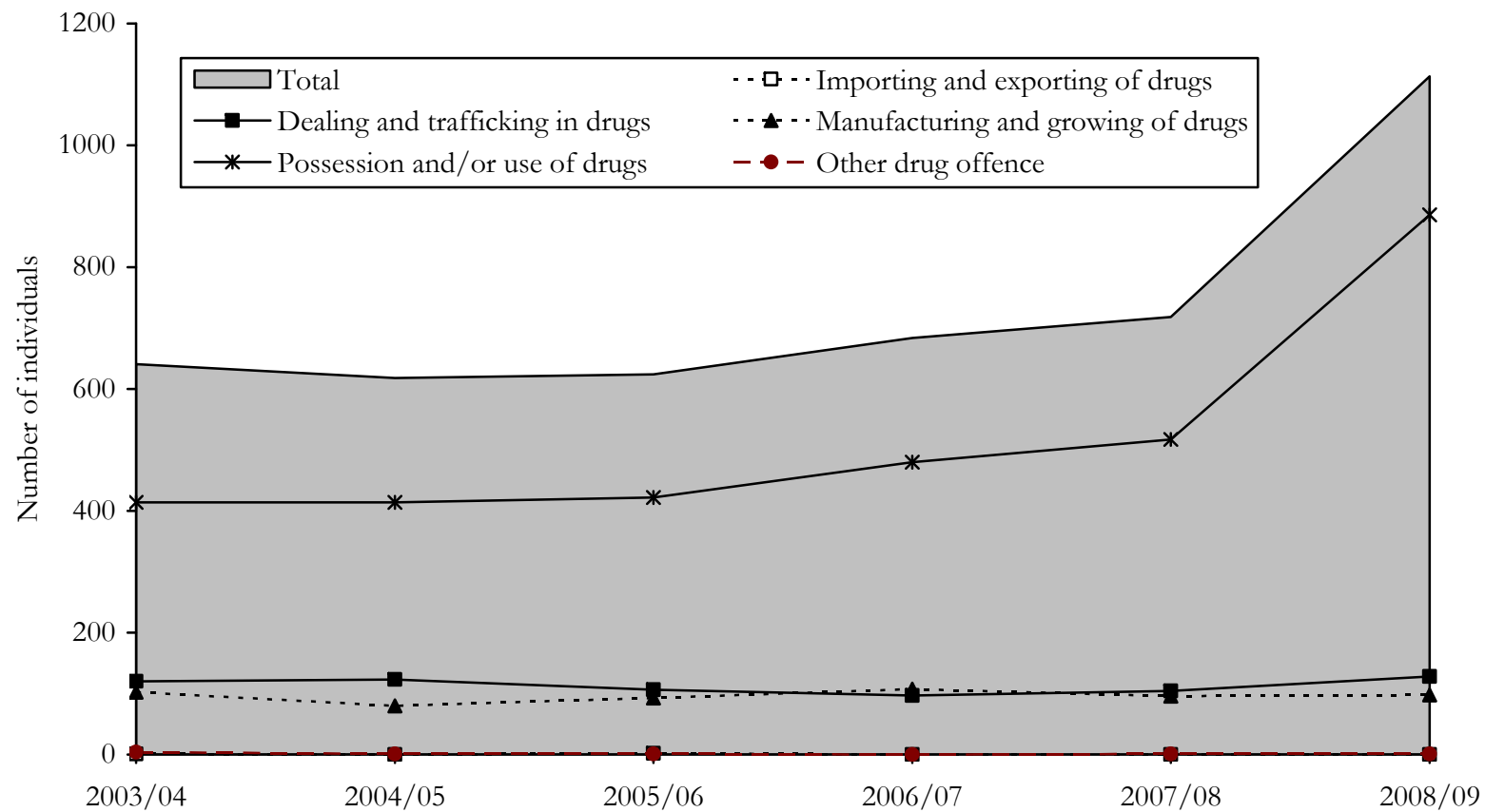
Note: *This includes all indictable charges under the *Misuse of Drugs Act 2001*, which includes manufacturing a controlled drug for sale, cultivating a controlled plant for sale, possession of thing used in manufacture of a controlled substance for sale, possession of thing used for cultivation of a controlled plant for sale, manufacturing a controlled precursor intended for use in manufacture of controlled drugs for sale, selling a controlled precursor for use in manufacturing a controlled drug, trafficking in controlled substances and controlled drugs. n/p – data not provided

Table 63: Number of individuals before Tasmanian courts or imprisoned on drug charges, 2003/04 -2008/09 (continued)

	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09
Prescription offences						
Possess a prescription knowing it to be forged or unlawfully altered	0	0	1	0	0	n/p
Unlawfully alter a prescription	0	0	1	0	1	0
Unlawfully possess blank prescription form	0	0	1	0	0	0
Utter a prescription knowing it to be forged or unlawfully altered	1	0	3	0	1	1
Sell/supply narcotic substance						
Supply or Sell raw narcotic or narcotic substance	1	0	0	0	0	0
Selling/Supplying controlled drug	5	6	4	1	3	8
Sell/supply prohibited substance/plant						
Make, refine, prepare, sell or supply a prohibited substance	0	1	0	0	0	0
Sell Prohibited Substance	0	2	0	1	0	0
Sell or supply controlled plant	3	3	1	1	4	4
Sell prohibited plant	0	0	1	0	0	0
Cultivate a controlled plant for sale	1	0	1	1	1	5
Possessing thing intended for use in cultivation of controlled plant for sale	1	0	0	0	0	1
Traffic in controlled/prohibited/narcotic substance						
Traffic narcotic substance	1	0	3	0	0	0
Trafficking in controlled substance	7	7	8	22	36	52
Traffic prohibited plant						
Traffic in a prohibited plant	4	1	4	1	1	0
Manufacture a controlled drug for sale						
Manufacturing a controlled drug for sale	0	0	2	1	0	1
Manufacturing controlled drug	0	0	0	0	1	0
Possessing thing intended for use in manufacture of controlled substance for sale	1	1	1	1	0	1
Other						
Fail to comply with Poisons Act provisions	2	0	0	0	0	0
Possess implement Contrary to the Act	1	3	1	0	0	0
Supplying controlled drug to a child	0	0	1	1	2	n/p

Sources: Department of Public Prosecutions (Supreme Court data); Magistrates Court (Magistrates Court data); Corrective Services (Prison data), Department of Justice and Industrial Relations. n/p – data not provided

Figure 82: Number of individuals before the Hobart Magistrates Court for drug-related offences, 2003/04-2008/09



Source: Hobart Magistrates Court

12.3 Expenditure on illicit drugs

Participants were asked how much money they had spent on illicit drugs on the day prior to interview. These responses are summarised in Table 64. This shows that two-thirds of the cohort (66%) spent money on illicit drugs the day prior to the interview, and that this was most commonly between \$20 and \$49 (15%), \$50 and \$99 (24%), and \$100 and \$199 (18%). The average amount of money spent amongst the sample was \$52 (SD=\$69, range \$0-350, median \$30). Amongst the group that did spend money on illicit drugs on the day prior to the interview, the average expenditure was \$80 (SD=\$71, range \$5-350, median \$55). Between 2004 and 2009, the proportion of participants spending any money on illicit drugs on the day prior to the interview has increased (40% in 2004, 66% in 2009: 95%CI of difference 12-38%).

Table 64: Amount spent on illicit drugs on day prior to interview, 2004-2009

Amount spent on day prior to interview	2004 N=100 %	2005 N=100 %	2006 N=100 %	2007 N=100 %	2008 N=100 %	2009 N=96 %
Nothing	60	55	45	49	46	34
Less than \$20	3	2	4	4	2	5
\$20-\$49	19	15	12	19	18	15
\$50-\$99	10	14	17	13	15	24
\$100-\$199	2	8	11	12	17	18
\$200-\$399	5	4	8	2	2	4
\$400 or more	1	2	3	1	0	0

Source: IDRS IDU interviews

12.4 Summary

Self-reported criminal activity

Sixty-two percent of the IDU respondents self-reported involvement in some type of criminal activity in the preceding month. The crimes most commonly reported were dealing drugs and property crime. Half of the IDU respondents had been arrested in the previous 12 months (49%), a rate consistent with that reported in the 2009 National IDRS sample (52%: Stafford et al., 2010). In Tasmania, most arrests related to property crime and driving offences.

Arrests

In keeping with low levels of use and availability of heroin in Tasmania among IDU participants, very few heroin-related arrests have been reported by Tasmania Police over recent years. No arrests were reported for the 2000/01-2003/04 and 2006/07-2008/09⁵⁵ financial years, with just single arrests made in 2004/05 and 2005/06.

Conversely, reports of arrests for methamphetamine-related offences had increased from 20 in 1996/97 to 179 in 2007/08. This trend was reversed in 2008/09, with 72 such arrests being reported by Tasmania Police⁵⁶.

The number of arrests related to cannabis has increased over the 2006/07-2008/09 period, following a gradual decline in the preceding four years. The majority of drug-related arrests reported in Tasmania are for cannabis offences (73-96% from 1997/98 to 2007/08).

Drug-Related Charges in Tasmanian Courts

The number of individuals before the Supreme Court of Tasmania facing charges under the *Misuse of Drugs Act 2001* has increased from 20 individuals in 2003/04 to 75 in 2007/08. It is likely that the recent apparent increase in charges may largely relate to legislative changes rather than being necessarily reflective of substantial changes in the rate of such offences.

The number of individuals before the Magistrates Court for drug-related matters has increased in 2008/09, primarily due to a large increase in the number of charges relating to possession and/or use of drugs. The number of these charges had been stable between 2003/04 and 2007/08, with between 414-517 charges, however, in 2008/09 this increased to 886 charges.

⁵⁵ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

⁵⁶ Note: 2008/09 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules

13.0 IMPLICATIONS

The findings of the Tasmanian 2009 IDRS suggest the following areas for further investigation and possible consideration in policy.

1. Proactive harm reduction interventions targeted to injectors of pharmaceuticals

Tasmania, like a number of other regions removed from heroin distribution networks (such as the Northern Territory and New Zealand) has a long-established culture of injection of opioid-based pharmaceuticals. In the 2009 Tasmanian IDRS, high levels of injecting use of morphine and oxycodone have continued. As such, research into factors that would reduce the harms associated with the tablet preparations commonly used within the local IDU population, and dissemination of this information to users through continued training of NSP staff and peer groups, are necessary.

A recent Hobart-based study investigated the efficacy of commercially available pill filters and makeshift filters at removing particle contamination from samples of morphine (Murray, 2007 unpublished). This study showed that use of the commercial filters (0.22 µm bacterial filter and 0.45 µm pill filter) dramatically reduced the presence of large particles that may potentially cause harm to the user (including the development of granulomas and blockages in the venous system). The study also found that particle contamination was greatly reduced by using makeshift filters such as roll-your own cigarette filters or cotton buds, however, they were not as effective as commercially available filters. A subsequent study in Hobart found that filtering MS Contin using commercial wheel filters in conjunction with roll-your-own cigarette filters removes 90-95% of particles and does not retain a substantial amount of morphine (McLean et al. 2009). Further work examining effects of filtration on different drug types (oxycodone, buprenorphine) with a range of filters is currently being conducted. The Tasmanian Department of Health and Human Services (Population Health) provide pill and bacterial filters to non-pharmacy NSPs, which are available to clients either free of charge or at a low cost. Given the finding that there are still notable proportions of the IDRS sample who do not use these filters, it is important that frontline workers continue to promote this practice. In addition, this information regarding effectiveness of filters should be disseminated to people who inject drugs and NSP workers, as it has the potential to assist consumers to make informed decisions about their injecting practices.

2. Monitoring and dissemination of information in regard to emergent trends in use of diverted pharmaceuticals

Oxycodone prescriptions both locally and nationally have continued a rapid increase in recent years. With diverted oxycodone use increasing amongst local IDU consumers, but still infrequent, it may be the case that knowledge of the drug amongst the consumer community is still developing. Reviews of opioid equianalgesic dose ratios suggest that oxycodone is between 1.5-2.0 times the potency of morphine (Pereira et al., 2001). Moreover, oxycodone reaching systemic circulation after injection is more than twice that after oral or rectal administration (Leow et al., 1992). While conducting interviews for the current study, it was apparent that a small proportion of both consumers and KE were not aware that oxycodone, although similar in presentation and trade name (e.g. morphine – MS Contin, oxycodone – OxyContin) is not the same drug, and is indeed more potent than morphine, and that caution needs to be exercised in its use. Further, given the talc content of the tablets, careful preparation and filtering of the drugs is

required to avoid granulomas (Roberts, 2002). Frontline workers need to be aware of these issues and to implement harm reduction interventions with potential injecting consumers of this drug.

In other jurisdictions, diverted use (both oral and injecting) of buprenorphine (Subutex) and buprenorphine-naloxone (Suboxone) has been reported by substantial proportions of IDRS IDU cohorts (Stafford et al., 2009). Subutex and Suboxone treatments are currently provided to a relatively small number of people in Tasmania. In light of the harms associated with injecting this drug identified in other jurisdictions and internationally (vascular damage, infections and overdose), and the trend in Tasmania toward injecting pharmaceutical drugs, continued monitoring is recommended as these treatments continue to be expanded across the state.

Thirdly, research examining misuse of pharmaceutical products, such as benzodiazepines in populations other than IDU is warranted, as this has been a demographic identified in both KE interviews in the current study and in associated local research (Fry & Bruno, 2002; Bruno, 2004b) but not accessed within the methodology of the IDRS, and this population has, to date, been largely invisible in research or other data collections.

3. Continued monitoring of use of over-the-counter codeine products

The 2009 IDRS and two Australian studies (Nielsen & Cameron, 2009; Frei, 2007) have recently investigated the extent of misuse of over-the-counter codeine products in different populations. Anecdotal reports from the current study suggest a population using high dosages of potentially harmful paracetamol and ibuprofen over long periods. Targeted dissemination of harm reduction information through pharmacies, GPs and the internet would assist consumers to make better informed decisions about the use of these products. Further monitoring and investigation of use patterns of OTC codeine products and related harms amongst IDU and non-injecting populations is required, which will assist in ensuring that appropriate treatment options are available to this group, as there was some suggestion by KE in the current study that the traditional treatment options available for opioid dependence were less effective amongst this group.

4. Continued monitoring and focused interventions to reduce the harms associated with benzodiazepine injection

Intravenous administration of benzodiazepines has proved resilient amongst local IDU: despite the removal of temazepam gel capsules from the market due to the harms associated with their use, alprazolam is clearly being used in similar ways by a substantial proportion of local consumers. Of particular concern is the combined injection of alprazolam and methadone syrup, as this is a practice that substantially increases the risk of overdose. There is considerable concern about this practice amongst consumers and service providers alike.

In September 2007, the Tasmanian Pharmaceutical Services Branch introduced regulatory changes affecting the prescription of alprazolam, with the aim of reducing misuse of this drug. Participants and KE in the 2009 IDRS noted decreasing availability and increasing price for alprazolam tablets. In the current study, the proportion of participants reporting recent injecting use of alprazolam was slightly lower than reported in 2008 (but not significantly). It will be important to continue to monitor these trends relating to use of alprazolam and other benzodiazepines. NSP workers are well positioned to identify changes in patterns of use of benzodiazepines and, as such, are well placed to provide harm reduction interventions to clients.

5. Implementation of harm reduction approaches to reflect the needs of methadone pharmacotherapy clients

With the entrenchment of a culture of injection of methadone syrup locally (although this remains predominantly an issue for individuals enrolled in the state methadone maintenance program injecting their own methadone), continued consideration of pragmatic harm reduction approaches to such use is warranted, either at the level of the consumer, with ongoing provision of free or affordable biological filters, and/or at the policy level, requiring use of sterile water for dilution of methadone doses (which is a recommendation of the Tasmanian Methadone Policy, 2000, but does not appear to be uniformly followed by dispensers) or switching to Biodone syrup, as this preparation does not contain the agent sorbitol, which can cause irritation and harm to the venous system.

6. Interventions to improve injection practices and injection-related health

The detailed face-to-face interviews in local IDRS studies continue to identify a relatively high level of risky injection practices amongst the consumer cohort that have not been identified in other data sources (such as NSP data or the NSP study). In 2009, 13% of participants had given a used needle to another individual in the month prior to interview and more than almost two-thirds had re-used their own injecting equipment in the month prior to the interview. It is important to note, however, that these rates are vastly improved from those reported in the 2007 study, in which around one-third of participants had lent their used needle/syringe to another person. Nevertheless, given the ongoing identification of infections and complications due to injecting (such as venous damage, abscesses and gangrene), both among the current IDU sample and identified by KE, this is clearly an ongoing issue which demands intervention.

The high level of re-use and sharing of injection equipment requires the attention of the Needle and Syringe Program as a priority to identify whether systemic barriers exist which may be hampering access to sterile injecting equipment.

In the short-term, information on procedures for cleaning injection equipment, and the harms associated with use of non-sterile equipment, should continue to be actively provided to consumers. Continued emphasis on targeted strategies to reduce the rates of sharing of needles/syringes and other injection equipment (such as tourniquets, filters and mixing containers), and to improve awareness and adoption of safe injection practices and vein care among IDU, is clearly warranted.

7. Monitoring and application of region-specific drug trend information

As the Tasmanian illicit drug use culture has been consistently shown to differ substantially from other jurisdictions (with regard to patterns of use of pharmaceutical products rather than substances such as heroin, due the low local availability of this drug), drug education programs and harm reduction information campaigns need to be tailored to the particular needs and types of substances used within the state.

It would be beneficial to continue to extend the methodology of the IDRS into the other regions of the state (such as Launceston and the North-West coast) to form a state-wide drug trend monitoring framework. There has been little specific research examining patterns of drug use within these areas, and similarly, there is a paucity of indicator data that is available on a region-specific basis. Due to their access to air and sea ports and establishment of organised motorcycle group headquarters, availability and use of illicit substances may differ substantially in these regions from patterns seen in Hobart. Pilot studies extending the IDRS methodology into the

north and north-west of Tasmania in 2003 and 2006 have provided evidence that there are clear distinctions between the drug markets in these regions (Bruno, 2004a & de Graaff & Bruno 2007b). As such, it may not be appropriate to infer similarity between drug trends and emergent issues identified in Hobart-based studies to these regions.

8. Increased attention to mental health and physical health amongst people with substance dependence issues

The current study identified, on average, poorer physical and mental health/function among the IDRS sample in comparison with samples from the general Australian population. Similarly, levels of psychological distress amongst the IDRS sample were also found to be significantly greater than reported by a sample of the general population. Almost half of the IDRS participants self-reported experiencing a recent mental health problem, and two-fifths of these did not attend a health professional for this. These findings support the large body of knowledge relating to comorbid disorders amongst this population, and underpin the need for clients of drug treatment services to be assessed and provided with treatment for physical and mental health problems, which can both be integral to substance use treatment. Partnerships and establishment of clear referral pathways between the mental health, AOD sectors and general practitioners are crucial to meet the needs of this group.

9. Evaluation of the impact of, and further targeting of, drug driving interventions among regular drug consumers

A substantial proportion of the consumers interviewed in the IDRS study reported driving while affected by drugs (four-fifths of those with access to a vehicle). This has remained stable across the past five IDRS IDU cohorts, despite the implementation of roadside drug-testing by Tasmania Police and associated driver education campaigns. While reports of driving while affected by most drug types remained relatively unchanged, there were declines in reports of driving under the influence of methamphetamine (from 74% reporting this in 2005 to 25% in 2009) and illicit methadone (from 56% reporting this in 2006 to 18% in 2009). This suggests that drug-driving interventions may indeed have an impact in this demographic, and further monitoring and evaluation of these strategies among this group is recommended, particularly where this information could be used to tailor campaigns to this particularly risky demographic.

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