TASMANIAN DRUG TRENDS 2011



Findings from the Illicit Drug Reporting System (IDRS)

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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				
DSM-III-R	Diagnostic & Statistical Manual of Mental Disorders, 3 rd Edition, Revised				
EDRS	Ecstasy & related Drug Reporting System				
HBC	Hepatitis B Virus				
HCV	Hepatitis C Virus				
HILDA	Household, Income and Labour Dynamics in Australia				
HIV	Human immunodeficiency virus				
HSI	Heavy Smoking Index				
ICD	International Classification of Diseases				
IDDI	Illicit Drug Diversion Initiative				
IDDR	Illicit Drug Data Report				
IDRS	Illicit Drug Reporting System				
K10	Kessler 10 Psychological Distress Scale				
KE	Key expert(s) (previously referred to as key informant)				
LSD	lysergic acid diethylamide				
MCS	Mental Component Score				
MDA	3,4-methylenedioxyamphetamine				
MDEA	3,4-methylenedioxyethamphetamine				
MDMA	3,4-methylenedioxymethamphetamine				
ММТ	Methadone Maintenance Therapy				
MSM	Methylsulfonylmethane				
Ν	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				
NHS	National Health Survey				

NMDS	National Minimum Data Set (for Alcohol and Drug Treatment Services)					
NSP	Needle and Syringe Program(s)					
OST	Oral Substitution Therapy					
отс	Over-the-counter					
ΟΤΙ	Opiate Treatment Index					
PBS	Pharmaceutical Benefits Scheme					
PCS	Physical Component Score					
PWI	Personal Wellbeing Index					
PWID	People who inject drugs					
REU	Regular ecstasy user					
S8	Schedule 8					
SD	Standard deviation					
SDS	Severity of Dependence Scale					
SF-8	Short Form-8 Health Survey					
SF-12	Short Form-12 Health Survey					
SIS	State Intelligence Services, Tasmania Police					
SPSS	Statistical Package for the Social Sciences					
SSRI	Specific Serotonin Reuptake Inhibitor					
STI	Sexually Transmitted Infection					
TAS	Tasmania					
TasCAHRD	Tasmanian Council on AIDS, Hepatitis and Related Diseases					
TASPOL	Tasmania Police					
ТСА	Tricyclic anti-depressant					

EXECUTIVE SUMMARY

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 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. Since this time, funding for this methodology has been provided by the Australian Government Department of Health and Ageing.

Injecting drug user survey

One hundred people that regularly injected illicit drugs (PWID) 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

Twenty-four 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, 10 reported on groups that predominantly used opioids, 6 on cannabis, 6 on groups primarily using methamphetamine, and single KE reporting on methcathinone and ecstasy.

Other indicators

In order to complement and validate the KE 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 people who inject drugs participants

Demographic characteristics of the regular injecting drug user participants interviewed were generally consistent with those interviewed in previous Hobart IDRS studies. Participants were predominantly male (55%), and had an average age of 35 years. Participants had completed 10 years of education on average, two-thirds (68%) were currently unemployed, and one-third of the sample reported a previous prison history (37%).

Half of the participants (55%) were injecting a few times per week (but not every day), with 36% injecting at least once daily. Opioids were the predominant drug of choice among the cohort (66%), and were the class of drug most injected in the preceding month amongst three-quarters of the sample (73%). Two-fifths were involved in some sort of drug treatment at the time of interview (40%).

Patterns of drug use among the PWID sample

The major trends identified in the 2011 Tasmanian IDRS report relate to indications of emerging changes in patterns of methamphetamine and pharmaceutical opioid use amongst local PWID, 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	
		Powder	Paste	Crystal	Bush	Hydro	
Prevalence of use	Low	Stable level of use; used in last 6 months by two- thirds of the sample; predominant form used	Relatively stable rate of use since 2006 (with the exception of 2008)	Following four years of decreased use, this has stabilised in 2011; least commonly used form	Gradual decline ir daily users; rer frequently used the predomin	n the proportion of mains the most illicit drug; hydro ant form used	High proportion of sample using; this has remained relatively stable since 2008; MS Contin main form
Price					_	_	
1 mg 0 1 gram	- \$75	- \$50 stable	- \$50 stable	- \$50 stable	-	-	- \$100 stable
0.5gram	\$400	φου, stable -	φ00, Stable -	φ00, Stable -	-	-	φ100, stable -
gram	\$400	\$300, stable -	\$300, stable -	-	\$25, stable \$200, stable	\$25, stable \$300, stable	-
Purity/ Potency	Mixed reports from very small number of participants; no clear trend	Low/medium purity; over last 6 months stable to decreasing purity	Medium purity; stable over last 6 months	High; generally stable over last 6 months	Medium and stable in last 6 months	High and stable in last 6 months	Pharmaceutical
Availability	Difficult/very difficult to access; unchanged over last 6 months	Very easy/easy; stable over preceding six months	Easy/very easy; stable over preceding six months	Easy/very easy; generally stable in last 6 months	Easy; however, decreased availability over preceding six months	Very easy/easy; stable over preceding six months	Easy/very easy; stable to decreasing over preceding six months

Source: IDRS PWID and KE interviews and drug use indicator data Note: based on PWID and key expert estimates of purity/potency

Heroin

The rate of recent heroin use among Tasmanian PWID cohorts decreased dramatically from 38% in 2000 to 8% in 2010. In 2011, a small increase in the proportion of participants reporting recent use was observed (19%), however the median frequency of this use was very low (4 days in the preceding six months). This was in spite of 30% of the sample reporting heroin as their drug of choice.

Very few of the PWID participants interviewed in 2011 could report on local trends in price, purity or availability of heroin. The median and modal prices that participants reported last paying for heroin were \$75 for a cap and \$400 for either 0.5g or 1.0g. It should be noted that very few participants were able to comment. The majority of participants who commented noted that heroin was difficult to access in Tasmania, and that this situation had not changed in the preceding six months. No clear trend was discernible regarding purity of heroin

The clear majority of indicators – such as the continuing low prevalence of heroin use among clients of the state's Needle and Syringe Program (NSP), the low median rate of use of heroin (four days in the last six months among those who had used the drug) and that, of the 30% of the PWID sample that reported heroin as their drug of choice, only half had recently used heroin – indicated that the low availability of heroin in the state, identified in earlier IDRS studies, continued in 2011.

Methamphetamine

Almost all PWID participants in 2011 (98%) reported lifetime use of some form of methamphetamine (powder, base/paste, crystal/ice or liquid). Seventy-seven percent of the sample reported use of any form in the six months preceding the interview, at a median frequency of 20 days, equating to use on average once per week. This level of use is similar to that reported between 2008 and 2010 (70-80%), but lower than reported between 2000 and 2007 (83-95%).

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 PWID 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 of PWID participants reporting recent use of methamphetamine stabilised (83% in 2006; 88% in 2007). Since 2008, the rate of recent use amongst IDRS participants has been somewhat lower (ranging between 70-80%), as has the rate of transactions through the statewide NSP (ranging between 31-36%).

The most commonly used form of the drug was powder methamphetamine, used by 67% of participants. Use of base/paste methamphetamine decreased dramatically in 2008 from 79% of the sample in 2005 to 25% in 2008. This declining trend stabilised in 2009, and in 2011, 39% reported recently using this form. Use of crystal methamphetamine declined from 69% of the 2003 cohort to 26% in 2011.

In 2011, frequency of use of any form of methamphetamine in the preceding six months was 20 days (out of a maximum of 180 days), similar to the rate reported in 2010 (24 days). In the current sample, the median frequency of use for powder methamphetamine was 10 days, for base/paste seven days, and for crystal methamphetamine six days.

Market prices locally for powder and base/paste 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 either form. Modal purchase prices for larger amounts of powder and 'base/paste' have also remained stable since 2004 at \$300 per gram. 'Point' purchases of crystal methamphetamine have also remained stable at \$50 since 2004 (no price data was provided by participants for gram purchases in 2011). Participants predominantly regarded the prices of each presentation of the drug as remaining 'stable' in recent months.

PWID participants reporting on subjective purity of powder methamphetamine considered this to be 'low' to 'medium', and that this had either remained stable or decreased over the preceding six months. 'Base/paste' was considered by participants to be 'medium' in subjective purity; and that this had remained stable over the preceding six months. Participants considered ice/crystal methamphetamine used locally as 'high' in subjective purity, with potency remaining stable in recent months.

Participants interviewed in 2011 regarded powder form of methamphetamine as 'easy' or 'very easy' to access, with availability stable in recent months. Similarly, the majority of participants who had recently used base/paste methamphetamine reported that it was 'easy' or 'very easy' to access, and that this situation had remained stable in the preceding six months. Amongst the participants able to comment on trends for crystal methamphetamine, availability was considered to be either 'easy' or 'very easy', and that this situation had remained unchanged over the preceding six months;

Trends in 2011 represent subtle changes both for the methamphetamine market overall (for the PWID demographic) and within it; in contrast to trends in previous years, indicators suggest that overall use of methamphetamine has been lower since 2007 (both in IDRS and NSP data), and that amongst those recently using this drug the majority of participants reported powder as the predominant form of methamphetamine used. Use of crystal methamphetamine appeared to have stabilised in 2011, after several years of decreasing use. 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% in 2006 to 5% in 2011 (Matthews, Peacock & Bruno, 2012). These findings suggest a limited crystal methamphetamine market in Tasmania in 2011.

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 PWID participants reported recent use of the drug (7%), and the median frequency of this use was very low (two days of the last 180).

Reflecting the very low level of cocaine use amongst IDRS participants, very few participants were able to comment on trends related to price, purity and availability. Participants noted a one gram purchase cost a median price of \$200, and availability was generally considered to be difficult. In keeping with this trend of low level use, Tasmania Police have made very limited numbers of cocaine seizures in the last decade.

These patterns of low levels of availability and use in these cohorts appear to have remained reasonably stable over the past few years. In contrast to this, 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, Peacock & Bruno, 2012) which may provide indications of emerging changes in local markets for the drug.

Cannabis

Almost all participants in the 2011 Tasmanian sample reported lifetime use of cannabis (97%), with most reporting use in the preceding six months (78%). The median frequency of this use was daily, which has been consistent in the Tasmanian PWID cohorts since 2000; however, the proportion of PWID participants reporting daily use has decreased from 75% in 2001 to 49% in 2011. Those PWID participants who used cannabis predominantly reported use of hydroponically-cultivated cannabis. While cannabis remains the most commonly used illicit drug, both in the PWID 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 past-year use of cannabis in Tasmania declined from 15.8% in 1998 to 8.6% of those aged 14 years and over in 2010.

Participants reported the modal price of a 1g purchase of bush/outdoor-cultivated cannabis was \$25; the median price for a quarter ounce was \$70, and one ounce \$200. The majority of participants who commented reported stable price trends for this form of cannabis over the preceding six months. Hydroponically-cultivated cannabis was reported to cost a modal price of \$25 for 1g; the median (and modal) price for a quarter ounce was \$100, and \$300 for one ounce. The majority of participants who commented reported stable price trends over 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' in recent months.

Participants commenting on cannabis reported that hydroponic cannabis was more easily accessible than outdoor forms: however, both forms were considered 'easy' to obtain.

Other opioids

Morphine

Three-quarters (73%) of the Tasmanian sample had used morphine that was not prescribed to them in recent months, with all except three injecting the drug in this time. MS Contin remained the predominant preparation used by this group, used by 61% of the sample as a whole, with Kapanol the next most commonly used (by 34% 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 PWID 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 rates of 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 2011, 75% of the sample reported recent use of any form; at a frequency of 48 days in the preceding six months.

The modal price reported by PWID for all commonly-used morphine formulations was \$1 per mg. Prices have remained relatively stable between 2010 and 2011, following an increase from previous reports. Morphine was considered 'easy' to 'very easy' to obtain by those who commented, and this situation was reported as remaining stable in recent months by a majority of participants, however, a notable minority noted decreasing availability over this period. The overall stable, high level of use and price of morphine indicated a strong local market.

Oxycodone

Illicit oxycodone use among local PWID samples increased in recent years, from 30% reporting use in 2005 to 60% in 2010. This trend was reversed in 2011, with 45% of the sample reporting recent use, at a median frequency of seven days (equates to approximate use once per month). 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. However, between the 2007 and 2008 surveys, consumer reports suggested the cost of these drugs increased (the modal price estimate for 80mg OxyContin tablets doubled from \$40 to \$80 between 2007 and 2008); subsequently stabilising since this time, and are now price-equivalent with morphine (\$1/mg).

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, however, a notable minority noted decreasing availability. The combination of the rapidly increasing rate of prescription of oxycodone (both nationally and locally), the apparent stable, high demand in the morphine market, and its perceived similarity among users to morphine, render it likely that oxycodone use may continue to be relatively common within the local PWID market. Given the high relative potency of oxycodone, and its possible synergistic effects with other drugs, 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 doctorshopping, as the vast majority report obtaining them 'illicitly', i.e. not on a prescription in their name.

Methadone syrup

Illicit methadone syrup was used by just two-fifths of the sample (40%) in the past six months, at a median frequency of seven days, equating to use approximately once per month. Almost half of IDRS respondents reporting recent use of illicit syrup (48%) were themselves enrolled in methadone maintenance treatment during this period. 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 (12 days) to those who had not accessed this form of treatment (6 days).

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 self-treatment for opioid dependence and/or mental health problems, and intoxication. 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 2011, consistent with the majority of reports since 2001. Participants reported prices to be stable in recent months. Methadone syrup was most frequently purchased from friends. The majority of participants noted that availability of illicit methadone syrup was 'difficult' or 'very difficult'; and that this situation had either remained stable or decreased in the preceding six months

There have been continuing reports of participants injecting combinations of alprazolam and methadone syrup in the past seven 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 PWID participants and KE noted as concerns in regard to this trend.

Physeptone

Relatively consistent with previous IDRS reports, almost two-fifths of the sample (37%) reported recent use of illicit Physeptone (methadone tablets), at a median frequency of seven days (equates to use approximately once per month). The modal price of illicit Physeptone tablets doubled between 2010 and 2011 from \$10 to \$20. Physeptone was regarded as 'difficult' or 'very difficult' to access, with this level of availability remaining stable or declining somewhat in the preceding six months. Physeptone was most commonly sourced from friends.

Benzodiazepines

The majority of participants reported lifetime use of prescribed or non-prescribed benzodiazepines (87%), and four-fifths of the sample reported recent use (81%). Recent use of non-prescribed alprazolam was reported by 40% of the sample, at a median frequency of six days (equating to

approximately once per month), and other non-prescribed formulations of benzodiazepines were used by 51% of the sample, at a median frequency of 20 days (equating to use approximately once per week).

Participants were divided with regard to ease of access of illicit benzodiazepines: two-fifths of the sample considered access to be either 'easy' or 'very easy'; whilst two-fifths noted it was either 'difficult' or 'very difficult' to access these drugs. 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 PWID between 2002 and 2003 (arising from the restriction and eventual removal of the preferred temazepam gel capsules from the market), injection of benzodiazepines remained an ongoing part of the local drug culture, with Tasmanian PWID continuing to inject at rates higher in comparison to those identified in other Australian jurisdictions. As noted in previous IDRS studies, it was also clear that alprazolam (Xanax in particular) appeared to have largely replaced the local illicit market for temazepam gel capsules among those PWID 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. Between the 2003 and 2008 studies, the proportion of the PWID samples reporting recent injection of alprazolam increased from 11% to 30%. In 2010, this rate of injection decreased significantly to 14%, however, in the current study, this rate again increased – albeit not significantly – to 22% of the sample.

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 PWID, 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

One-third of the sample reported ever having experienced an opioid overdose (36%), and 7% reported this occurring in the preceding 12 months from use of morphine, methadone, heroin or oxycodone, or a combination of these.

Fatal overdose

Opioids

The number of accidental deaths in Tasmania attributable to opioid use in 2007 was 11, which equates to a rate of 23 per million of population. In 2008 and 2009, smaller numbers of deaths due to opioid use were reported, however, the precise number was not provided to protect confidentially. Nationally in 2009, 433 deaths were attributed to such causes, which equates to a rate of 19 per million population. This rate was slightly higher than reported in 2008 (n=337, 16 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 0.05% in 2010/11.

The current Tasmanian IDRS study identified a similar pattern with rates of sharing amongst PWID participants increasing sharply in 2007, and decreasing over the subsequent periods. Eight 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%) – a year in which a significantly greater proportion of participants reported sharing injecting equipment – 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 10% in 2011, returning to a similar level to that reported in other Tasmanian IDRS reports.

Half of the consumers interviewed (51%) 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'), 1ml syringes, 3/5ml barrels, and 20ml barrels. Requiring equipment after-hours (nights or weekends) was 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

Sixty-nine percent of participants reported experiencing a mental health problem in the preceding six months. Depression and anxiety-related disorders were the most commonly cited. Psychological distress, as measured by the Kessler 10, and mental health component of health, as measured by the Short Form-12 Health Survey (SF-12), demonstrate substantially higher rates of psychological distress in the IDRS sample in comparison to the Australian national average.

Self-reported general health

Self-reported general health amongst PWID participants was generally poorer than was reported for general population samples. IDRS participants scored lower on the Physical Component of the SF-12 than was reported in the National Health Survey (NHS) (ABS, 1995), and lower in all measures of the Personal Wellbeing Index than reported for the general Australian population.

Driving risk behaviour

Two-thirds of the consumers interviewed who 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 (67%). Cannabis 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 five local IDRS studies, the level of drug-driving involving methamphetamine decreased from 74% of those who had driven in 2005 to 20% in 2011(possibly reflecting the trend toward decreasing use of methamphetamine amongst IDRS cohorts), as has the proportion reporting driving after using illicit methadone (56% in 2006 v. 15% in 2011).

Law enforcement trends among PWID

Self-reported criminal activity

Two-fifths of the PWID respondents self-reported involvement in some type of criminal activity in the preceding month (41%). The crimes most commonly reported were property crime and dealing drugs. One-third of the PWID respondents had been arrested in the previous 12 months (34%), a rate slightly but not significantly lower than that reported in 2010 (47%). In Tasmania, most arrests related to property crime.

Arrests

In keeping with low levels of use and availability of heroin in Tasmania among PWID 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 2006/07-2010/11¹ 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 2006/07. This trend has since reversed, with 95 such arrests being reported by Tasmania Police in 2010/11².

The number of arrests related to cannabis decreased from 1,830 in 2002/03 to 929 in 2005/06, however, in 2007/08, the number of such arrests increased to 1,954, and has remained largely unchanged since this time.

Drug-related charges in Tasmanian Courts

The number of individuals before the Magistrates Court for drug-related matters has remained relatively stable between 2003/04 and 2010/11³, with the exception of an increase in 2008/09. Possession and/or use of drugs charges were the most commonly reported charges made under the Drugs of Misuse Act in 2010/11.

¹ Note: 2010/11 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. ² Note: 2010/11 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: In 2010/11, the Magistrates Court introduced a new data coding system (ASOC 2008), which means direct comparisons with data from previous years should be made with caution.

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 KE 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 2011 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 2010 (Bruno & McLean 2000, 2001, 2002, 2003, 2004a; Bruno, 2005, 2006; de Graaff & Bruno, 2007a, 2008, 2009, 2010, 2011) 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 & Burns; 2009, 2010, 2011) are available as technical reports from the National Drug and Alcohol Research Centre, University of New South Wales⁴.

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.

⁴ 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 (PWID, or alternatively referred to as 'consumers'), a qualitative study of professionals ('key experts', KE) 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 PWID 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 2011 Tasmanian IDRS are also compared with findings from the previous Tasmanian studies (Bruno & McLean, 2000, 2001, 2002, 2003, 2004a, 2005; Bruno, 2006; de Graaff & Bruno 2007a, 2008, 2009, 2010, 2011) to determine any changes in drug trends over time.

2.1 Survey of people who inject drugs (PWID)

The PWID survey was conducted during June 2011, 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, Darke & Godycka-Cwirko, 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 40 and 60 minutes (averaging 60 minutes, ranging from 30 to 170 minutes), and participants were reimbursed \$40 for their time and out-of-pocket expenses.

Data analysis was conducted using PASW for windows, release 19.0.0.1 (SPSS Inc., 2010).

2.2 Survey of key experts (KE)

Twenty-four KE, who were working with illicit drug users in the greater Hobart area, participated in face-to-face interviews between July and early September 2011. Thirteen KE (54%) were recruited from the pool of KE that had taken part in the 2010 IDRS (12 had also taken part in the 2009 IDRS; 9 were also interviewed in 2008, six interviewed in 2007, three in 2006 and one during the 2000-2005 studies). All other participants in the current study were identified and recruited either as replacements for the 2010 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=2), members of the Department of Justice (law enforcement professionals n=3, policy n=1, medical officer n=1), consumer advocates (n=2), and single KE from the legal profession, emergency medicine, and a local community development group. The remainder worked specifically in the drug and alcohol field, comprising counsellors and outreach workers (n=4), needle and syringe outlet workers (n=4), medical practitioners prescribing methadone or specialising in alcohol and other drug treatment (n=3) and a pharmacist (n=1).

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 19 individuals had a median of 4 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 20 consumers in this period. Although several KE came from generic services, many worked specifically with special populations, including young people 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. Ten KE reported on groups that predominantly used pharmaceutical opioids (methadone, morphine, and oxycodone), six KE respectively reported on groups that predominantly used cannabis or amphetamines, and single KE commented on ecstasy and methcathinone.

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 60 minutes to administer. Notes were taken during the interview and were subsequently transcribed. 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 PASW for windows, release 19.0.0.1 (SPSS Inc., 2010).

2.3 Other indicators

To complement and validate data collected from the KE study and PWID survey, a range of secondary data sources was examined, including 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 27,617 occasions of service in the 2010/11 financial year. In previous years, a discrepancy was found in these datasets: in 2000/01, only 44% of the 32,507 occasions of service included information regarding principal drug used⁵. Since this time, reporting has improved greatly. For example, in 2010/11, 99% of occasions of service gathered data on sex of the client and age group.

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 PWID 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 2010. Since 1995, the number of participants in the study had steadily climbed from six to 106 in 2010⁶. In the 2008 survey, the number of participants was substantially lower (n=57); however, in 2009 the number increased again to 122 (Iversen, Topp & Maher, 2011; The Kirby Institute, 2011).

2.3.3 The 1998, 2001, 2004, 2007 and 2010 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 community, surveying 1,031 individuals in Tasmania in the 1998 study, 1,349 individuals in 2001, 1,208 in 2004, 1,143 in 2007, and 1,060 in 2010 who were over 14 years of age, could speak English, and who lived in private dwellings (Australian Institute of Health and Welfare, 1999, 2002b, 2005b, 2008b, 2011). The survey investigated use of the following illicit drugs relevant to this report: cannabis; methamphetamine; hallucinogens; cocaine; ecstasy/designer drugs; and heroin. Respondents were

 $^{^{5}}$ 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; 99% in 2007/08 and 2008/09.

⁶ The numbers of participants in each survey: 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; 2008 n=57; 2009 n=122; 2010 n=106: Iversen, Topp & Maher, 2011; The Kirby Institute, 2011)

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 prices. 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 2010/11 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; 2008/09 n=734; 2009/10 n=754). In the 2010/11 financial year, the Justice Department utilised both standard urine screen tests and the insta-testing system for the presence of drugs. A total of 862 screens for drugs were carried out during the 2010/11 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 Australian Bureau of Statistics (ABS) has changed the way they collate deaths data, making comparisons to earlier overdose bulletins published by the National Drug and Alcohol Research Centre difficult. Since 2003, the ABS has progressively ceased visiting jurisdictional coronial offices to manually update causes of death that had not been loaded onto the computerised National Coronial Information System (NCIS). It was in 2006, that the ABS began to rely solely on data contained on NCIS at the time of closing the

deaths data file. Given that coronial cases can take to some time to complete, this is likely to have an impact on the number of opioid-related deaths recorded at a national level. The ABS have implemented a number of additional strategies, including examination of death certificates and coroners reports, to ensure that as many of the deaths as possible have a cause of death coded at the time the data file is closed. Accordingly, only drug-related deaths for 2006-2009 are reported here. These data should be interpreted in conjunction with the ABS Technical Note 2: Coroner Certified Deaths, 3303.0 2008 (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 2008/09 financial year periods (data for 2009/10 and 2010/11 were not available at the time of publication). 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; 1,556 in the 2008/09 financial year, 1,416 in 2009/10 and 1,414 in 2010/11).

3.0 DEMOGRAPHICS

Key Points:

- A total of 100 participants were interviewed for the IDRS in 2011;
- Mean age was 35 years (range 18-55 years);
- 55% of the sample were male;
- Two-thirds of the sample were unemployed at the time of the interview;
- Two-fifths of the sample were engaged in a form of drug treatment at the time of the interview;
- Almost two-fifths of participants had a prison history.

3.1 Overview of the PWID sample

A total of 100 consumers were interviewed. The demographic characteristics of the PWID sample are presented in Table 1 below. The mean age of participants in the 2011 study was 35 years (SD = 8.9, range 18-55 years). The average age of the cohort over the preceding twelve years has increased (from 26 years in 2000). Fifty-five percent of the 2011 cohort was male. Between 2002 and 2011, a trend toward decreasing proportions of males was reported, declining from 71% to 55% in 2011 (χ^2 (1_{n=200})=4.83, p=0.03).

The majority of participants described themselves as heterosexual (88%), with smaller proportions identifying as bisexual (7%) or homosexual (2%). Around one-third of the sample reported they were either single (35%), had a partner (30%) or were married/de facto (29%) at the time of the interview. English was the dominant language spoken amongst all participants. Among those interviewed in 2011, there was a mean of 10.2 years of school education (SD = 1.5, range 6-12), similar to that of cohorts in previous years. Half of the participants interviewed in the IDRS had attained a trade or technical qualification (48%); 11% had completed tertiary studies at a university or college, and two-fifths of the sample had not completed any form of tertiary education (41%).

Characteristic	2010 N=100	2011 N=100
Age (mean years, range)	35 (range 19-60)	35 (range 18-55)
Sex (% male)	61	55
Employment (%):		
Not employed/on a pension	82	68
Full-time	3	6
Part-time/casual	12	9
Home duties	3	10
Student	0	5
Work and study	0	1
Received income from sex work last month	0	0
Aboriginal and/or Torres Strait Islander (%)	11	12
Sexual orientation (%):		
Heterosexual	83	88
Bisexual	6	7
Gay or lesbian	11	2
Other	0	3
Relationship status (%):		
Married/de facto	17	29
Partner	39	30
Single	44	35
Separated	0	2
Divorced	0	3
School education (mean no. years, range)	10.0 (range 4-12)	10.2 (range 6-12)
Tertiary education (%):		
None	54	41
Trade/technical	40	48
University/college	6	11
Currently in drug treatment^ (%)	40	40
Prison history (%)	43	37

Table 1: Demographic characteristics of the PWID sample, 2010-2011

Source: IDRS PWID interviews

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

Two-thirds of the 2011 sample (68%) was not employed at the time of the interview, a rate lower than reported in 2010 (82%: χ^2 (1_{n=200})=4.51, p=0.034). At the time of the interview, 10% of the sample was involved in home duties, 9% in part-time or casual work, and 6% in full-time work. Almost all participants reported receiving some form of government benefit in the preceding six months (93%); 17% reported receiving income from a wage or salary and 15% from criminal activity in this period. In keeping with this, the majority of participants reported their main source of income in the preceding six months as a government benefit (86%, n=86), with small minorities reporting a wage or salary (11%, n=11) and criminal activity (2%, n=2). The average annual income received by the sample in the preceding 12 months was \$28,667 (median \$21,500, SD=\$22,214, range \$13,000-\$72,000).

Amongst the 93 participants reporting having received any government benefit in the preceding six months, 16% (n=15) reported these payments had been stopped during this period. Half of this group (n=8) reported this had occurred due to not meeting administrative requirements such as lodging forms and attending appointments.

Participants were also asked questions about financial stress. These questions were taken from the Household, Income and Labour Dynamics in Australia (HILDA) Survey (Wilkins et al. 2010). This study, which is conducted by the Melbourne Institute of Applied Economic and Social Research, reports representative national longitudinal data of residents of Australian households occupying private dwellings on four broad life domains: household and family life; incomes and economic wellbeing; labour market outcomes; and life satisfaction, health and wellbeing. The questions taken from the HILDA survey focused on measures of financial stress. The Tasmanian IDRS participants scored significantly lower on all measures of financial stress (Table 2): half of the sample reported that in the preceding six months, they were unable to pay a power, phone or gas bill on time (48%); two-fifths (41%) reported they had been unable to pay their rent or mortgage in the preceding six months; 55% noted they had pawned or sold something to access cash; 62% had gone without meals due to lack of money; 29% had been unable to heat their home; and four-fifths of the sample has asked friends or family for financial help in this period (82%).

	2007 HILDA sample N=12,789 %	2011 Tasmanian IDRS sample N=100 %	Significance [#]
In the last six months:			
Could not pay power, phone or gas bill on time	11	48	p<0.001
Could not pay rent or mortgage on time	6	41	p<0.001
Pawned or sold something	4	55	p<0.001
Went without meals	3	62	p<0.001
Unable to heat home	2	29	p<0.001
Asked for financial help from family or friends	12	82	p<0.001

Table 2: Financial stress among IDRS and HILDA participants

Source: IDRS PWID interviews, Wilkins et al. 2010

[#]using χ^2 tests with 1 degree of freedom

The sample was drawn from suburbs within the northern, eastern, southern, and inner city areas of Hobart, with three-quarters of the participants either living in close proximity to Hobart city (35%) or Glenorchy city (38%). A more detailed breakdown, on the basis of local council areas is as follows: Hobart City (37%); Glenorchy City (35%); Clarence (14%); Kingborough (6%); New Norfolk (2%); and small proportions form Brighton, Sorrel and the Huon Valley (1% respectively). The majority of participants lived in their own (rented or owned) house or flat (78%), 10% reporting no fixed address, 9% reported living in their family home, and 2% were living in a boarding house or hostel.

One-third of the sample (37%) had been imprisoned at some stage in their lives: this was slightly, but not significantly, lower than reported in previous IDRS surveys (between 43 and 47% from 2008-2010). The proportion of males reporting a prison history was 54% (n=29), and the proportion of females was 15% (n=6), a difference that was statistically significant (χ^2 (1_{n=100})=14.73, p<=0.001). A similar pattern was found in the 2008 to 2010 surveys.

Notably, two-fifths of the sample (40%) was in some form of drug treatment at the time of interview. This is the same as the rate reported in 2010 (40%), but is significantly lower than reported in 2009 $(56\%; \chi^2 (1_{n=200})=5.13, p=0.02)$, and the preceding three years (56-58%).

The demographic characteristics of the Tasmanian 2011 PWID sample are largely similar to the previous Tasmanian PWID samples (Bruno & McLean 2001, 2002, 2003, 2004a; Bruno 2005, 2006; de Graaff & Bruno 2007a, 2008, 2009, 2010, 2011). There have been substantial overlaps in those participating in the IDRS studies over time: of the 100 participants in the 2011 study, more than half (58%) had previously participated in another IDRS study. Of this group, 28 participated in the 2010 study, 29 in 2009, 15 in 2008, 13 in 2007, 10 in 2006, five in 2005, six in 2004 and four in 2003. 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 2010 and 2011 local PWID cohorts, small but notable differences were observed: the proportion that was not employed at the time of interview decreased significantly (82% v. 68% unemployed respectively: χ^2 (1_{n=200})=4.51, p=0.03), and the rate of participants identifying as homosexual decreased significantly from 11% in 2010 to 2% in 2011 (χ^2 (1_{n=100})=5.27, p=0.02). These variations may have an impact on the patterns of substance use reported amongst the PWID participants, and reference to these, along with other notable discrepancies between the 2011 PWID and previous PWID samples, will be discussed in subsequent sections of this report.

3.1.1 Age and sex of the PWID sample over time

As could be expected, with a noteworthy overlap in participants across these annual samples, the mean participant age in the Tasmanian PWID cohorts steadily increased between 2002 and 2011, from 28 years to 35 years. In 2011 however, the trend of increasing rates of participants aged 35 years or older decreased slightly (52% in 2010 to 46% in 2011), with a small corresponding increase in participants aged between 25 and 34 years (30% in 2010 and 40% in 2011). 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 25⁷ (Figures 1, 2 and 3). In 2010/11, half (51%) of non-pharmacy NSP transactions involved clients aged 35 or over, whereas this group comprised only 14% of clients in 2000/01. Interestingly, an increasing age of PWID 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 (Iversen, Topp & Maher, 2011).



Figure 1: Age distribution of PWID in the Tasmania (Hobart) IDRS samples, 2000-2011

⁷ In 2008/09, changes were made to the way in which this data was collected (i.e. age categories), rendering more specific comparisons with previous years not possible.

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





Source: Tasmanian Needle and Syringe Program

Note: In 2008/09, changes were made to the way in which this data was collected (i.e. age categories), rendering comparisons with previous years not possible

Within the IDRS PWID cohorts, the proportion of male participants has gradually declined: in the 2001 study 75% of participants were male, this decreased to 55% in 2011 (χ^2 (1_{n=200})=7.93, p=0.005) (Figure 4). Data from the Tasmanian NSP program shows relatively stable proportions of male clients, ranging between 67% and 77% of all client transactions from 2001 to 2011 (NSP: Figure 4).





Source: IDRS PWID interviews and Tasmanian Needle and Syringe Program

3.2 Current and previous drug treatment

Two-fifths of the participants (39%) reported being engaged in some form of drug treatment at the time of interview. This is similar to the rate reported in 2010 (40%), but is significantly lower than reported in 2009 (56%: χ^2 (1_{n=200}) =5.13, p=0.02), and lower than rates reported between 2006 and 2008 (56-58%). Involvement in methadone maintenance treatment ranged between 43% and 51% from 2005 to 2009; however, in the subsequent two years, this rate decreased to 31% and 34% respectively (Figure 5). The proportion of participants reporting current engagement in Subutex (buprenorphine) or Suboxone (buprenorphine-naloxone) treatments has remained low and stable, with just 3% of the 2011 sample reporting this. In 2010, 7% of participants reported engagement in either Subutex or Suboxone treatment. At the time of the interview, just 2% of the sample reported accessing counselling services for drug use issues in the preceding six months, whilst over the preceding six months, 4% of the sample reported this (Table 3). This marks a continuation of the decreasing trend toward access of this form of treatment since 2004 (25%: χ^2 (1_{n=200})=16.13, p<0.001) (Table 3).

For the 2011 cohort, mean duration of time in methadone maintenance treatment was 84 months (SD=65.3, range 6-216). For the six months preceding the interview, two participants reported accessing a therapeutic community and a single participant reported accessing detoxification, and no participants reported having accessed narcotics anonymous or naltrexone treatment in this period.

Figure 5: Proportion of the PWID sample accessing methadone or buprenorphine maintenance treatments at the time of interview, 2001-2011



Source: IDRS PWID interviews

 Table 3: Proportion of participants reporting treatments other than opioid replacement

 pharmacotherapy in past six months, 2001-2011

Treatment type	2001 %	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %	2010 %	2011 %
AOD Counselling	11	19	18	25	17	20	17	11	10	3	4
Detoxification	7	7	5	3	0	0	4	5	0	1	1
Therapeutic community or rehabilitation	0	0	2	1	0	0	1	2	0	1	2
Naltrexone	0	0	0	1	0	5	0	0	0	0	0
Narcotics Anonymous	0	0	0	0	0	0	0	0	0	1	1
Other	3	2	4	2	2	2	2	1	1	0	0

Source: IDRS PWID interviews

Note: Multiple responses could be selected
4.0 CONSUMPTION PATTERNS

Key Points:

- The mean age of first injection was 20 years (range 12-15 years);
- Two-thirds of the sample reported a form of methamphetamine as the first drug they injected;
- Two-thirds of the sample reported an opioid as their drug of choice;
- Almost three-quarters of the sample reported an opioid as the drug most frequently injected in the preceding month;
- Polydrug use was common across the sample.

4.1 Drug use history and current drug use

The mean reported age at first injection was 19.8 years (SD=7.1, range 12-51) (Table 4). This was similar to the age reported in 2010 (20.0 years, SD=7.0, range 12-44), and previous samples. There were no significant sex differences in the age of first injection (20.6 years for females v. 19.1 years for males; p=0.3). Participants reporting an injecting career (total time since first injection of a drug) of five years or less reported the mean age at first injection as 26.9 years (SD=13.3, n=13) - notably older than the mean age reported by participants who had been injecting for 6 years or more (18.7 years, SD=5.0).

The mean injecting drug using career for the 2011 cohort was 15.1 years (SD=8.42, range <1-38 years). Males reported a mean injecting career of 15.9 years (SD=8.6, range <1-38), and females reported a mean duration of 14.1 years (SD=8.2, range <1-30 years), a difference that was not statistically significant (p=0.3). Sixty-five percent of the cohort reported methamphetamine as the first drug injected, 18% reported morphine and 10% heroin (Table 4).

Thirty percent of the 2011 IDRS PWID cohort reported that heroin was their drug of choice, and one-quarter respectively preferred morphine or methamphetamine (25% respectively). Overall preference for any form of opioid (including heroin, methadone, morphine and oxycodone) was 66% in 2011: similar to rates reported in previous reports, with the exception of 2005 and 2007 (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 30% of the cohort, morphine (39%) and methadone (26%) 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%; between 2005 and 2011 this rate has fluctuated around this range, and was 26% in 2011 (Figure 6). The proportion of participants reporting morphine as the drug most injected in the preceding month was higher between 2008 and 2011 (ranging between 33-41%) than in samples prior to 2008 (e.g. 2007: 21% v. 2011: 39%: χ^2 (1_{n=200})=6.88, p=0.009).

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. By 2008, this rate has decreased to 17% (χ^2 (1_{n=200})=19.32, p<0.001), and has increased only slightly since this time (26% in 2011: p=0.17).

As can be seen in Figure 6, the higher levels of use of methamphetamine in the 2005 and 2007 cohorts has decreased markedly since 2007, whilst the rate of morphine as the drug most injected has increased. These changes may represent availability of drugs or drug preferences.

Variable	2010	2011 N=100
Age first injection (years)	20.0 (range 12-44)	19.8 (range 12-51)
First drug injected (%)	, ,	
Heroin	11	10
Methamphetamine	62	65
Methadope	4	1
Mornhine	17	18
Oxycodope	3	0
Cocaine	0	0
Drug of choice (%)	0	0
Heroin	20	30
Cocaine	1	0
Mothamphotamino (any form)	19	25
Spood	10	2J 10
Speed Paga	12	10
Dase Crystal (ico)	1	2
Mathadana	7	0
Mernhine	7	0
Norphine	20 E	25
Oxycodone	5	3
Benzoalazepines	4	2
Cannabis Mathardana and kannadianan ingg	5	4
Methadone and benzodiazepines	0	0
Drug injected most often in last month (%)		
Heroin	0	1
Cocaine	0	0
Methamphetamine (any form)	20	26
Speed	16	20
Base	4	5
Crystal (ice)	0	1
Methadone	26	26
Morphine	38	39
Benzodiazepines	0	0
Buprenorphine	0	2
Oxycodone	12	5
Most recent drug injected (%)		
Heroin	0	3
Cocaine	1	0
Methamphetamine (any form)	23	23
Speed	18	17
Base	5	4
Crystal (ice)	0	2
Methadone	20	21
Buprenorphine	0	2
Morphine	42	44
Oxycodone	9	3
Frequency of injecting in last month (%)		
Weekly or less	6	7
More than weekly, but less than daily	50	55
Once per day	23	23
2-3 times a day	15	13
>3 times a day	5	0
Polydrug use		
Mean number of drug classes ever used* (range)	6.6 (3-7)	6.5 (4-7)
Mean number of drug classes used* in last 6 months (range)	5.2 (2-7)	5.2 (2-7)
Mean number of drug classes ever injected^ (range)	2.6 (1-4)	2.8 (1-5)
Mean number of drug classes injected [^] in last 6 months (range)	1.9 (1-3)	2.0 (1-3)

Table 4: Injection history, drug preferences and polydrug use of participants, 2010-2011

Source: IDRS PWID 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)



Figure 6: Drug injected most last month, 2000-2011

Participants were asked about the frequency of injection in the month preceding the interview (Table 4). Just over half of the sample reported injecting more than weekly but not daily (55%), 36% injected at least once per day, and 7% had injected weekly or less. The proportion of IDRS PWID respondents reporting daily injection has remained at approximately one-third of the participants between 2005 and 2011, with the exception of 2010 (43%), but this difference was not statistically significant (p=0.08).

Respondents reported on their drug use on the day prior to their interview (Table 5). All participants reported using a drug on the previous day (notably, in contrast to just 46% reporting having spent money on drugs on that day). Cannabis was the most commonly used drug on the day prior to interview, with 64% of respondents reporting this. Use of benzodiazepines (38%), methadone (34%, although used by only four people not currently enrolled in methadone maintenance treatment), alcohol (29%) and morphine (24%) were also commonly reported on the day prior to the interview. Between 2005 and 2009, the rate of use of methadone (both prescribed and non-prescribed) remained stable (41-46%), however, this rate decreased slightly in 2010 and 2011 (32% and 34% respectively). This difference was not statistically significant (p=0.38), and is largely due to the lower rate of participants reporting engagement in methadone maintenance treatment at the time of the interview.

Source: IDRS PWID interviews

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

Drug*	2005	2006	2007	2008	2009	2010	2011
	%	%	%	%	%	%	%
Cannabis Methadone^ Benzodiazepines Morphine Methamphetamine: powder Methamphetamine: base/paste Methamphetamine: crystal Pharmaceutical stimulants Heroin Cocaine Alcohol Antidepressant Buprenorphine Buprenorphine-naloxone Oxycodone Other opiates <i>Did not use any drugs</i>	57 41 38 13 9 10 3 2 1 0 20 9 3 0 1 3 7	60 46 39 22 5 5 4 0 0 0 16 11 1 0 3 7	62 45 11 18 3 0 1 0 22 6 7 0 4 2 3	71 41 33 31 4 0 1 2 0 0 13 1 3 2 1 3	57 41 39 28 9 2 2 2 0 0 22 4 5 4 2 4 5 4 2 4 5	60 32 28 10 3 0 3 0 1 27 5 2 1 9 2 1	64 38 24 8 3 1 2 1 0 29 17 3 2 6 8 <i>0</i>

Table 5: Drugs taken on the day prior to interview among the PWID sample, 2005-2011

Source: IDRS PWID 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 injected in public spaces (18%). The proportion of the cohort reporting injecting in public places has significantly decreased since 2007 (32% in 2007 v. 18% in 2011: χ^2 (1_{n=200})=4.5, p=0.03).

Table 6:	Location in which res	pondents last in	iected, 2007-2011
]

	2007 N=98 %	2008 N=100 %	2009 N=100 %	2010 N=100 %	2011 N=100 %
Private home	67	87	86	86	79
Public toilet	15	6	6	7	4
Car	15	7	6	4	12
Street/park or beach	2	0	2	2	2

Source: IDRS PWID interviews

Drug use histories of the 2011 IDRS PWID 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 (opioids, stimulants, hallucinogens, cannabis, benzodiazepines, tobacco and alcohol), participants had used a median of 7 (mean = 6.5, SD = 0.8, range 4-7) drug classes in their lives, and 5 (mean = 5.2, SD = 1.2, range 2-7) in the preceding six months. A median of 3 drug classes had been injected over their lifetimes (mean = 2.8, SD = 0.8, range 1-5), and 2 (mean = 2.0, SD = 0.7, range 1-3) in the preceding six months. These figures are consistent with those in the 2010 cohort (Table 4). Figure 7 below illustrates polydrug use over the preceding six months, specifically for illicit benzodiazepines, stimulants and illicit pharmaceutical opioids. Half (51%) of the participants had used stimulants, illicit pharmaceutical opioids and illicit benzodiazepines in the preceding six months, with a further 17% using both stimulants and illicit pharmaceutical opioids in this time. Given that only 9% of the current cohort reported solely using illicit pharmaceutical opioids and 6% used only stimulant drugs in the six months prior to interview, 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 7: Polydrug use in the preceding six months amongst the PWID cohort, 2011

Source: IDRS PWID interviews

Table 7: Polydrug use histo	ry of the PWID sample, 2011
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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	59	58	19	4	19	1	9	1	5	2	19		4
Homebake heroin	22	21	1	5	2	0	0	0	1	0	1		5
Any heroin (inc. homebake)	61	60	19	4	19	1	9	1	6	2	19		6
Methadone (prescribed)	61	50	31	72					58	33	36	180	153
Methadone (not prescribed)	64	61	39	6					15	8	40		7
Physeptone (prescribed)	18	14	1	180	0	0	0	0	11	1	2	180	120
Physeptone (not prescribed)	68	64	36	6	0	0	0	0	14	5	37		7
Any methadone (inc Physeptone)	82	78	62	30					67	37	65		98
Buprenorphine (prescribed)	19	6	1	1	0	0	0	0	17	1	1	180	180
Buprenorphine (not prescribed)	20	16	5	2	0	0	0	0	7	2	6		2
Any Buprenorphine (excl buprenorphine- naloxone)	31	16	6	2	0	0	0	0	22	3	7		2
Buprenorphine-naloxone (prescribed)	17	4	2	106	0	0	0	0	15	2	4	160	170
Buprenorphine-naloxone (not prescribed)	13	9	5	2	0	0	0	0	4	0	5		2
Any Buprenorphine- naloxone	27	11	6	17	0	0	0	0	18	2	8		46
Morphine (prescribed)	27	19	6	180	0	0	0	0	15	4	6		180
Morphine (not prescribed)	92	88	70	48	0	0	0	0	21	11	73		48
Any Morphine	92	88	72	48	0	0	0	0	33	15	75		48
Oxycodone (prescribed)	19	10	3	72	0	0	0	0	12	5	5		74
Öxycodone (not prescribed)	74	71	43	8	0	0	1	0	12	9	45		7
Any Oxycodone	75	71	44	9	0	0	1	0	23	13	47		10
Over the counter codeine	58	1	0	0	0	0	0	0	58	38	38		15
Other opioids (not elsewhere classified)	60	3	2	1	3	1	0	0	58	42	43		6

Source: IDRS PWID interviews A 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.

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	95	95	66	10	12	2	32	4	36	9	67		10
Base/point/wax	66	65	38	9	2	1	4	0	14	4	39		7
Ice/shabu/crystal	63	60	25	6	10	4	2	0	7	0	26		6
Amphetamine liquid	26	22	8	14				1	1	1	8		14
Any form methamphetamine	98	98	75	22	19	5	32	4	39	10	77		20
Pharmaceutical stimulants (prescribed)	8	1	0	0	0	0	0	0	7	0	0		0
stimulants (not prescribed)	65	53	31	3	0	0	0	0	32	7	35		3
Any form pharmaceutical stimulants	67	53	31	3	0	0	0	0	36	7	35		3
Cocaine	42	22	1	2	3	0	31	7	3	0	7		2
Hallucinogens	61	5	0	0	0	0	1	0	61	16	16		2
Ecstasy	67	30	5	1	0	0	11	2	63	18	20		2
Alprazolam (prescribed)	20	8	0	0	0	0	0	0	18	4	4		95
Alprazolam (not prescribed)	64	37	22	6	0	0	0	0	46	24	40		6
Benzodiazepines (prescribed) <i>(excl</i> <i>alprazolam)</i>	64	14	2	114	1	0	2	0	63	48	48		160
Benzodiazepines (not prescribed) <i>(exc alprazolam)</i>	65	20	4	22	0	0	1	0	63	49	51		20
Any benzodiazepines (incl alprazolam)	87	45	23	8	1	0	2	0	85	79	81		96
Seroquel (prescribed)	14	1	1	1	0	0	0	0	13	9	9		180
Seroquel(not prescribed)	27	0	0	0	0	0	0	0	27	12	12		30
Any Seroquel	37	1	1	1	0	0	0	0	37	20	20		n/r
Alcohol	99	5	1	1					99	68	68		24
Cannabis	97										78		180
Inhalants	24										5		1
Tobacco	96										92		180

Table 7: Polydrug use history of the PWID sample, 2011 (continued)

Source: IDRS PWID 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 drugs in the six months preceding the interview was cannabis, with 78% of participants reporting use, at a median frequency of 180 days, which equates to daily use (Figure 8). Approximately three-quarters of the sample reported recent use of methamphetamine (77%) and illicit morphine (73%): the frequency of this use was 20 and 48 days respectively. Two-thirds of the sample reported recent use of illicit benzodiazepines (67%), and approximately two-fifths of the sample reported recent use of illicit oxycodone (45%), methadone (40%) and Physeptone (37%), at a median frequency of seven days for each substance respectively. Small proportions of participants reported recent use of ecstasy (21%), heroin (19%), illicit quetiapine (12%), cocaine (7%) and illicit Subutex (6%), all of which were reported to have been used at a low median frequency (4 days or less in the preceding six months), with the exception of illicit quetiapine (30 days).



Figure 8: Patterns of drug use among the 2011 IDRS sample

Source: IDRS PWID interviews.

4.2 Heroin

Key Points

- One-fifth of participants in the current study reported use of heroin in the preceding six months, at a median frequency of just four days;
- Overall, heroin use in Tasmania remains low and stable, despite a small increase in the proportion of IDRS participants reporting recent use;
- Despite the low level of use of heroin, it is the drug of choice of one-third of the sample;
- IDRS and indicator data point to very low heroin availability in Tasmania.

4.2.1 Current patterns of heroin use

Among the 2011 PWID sample, 59% reported they had tried heroin at some stage of their lives, and 19% reported use in the six months preceding the interview (Figure 9). Of the 19 participants who reported heroin use in the preceding six months, all had injected it, at a median frequency of four days (range 1-48 days). In addition, two participants also reported swallowing heroin, and single participants reported intranasal and smoking use of heroin in the last six months. Recent use of heroin amongst IDRS cohorts declined from 38% in 2000 to 8% in 2010. In 2011, this rate increased slightly to 19% ($\chi^2(1_{n=200})=4.28$, p=0.04), however the median frequency of use remained relatively unchanged (ranging between three and seven days between 2000 and 2011) (Figure 10). Despite these low rates of heroin use, a substantial proportion of participants in each cohort have reported heroin as their drug of choice: between 2000 and 2006, the proportion of participants reporting heroin as their drug of choice remained between 32% and 40%, and between 2007 and 2011, this rate was slightly lower, ranging between 25% and 33% of each sample (30% in 2011). This relatively low level of use in a regularly injecting group, in which almost one-third report heroin as their drug of choice, indicates heroin supply in Tasmania was limited.





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 regularly (Figure 10). In keeping with the overall decline in the proportion of the IDRS PWID cohorts reporting recent use of heroin since 2003, there has been a reduction in the range of days that heroin had been used among recent cohorts. In support of these findings, nine KE – employed in legal/law enforcement

Source: IDRS PWID interviews

fields, NSP and drug treatment field – noted heroin use was rare to non-existent amongst the client groups they were familiar with, with one noting that *'I'm not aware of any use of heroin, people are using pharmaceutical opioids instead'*.



Figure 10: Median days and range of heroin use in the past six months, 2000-2011

Source: IDRS PWID interviews

There was a high level of polydrug use amongst those who had used heroin in the past six months (Table 8), predominantly of cannabis, alcohol, illicit morphine and illicit benzodiazepines. This finding is in keeping with reports from KE in previous studies that, because of fluctuating availability, primary users of opioids have to be flexible in their patterns of use, turning to other opioids, methamphetamine or benzodiazepines if their opioid drug of choice is unavailable.

Table 8: Patterns of drug use reported by those PWID who had used heroin in t	he past six
months, 2011	

	% of those who had used heroin in last 6 months reporting use (n=19)	Median days use for those using the drug				
Methadone syrup (illicit)	53 (n=10)	8 (range 1-72)				
Physeptone (illicit)	37 (n=7)	5 (range 1-10)				
Morphine (illicit)	79 (n=15)	48 (range 2-180)				
Oxycodone (illicit)	53 (n=10)	7 (range 4-48)				
Benzodiazepines (illicit)	79 (n=15)	n/r				
Cannabis	84 (n=16)	180 (range 6-180)				
Methamphetamine						
Powder	42 (n=8)	18 (range 2-120)				
Base/paste	21 (n=4)	2 (range 1-60)				
lce/crystal	32 (n=6)	2 (range 1-4)				
Alcohol	84 (n=16)	48 (range 1-180)				

Source: IDRS PWID interviews

Note: n/r this data was not collected in 2011

Of those PWID who had reported heroin use in the preceding six months (n=12), four-fifths regarded heroin as their drug of choice (79%, n=15), and 11% (n=2) reported morphine (n=2). Despite this, just a single participant noted that heroin was the drug they had injected most often in the preceding month. 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, 73% (n=22) reported lack of availability and 7% reported either low purity of heroin or that

they were engaged in drug treatment as the primary reasons that heroin was not the main drug they had used in the preceding month (n=2 respectively).

Participants were asked to describe the form/s of heroin they had predominantly used (n=17). Twofifths of participants who commented reported use of white/off-white powder form (44%, n=7) and brown/beige rock form (38%, n=6), one-third reported use of white/off white rock form (33%, n=5) and 13% (n=2) reported use of brown/beige powder form (6%, n=1).

Participants were also asked to comment on preparation methods for injection of heroin forms. Of the 12 participants who commented, three reported use of heat, and one participant reported use of acid the last time they prepared heroin for injection.

4.2.2 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 11). 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, 2002a; 2005b). Similarly, the 2007 and 2010 National Drug Strategy Household Surveys (n=1,143; n= 1,060 respectively) reported that 0.3% and 0.1% respectively of Tasmanian samples had used heroin in the preceding 12 months, consistent with rates in the national sample (0.3% and 0.2% respectively) (AIHW, 2008b, 2011).

Figure 11: Prevalence of heroin use in Australia and Tasmania among those aged 14 years and over, 1993-2010



Source: National Drug Strategy Household Survey 1993-2011 ^{*} In 2004, less than 0.1% of the Tasmanian sample reported recent use of heroin

4.2.3 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) (Figure 12). 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 2007/08⁸ and has remained stable since then (0.4%, n=131 in 2008/09; 0.5%, n=154 in 2009/10; 0.5%, n=146 in 2010/11).

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 19% of the PWID sample had used heroin in the past six months, just one participant reported it as the drug they most often injected.

Figure 12: Proportion of heroin reported as 'drug most often injected' in transactions at Tasmanian non-pharmacy Needle and Syringe Program outlets, 1997/98-2010/11



Source: Population Health, Department of Health and Human Services

The Australian Needle and Syringe Program Survey (Iversen, Topp & Maher, 2011) has reported heroin as the last drug injected by 3% or less of their participants between 2003 and 2007 and in 2009 and 2010 (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 2008 compared with 107-168 in 2003-2007), and so this finding should be interpreted with caution. Overall, these figures estimate the level of use of heroin as higher than that seen in the NSP client data, although underscore the point that heroin use is not common amongst Tasmanian PWID.

Table 9: Australian Needle and Syringe Program (NSP) Survey: Prevalence of heroin within 'last drug injected', Tasmania, 2003-2010

	2003 2004		04	2005		20	2006		2007		2008		2009		2010	
	(N=	118)	(N=	107)	(N=	137)	(N=′	150)	(N=	168)	(N=	:57)	(N=	122)	(N=′	106)
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Heroin	1	1	0	0	2	1	3	2	3	2	4	7	4	3	1	1

Source: Iversen, Topp & Maher, 2011; The Kirby Institute, 2011

⁸ It should be noted that prior to 2007/08, NSP data included data from both primary and secondary NSP outlets across Tasmania; in 2007/08-2009/10, 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.

4.3 Methamphetamine

Key Points

- Three-quarters of the Tasmanian sample reported use of a form of methamphetamine in the preceding six months, at a median frequency of 20 days;
- Powder was the predominant form used, followed by base/paste. Crystal methamphetamine was less commonly used;
- Amongst IDRS participants, the rate of recent use of any form of methamphetamine has remained relatively stable between 2010 and 2011, but is lower than reported prior to 2008;
- Similarly, indicator data point to overall stable rates of use of methamphetamine in the preceding three years, notably lower than was reported between 2003 and 2006.

In the initial years of the IDRS studies, reports used the overarching term 'amphetamine' to refer to both amphetamine and methylamphetamine (methamphetamine⁹). 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 amphetamine-type (non-phenethylamine) 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) PWID market – each falling at three points along a continuum of form, but, again, all of which are the same substance.

Powder form methamphetamine¹⁰ 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

⁹ Methamphetamine is an abbreviation of the name methylamphetamine, and, as such, both terms are interchangeable.

¹⁰ Powder form methamphetamine is also referred to in national and other jurisdiction IDRS reports as 'speed'.

fairly easy to 'cut' (dilute) and is commonly sold at fairly low purity/potency, although this can vary substantially. Consumers interviewed for the 2011 IDRS survey reported that methamphetamine powder sometimes contained small crystals in the powder, with the powder generally appearing white in colour, or alternatively beige, brown, pink, orange or yellow. 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 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 2011 study, participants that had recently purchased this form locally commonly described it as 'gluggy', and reported the colour as ranging from white, beige, brown to yellow 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).

4.3.1 Current patterns of methamphetamine use

Seventy-seven percent of the 2011 PWID cohort reported use of any form of methamphetamine in the six months preceding the interview, at a median frequency of 20 days, equating to use on average once per week. This level of use is similar to the rate reported in the 2010 Tasmanian IDRS study (70%, median frequency of use 24 days).

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

Participants who reported recent use of methamphetamine were less likely to report being heterosexual (84% v. 100%: $\chi^2(1_{n=100})=4.073$, p=0.035), more likely to report methamphetamine as their drug of choice (30% v. 9%: $\chi^2(1_{n=100})=4.235$, p=0.031) and less likely to report a pharmaceutical opioid as the drug injected most frequently in the preceding month (60% v. 96%: $\chi^2(1_{n=100})=10.496$, p=0.001) than participants who reported no recent use.

For the 2011 IDRS, PWID were asked to differentiate between methamphetamine powder, base/paste and crystalline methamphetamine. This distinction had a good level of face validity to those PWID surveyed, despite there often being a substantial amount of overlap in the physical

appearance of these 'forms'. PWID reported making these distinctions on the basis of physical form, purchase cost, and potency of subjective simulant effect.

PWID reports of the forms of methamphetamine they had used in the previous six months clearly showed that a wide range of forms and potencies of the drug were available to local consumers (Figure 13). Eighty-three percent (n=67) of those recently using any form of methamphetamine or pharmaceutical stimulant reported using powder methamphetamine; 48% (n=39) had recently used base/paste methamphetamine; 32% (n=26) reported recent use of crystalline methamphetamine and 10% (n=8) reported use of liquid form methamphetamine (often known as 'ox blood') (Figure 14). 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 reported by two-fifths of those using any form of methamphetamine or pharmaceutical stimulant in the past six months (43%, n=35), with similar rates of use of dexamphetamine (n=18) and methylphenidate (n=17).

Figure 13: Proportion of PWID reporting methamphetamine and pharmaceutical stimulant use in the past six months, 2002-2011



Source: IDRS PWID interviews

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

Figure 14: Use of various forms of methamphetamine and prescription stimulants among IDRS PWID participants who reported recent use of a form of an amphetamine, 2002-2011



Source: IDRS PWID interviews

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

Figure 15: Forms of methamphetamine and prescription stimulants most often used among IDRS PWID participants that had recently used a form of methamphetamine or prescription stimulant, 2002-2011



Source: IDRS PWID interviews.

Note: Prescription stimulants were not included in this question in 2006-2011

The patterns of use of the differing 'forms' of methamphetamine and pharmaceutical stimulants in the preceding six months by IDRS PWID participants across the 2002 to 2011 studies (Figures 13-15) 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 guite rare, consumed by just 22% of amphetamine-using PWID 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. Following a slight increase in 2006, since 2007 overall use of crystal methamphetamine has been declining. Between 2008 and 2011, whilst the proportion of amphetamine users reporting recent use of crystal declined only slightly (but not significantly: 40% in 2008 v. 32% in 2011: p=0.4), the proportion reporting crystal as the form most used in the preceding six months decreased significantly (24% in 2008 v. 8% in 2011: ($\chi^2(1_{n=151})=5.6$, p=0.02). In line with these findings, four KE in the current study noted either very few or no recent reports of use of crystal methamphetamine amongst users they were familiar with.

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 PWID 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% to 31% ($\chi^2(1_{n=167})=15.8$, p<0.001), as did the proportion of participants reporting this as the form of methamphetamine most used (from 42% in 2006 to 10% in 2008: $\chi^2(1_{n=155})=18.9$, p<0.001). However, in 2009, the proportion of amphetamine-using participants reporting recent use of base increased significantly, from 31% to 67% ($\chi^2(1_{n=162})=19.4$, p<0.001), as did the proportion reporting base as the main form used (2008: 10%; 2009: 43%: ($\chi^2(1_{n=151})=19.5$, p<0.001). Since this time, the proportion of participants reporting recent use of base has remained relatively stable (48% in 2011, p=0.12), however, the rate of participants reporting this as the form most used decreased from 43% in 2009 to 21% in 2011 $(\chi^2(1_{p=159})=7.88, p=0.005).$

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% ($\chi^2(1_{n=184})=5.1$, p=0.02); however, the proportion reporting powder as the predominant form used remained unchanged. In 2007, the proportion reporting any use of powder was similar (69%), 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 76% 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 was briefly 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 to 41% in 2009 ($\chi^2(1_{n=151})=9.3$, p=0.002). In 2010, the rate reporting powder as the form most used increased (58% in 2010; 41% in 2009: ($\chi^2(1_{n=148})=3.8$, p=0.05), and this rate has remained relatively unchanged in 2011 (65%, p=0.5).

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 four of those participants that had recently used pharmaceutical stimulants had not used some form of methamphetamine in 2011), these pharmaceuticals form an important part of the overall picture of stimulant use amongst these PWID cohorts. The use of these prescription stimulants has remained relatively stable across the 2002 to 2011 IDRS studies. In 2002 and 2003, half of the samples reported recent use of a prescription stimulant (50% and 51% respectively). Over the following three years, use decreased to 31% ($\chi^2(1_{n=200})=8.24$, p=0.004), and has remained relatively stable since this time (35% in 2011) (Figure 13).

Examining the frequency of use of methamphetamine in more detail, 77% of the current cohort had used methamphetamine, at a median frequency of 20 days, which is approximately once per week (Figure 16). Between 2008 and 2011, 70-80% of each sample reported recent use of methamphetamine, and the median frequency of this use ranged from 12 to 24 days. These results indicate lower levels of use of methamphetamine between 2008 and 2011 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 PWID cohorts reporting recent use of methamphetamine have occurred despite similar proportions of the PWID cohorts in each study reporting an opioid as their drug of choice (two-thirds or more in each sample, except in 2005, 2007 and 2009: ranging between 53% and 59%).



Figure 16: Prevalence and frequency of use of methamphetamine in the preceding six months, 2000-2011

In the preceding month, half of the participants who reported recent use of methamphetamine (52%, n=40) reported using some form of the drug more than weekly but not daily, two-fifths reported daily use (38%, n=29), and 9% (n=7) used the drug less than weekly (Table 10).

Source: IDRS PWID interviews

	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	67	9 <i>(n=6)</i>	49 <i>(n=33)</i>	40 <i>(n</i> =27)					
Base	39	13 <i>(n=5)</i>	39 <i>(n</i> =15)	46 <i>(n=18)</i>					
Ice	26	8 <i>(n=2)</i>	42 (<i>n</i> =11)	46 <i>(n</i> =12)					
Any form methamphetamine*	77	9 <i>(n</i> =7)	52 <i>(n=40)</i>	38 <i>(n</i> =29)					

Table 10: Patterns of methamphetamine use in the preceding month, by type, 2011

Source: IDRS PWID interviews

* Also includes liquid methamphetamine

Almost all participants interviewed (98%) had used some form of methamphetamine at some stage in their lives (77% had used a form of methamphetamine in the preceding six months). Interestingly, only one-quarter of the sample (25%) indicated that a form of methamphetamine was their drug of choice. Of these consumers, the majority (56%, n=14) reported a form of methamphetamine as the drug they had injected most often in the month prior to interview. Of the eleven PWID that had not used their drug of choice most often in the previous months, all had predominantly used pharmaceutical opioids (morphine, methadone, oxycodone or Subutex) instead. The reasons for the discrepancy between drug of choice and the drug most often injected was generally reported as being due to elements of the methamphetamine market/s, including availability (n=5), price (n=3) and purity (n=1). For those participants that had reported methamphetamine as the drug they had most often injected in the preceding month (n=26), the drug class was used for a median of 64 days in the preceding six months (SD=52.0, range 15-180), equating to a median use of two to three times per week.

Six KE reported on groups of consumers that primarily used methamphetamine. KE included law enforcement workers (n=2), a drug treatment worker, an NSP worker and a general health worker (n=1 respectively). 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 people involved in the correctional system. 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 consumers described by KE were predominately male and were predominantly unemployed.

The IDRS PWID data make it clear that a moderate level of methamphetamine use is common amongst PWID who predominantly inject other drugs. This was supported by comments from KE reporting on groups of primary consumers of either cannabis or opioids. In addition, three KE noted fluctuating purity and availability of methamphetamine from month to month, with increases in use when higher quality methamphetamine is available.

While some KE were unfamiliar with the range of drugs used by the primary methamphetamineconsuming 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, pharmaceutical opioids and/or benzodiazepines, often to assist with 'comedown' effects such as anxiety and insomnia.

4.3.2 Self-reported symptoms of stimulant dependence

IDRS participants that had used stimulants (methamphetamine, pharmaceutical stimulants, cocaine), during the preceding six months were asked about how they felt about their use of this drug in the last year using the Severity of Dependence Scale (SDS) (n=67). This consists of 5 multiple choice questions each rated on a scale of 0-3, resulting in a range of possible scores from 0-15, where higher scores suggest greater psychological dependence. Participants were asked if they thought that their use of the specific drug was out of control, if the prospect of missing a dose had made them feel anxious, if they had worried about their use of the drug, if they had wished they could have stopped, and if they would find it difficult to stop or go without the drug.

The median SDS score for those who had used a stimulant (i.e. powder, base/paste, crystal/ice, pharmaceutical stimulants or cocaine) in the preceding six months was 3 (range 0-15). Thirty-four percent of this group (n=23) received a score of zero, indicating no symptoms of dependence. A score of four on the SDS in relation to methamphetamine use has been validated as a cut-off for predicting DSM-III-R diagnosis of amphetamine dependence (Topp & Mattick, 1997). Two-fifths of those participants who completed the amphetamine SDS (42%, n=28) had a score of 4 or greater, and it is reasonable to assume that some proportion of these people had experienced significant psychological symptoms of dependence. Of this group, almost half had accessed some form of alcohol and drug treatment in the preceding six months (46%, n=13)

4.3.3 Prevalence of methamphetamine use

The most recent survey of methamphetamine use within the general community of Tasmania was undertaken within the 2010 National Drug Strategy Household Survey (AIHW, 2011), which sampled 1,060 Tasmanian residents aged 14 years and over. These results indicated that 1.1% had used the drug in the 12 months prior to interview (Figure 17). This rate is consistent with the national rate in the 2010 survey (2.1%, 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 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, 1.7% in 2007 and 1.1% in 2010). 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 17: Prevalence of meth/amphetamine use in Australia and Tasmania among those aged 14 years and over, 1993-2010

Source: National Drug Strategy Household Survey 1993-2010

4.3.4 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 2010/11. In 2010/11, just five positive urine drug screens for sympathomimetic amines/amphetamines (2.7% of all positive urine screens) were 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.

4.3.5 Methamphetamine use among PWID

The Australian Needle and Syringe Program Survey (Iversen, Topp & Maher, 2011) takes 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 18). In 2005, consistent with trends seen in the IDRS PWID 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%). Since 2007, this trend has been reversed, with the proportion of participants reporting methamphetamine ranging between 23% and 30%. These findings are consistent with the trends of decreasing use identified in the NSP data between 2006/07 and 2010/11.





Source: Iversen, Topp & Maher, 2011

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 46% in 1997/98 to 30% in 2000/01 (Figure 19). 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 four financial years, this rate has remained relatively unchanged (Figure 19).

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, it has

been 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 NSP 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 nonpharmacy NSP outlet data presented in Figure 19 is likely to be an underestimation of the true proportion of methamphetamine injection amongst Tasmanian PWID. 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 KE in the 2007-2011 surveys, 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 30). 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 19: Proportion of Tasmanian non-pharmacy Needle and Syringe Program clients reporting methamphetamine as 'drug most often injected', 1997/98-2010/11



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

4.4 Cocaine

Key Points:

- In 2011, 7% of the Tasmanian IDRS sample reported use of cocaine in the preceding six months, at a median frequency of just two days;
- Locally, cocaine use has been consistently low since 2000, ranging between 2 and 12%;
- Indicator data shows lower rates of cocaine use in Tasmania in comparison with national rates.

4.4.1 Current patterns of cocaine use

Just 7% of participants (n=7) in the current IDRS study reported use of cocaine in the six months preceding interview, at a median frequency of use of two days, which equates to use approximately once per three months (range 1-7 days) (Table 11). One participant reported using cocaine both intravenously and intranasally, and six participants reported exclusive intranasal use over this period.

Despite this very low level of recent use of cocaine, 42% of the sample indicated that they had tried cocaine at some stage in their lives. Intranasal administration was reported by 31% of the sample, and intravenous use was reported by 22%, whilst small minorities reported lifetime use of cocaine either via oral administration or smoking (3% respectively). Two KE reported being aware of very small numbers of clients using cocaine recreationally.

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 11). No participants reported that cocaine was their drug of choice or the drug most injected in the month preceding the interview. 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.

Year (N=100)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Proportion using cocaine in last 6 months (%)	6	8	12	9	4	8	12	5	4	2	5	7
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)	3 (2-8)	2 (1-7)
Proportion ever using cocaine (%)	39	39	47	52	48	46	61	46	47	51	39	42

Table 11: Patterns of cocaine use among	Tasmanian IDRS PWID participants,	2000-2011
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Source: IDRS PWID interviews

4.4.2 Prevalence of use

According to the findings of the 2010 National Drug Strategy Household Survey (Figure 20; Australian Institute of Health and Welfare, 2011), 0.8% of surveyed Tasmanians aged 14 years and older reported using cocaine in the preceding year. This rate is lower than that reported for the national sample, with 2.1% of respondents reporting use of cocaine in the preceding 12 months $(\chi^2(1_{n=27.708})=8.55, p=0.003)$.

According to the findings of the 1998 National Drug Strategy Household Survey (AIHW, 1999), 2.3% of surveyed Tasmanian residents reported ever trying cocaine, while only 0.1% had used it in the 12 months prior to interview. Findings of the 2001 and 2004 surveys (AIHW, 2002b, 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 20; AIHW, 2008b) 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.





Source: National Drug Strategy Household Survey 1993-2010

4.4.3 Cocaine use among PWID

There were only 19 transactions in which clients of non-pharmacy NSP outlets in 2010/11 indicated that cocaine was the drug they most often injected. This figure has been consistently low over the past 13 financial years (Table 12), 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 PWID sampled in the IDRS survey reported it as the drug they most often used in the preceding month (only one participant reported recent injection), despite seven recently using the drug.

 Table 12: Percentage of Tasmanian non-pharmacy Needle and Syringe Program clients

 reporting cocaine as the 'drug most often injected', 1997/98-2010/11

Year	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Number of transactions reporting cocaine	28	19	13	20	36	29	16	15	40	17	16	36	19
% of total transactions reporting cocaine	0.3	0.2	0.1	0.1	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

With the exception of the 2006 survey, cocaine has not been reported as the last drug injected in any of the 1995-2010 Australian Needle and Syringe Program Surveys (Iversen, Topp & Maher, 2011) (in 2006, just one participant reported this).

4.5 Cannabis

Key Points:

- Cannabis remains the most commonly used illicit drug amongst Tasmanian IDRS samples: 78% of participants reported use in the preceding six months, at a median frequency of 180 days (daily use);
- Since 2001, a small decrease in daily use of cannabis has been observed amongst Tasmanian IDRS participants;
- Hydroponic/indoor-cultivated cannabis is the predominant form used;
- The 2010 NDSHS reported a lower level of recent cannabis use for the general Tasmanian population in comparison to the previous four surveys.

4.5.1 Cannabis use among PWID participants

Among the IDRS PWID respondents in 2011, cannabis was the most commonly used illicit drug, with 97% of participants using it at some time in their lives, and 78% using in the six months prior to interview. Among those that had recently used cannabis, the median frequency of use was 180 days (range 1-180), which equates to daily use of the drug.

Examining recent cannabis use in the twelve Tasmanian IDRS PWID cohorts (2000-2011) (Figure 21), there has been little change in the proportions reporting use of the drug across these samples, however, there has been a trend toward a significant, but small, decline in the in the proportion of daily cannabis users (63% in 2002 to 49% in 2011, p=0.06) (Figure 21).

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. Six KE reported on groups that were primary users of cannabis. These KE included three drug treatment workers, a youth worker, community development worker 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 were predominantly male. 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. 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.



Figure 21: Proportion of Tasmanian IDRS PWID cohorts reporting use of cannabis in the six months prior to interview, 2000-2011

Source: IDRS PWID 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 72 consumers who commented, 92% (n=66) 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 five (range 1-30 cones, SD=6.6). Four percent of cannabis consumers (n=3) reported smoking a cannabis-cigarette ('joint') on the last occasion; the median number of 'joints' was two (range 1-2 'joints', SD=0.6).

4.5.2 Forms used

IDRS PWID participants were asked to comment on all forms of cannabis they had used in the last six months. Of this group, 94% (n=72) reported use of indoor-cultivated/hydroponic cannabis, 77% (n=59) reported use of outdoor-cultivated/bush cannabis, 8% (n=6) reported use of hashish and 3% (n=2) reported use of hashish oil.

The cannabis used in the past six months by those participating in the PWID survey was cannabis head (the flowering top sections of the female plant), with most cannabis-using PWID reporting some use of both hydroponically/indoor-cultivated and outdoor crops (70% of those using cannabis, n=54). Small minorities reported exclusive use of indoor-cultivated cannabis (23%, n=18) or outdoor-cultivated cannabis (6%, n=5). Participants were also asked to comment on the main form they had used in preceding six months: 91% (n=70) reported indoor-cultivated cannabis and just 9% (n=7) reported outdoor-cultivated cannabis. This marks a significant shift toward increasing reports of predominant use of indoor-cultivated cannabis (2010 – 69%: $\chi^2(1_{n=155})$ =56.2, p<0.001).

Two KE reported the predominant 'form' of cannabis consumed by the groups of clients that they were familiar with was hydroponic cannabis. One KE who works with people aged under 25 noted that young people tended to smoke whichever form is available. A second KE commented that clients in rural areas tended to smoke more outdoor-cultivated cannabis and metropolitan-based clients tended to smoke indoor-cultivated cannabis. Two KE noted small numbers of clients reporting use of synthetic forms of cannabis, such as 'Kronic' and 'Spice', but that clients had not presented to treatment in relation to use of this (laboratory analysis has shown that products such as Spice contain synthetic cannabinoid agonists (Uchiyama et al., 2010)).

4.5.3 Prevalence of cannabis use

In the 2010 National Drug Strategy Household Survey (AIHW, 2011), the estimated prevalence of cannabis use in the preceding 12 months in Tasmania remained relatively stable in comparison to the 2007 rate (8.6%, p=0.1). In comparison to the national rate, there was no statistically significantly difference (10.3%, p=0.08).

Figure 22: Prevalence of cannabis use in Australia and Tasmania among those aged 14 years and over, 1993-2010



Source: National Drug Strategy Household Survey 1993-2010

4.5.4 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 positive tests for cannabis remained stable, ranging between 58% and 66%, however, in 2010/11 this rate decreased to 48% (n=89 of 186 positive tests).

4.6 Opioids

Key Points:

Morphine

- Three-quarters of the Tasmanian IDRS sample reported use of illicit morphine in the preceding six months, at a median frequency of 48 days;
- The rate of reports of recent use of morphine has remained stable between 2008 and 2011 (74-82%); higher than reported in the preceding four years (59-68%).
- The predominant preparation used is MS Contin, followed by Kapanol;
- Two-fifths of participants that had recently used illicit morphine reported this was to self-treat opioid dependence, pain or a mental health condition.

Oxycodone

- Almost half of the sample reported use of illicit oxycodone in the preceding six months, at a median frequency of seven days;
- Between 2006 and 2010, the rate of recent use increased from 31% to 60%, this trend was reversed in 2011 (45%);
- OxyContin was the predominant preparation used;
- Two-fifths of participants that had recently used illicit oxycodone reported this was for self-treatment (of opioid dependence, pain or a mental health condition).

Methadone syrup

- Two-fifths of the sample reported recent use of illicit methadone syrup at a median frequency of 7 days;
- Both the rate and frequency of use has remained relatively stable since 2003;
- Two-fifths of participants that had recently used illicit methadone syrup reported this was for self-treatment of opioid dependence, pain or a mental health condition.

Physeptone

- Almost two-fifths of the sample reported recent use of Physeptone tablets at a median frequency of seven days;
- Similar proportions of participants reported use of these tablets (nonprescribed) for self-treatment (of opioid dependence, pain or a mental health condition), as a substitute for other drugs or for the purposes of intoxication.

Buprenorphine

• Both available preparations of buprenorphine (Subutex and Suboxone) were used by very small proportions of the sample (6% and 5% respectively), and the frequency of this use was also very low (2 days respectively).

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. 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 has 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, Lea & Sheridan, 2008; Treloar, Fraser & Valentine, 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, Fraser & Valentine, 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).

4.6.1 Use of morphine

Morphine was reported as the drug of choice of 25% of the PWID sample, and three-quarters of the 2011 sample (75%) reported use of licit or illicit morphine in the six months preceding the interview. Reports of morphine as a drug of choice remained stable between 2010 and 2011 (25% respectively), however, this rate increased significantly between the 2009 and 2010 studies (12% to 25%: $\chi^2(1_{n=200})=4.8$, p=0.03). Of those who had used illicit morphine (n=73), the median frequency of use in the past six months was 48 days (range 1-180), which equates to twice weekly use of the drug on average, and the median dose participants reported normally consuming was 60mg (range 8-800mg, n=64). Just 6% (n=6) of the sample reported recent use of morphine that was prescribed to them, all of whom reported injecting this drug. Morphine was reported as the last drug injected prior to interview by 44% of the PWID sample, and as the drug most injected by 39% of the sample in the past month.

As shown in Figure 23, 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 PWID samples receiving maintenance pharmacotherapies (approximately 50%) and reporting an opioid as their drug of choice (approximately 60%). Since 2005, there has been a trend toward 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: $\chi^2(1_{n=200})=3.8$, p=0.05) 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 decreased to 30 days. This trend of increasing proportions reporting recent use appears to have stabilised in 2010 and 2011, with three-quarters of each sample (74% and

75% respectively) reporting recent use of morphine, and the median frequency of use has also stabilised (46 days in 2010; 48 days in 2011).

KE commenting on morphine use generally noted that use of illicit morphine was common amongst the client groups they were familiar with. KE noted also noted that polydrug use was common amongst this group: cannabis, benzodiazepines and other pharmaceutical opioids were most commonly cited, followed by methamphetamine and alcohol.

Figure 23: Proportion of Tasmanian IDRS PWID cohorts reporting use of morphine, and the median frequency of this use, in the six months prior to interview, 2000-2011



Source: IDRS PWID interviews

Of the PWID sample, 92% reported they had tried illicit morphine at some stage in their lives, with all but four having injected the drug (88%). Seventy-three percent of participants reported use of illicit morphine in the preceding six months, with the exception of three participants, all reported injecting the drug over this period.

The demographics of the group that had used illicit morphine (n=73) in the past six months were similar to that of other PWID (see Section 3.1) in terms of age, sex, cultural background, treatment and employment status, education, accommodation, prison history, relationship status, sexual preference, sources of income, age first injected, drug first injected, frequency of injection and duration of injection career. However, the group that reported recent use of morphine was significantly more likely to report a pharmaceutical opioid as their drug of choice (43% v. 19%: $\chi^2(1_{n=100})=4.906$, p=0.021) than participants who reported no recent use of illicit morphine.

Forms used

Consumer respondents were asked to nominate the preparations of morphine that they had used in the preceding six months. Of the 73 participants reporting use of non-prescribed morphine, use of MS Contin was the most common (84%, n=61), followed by Kapanol (53%, n=34) and MS Mono (37%, n=46). Smaller proportions reported recent use of Anamorph and liquid morphine (e.g. Ordine¹¹) (16%, n=12 respectively).

¹¹ Ordine is morphine hydrochloride in aqueous (water) solution, and contains sugar as a preservative.

When asked to nominate which form they had used most often in the preceding six months, threequarters reported illicit MS Contin (76%, n=55), and 13% reported illicit Kapanol (n=9). Three KE who commented also reported MS Contin as the predominant form used by the consumers they were familiar with.

All but two of the participants reporting use of morphine in the last six months (licit and illicit, n=75) had accessed morphine from sources other than a medical practitioner. It is clear from these figures that the majority of morphine used by participants in the current study did not come directly from medical practitioners.

Reasons for use

Almost two-fifths of the 61 participants who commented on reasons for recent use of illicit morphine reported 'self-treatment' as a reason (59%, n=36). 'Self-treatment' includes participants using this drug to self-treat dependence on an opioid, a mental health problem such as depression or anxiety, or insomnia. One-third of this group of participants reported 'intoxication' as a reason for use (31%, n=19), and a small minority of participants (11%, n=7) reported using illicit morphine as a substitute for another drug.

4.6.2 Use of oxycodone

While almost half of the participants interviewed in the current study had used illicit oxycodone in the six months prior to interview (45%), just 3% reported this as their drug of choice, and 5% reported oxycodone as the drug they had most injected in the month preceding the interview (a significant decrease from 2010: 5%: $\chi^2(1_{n=200})=4.5$, p=0.03). The median frequency of use of illicit oxycodone was 7 days in the last six months (range 1-180), which equates to use once per month on average, and the median dose participants reported normally taking was 80mg (range 20-800mg, n=42). Use of oxycodone among the Tasmanian IDRS PWID cohorts increased from 31% in 2006 to 60% in 2010, however in 2011, this trend was reversed, with 45% of the sample reporting recent use ($\chi^2(1_{n=200})=3.93$, p=0.05) (Figure 24).

KE in the current study commented on use of oxycodone: one KE noted that, despite a recent small decline in oxycodone use in the general health setting in which they worked, it remained the predominant illicit pharmaceutical opioid used. A second KE noted that oxycodone remains 'pretty popular with users'. KE in the current and 2010 studies noted that within hospital settings, many patients were using oxycodone upon admission, and many were discharged on oxycodone also. In 2009, a KE in a tertiary health care setting noted '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'. One KE noted that primary users of morphine will substitute with oxycodone when unable to access morphine.

Figure 24: Proportion of Tasmanian IDRS PWID cohorts reporting use of oxycodone, and the median frequency of this use, in the six months prior to interview, 2005-2011



Source: IDRS PWID interviews

Three-quarters of PWID sampled (74%) had ever used illicit oxycodone tablets, with all but three of this group having injected oxycodone at some stage. Almost half of the current cohort (45%) reported using illicit oxycodone in the preceding six months: of this group, 80% (n=36) had exclusively injected oxycodone; 4% (n=2) had only used it orally; and 16% (n=7) had used oxycodone both orally and intravenously. Use of prescribed oxycodone was reported by 5% (n=5) of the sample, at a median frequency of 74 days in the preceding six months (approximately 3 days per week), and injecting use of prescribed oxycodone was reported by 3% (n=3) of the sample (all but two had also used illicit oxycodone), at a median frequency of 72 days.

The demographics of the group that had used illicit oxycodone (n=45) in the past six months were similar to that of other PWID (see Section 3.1) in terms of age, sex, cultural and educational background, relationship status, employment status, income source, accommodation, prison history, current treatment, duration of injecting career and age of first injection. However, those that had recently used oxycodone were significantly more likely to be daily injectors (49% v. 26%: $\chi^2(1_{n=100})=5.599$, p=0.013), to report a pharmaceutical opioid as the drug most commonly injected in the preceding month (87% v. 53%: $\chi^2(1_{n=100})=13.102$, p<0.001), and to report methamphetamine as the first drug ever injected (76% v. 56%: $\chi^2(1_{n=100})=4.007$, p=0.036) than those who reported no recent use of oxycodone. In addition, participants reporting recent use of illicit oxycodone were significantly less likely to report methamphetamine as their drug of choice (13% v. 35%: $\chi^2(1_{n=100})=5.939$, p=0.013).

Forms used

Almost half of the current PWID sample (45%, n=45) reported use of some preparation of nonprescribed oxycodone in the six months prior to interview. OxyContin was the most commonly reported form of the drug, with all but two participants recently using the drug (96%, n=43), and onequarter of participants reporting recent use of Endone (29%, n=13). A small proportion of participants reported recent use of OxyNorm (13%, n=6). When asked which form they had used most often in the preceding six months, 93% (n=42) reported illicit OxyContin and 7% (n=3) reported illicit Endone.

All but two participants reporting recent use of oxycodone (licit and illicit, n=47) had accessed oxycodone from sources other than a medical practitioner. Three participants also reported use of

oxycodone that was prescribed to them. As noted for morphine, the majority of oxycodone used by participants in the current study did not come directly from medical practitioners.

Reasons for use

Approximately two-fifths of the participants commenting on reasons for recent use of illicit oxycodone reported 'self-treatment' (42%, n=15) and 'intoxication' as the main reasons (39%, n=14). 'Self treatment' referred to participants self-treating opiate dependence and mental health.

4.6.3 Use of methadone

Methadone was reported as the drug of choice of 8% of the PWID sample, with 65% 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 (95%, n=62 of 65).

In regard to use of methadone syrup, 36% of the sample had been prescribed this drug in the preceding six months, using it at a median frequency of 153 days in this time (range 1-180). Across IDRS PWID cohorts, the proportion of participants reporting recent use of licit methadone syrup has declined, falling from 64% in 2004 to 36% in 2011 ($\chi^2(1_{n=200})=14.58$, p<0.001). It is noteworthy that the majority of participants who reported use of prescribed methadone – both recent and lifetime use – had injected this drug (86% of those reporting recent use and 82% 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 licit methadone syrup is not representative of any general pattern amongst clients of the program.

Two-fifths of the sample reported recent use of illicit methadone syrup (40%), at a median frequency of seven days (which equates to use approximately once per month). The median frequency of use of illicit methadone syrup was slightly greater for participants who had been enrolled in a methadone program in the six months preceding the interview (12 days, range 2-72 days, n=19) than those who had not accessed this form of treatment (6 days, range 1-90 days, n=21: p=0.8). The median dose of illicit methadone syrup that participants reported normally consuming was 80mg (range 15-250mg, n=37). 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 4.6), 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; 40% in 2011). Similarly, the median frequency of use has remained relatively infrequent, with median frequency ranging between 7 and 24 days of the preceding six months since 2003. Amongst those participants reporting recent use of illicit syrup (n=40), all except two reported having recently injected this drug, and eight participants also reported swallowing it in this time. It is noteworthy that almost half of those recently using illicit syrup (45%, n=18) were themselves receiving methadone maintenance treatment.

The demographics of those that had used illicit methadone syrup in the past six months (n=40) were similar to that of other PWID (see Section 3.1) in terms of sex, age, cultural background, relationship status, education, accommodation, prison history, employment status, sources of income, frequency of injection, age of first injection, duration of injecting career drug first injected and drug most commonly injected in the preceding month. However, those that had recently used methadone were

more likely to report current engagement in methadone maintenance treatment (45% v. 27%: $\chi^2(1_{n=100})=3.595$, p=0.047), and a pharmaceutical opioid as their drug of choice (53% v. 25%: $\chi^2(1_{n=100})=7.878$, p=0.005) than participants who had not recently used illicit methadone syrup.

Lifetime use of illicit Physeptone (methadone tablets) was reported by two-thirds of IDRS participants (68%) and almost two-fifths of the sample (37%) reported use in the six months preceding the interview. Between 2004 and 2011, the proportion of participants reporting recent use of illicit Physeptone has ranged from 37% to 52%, with no clear trend discernible. Use of illicit Physeptone was generally infrequent, with participants reporting a median frequency of use of seven days in the last six months (range 1-180 days), which equates to use approximately once per month, and the median dose participants reported normally taking was 50mg (range 5-350mg, n=35). Of the participants reporting recent use, all but one reported recent injection of Physeptone, at a median frequency of 6 days (range 1-180 days, n=36). In addition to this, five participants reported oral use of Physeptone. 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 2011 (Figure 25).

Figure 25: Proportion of Tasmanian IDRS PWID cohorts reporting use of methadone, and the median frequency of this use, in the six months prior to interview, 2003-2011



Source: IDRS PWID interviews

The demographics of those that had used illicit Physeptone tablets in the past six months (n=37) were similar to that of other PWID (see Section 3.1) in terms of age, sex, accommodation, educational background, relationship status, prison history, employment status, sexual preference, engagement in current treatment, frequency of injection, age of first injection, duration of injecting career, drug first injected and drug most commonly injected in the preceding month. However, those that had recently used illicit Physeptone were more likely to report being of Aboriginal and/or Torres Islander background (22% v. 6%: $\chi^2(1_{n=100})=5.149$, p=0.027) and of receiving income from criminal activity in the preceding month (30% v. 6%: $\chi^2(1_{n=100})=9.994$, p=0.002) than participants who reported no recent use of illicit Physeptone.

All except two participants reporting use of Physeptone in the last six months (licit and illicit, n=38) had accessed it from a source other than a medical practitioner. Similar to the trend for morphine

and oxycodone, the majority of Physeptone used by participants did not come directly from medical practitioners.

Forms used

When asked to describe the form of methadone they had predominantly used in the preceding six months (n=65), almost three-fifths reported licit methadone syrup (54%, n=35), one-fifth reported either illicit syrup or illicit Physeptone tablets (22%, n=14 respectively), and 3% (n=2) reported licit tablets.

Reasons for use

Two-fifths of participants commenting on recent use of illicit methadone syrup reported 'self-treatment' as a reason (41%, n=15). One-third of the participants reported recent use of illicit methadone syrup for either 'intoxication' purposes or as a substitute for other drugs (32%, n=12 respectively).

Similar proportions of participants who reported recent use of illicit Physeptone noted they had used this drug to either self-treat dependence, for the purposes of intoxication and/or as a substitute for another drug (36%, 39% and 36% respectively).

4.6.4 Use of buprenorphine

Subutex (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 PWID groups have been examined since the 2002 IDRS survey. In the current cohort, 31% reported ever using Subutex with 19% ever receiving the drug licitly, and 20% ever using illicit Subutex. Just 6% of the current PWID participants reported recent use of illicit buprenorphine in the six months prior to interview, at a median frequency of two days (range 1-120 days). Injecting use was reported by 83% of this group (n=5); at a median frequency of two days over the preceding six months (range 1-120 days). None of the six participants reporting recent use of illicit buprenorphine had accessed Subutex or Suboxone treatment in the preceding six months. Two KE commented on illicit use of Suboxone: one noted that illicit use amongst opioid dependent people was often to manage opioid withdrawal symptoms; and a second KE noted a small number of non-opioid dependent young people using Suboxone as it was considered to be 'as good as morphine', and are using it 'for the buzz'.

Suboxone (Buprenorphine-naloxone)

Participants were also asked if they had used Suboxone, which is a combination of buprenorphine and naloxone. Suboxone is also an oral substitution therapy (OST) for opioid dependence. When taken orally its effects are virtually the same as Subutex; however, if the tablet is injected, the naloxone is active and likely to precipitate opioid withdrawal symptoms. One-quarter of the sample (27%, n=27) reported lifetime use of Suboxone; of this group, 14 had exclusively used prescribed Suboxone; ten had only used it illicitly; and three had used both licit and illicit Suboxone. Just five participants had used illicit Suboxone in the six months preceding the interview at a median frequency of 2 days (range 1-60 days), all of whom reported exclusive injecting use over this period.

4.6.5 Pharmaceutical opioid use for pain

Four-fifths of the sample (80%) reported use of pharmaceutical opioids (morphine, oxycodone, tramadol; not including methadone or buprenorphine preparations) in the preceding six months. This group of participants were asked to comment on the main reasons for use of pharmaceutical opioids. Approximately two-fifths of this group reported use for the purpose of intoxication (44%, n=35) and/or pain relief (38%, n=30), and one-quarter reported use with the aim of self-treating dependence (25%, n=20). Smaller proportions reported use of pharmaceutical opioids to either self-

treat mental health problems, because they were unable to purchase heroin, or in favour of other drugs due to the known pharmaceutical purity (5%, n=4 respectively).

Half of the participants sampled (n=50) had sought pain relief from a medical practitioner in the preceding six months. Of this group, 44% (n=22) had accessed a GP for this purpose, 8% (n=4) had accessed a hospital-based doctor, and 6% (n=3) had accessed a pain specialist (multiple responses permitted). Two-fifths of this group of participants (40%, n=20) reported they had been refused pain medication in the preceding six months due to their history of injecting. Participants were asked to describe the pain they had experienced: the majority of participants described back pain (28%, n=14), with smaller proportions reporting leg or foot pain (12%, n=6), dental pain (10%, n=5), hip pain and arthritis (4%, n=2 respectively).

4.6.6 Self-reported symptoms of opioid dependence

IDRS participants that had recently used opioids (n=88) were asked how they felt about their use of this drug in the last 12 months using the Severity of Dependence Scale (SDS). This consists of 5 multiple choice questions rated on a scale of 0-3, resulting in a range of possible scores from 0-15, where higher scores suggest greater psychological dependence. Participants were asked if they thought that their use of opioids was out of control, if the prospect of missing a dose had made them feel anxious, if they had worried about their use of the drug, if they had wished they could have stopped, and if they would find it difficult to stop or go without opioids.

The median SDS score for those who had used opioids (e.g. heroin, morphine, oxycodone, methadone) in the preceding six months was 7 (range 0-15, n=88). Just three participants (3%) of those who completed the opioid SDS received a score of zero, indicating no symptoms of dependence.

At this point, a definitive cut-off for pharmaceutical opioids has not been widely agreed upon; however, there is some suggestion that scores of 4-5 and above are indicative of problematic or dependent use (Iraurgi, et al., 2010; Topp & Mattick, 1997). Using the conservative cut-off score of five, 78% (n=69) of participants completing the SDS scored five or above, indicating a high level of opioid dependence and/or problematic use amongst the sample. It is important to note, however, that of this group who scored five or above, only half (49%, n=34) reported engagement in a form of OST (including methadone, Subutex and Suboxone maintenance treatments) at the time of interview.

4.6.7 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, PWID were also asked about use of other pharmaceutical opioids and related substances in the preceding six months. Ten percent of participants reported using illicit/diverted Tramadol in the six months prior to interview and 1% (n=1) reported use of illicit pethidine. No participants reported recent use of illicit Fentanyl, however, one KE noted a small number of reports of people reporting recent use.

Questions regarding use of over-the-counter codeine products (OTC-codeine), such as Nurofen Plus and Panadeine, were included in the 2011 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). Two-fifths of the sample in 2011 reported recent use of OTC-codeine, at a median frequency of 15 days (range 1-180 days, n=38). Just six participants reported use on a more frequent basis (72 days to 180 days, i.e. 3-7 days per week over the preceding six months).

Thirty percent of participants reported use of OTC-codeine for pain management in the preceding six months. The source of this pain was most commonly back pain (37%, n=11) followed by
headaches (20%, n=6). Small minorities reported use of OTC-codeine for dental pain (10%, n=3) and arthritis (7%, n=2). The median frequency of use of OTC-codeine for the treatment of pain was six days (range 1-90 days), which equates to use approximately once per month. Participants were also asked to comment on how effective OTC-codeine was on the last occasion of use for pain, using a scale of 0 to 100. The median score was 60 (mean 52, range 0-100).

The most commonly used preparation of OTC-codeine for pain management in the preceding six months was Nurofen Plus (33%, n=10), followed by Panafen Plus (20%, n=6) and Panadeine (17%, n=5). On the last occasion of use, the median number of tablets/capsules consumed was three (range 1-45).

KE commenting on use of OTC-codeine products noted the most frequently cited forms used as Nurofen Plus (with small numbers of patients taking between 60-100 tablets per day); and Panafen and Panadeine (patients taking between 30-60 tablets per day). Three KE noted two distinct client groups attending treatment services related to their use of OTC codeine products: people who commenced codeine-based medications to manage pain, and then continue to use for other positive effects after the pain condition has subsided; and a second group who use codeine when they are unable to access stronger pharmaceutical opioids, such as morphine, to manage opioid withdrawal symptoms.

4.6.8 Use of different forms of pharmaceutical opioids across IDRS studies

Use of the different types of pharmaceutical opioids across the IDRS PWID samples is presented in Figures 26 and 27 below. It should be noted that these figures report on the proportion of the PWID 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 PWID samples in each study reporting any use of these products. Moreover, to allow for more consistent comparisons, Figure 26 presents illicit use of each pharmaceutical opioid type as a proportion of the number of pharmaceutical opioid consumers in each cohort, while Figure 27 presents illicit use as a proportion of the entire IDRS sample each year.

Figure 26 indicates that the proportion of the sample reporting recent use of illicit morphine – which was the predominant non-prescription pharmaceutical opioid used by IDRS PWID participants in all years with the exception of 2004 – had been in decline from 2001 to 2006.

Between 2006 and 2008 this trend was reversed, with statistically significant increases in both the proportions of the entire cohort (58% in 2006, 81% in 2009: $\chi^2(1_{n=200})=11.4$, p<0.001) (Figure 27) and of opioid consumers (65% in 2006; and 84% in 2009; $\chi^2(1_{n=185})=8.12$, p=0.004) (Figure 26) reporting recent use of illicit morphine. In 2009-2011 studies, the rate of use of illicit morphine stabilised (ranging between 77% and 84% of recent opioid users) (Figure 26).

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 50% (Figure 27).

Prior to 2003, use of illicit oxycodone was reported by a small number of participants anecdotally. From 2003, use of illicit oxycodone across samples increased from 21% in 2003 to 60% in 2010 $(\chi^2(1_{n=200})=30.0, p<0.001)$. In 2011, this trend has been reversed, with 45% of opioid users reporting use of oxycodone $(\chi^2(1_{n=200})=3.93, p=0.05)$ (Figure 27).

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. Between 2005 and 2009, the rate of recent use of methadone ranged between 46-55%, in the following two surveys, this rate

was slightly lower (42% in 2010 and 40% in 2011; p=0.12). It is important to note that amongst all cohorts (with the exception of 2008, 2010 and 2011), the majority of those reporting illicit purchases of methadone syrup were individuals who themselves were also receiving methadone maintenance treatment (48%, n=19 in 2011).

Use of illicit buprenorphine (Subutex) has remained very low across the ten years where the drug has been available for pharmacotherapy. In 2002, just one participant reported illicit use of this drug, and in 2010 this had increased to 6%. Similarly, use of illicit buprenorphine-naloxone (Suboxone) has remained very low across the five years where the drug has been available for pharmacotherapy. In 2006 and 2007, no participants reported use of illicit Suboxone; since this time the rate of recent used has remained very low (between 2% and 5%).

Figure 26: Proportion of opioid consumers within the Tasmanian IDRS PWID cohorts reporting non-prescription use of pharmaceutical opioids in the six months prior to interview, 2001-2011



Source: IDRS PWID interviews

Figure 27: Proportion of Tasmanian IDRS PWID cohorts reporting use of different types of diverted pharmaceutical opioids or related products in the six months prior to interview, 2001-2011



Source: IDRS PWID interviews

4.6.9 Prevalence of opioid use

The 2010 National Drug Strategy Household Survey (NDSHS) interviewed 1,060 Tasmanians aged 14 years or above about their drug use. This study did not report any use of methadone or buprenorphine for non-maintenance purposes in the year prior to interview, whereas 0.4% had used other types of opioids for non-medical purposes in this time (AIHW, 2011). The 2007 NDSHS reported that 0.2% of those sampled reported using methadone or buprenorphine in the year prior to interview, and 0.4% had used other types of opioids for non-medical purposes in this time (AIHW, 2008b) (Figures 28 and 29).

Figure 28: Prevalence of methadone or buprenorphine^{*} use in Australia and Tasmania among those aged 14 years and over, 1998-2010



Source: National Drug Strategy Household Survey 1998-2010 ^{*} Use of buprenorphine was only included in the 2007 survey

Figure 29: Prevalence of other opioid use (excluding heroin, methadone and buprenorphine) in Australia and Tasmania among those aged 14 years and over, 2001-2010



Source: National Drug Strategy Household Survey 2001-2010

4.6.10 Pharmaceutical opioid use among PWID 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 fifteen years (Figure 30), due primarily to clients nominating the catch-all 'opiates-narcotics' category rather than indicating a specific single drug¹². 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, however, over 2009/10 and 2010/11, this increasing trend appears to have stabilised, with 65% and 61% respectively of client transactions reporting an opioid (excluding heroin). This trend of increasing and subsequent stabilisation of use of opioids is the inverse of the trend noted for methamphetamine use among non-pharmacy NSP clients (see Section 4.3.5). While this appears to represent a substantial change in the market over time, these data should be interpreted with caution, as there are several caveats to this data. These are discussed in detail in Section 4.3.3.

¹² In 2009/10, the 'opiates-narcotics' category was not included in the NSP dataset, instead specific opioids were reported. These have been collapsed into an opiates-narcotic group, to allow for comparisons with previous years.



Figure 30: Percentages of Tasmanian non-pharmacy Needle and Syringe Program clients reporting opioids as their 'drug most often injected', 1996/97-2010/11

Source: Population Health, Department of Health and Human Services

The Australian Needle and Syringe Program Survey (Iversen, Topp & Maher, 2011) 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 31). 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. In 2009, a non-significant decrease was noted (p=0.4), with 63% of the sample reporting an opioid as the last drug injected, and this remained largely unchanged in 2010 (62%).

Since 2008, the proportion of participants identifying morphine as the last drug injected has steadily increased (from 21-33%), whilst the proportion reporting methadone has decreased (42-28%) (Figure 31).

Figure 31: Australian Needle and Syringe Program (NSP) Survey: Prevalence of opioids within 'last drug injected', 2002-2010



Source: Iversen, Topp & Maher, 2011

4.7 Benzodiazepines

Key Points:

- Three-quarters of the sample reported recent use of benzodiazepines that were not prescribed to them;
- The majority of participants consume benzodiazepines orally, whilst approximately one-quarter inject these preparations;
- Diazepam is the most commonly swallowed benzodiazepine, whereas alprazolam is more commonly injected;
- Concomitant injection of benzodiazepines and opioids has decreased since 2005.

4.7.1 Benzodiazepine use

The majority of IDRS participants had used benzodiazepines at some stage in their lives (87%, n=87), and 85% had ever swallowed benzodiazepines. Four-fifths of the sample reported use of benzodiazepines in the six months preceding the interview (81%, n=81), with all except two participants reporting oral use in this period. Lifetime injection of benzodiazepines was reported by 45% of the sample, and 23% had injected in the six months preceding the interview. As is shown in Figure 32, rates of overall recent use have remained fairly stable (74-88% across the 2000 to 2011 surveys), while recent injection rates in the IDRS cohorts have been more variable. The proportion of participants reporting recent injection fell slightly between 2002 and 2005 (from a stable 37-38% between 2000 and 2002, to 23% in 2005), however, this rate increased over the following three surveys to 36% in 2008. Since this time, the rate of recent injection of benzodiazepines has been slightly lower (ranging between 16% and 25%) (Figure 32).

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 PWID 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). Whilst the rate of recent injecting use of benzodiazepine decreased in the Tasmanian IDRS samples in recent years, it remained higher than that seen in the national IDRS cohorts (2011: 23% v. 10%: $\chi^2(1_{n=931})=13.3$, p<0.001) (Stafford & Burns, 2012) and reflects a shift in the preference of the type of benzodiazepine injected (discussed below)

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) was also examined. Two-thirds of the cohort reported ever having been prescribed a benzodiazepine (65%), with all except one participant having used the drug orally (64%), and 19% reported ever having injected licit benzodiazepines. Recent injection of prescribed benzodiazepines was reported by just 2% of the cohort.

Lifetime use of illicit benzodiazepines was reported by 79% of participants, with the majority of the cohort reporting oral use (70%), and one-quarter reporting ever having injected this type of drug (23%). In the preceding six months, 77% of participants reported use of illicit benzodiazepines. Recent injection of illicit benzodiazepines was reported by 23% of participants. There was a large amount of overlap in the use of licit and illicit benzodiazepines: in the current cohort, 43% (n=32) of those who had recently used benzodiazepines reported use of illicit benzodiazepines only, 17% reported licit use only (n=14), and 43% had recently used benzodiazepines accessed both licitly and illicitly (n=35).

The demographic characteristics of those that had used illicit benzodiazepines in the past 6 months were similar to those of other PWID (see Section 3.1) in terms of age, sex, cultural background, sexual preference, relationship status, employment, income sources, prison history, accommodation, age of first injection, duration of injecting career, frequency on injecting in the preceding month, drug first injected, drug most injected and drug of choice. However, those that had used illicit benzodiazepines in the preceding six months reported completing more years of formal schooling (11 yrs v. 10 yrs: F(1,99)=11.007, p=0.03) and were less likely to report no current access to a form of drug treatment (52% v. 73%: $\chi^2(1_{n=100})=3.84$, p=0.04) than participants who reported no recent use of these drugs.

The median frequency of use of any form of benzodiazepine was a median of 96 days in the preceding six months amongst those using the drug (SD=72.8, range 1-180). 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 varied between 59 and 96 days (Figure 32). Among the 23 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).

Figure 32: Proportion of participants reporting recent use of benzodiazepines and median frequency of this use, 2000-2011



Source: IDRS PWID 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 PWID who had most often injected methadone (91%), morphine (72%) and methamphetamine (73%). Injection of benzodiazepines was reported by 22% of primary users of methadone, 31% of primary morphine users and just 4% of primary methamphetamine users (Table 13).

Table 13: Patterns of use of benzodiazepines amongst primary users of other drugs in thePWID sample, 2011

Drug most injected in the past month	Swallowed benzodiazepines in past 6 months	Injected benzodiazepines in the past 6 months
Methadone (n=23)	91% (n=21)	22% (n=5)
Morphine (n=39)	72% (n=28)	31% (n=12)
Methamphetamine (n=26)	73% (n=19)	4% (n=1)

Source: IDRS PWID 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 55 participants who responded, two-thirds reported use for the purpose of self-treatment (61%, n=35), which included self-treating a mental health problem, most commonly anxiety, or self-treating opioid or benzodiazepine dependence. One-quarter of the participants reported use for the purpose of intoxication as the main reason (25%, n=14), and small minorities reported use of illicit benzodiazepines as a 'substitute' for another drug (5%, n=3), or to help manage amphetamine 'come-down' symptoms (4%, n=2).

Examination of Table 14 clearly indicates that, as per trends in previous IDRS cohorts, diazepam is the most commonly used benzodiazepine among those swallowing the drug (used by 89% of those swallowing a benzodiazepine in the preceding six months, n=79). Oral use of alprazolam (Xanax, Kalma, Aplrax) in the preceding six months remained relatively stable between 2005 and 2010, ranging between 44% and 63% of recent users of benzodiazepines reporting use. In 2011, this rate decreased to 35% (54% in 2010: $\chi^2(1_{n=150})=4.25$, p=0.04). Oral use of temazepam tablets (Temtabs, Normison, Temaze) increased between 2009 and 2010, from 19% (n=14) to 34% (n=34: $\chi^2(1_{n=100})=5.0$, p=0.02), and this remained stable into 2011 (32%). Use of oxazepam (Serepax, Murelax, Alepam) was reported by between 37% and 49% of recent oral benzodiazepine users between 2005 and 2010; in 2011 this decreased to 29% ($\chi^2(1_{n=150})=5.6$, p=0.02).

Benzodiazepines	2005 (n=86)	2006 (n=83)	2007 (n=87)	2008 (n=75)	2009 (n=75)	2010 (n=71)	2011 (n=79)
	%	%	%	%	%	%	%
Alprazolam	44	63	46	55	49	54	35
Clonazepam	5	6	5	7	17	17	1
Diazepam	85	80	82	97	96	100	89
Flunitrazepam	7	10	6	9	7	6	5
Nitrazepam	10	25	11	9	21	21	9
Oxazepam	37	43	44	37	49	49	29
Temazepam							
Capsules	3	1	5	1	3	-	-
Tablets	10	20	23	24	19	34	32
Doxylamine	-	-	3	1	-	3	1
Zolpidem	-	-	2	1	1	4	-

Table 14: Benzodiazepine and related formu	Ilations used by PWID orally in the six months
prior to interview, 2005-2011	

Source: IDRS PWID 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 (Table 15). Comparing the injection of the main types of benzodiazepines used for injection across IDRS PWID cohorts over time, it is clear that use of gel capsule formulations of temazepam decreased (36% of the sample in 2001, falling to 4% in 2005 and no reports of this in 2011), reflecting their restriction and eventual removal from the market. Rates of injection of diazepam have remained relatively stable over time (5-12% of the cohorts between 2002 and 2011) (Table 15). The proportion of the PWID cohorts reporting recent injection of alprazolam steadily increased between 2001 and 2008 from 4% to 30%; decreased to 14% in the subsequent two years, however, in 2011, this rate increased slightly, but not significantly (22%, p=0.2).

Injected in last 6 months:	2005	2006	2007	2008	2009	2010	2011
Temazepam gel capsules	4	-	1	-	-	-	-
Alprazolam	19	27	25	30	20	14	22
Diazepam	8	10	6	12	11	6	5
Oxazepam	5	4	2	3	1	4	-
Clonazepam	2	2	2	3	4	2	-
Flunitrazepam	2	2	2	4	2	-	-

Table 15: Types of benzodiazepines commonly injected by PWID, 2005-2011 (N=100)

Source: IDRS PWID 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 central nervous system (CNS) depressant drugs, and, moreover, the extremely disinhibited behaviour that can occur following such combined use. In 2011, 14% of participants reported concomitant injection of a pharmaceutical opioid and a benzodiazepine. This is a similar rate as reported in 2009 and 2010 (15 and 13% respectively), but marks a significant decrease from the rate reported in 2005, when 40% of the sample reported this ($\chi^2(1_{n=100})=15.85$, p<0.001) (Figure 33).

Nine participants reported injecting a combination of benzodiazepine and methadone syrup in the preceding six months, at a median frequency of 5 days (range 1-160 days), which equates to use approximately once per month. Of these participants, all reported alprazolam as the benzodiazepine used. Injection of morphine and benzodiazepines in combination was reported by six participants at a median frequency of 14 days (range 1-180 days). Of these six participants, four used alprazolam and one participant used diazepam (one participant did not comment). Four participants reported concomitant use of Physeptone and another benzodiazepine, at a median frequency of nine days (range 2-24 days); all of whom cited alprazolam as the form of benzodiazepine used.

KE commenting on predominant opioid users noted that use of both licit and illicit benzodiazepines was common in these groups. One KE noted that when regular pharmaceutical opioid users are unable to access opioids, they use benzodiazepines, predominantly diazepam and alprazolam. 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. 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 both the 2009 and 2010 studies, KE noted that there was a stigma regarding injecting use of alprazolam.





Two KE in NSP and drug treatment settings noted a decrease in reports of injecting use of alprazolam. In the 2010 study, one KE employed in an NSP noted 'there has been a drop in people injecting alprazolam; however, people aren't going to tell you they inject it because they'll get a lecture'. Two KE noted that most benzodiazepine use is oral, however, alprazolam tends to be injected more often than other forms.

4.7.2 Alprazolam

As discussed in Section 4.7.1, injecting use of alprazolam increased from 3% of the IDRS cohort in 2002 to 30% in 2008, as did concomitant injecting use of alprazolam and opioids. Both KE and PWID participants have provided anecdotal reports of harms associated with this use, such as vascular damage, 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 changes, new questions on alprazolam use were incorporated in the IDRS survey. Two-thirds of participants reported ever having used alprazolam (68%), and two-fifths reported having used this drug in the preceding six months (43%, n=43). Of this group reporting recent use, the median frequency was 6 days (range 1-180), which equates to use approximately

once per month. Injecting use of alprazolam tablets in the preceding six months was reported by 22% of the sample, at a median frequency of 11 days (range 1-180).

One-fifth of the sample reported ever having been prescribed alprazolam (20%, n=20), with all except two participants reporting oral use, and 40% (n=8) reporting injecting alprazolam at some stage. Just 4% of the sample reported recent use of alprazolam that was directly prescribed to them, none of whom reported injecting use.

Lifetime use of illicit alprazolam was reported by two-thirds of the sample (64%, n=64), and onethird of the sample reported ever having injected the drug (37%, n=37). Two-fifths of the sample reported use of illicit alprazolam in the preceding six months, at a median frequency of six days (range 1-180), which equates to use approximately once per month. Injecting use of illicit alprazolam was reported by 22% (n=22), at a median frequency of six days (range 1-180).

Participants who reported recent use of alprazolam were asked to comment on the form they had most often used in the preceding six months, with almost all participants reported illicit alprazolam (92%, n=38). These participants were also asked to report on the quantity of alprazolam they consumed on the last occasion: participants reported a median amount of 2.5mg, however, there was a broad range of doses reported (0.5mg-50.0mg, SD=8.9).

There are clear indications that, following a reduction of the injection of benzodiazepines among PWID 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 PWID 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 PWID 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 PWID samples reporting recent injection of alprazolam increased from 11% to 30%. In 2010, this rate of injection decreased significantly to 14% ($\chi^2(1_{n=100})=6.56$, p=0.01), however in the current study, this rate has again increased – albeit not significantly – to 22% of the sample (p=0.2). The regulatory changes regarding alprazolam prescribing that were implemented by Pharmaceutical Services in September 2007 may account for recent indications of increased price of illicit alprazolam. Anecdotal reports from both PWID and KE point 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 PWID, 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.

4.7.3 Prevalence of benzodiazepine use

In the 2010 National Drug Strategy Household Survey (AIHW, 2011) (n=1,060), 1.3% of Tasmanian respondents reported using benzodiazepines in the preceding year, similar to the rate reported in 2007 (1.0%). The rates reported for Tasmania are similar to those reported nationally in 2007 (1.4%) and 2010 (1.5%) (AIHW, 2011). 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 2010 surveys (Figure 34).



Figure 34: Prevalence of benzodiazepine use in Australia and Tasmania among those aged 14 years and over, 1993-2010

Source: National Drug Strategy Household Survey 1993-2011

4.7.4 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 period¹³. However, in 2001/02, the proportion of positive urine screens indicating use of benzodiazepines 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 the subsequent four financial years, the reported rate again decreased (7% in 2007/08; 9% in 2008/09; 6% in 2009/10; and 5% in 2010/11). It should be noted that an increasing proportion of urine screens are conducted on suspicion of use rather than random screens (e.g. in 2010/11, of those identified as positive for benzodiazepines, 82% of these cases were identified on suspicion), so these figures will necessarily be an overestimate of the prevalence of drug use in this context.

4.7.5 Benzodiazepine use among PWID

Reported use of benzodiazepines as the main drug injected by non-pharmacy NSP outlet clients has undergone subtle changes in the past ten years. In 2001/02, 3.8% of NSP transactions were reported for use of benzodiazepines (Table 16). Between 2002/03 and 2005/06, reports of benzodiazepines as the main drug injected remained at 0.4% or less 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 the subsequent three reporting periods (2008/09-2010/11), this rate decreased, ranging between 0.4% and 0.7%, as did the number of transactions (ranging between 147-215) (Table 16). It should be noted, however, that there are limitations with this dataset (see Section 2.3.1) and that data from the NSP are likely to

¹³ These figures only include positive urine screens for benzodiazepines that were not prescribed to the prisoner.

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 PWID will often report another drug as the drug they most often injected). In addition, one KE in the 2010 study, employed in an NSP, noted that in general, clients won't state they are injecting benzodiazepines – especially alprazolam – as they are likely to receive a *'lecture about it'*.

Table 16: Proportion of transactions in which benzodiazepines were reported as 'drug most often injected' by Tasmanian non-pharmacy Needle and Syringe Program clients, 2001/02-2010/11

Year	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11
Number of transactions										
reporting benzodiazepines	761	52	139	36	52	304	399	147	201	215
Percent of total transactions reporting benzodiazepines	3.8%	0.2%	0.4%	>0.1 %	0.2%	0.9%	1.2%	0.4%	0.6%	0.7%

Source: Population Health, Department of Health and Human Services

4.8 Other drugs

Key Points:

- 92% of the sample reported use of tobacco in the preceding six months, with most smoking on a daily basis;
- Two-thirds of the sample reported use of alcohol in the preceding six months, at a median frequency of 24 days. This level of use has remained stable over preceding years;
- One-fifth of the sample reported recent use of ecstasy, at a median frequency of two days. In keeping with other local and national drug surveys, a trend of decreasing ecstasy use was observed in 2011;
- One-third of the sample reported recent use of prescription stimulants, with similar rates of use of methylphenidate and dexamphetamine. These are generally used as second-line drugs.

4.8.1 Tobacco

Almost all participants in the current study reported lifetime use of tobacco (96%), with a similarly high proportion reporting use in the preceding six months (92%). The median frequency of this use was 180 days, equating to daily use. Eighty-eight percent of the sample reported daily use of tobacco, a notably higher rate than was reported in the 2010 National Drug Strategy Household Surveys (NDSHS) (AIHW) both nationally and for Tasmania (15.1% and 15.9% respectively), and for an age-matched sub-sample (aged 30-39) from the national 2010 NDSHS (20.2%) (Figure 35).

Nationally, the NDSHS has estimated prevalence of daily tobacco use as decreasing from 19.4% in 2001 to 15.1% in 2010; in Tasmania this rate also decreased, from 22.6% in 2007 to 15.9% in 2010.

Figure 35: Rates of tobacco use amongst Australian and Tasmanian populations and Tasmanian IDRS samples, 2001-2011



Source: IDRS PWID interviews, National Drug Strategy Household Surveys, 2001-2010 (AIHW, 2002a&b, 2005a&b, 2008a&b, 2011)

Heavy Smoking Index nicotine dependence

For the first time in 2011, participants who smoked daily were asked two questions from the Fagerstrom test for nicotine dependence, known as the Heavy Smoking Index (HSI) (n=85). These questions included 'How soon after waking do you smoke your first cigarette?' and 'How many cigarettes a day do you smoke?'. The responses were then scored on a four category scheme (0,1,2,3) for both time to the first cigarette of the day (\leq 5, 6-50, 31-60 and 61+ min) and average daily consumption of cigarettes (1-10, 11-20, 21-30, 31+ cigarettes). The sum of these scores was computed and a cut-off score of 4 or more was used to indicate high nicotine dependency (Heatherton et al., 1989).

As seen in Table 17, approximately two-fifths of the participants who commented reported smoking their first cigarette within five minutes of waking (41%) or between five to 30 minutes of waking (38%). Almost half of daily smokers reported smoking between 11-20 cigarettes a day (46%) and one-third reported smoking 10 or less cigarettes a day (33%). The mean HSI score was 3.1 (SD 1.4). One-third of daily smokers (35%) scored 4 or above indicating high nicotine dependence.

Table 17. Heavy Shoking index for incolline dependence, 2011										
Time till first cigarette	n=85									
Within 5 minutes (%)	41									
5-30 mins (%)	38									
31-60 mins (%)	15									
60+ mins (%)	6									
Number of cigarettes smoked a day	n=84									
10 or less cigarettes (%)	33									
11-20 cigarettes (%)	46									
21-30 cigarettes (%)	16									
31 or more cigarettes (%)	5									
High Dependence [*] (%)	35									
Mean score	3.1									

 Table 17: Heavy Smoking Index for nicotine dependence, 2011

Source: IDRS participant interviews * Scored 4 or above

4.8.2 Alcohol

Almost all participants in the 2011 IDRS study reported lifetime use of alcohol (99%), and 68% of the cohort had used alcohol in the preceding six months. The median frequency of use amongst those who had recently consumed alcohol was 24 days (range 1-180), which equates to use once per week. Four percent of participants (n=4) reported daily alcohol use in the preceding six months, and 41% (n=41) reported use of alcohol at least weekly (but not daily) during the six months preceding the interview. These rates are similar to those reported for both the Tasmanian and national samples from the 2010 NDSHS.

Based on data from the 2010 National Drug Strategy Household Survey, it was estimated (from the sample of 1,060 participants) that approximately 47.6% of Tasmanians had used alcohol on a weekly basis in the year prior to interview, compared with 45.2% Australians nationally (AIHW, 2011). The proportion of the Tasmanian NDSHS sample that had used alcohol daily in the year prior to interview was similar to the national estimate (6.4% vs. 7.2%, p=0.4) (Figure 36). Among those aged between 30 and 39 in the 2010 national NDSHS sample, 50.2% had used alcohol on a weekly basis and 6.6% had used alcohol on a daily basis in the past 12 months.

Figure 36: Rates of alcohol use amongst Tasmanian NDSHS participants aged 14 years and older and IDRS samples, 2001-2011



Source: IDRS PWID interviews, National Drug Strategy Household Surveys, 2001-2010 (AIHW, 2002b, 2005b, 2008b, 2011)

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). Amongst participants who reported use of alcohol in the preceding six months, the overall mean AUDIT score was 12.8 (median 10.0; range 1-35, SD=9.14, n=66).

The total AUDIT score places respondents into one of four 'zones', or risk levels. Amongst participants reporting consumption of alcohol in the preceding six months (n=66), approximately one-third of participants scored in zone 1 (35%, n=23), a level reflecting low risk drinking or abstinence; similarly, one-third scored in zone 2 (33%, n=22), indicative of alcohol use in excess of low-risk guidelines; 11% (n=7) scored in zone 3, harmful or hazardous drinking; and 21% (n=14) scored in zone 4, indicating that those in this zone may benefit from referral to assessment and possible treatment for alcohol dependence.

4.8.3 Ecstasy and related drugs

There have been multiple indicators pointing to a tightening of the ecstasy market over the past few years. KE reported largely infrequent, oral use of 'ecstasy'¹⁴ 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.

In the PWID sample, 67% had used ecstasy at some stage in their lives: swallowing of the drug was most common, reported by 63% of the sample; and 30% of the sample reported injecting at some point in their lifetime. Use of ecstasy in the previous six months was reported by 20%, at a median frequency of two days (range 1-48 days), which equates to use approximately once per three months. Recent oral use was reported by 18% of the sample, and 5% reported injecting in this period, at a median frequency of one day (range 1-13 days). As shown in Figure 37, these findings indicate a trend of decreasing use of ecstasy since 2009 (2009 42% v. 2011 20%: $\chi^2(1_{n=200})=10.31$, p=0.001).

The demographics of those that had used ecstasy in the past six months did not differ greatly from those of the larger PWID sample (see Section 3.1) in terms of sex, age, cultural background, sexual preference, relationship status, employment status, education, prison history, accommodation, current engagement in drug treatment, age of first injection, duration of injecting career, frequency of injection, and first drug injected. However, recent ecstasy consumers in the current PWID cohort were more likely to report criminal activity as a source of income in the preceding month (30% v. 11%: $\chi^2(1_{n=100})=4.412$, p=0.046) than participants who had not reported recent ecstasy use. In addition, recent users of ecstasy were more likely to report a form of methamphetamine as the drug most injected in the preceding month (65% v. 16%: $\chi^2(1_{n=100})=19.764$, p<0.001), and correspondingly were less likely to report a pharmaceutical opioid as their drug of choice (15% v. 41%: $\chi^2(1_{n=100})=4.785$, p=0.023) than participants who had not reported recent ecstasy use.

¹⁴ Intelligence reports from police in previous years suggest that many of the tablets sold as 'ecstasy' may not necessarily contain 3,4 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.

Figure 37: Proportion of PWID reporting ecstasy use and injection in the preceding six months, 2001-2011



Source: IDRS PWID interviews

Between the 2007 and 2010 National Drug Strategy Household Surveys (AIHW, 2011), a decrease in past yearly use of ecstasy for the national sample was reported (3.5% in 2007 v. 3.0% in 2010: χ^2 (1_{n=50,004})=9.78, p=0.002). In Tasmania, the estimated prevalence of use was 2.4% in 2007, slightly – but not significantly – higher than reported in 2010 (1.7%, p=0.3) (Figure 38).

Figure 38: Rates of ecstasy use amongst Tasmanian NDSHS and IDRS samples, 2001-2010



Source: National Drug Strategy Household Surveys, 2001-2010 (AIHW, 2002a&b, 2005a&b, 2008a&b, 2011)

4.8.4 Prescription stimulants (dexamphetamine, methylphenidate)

In the 2011 PWID sample, 65% had used illicit prescription stimulants at some stage in their lives. Injection of these drugs was most common, reported by 53% of the sample at some stage of their lives, and 31% in the preceding six months, at a median frequency of three days in this period (range 1-150 days, SD=34.02). Swallowing of prescription stimulants was reported by 32% of the sample at some stage in their lives, while 7% had swallowed these drugs in the past six months. In

total, 35% of the sample reported using illicit prescription stimulants in the past six months, with a median frequency of use of three days (range 1-150 days, SD=32.24) in this period. Of those who commented on the main type of pharmaceutical stimulant used (n=34), similar proportions reported dexamphetamine (50%, n=17) and methylphenidate (47%, n=16).

While use of these drugs was relatively common among the PWID cohort, it appeared that they were predominantly used as a second-line drug, as no 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 was evident: the proportion of participants reporting recent use decreased from 51% in 2004 to 31% in 2007 ($\chi^2(1_{n=100})=7.5$, p=0.006), and has remained stable since this time (Figure 39).



Figure 39: Recent use of illicit pharmaceutical stimulants amongst IDRS participants, 2003-2011

Source: IDRS PWID interviews

The demographic characteristics of those who had used prescription stimulants in the past six months did not differ from those of the larger PWID sample (see Section 3.1) in terms of age, sex, cultural background, sexual preference, education, employment status, relationship status, stable accommodation, income sources, prison history, engagement in drug treatment, frequency of injection, age at first injection, drug first injected, most injected and drug of choice. 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 (37.1 years) and those that had not (33.6 years, p=0.06).

4.8.5 Quetiapine

In response to increasing anecdotal reports of extra-medical use of quetiapine, new questions regarding use of this drug were introduced in the 2011 survey. Quetiapine is an antipsychotic medication, marketed as Seroquel. Almost two-fifths of the sample reported lifetime use of quetiapine (37%). In the preceding six months, 8% of the sample reported licit use, 11% illicit use, and a single participant had used both. The median frequency of use of illicit quetiapine was 30 days (range 1-180 days, SD=58.5, n=12). All participants reporting illicit use had exclusively swallowed the drug. One KE noted that antipsychotics such as Seroquel are used by some consumers as a cheap alternative to benzodiazepines. Two KE noted no health problems experienced by consumers who reported use of non-prescribed Seroquel.

4.8.6 Inhalants

While 24% of the PWID respondents reported ever using inhalants, just 5% had used them in the six months prior to interview. The inhalants reported included nitrous oxide and amyl nitrate. The

use of these substances was extremely infrequent, with a median frequency of just one day in the preceding six months (range 1-3 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'.

4.8.7 Hallucinogens

Sixteen percent of the PWID respondents in the current study reported use of hallucinogens in the six months prior to interview, although three-fifths (61%) had used this class of drugs at some stage in their lives. The current frequency of use was rare, at a median of two days in the past six months (range 1-12 days). The majority of participants had used these drugs only once (n=4) or twice (n=6) in this time. The types of hallucinogens most commonly used amongst this group were lysergic acid diethylamide (LSD) (57%, n=8) and psychedelic mushrooms (43%, n=6). 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.

In the current study and 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, 2011; Matthews, Peacock & Bruno, 2012) – found higher levels of hallucinogen use relative to the IDRS PWID cohort (albeit also at a low frequency) among frequent ecstasy users (43% of the 100 ecstasy users using LSD in the six months prior to interview in 2011; and 23% using mushrooms). More details in regard to patterns of hallucinogen use in such demographic groups can be found in Matthews, Peacock & Bruno (2012).

4.8.8 Alkaloid poppies

Eight percent of the current cohort reported use of alkaloid poppies at some stage in the preceding six months (described by the PWID as opium or poppy tar). This level of recent use of alkaloid poppies is similar to that reported between 2006 and 2010 (8-12%), but remains somewhat less than that identified in the preceding five local IDRS PWID cohorts (12-21%) (Figure 40). The median frequency of use of alkaloid poppies has remained stable and low since 2000, ranging between two and 15 days in the preceding six months.



Figure 40: IDRS participant use of alkaloid poppies, 2000-2011

5.0 DRUG MARKET: PRICE, PURITY, AVAILABILITY AND PURCHASING PATTERNS

5.1 Heroin

Key Points:

- The median and modal prices that participants reported last paying for heroin were \$75 for a cap and \$400 for either 0.5g or 1.0g. It should be noted that very few participants were able to comment on heroin prices;
- The majority of participants who commented noted that heroin was difficult to access in Tasmania, and that this situation had not changed in the preceding six months;
- No clear trend was discernible regarding purity of heroin.

5.1.1 Price

In previous years, PWID 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. In the current study, just two participants commented on the market price of one 'cap' of heroin, reporting this to cost a median price of \$75, the same price that participants reported actually paying for such purchases in the preceding six months (median \$75, n=2). One participant reported the purchase price of a half-gram of heroin to be \$400, whereas two participants reported the same median purchase price for one gram of heroin (\$400, n=2). In previous years when IDRS PWID cohorts reported higher levels of heroin use, information regarding price was more common (see Table 18). None of the KE could confidently comment on purchase prices of heroin. Just six participants commented on changes in price of heroin in the preceding six months: four-fifths of this group (83%, n=5) reported no change.

Descriptor	20	00	20	2001		2002		2003		2004		2005	
	\$	n	\$	n	\$	n	\$	n	\$	n	\$	n	
Cap,taste, point (~0.05- 0.15g)	\$50	1	\$50	15	\$100	12	\$50	7	\$50	6	\$100	4	
'Points'/'2 tastes'(~0.2g)	\$100	2	\$100	8	\$93*	2	\$100	1	\$50	1	-	0	
1/4 gram (0.25g)	\$50	1	\$100	1	\$135*	4	\$100	1	\$100	1	-	0	
Half-weight (0.5g)	-	0	\$170	1	\$250	1	-	0	\$370*	2	-	0	
Gram (1.0g)	\$375*	2	\$300	2	\$350	1	\$350	2	\$350	4	\$360*	3	

Table 18: Modal price of heroin purchased by PWID, 2000-2011 IDRS

Source: IDRS PWID interviews

^{*} Where multiple modes existed, median price was substituted.

Table 18: Modal price of heroin purchased by PWID, 2000-2011 IDRS (continued)

Descriptor	20	06	2007		2008		2009		2010		2011	
	\$	n	\$	n	\$	n	\$	n	\$	n	\$	n
Cap,taste, point (~0.05- 0.15g)	-	0	\$50	1	\$50	1	-	0	-	0	\$75	2
'Points'/'2 tastes'(~0.2g)	\$200#	1	-	0	-	0	-	0	-	0	-	0
1/4 gram (0.25g)	-	0	-	0	-	0	-	0	-	0	-	0
Half-weight (0.5g)	-	0	-	0	\$500	0	\$150	1	-	0	\$400	1
Gram (1.0g)	-	0	-	0	-	0	\$450	1	-	0	\$400	2

Source: IDRS PWID interviews

^{*} Where multiple modes existed, median price was substituted. [#] Refers to 2-3 points

5.1.2 Availability

Of the eight PWID participants that were able to comment on the availability of heroin, three quarters reported it to be either 'difficult' or 'very difficult' to access (n=2 and n=4 respectively), and one-quarter reported it was either 'easy' or 'very easy' to access (n=1 respectively). This is similar to reports over the preceding three years, in which the majority of the very small number of participants able to comment reported it to be difficult to access. None of the KE interviewed in 2011 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. Three-quarters of the participants who commented reported that they perceived heroin availability having remained stable in this time (75%, n=6). Examining trends in reported heroin availability over time in the local IDRS study (Figure 41), 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. Between 2007 and 2010, very small numbers of participants (i.e. less than 5) were able to comment, so this data was not included when examining trends over time (Figure 41).

Figure 41: Participant reports of current heroin availability, of those who commented, 2000-2011



Source: IDRS PWID interviews

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

* The estimates in 2007-2010 were not included as they were based on an extremely small number of reports (i.e. <5 per annum)

Tasmania Police reported no heroin seizures between 2000/01 and 2003/04¹⁵ and 2006/07 and 2010/11¹⁶. In 2004/05 and 2005/06 single seizures (0.2g and 2.8g respectively) of a drug believed to be heroin were reported.

When reviewing this information, it appears that the historical pattern of limited availability of heroin locally has continued. While some better-connected PWID may have reasonably stable access to

¹⁵ 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.

¹⁶ Note: 2010/11 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 drug, the availability of heroin in the state remained low, as indicated by the low level of recent use of the drug by the PWID sample.

5.1.3 Purity

Participants were asked to comment on the subjective purity of heroin they had recently used.

The seven participants who responded were divided in their responses: 43% (n=3) reported purity to be 'medium'; and 29% (n=2 respectively) noted it to be either 'high' or 'low' in subjective purity. No KE in 2011 could comment on the purity of heroin used by the groups that they were familiar with. In previous surveys, PWID 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.

Participants were also asked to comment on any perceived changes in heroin purity in the preceding six months. Two-thirds of this group reported no change (67%, n=4), whilst single participants noted either increasing or fluctuating purity.

Examining subjective reports of heroin purity in the Tasmanian PWID cohorts over time, it is clear that, while these reports have fluctuated somewhat 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 42).

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.





Source: IDRS PWID interviews

* The estimates in 2007-2010 were not included as they were based on an extremely small number of reports (i.e. <4 per annum)

5.1.4 Trends in heroin use

Whilst an increase in the proportion of local IDRS participants reporting recent use of heroin was identified, the median frequency of this use remains very low (4 days in the preceding six months). No increase in transactions related to heroin use was noted in the Tasmanian NSP dataset for the 2010/11 period. Amongst the small number of participants able to comment, availability of heroin in Tasmania remains poor, and participant reports of subjective purity are mixed. In addition, Tasmania Police reported no seizures or arrests related to heroin in the 2010/11 period. These indicators suggest that the low levels of heroin availability – and consequently use – that have been reported in previous Tasmanian IDRS studies, have continued into 2011. However, the increase in the rate of reports of recent use of heroin indicate that further monitoring of these trends is important.

The Australian Crime Commission (ACC) 2008/09 Illicit Drug Data Report (2010) noted that there had been an increase in the number of embarkation countries for heroin importation into Australia: increasing from 11 in 1999/00 to 29 in 2008/09. In 2009/10, this remained unchanged (ACC, 2011). Of detected heroin importations into Australia that were greater in weight than one kilogram, Cambodia was the primary embarkation point – for both weight and number. Vietnam, Singapore and Afghanistan were other relatively common embarkation points (ACC, 2011). The Australian Federal Police Australian Illicit Drug Data Centre conducts drug profiling on certain heroin seizures, which allows for identification of regions of origin. Between 2005 and 2009, the proportion of profiled heroin seizures from South-West Asia increased from 18% to 66%. This trend was briefly reversed in 2009, however, in the first half of 2010, heroin produced in South-West Asia was the predominant form identified in profiled seizures (ACC, 2011). Afghanistan remains the predominant producer of opium and heroin. In the Golden Triangle region of South-East Asia (Burma, Thailand and Laos), Burma is the primary cultivating country. With the high use of opioids and stable strong preference for heroin amongst the PWID sampled by the IDRS, both locally and nationally (Stafford & Burns, 2012), future trends in use of the drug continue to merit close attention, particularly as heroin markets nationally regain momentum.

5.2 Methamphetamine

Key Points:

Powder form

- The median price for 1 'point' (0.1g) of powder form methamphetamine was \$50, and \$300 for 1 gram. Participants considered that these prices had remained stable over the preceding six months;
- Availability of this form was considered to be either 'easy' or 'very easy', and that this situation had remained unchanged over the preceding six months;
- Most purchases occurred from a known dealer or friend, with these most commonly
 occurring in a dealer's or friend's home or in an agreed public location;
- Purity was considered to be low to medium, and that over the preceding six months purity had either remained stable or decreased somewhat.

Base/paste form

- The median price for 1 'point' (0.1g) of base/paste methamphetamine was \$50, and \$300 for 1 gram. Participants considered that these prices had remained stable over the preceding six months;
- Availability of this form was considered to be either 'easy' or 'very easy', and that this situation had remained unchanged over the preceding six months;
- Most purchases occurred from a known dealer or friend, with these most commonly
 occurring in a dealer's or friend's home or in an agreed public location;
- Purity was considered to be medium, and that this had not changed over the preceding six months.

Crystal/ice

- The median price for 1 'point' (0.1g) of crystal methamphetamine was \$50. Participants considered that the price for this form had remained stable over the preceding six months;
- Availability was considered to be either 'easy' or 'very easy', and that this situation had remained unchanged over the preceding six months;
- Most purchases occurred from a known dealer or friend, with these most commonly occurring in a dealer's home;
- Purity was considered to be high, and that this had not changed over the preceding six months.

5.2.1 Price

As discussed in Section 4.3, 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 (70%) of PWID that were able to comment on price considered that it had remained stable in the preceding six months.

Table 19: Participants' reports of price trends of methamphetamines in the past six months

	2011 IDRS N=100									
	Powder	Base/Paste	Crystal							
Price Trend										
Able to respond (%)	53	24	17							
Of those who responded:										
Increasing (%)	13	17	35							
Stable (%)	83	75	65							
Decreasing (%)	0	4	0							
Fluctuating (%)	4	4	0							

Source: IDRS PWID interviews

Methamphetamine Powder

PWID reported the median market price¹⁷ of powder methamphetamine as \$50 per 0.1 gram (an amount typically referred to as a 'point': modal price estimate \$50, range \$40-70, n=28); and \$300 per gram (modal price estimate \$300, range \$300, n=6). These were consistent with the prices that PWID reported actually paying for their last purchase in the preceding six months.

PWID reported the median last purchase price of powder methamphetamine as \$50 per 0.1g: modal price \$50, range \$30-70, n=21); \$150 for 0.5g purchases (modal price \$150, range \$150-200, n=23); and \$300 per gram (modal price \$300, range \$200-300, n=12). These prices were consistent with the prices reported in surveys between 2005 and 2010 (Table 20, Figure 43). Four KE commented on the cost of methamphetamine: all reporting one 'point' to cost between \$50 and \$70. Two of these KE noted that \$70 buys a better quality product, with one KE stating *'the quality depends on where in the chain you get it from, it can range from 10-20% purity down to 1-4%'*. The clear majority (83%, n=44) of those consumers that were able to comment¹⁸ (n=53) reported stable prices for methamphetamine powder in the preceding six months, with only small minorities of PWID participants reporting either perceived recent increases (13%, n=7) or fluctuating prices (4%, n=2) (Table 19).

Between 2010 and 2011, the price range for 'points' remained stable (\$30-70 in 2010 and 2011). An increase in the lower-range of price paid for half-gram purchases was observed, increasing from \$100-200 in 2010 to \$150-200 in 2011 (Table 20). The overall price range contracted for gram purchases, from \$180-350 in 2010 to \$200-300 in 2011.

Figure 43: Median prices of powder methamphetamine estimated from PWID purchases, 2001-2011



Source: IDRS PWID interviews

¹⁷ Market price refers to the price the drug is usually sold at, not necessarily the price paid.

¹⁸ Note that these figures do not include those that reported 'don't know' in response to this question, for consistency with national IDRS data.

Base/paste methamphetamine

PWID reported the median market price¹⁹ of base/paste methamphetamine as \$50 per 0.1g (modal price estimate \$50, range \$50-70, n=12); and \$300 per gram (modal price estimate \$300, range \$300-500, n=5). These were consistent with the prices that PWID reported paying for their last purchase in the preceding six months

PWID reported the median purchase price of 'base/paste' methamphetamine as \$50 per 'point' (0.1g: modal price \$50, range \$40-70, n=11), \$150 per 0.5g (modal price \$150, range \$130-200, n=16), and \$300 per gram (modal price \$300, range \$180-400, n=7) (Table 20). These prices have remained stable since the 2006 IDRS survey (Figure 44).

Similar to trends for powder methamphetamine, 75% of consumers (n=18) able to comment felt that prices for 'base/paste' methamphetamine had remained stable in the preceding six months, with only a small minority reporting increasing (17%, n=4) prices for this form (Table 19).

Between 2010 and 2011, the high-range of price paid for 'points' of base/paste increased slightly (\$40-50 in 2010 to\$40-70 in 2011). The overall price range contracted for half-gram purchases from \$100-250 in 2010 to \$130-200 in 2011, whilst for gram purchases, there was a decrease in the lower-range of price paid (\$250-400 in 2010 to \$180-400 in 2011) (Table 20).





Source: IDRS PWID interviews

Crystal Methamphetamine

PWID reported the median market price²⁰ of crystal methamphetamine as \$55 per 0.1g (modal price estimate \$50, range \$50-100, n=14). This was relatively consistent with the prices that PWID reported paying for their last purchase in the preceding six months. No reports of current market price were provided for gram purchases.

The median purchase price consumers reported last paying for the higher-purity crystal methamphetamine was \$50 per 0.1g (modal price \$50, range \$50-100, n=15) and \$163 for 0.5g (modal price \$150, range \$150-250, n=4). No participants reported a purchase price for one gram of crystal methamphetamine (Table 20). In terms of price changes in the preceding six months, the

¹⁹ Market price refers to the price the drug is usually sold at, not necessarily the price paid.

²⁰ Market price refers to the price the drug is usually sold at, not necessarily the price paid.

majority of participants able to comment reported prices had remained stable (65%, n=11) (Table 19).

Examining overall trends in reported purchase prices for crystal methamphetamine, median prices reported in 2011 for 'point' and half-gram purchases appeared to have remained relatively stable since 2010 (Table 20, Figure 45). However, there have been small shifts in the range of prices that participants reported paying. The high-range of price paid for 'points' of crystal increased slightly (\$50-80 in 2010 to \$50-100 in 2011), and for half-gram purchases, the low-end range increased (\$100-250 in 2010 to \$150-250 in 2011) (Table 20).

Figure 45: Median prices of crystal methamphetamine/ice estimated from PWID purchases, 2001-2011



Source: IDRS PWID interviews

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

Note: In 2011, no participants reported on price for 1gram purchases of crystal methamphetamine

Pharmaceutical Stimulants

Nineteen participants could confidently comment on the last purchase price for 5mg dexamphetamine tablets, reporting a median price of \$5 (modal price \$5, range \$2-10). Sixteen participants commented on last purchase price for methylphenidate preparations, reporting a median price of \$7 for a 10mg tablet and modal price of \$10 (range \$2.5-10) (Table 20). Prior to 2009, the modal price for 10mg methylphenidate was \$5, since this time the modal price for this preparation has consistently been \$10. Approximately half of those consumers able to report on price changes for pharmaceutical stimulants perceived no changes in the preceding six months (56%, n=15). However, almost one-third of participants (30%, n=8) perceived an increase in the price over this period.

General Price 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 2008/09, the price of a 'point' (0.1g) was reported to range between \$30-50; the cost of a 'street gram' (0.7g) between \$100-150,

a one gram purchase between \$200-300, and one ounce purchases cost between \$5,000 and \$8,000 (Table 21) (No price data was reported by ACC in 2009/10 or 2010/11 for Tasmania).

Although the 2009/10 and 2010/11 data were not available at the time of publication, when reviewing price trends over a longer time period, there was evidence to support PWID suggestions that the price of methamphetamine had 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 21 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.

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
Crystal								
methamphetamine								
'point' or packet (0.1 g)	\$50 <i>(\$30-80</i>)	34	\$50 <i>(\$50-80)</i>	24	\$50 <i>(\$40-80</i>)	13	\$50 <i>(\$20-80)</i>	17
half-gram (0.5 g)	\$200 <i>(\$180-250</i>)	6	\$150 <i>(\$120-275)</i>	13	\$150 <i>(\$120-300</i>)	25	\$150 [†] <i>(\$120-225</i>)	12
gram (1.0 g)	\$400 [†] (\$2 <i>80-500</i>)	7	\$340 [†] <i>(</i> \$2 <i>50-400)</i>	6	\$300 <i>(\$300-480</i>)	7	\$340 [†] (\$300-380)	2
Methamphetamine								
base/paste								
'point' or packet (0.1 g)	\$50 <i>(</i> \$35-80)	45	\$50 <i>(</i> \$30-80)	56	\$50 <i>(</i> \$2 <i>0-70</i>)	23	\$50 <i>(</i> \$30-50)	30
half-gram (0.5 g)	\$200 (\$100-250)	21	\$150 <i>(\$150-400</i>)	38	\$150 <i>(\$140-200</i>)	25	\$150 <i>(\$120-200</i>)	23
gram (1.0 g)	\$300 (\$200-350)	7	\$300 (\$150-400)	18	\$300 (\$250-300)	11	\$300(\$250-300)	3
Methamphetamine								
powder								
'point' or packet (0.1 g)	\$50 <i>(\$40-50)</i>	34	\$50 <i>(</i> \$30-50)	54	\$50 <i>(</i> \$30-50)	20	\$50 <i>(\$40-50</i>)	34
half-gram (0.5 g)	\$160 [†] (\$30-250)	16	\$150 <i>(\$100-200</i>)	36	\$150 <i>(</i> \$80-200)	26	\$150 <i>(\$150-200</i>)	29
gram (0.8 g)	\$300 (\$50-350)	10	\$300 [†] (\$250-350)	15	\$300 (\$250-300)	8	\$300(\$270-300)	3
Pharmaceutical							· · ·	
stimulants								
dexamphetamine tablet	\$5 <i>(\$0-15)</i>	52	\$4 [†] <i>(\$0.6-9)</i>	28	\$5 <i>(</i> \$2-10)	17	\$5 <i>(\$0.5-45)</i>	20
(5 mg)	\$5 (\$0-10)	12	\$5 (\$2-15)	16	\$5 (\$2-30)	12	\$5 (\$2.5-13)	10
methylphenidate tablet							. ,	
(10 mg)								

Table 20: Most common amounts and prices of methamphetamine purchased by PWID, 2004-2011

Source: IDRS PWID interviews * Common quantities and weight range for each purchase unit in parentheses † Median price was substituted where no single mode was reported

	2008 Survey Modal Price	n	2009 Survey Modal Price	n	2010 Survey Modal Price	n	2011 Survey Modal Price	n
Descriptor*	parentheses)		parentheses)		parentheses)		parentheses)	
Crystal methamphetamine								
'point' or packet (0.1 g)	\$50 <i>(\$40-50)</i>	14	\$50 <i>(</i> \$35-100)	20	\$50 <i>(</i> \$50-80)	5	\$50 <i>(\$50-100)</i>	15
half-gram (0.5 g)	\$150 <i>(</i> \$ <i>150-250)</i>	10	\$150 (\$150-200)	7	\$175 [†] (\$100-250)	7	\$150 <i>(\$150-250)</i>	4
gram (1.0 g)	\$300 (\$190-450)	5	\$300 (\$250-500)	4	\$400 [†] <i>(</i> \$2 <i>50-500)</i>	3	-	0
Methamphetamine								
base/paste								
'point' or packet (0.1 g)	\$50 <i>(</i> \$2 <i>0-100)</i>	16	\$50 <i>(\$40-80)</i>	42	\$50 <i>(\$40-50)</i>	21	\$50 <i>(\$40-70)</i>	11
half-gram (0.5 g)	\$150 <i>(\$150)</i>	4	\$150 <i>(\$100-180)</i>	26	\$150 <i>(\$100-250)</i>	15	\$150 <i>(\$130-200)</i>	16
gram (1.0 g)	\$300 <i>(</i> \$300)	3	\$300 <i>(</i> \$2 <i>50-350)</i>	5	\$300 <i>(</i> \$2 <i>50-400)</i>	6	\$300 <i>(</i> \$180-400)	7
Methamphetamine								
powder								
'point' or packet (0.1 g)	\$50 <i>(\$50)</i>	34	\$50 (\$40-50)	38	\$50 (\$30-70)	31	\$50 (\$30-70)	21
half-gram (0.5 g)	\$150 <i>(</i> \$75-200)	28	\$150 <i>(\$100-300)</i>	37	\$150 <i>(\$100-200)</i>	35	\$150 <i>(\$150-200)</i>	23
gram (0.8 g)	\$300 <i>(</i> \$2 <i>50-300)</i>	9	\$300 <i>(</i> \$2 <i>50-320)</i>	7	\$300 <i>(</i> \$180-350)	18	\$300 <i>(\$200-300)</i>	12
Pharmaceutical								
stimulants				~ -				
dexamphetamine tablet	\$5 (\$1.50-10)	21	\$5 (\$4-10)	25	\$5 (\$4-7)	21	\$5 (\$2-10)	19
(5 mg)	\$5 <i>(\$5-15)</i>	13	\$10 <i>(\$5-10)</i>	31	\$10 <i>(\$3-10)</i>	8	\$10 <i>(\$2.5-10)</i>	16
methylphenidate tablet (10 mg)								

Table 20: Most common amounts and prices of methamphetamine purchased by PWID, 2004-2011 (continued)

Source: IDRS PWID interviews

* Common quantities and weight range for each purchase unit in parentheses [†] Median price was substituted where no single mode was reported

···· · · · · · · · · · · · · · · · · ·											
	Point	Street gram	Full gram	Ounce							
	(~0.1g)	(0.6-0.8g)	(1.0g)	(28 gms)							
1997/98	price not reported	\$50	\$70-120	\$1,200-1,600							
1998/99	price not reported	\$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	price not reported	price not reported	\$5,000							
2005/06	price not reported	price not reported	price not reported	\$5,000							
2006/07	\$50	price not reported	\$270-380	\$4,000-5,000							
2007/08	\$30-50	\$100-150	\$200-300	\$5,000-8,000							
2008/09	\$30-50	\$100-150	\$200-300	\$5,000-8,000							

Table 21: Methamphetamine prices in Tasmania reported by the Tasmania Police Drug Investigation Services and the ACC, 1997/98-2008/09

Source: Australian Crime Commission; Tasmania Police State Intelligence Services Note: No price data for Tasmania was reported by the ACC for 2009/10, and data for 2010/11 financial year not available at time of publication

5.2.2 Availability

Across all methamphetamine 'forms', most PWID reporting on availability considered that the drug was 'easy' (50%) or 'very easy' (37%) to obtain, and that availability had remained stable (76%) in the previous six months. Trends for each form of the drug are discussed separately below.

Methamphetamine Powder

Most PWID sampled who could comment on the availability of powder form methamphetamine thought that it was 'easy' or 'very easy' to obtain (91%, n=61: 'easy' 51%; 'very easy' 40%) (Figure 48, Table 22). The clear majority of PWID participants also perceived the availability of powder methamphetamine to have remained stable in the preceding six months (80%, n=45), with a small minority considering that it had increased (11%, n=6) in availability in this time.

Base/Paste Methamphetamine

In regards to 'base/paste' methamphetamine, the majority of participants (83%) who commented reported it was either 'easy' (47%, n=14) or 'very easy' (37%, n=11) for them to obtain in the preceding six months. Three-fifths of this group perceived this level of availability to have remained stable in the six months prior to interview (61%, n=17), and small minorities perceived availability to have either decreased (18%, n=5) or increased (14%, n=4) in this period.

Crystalline Methamphetamine

Fewer participants were able to comment on availability trends for crystalline methamphetamine (16%, n=16) than for the other forms. Three-quarters of these participants noted that access to crystal was either 'easy' or 'very easy' (75%: 'easy' 50%; 'very easy' 25%), and one-quarter of this group reported access to be difficult (25%, n=4). The majority of participants able to comment (88%, n=14) perceived availability to have remained stable in the six months prior to interview. One law enforcement KE noted that there was more diversity in the forms of methamphetamine that had been seized, including powder, wet base and a crystallised form. This KE noted that whilst one form appeared to contain crystals, this was not crystal methamphetamine. In support of this statement, two law enforcement KE in the 2009 study commented that samples of crystal methamphetamine 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 four 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 20% in 2010, and a subsequent small increase in 2011 (26%, p=0.4).

Pharmaceutical Stimulants

Participants were divided with regard to current availability of pharmaceutical stimulants (dexamphetamine, methylphenidate), with 56% considering these as either 'easy' or 'very easy' ('easy' 48%; 'very easy' 7%), and 44% (n=12) reporting these as 'difficult' to obtain in the preceding six months. Two-thirds of participants reported availability over the preceding six months to have remained stable (68%, n=17), and one-quarter noted that availability had decreased (24%, n=6).

Tasmanian prescription rates of methylphenidate and dexamphetamine (Figures 46 and 47) 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 were consistently below that of the Australian average until 1998, and rose to 128% of the national average in 1999, and maintaining this level over time (being 132% of the national level in 2010), even in the context of an increasing national prescription rate.

Tasmanian consumption rates of dexamphetamine were comparable to that of the national level between 1997 and 1999, rising to 120% of 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 ranged between 84% and 96% of the national level, whereas in 2009 and 2010 – in the face of small increases in the national rate of prescription and small decreases in the Tasmanian rate – the Tasmanian rate has decreased to 70% of the national rate.

Figure 46: Consumption of methylphenidate (Ritalin) per 1,000 persons, 1992-2010



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

Figure 47: Consumption of dexamphetamine per 1,000 persons, 1992-2010



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

General Availability Trends

As can be seen in Figure 48, PWID reports of availability of powder methamphetamine have, overall, remained relatively stable between 2002 and 2011. In 2008, the proportion of participants reporting availability of powder to be 'very easy' increased from around two-fifths of each cohort in This change was not sustained in 2009, with 26% of those previous years to two-thirds. commenting reporting availability to be 'very easy'. Since this time, reports of 'very easy' access to this form have been stable (40-50% in 2010 and 2011). Availability of base/paste methamphetamine also appears to have fluctuated across the past seven 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 increased in 2009 and again in 2010. In 2011, a small decline in reports of 'easy' access accounted for an overall decrease in availability of base/paste. Availability reports for crystalline methamphetamine have been variable between 2002 and 2011, with lower levels of availability reported in 2009 and 2010 than were reported between 2006 and 2008 and in 2011.



Figure 48: PWID reports of ease of availability of different methamphetamine forms, amongst those who commented, 2002-2011

Source: IDRS PWID interviews
Table 22: Participants'	reports of methamphetamine availability in the past six months, 2	2010-
2011		

	Pow	/der	Ba	se	Cryst	al/Ice
	2010 (N=100)	2011 (N=100)	2010 (N=100)	2011 (N=100)	2010 (N=100)	2011 (N=100)
Current availability						
Able to respond (%)	64	55	33	30	17	16
Of those who responded:						
Very easy (%)	50	40	39	37	12	25
Easy (%)	45	51	58	47	41	50
Difficult (%)	5	9	3	17	24	25
Very difficult (%)	0	0	0	0	24	0
Availability change over the last six months						
Able to respond (%)	64	56	34	28	17	16
Of those who responded:						
More difficult (%)	8	5	3	18	12	0
Stable (%)	83	80	85	61	77	88
Easier (%)	6	11	6	14	12	13
Fluctuates (%)	3	4	6	7	0	0

Source: IDRS PWID interviews

Tasmania Police seizures (Figure 49) of drugs suspected to be methamphetamine have varied somewhat in recent years. There have been notable increases in both weight and number of seizures between 2001/02 and 2006/07 (seizures for 2005/06 were only reported to ACC for part of the financial year). In recent years, however, there have been decreases in the number of methamphetamine seizures (2006/07: 238 seizures and 2009/10: 111 seizures), however, in 2010/11, a small increase was observed (152 seizures). The total weight of annual seizures has been variable, with no clearly discernible trend. Between 2009/10 and 2010/11, the weight of seizures increased from 1,549g to 6,024g.

Figure 49: Seizures of methamphetamine by Tasmania Police, 1999/00-2010/11



Source: Australian Crime Commission, State Intelligence Service, Tasmania Police ^{*} Only part-year data were reported in 2005/06

Note: 2010/11 data were 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. These data include only seizures weighed in grams

5.2.3 Sources of methamphetamine purchases

Powder methamphetamine

Participants reported that they last purchased powder in the preceding six months through known dealers (49%) and friends (36%) (Table 23). The venues most commonly reported to be used for the last purchase of methamphetamine powder were a dealer's home (31%), a friend's home (27%) or an agreed public location (26%).

Base methamphetamine

Similar pathways to access were reported for 'base/paste' methamphetamine, with 48% of those that had purchased the drug reporting last purchasing from a known dealer, with purchases from friends somewhat less common (38%). Participants reported the last purchase venue to be a dealer's home (31%), a friend's home (28%) or an agreed public location (24%) (Table 23).

Crystal methamphetamine

Crystal methamphetamine was most commonly purchased through known dealers (67%) and friends (27%) (Table 23). The most commonly cited venue used for crystal methamphetamine purchases was a dealer's home (36%), followed by either home delivery or from a friend's home (21% respectively).

	Powder n=55	Base/Paste n=29	Crystal n=15
	%	%	%
Source person			
Known dealers	49	48	67
Friends	36	38	27
Acquaintances	9	7	7
Street dealer	2	7	0
Source venue			
Dealer's home	31	31	36
Agreed public location	26	24	7
Home delivery	11	10	21
Friend's home	27	28	21
Street market	2	3	0

 Table 23: Source of last purchase of methamphetamine in the preceding six months, 2011

Source: IDRS PWID interviews

5.2.4 Purity

PWID 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, two-fifths of the participants that were able to comment considered this as 'low' in subjective purity in the preceding six months (43%, n=23) (Figure 50). Almost one-third of participants reported the subjective purity of this form to be 'medium' (30%, n=16), and small minorities reported powder form to be 'high' in subjective purity (15%, n=8), or to have fluctuated (13%, n=7). Participants were divided with regard to perceived changes in subjective purity over the preceding six months: one-third of participants reported purity to have either remained stable or to have decreased (34%, n=18 and 32%, n=17 respectively), with smaller minorities reporting purity to have fluctuated (13%, n=7).

In the 2008 and 2009 local IDRS surveys, several PWID participants reported a dramatic decrease in the purity of speed, and that this had occurred as a result of the incarceration of '*the main cook*'. This trend has been reversed in the 2010 and 2011 surveys, with increasing proportions of participants reporting purity to be high (2% in 2009 v. 15% in 2011: $\chi^2(1_{n=200})=4.83$, p=0.028). Two KE noted that purity of speed fluctuated, and that once every few months, higher quality speed would be easily available, and an increase in use would follow. A third KE noted that some '*bad batches of speed had been available which made people sick*'.

When asked to comment, several consumers and KE noted the presence of crystals in powder methamphetamine. 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).

The majority of consumers who commented on perceived purity of 'base/paste' methamphetamine reported it to be 'medium' (55%, n=16), and one-quarter of participants reported it to be 'high' in purity (24%, n=7). Small minorities reported purity to be 'low' or that it had fluctuated (10%, n=3 respectively). The majority of participants commenting on the stability of subjective purity levels over the preceding six months reported this to have remained stable (56%, n=14), one-fifth of participants noted it had fluctuated (20%, n=5), and small minorities reported that purity had either increased or decreased (12%, n=3 respectively). No KE were able to comment on purity of 'base/paste' methamphetamine.

Three-fifths of the participants who commented on purity of crystal methamphetamine reported this to be 'high' (60%, n=9), and one-quarter reported it to be 'medium' (27%, n=4). The majority of participants who commented reported that purity had remained stable over the preceding six months (64%, n=9), with almost one-third reporting purity to have increased over this period (29%, n=4).





Source: IDRS PWID interviews

Figure 51 displays the proportion of those reporting on purity levels of the different 'forms' of methamphetamine in the past ten years of the Tasmanian IDRS studies. This figure suggests that there have been small changes in overall reports of subjective purity of powder form methamphetamine in this time. Between 2002 and 2007, 9-13% of each sample reported purity to be 'high', with the exception of 2006 (6%). In the subsequent two surveys, reports of 'high' purity of powder form decreased to 3% in 2008 and 2% in 2009. According to several participants and KE, this low purity was due to one of the more skilled Tasmanian methamphetamine '*cooks*' being incarcerated during this period. In 2010 and 2011, subjective reports of 'high' purity have increased (8% and 15% respectively).

The reported purity of base/paste methamphetamine has been more variable. In 2002, one-quarter of PWID participants reported perceived high levels of purity; this increased to 41% in 2003, and trended downwards to 9% in 2010 (with the exception of 2009). In 2011, this rate was slightly, but not significantly higher (24%, p=0.2).

Consumer reports on subjective purity of crystal methamphetamine have varied in recent surveys: the vast majority of participants considered this form as 'high' in purity in 2003 (75%) – the year when local availability of the drug was at its highest; in 2004 the proportion of consumers considering this form of the drug as high in subjective purity dropped to 49%, a year when availability had markedly reduced as well (see Section 5.2.2). 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. Between 2006 and 2010, both availability (Figure 48) and the proportions of the samples considering crystal methamphetamine as high in purity declined (Figure 51). In 2011 reports of 'high' purity of this form increased as did reports of ease of availability, and a small increase in use was also observed.





Source: IDRS PWID interviews Note: Data on all three forms commenced in 2002

Data for purity of methamphetamine received at police analytical laboratories are presented for the 1997/98 to 2009/10 financial years (Tables 24 and 25; data for 2010/11 were not available at the time of publication). All amphetamine-type stimulants seized in Tasmania and tested for purity during 2003/04 and 2009/10 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. Notably, during 2004/05, purity was reported to be 32%, and this coincided with increased use of methamphetamine in the IDRS PWID cohort, and was in line with PWID 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 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 2009/10, just five seizures of methamphetamine were analysed – all of which were greater than 2grams – returning a median purity of 4.4%.

Table 24 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 police²¹.

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 the current study and 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, KE from the legal/law enforcement fields interviewed for the 2007 and 2010 studies suggested that most methamphetamine was imported into the state. However, in the current study and in 2005 and 2006, law enforcement KE reported that there had been indications that local

²¹Anecdotal 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.

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). Since 2000/01, small numbers of clandestine labs were identified in Tasmania, ranging between none and five, with the exception of 2006/07, when nine such labs were identified (data for the 2010/11 financial year were not available at the time of publication) (ACC, 2011). From a national perspective, detection of clandestine labs increased from 201 in 2000/01 to 694 in 2009/10 (ACC, 2011).

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.

	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10
≤2g n Avg % purity	4 5 %	31 5 %	9 7.4 %	<i>10</i> 10.4%	<i>20</i> 26.6%	30 12.7%	9 25.6%	10 32.3%	6 15%	15 24.6%	7 7.6%	<i>11</i> 12.6%	-
> 2g n Avg % purity	2 7 %	8 21 %	11 6.6 %	14 3.6 %	28 19.2%	<i>13</i> 11.2%	<i>14</i> 9.8%	-	3 6.9%	23 6.5%	32 8.5%	9 7.8%	5 4.4%
Total <i>n</i> Avg % purity Range in % purity	6 6 % (3-8%)	39 8 % (2-59%)	20 7 % (2-26%)	24 6.4 % (0.5- 50%)	48 22.2% (0.1- 71%)	43 12.2% (1.9- 79%)	23 16.9% (2-81%)	10 32.3% (19-36%)	9 13.1% (2- 59%)	38 12.4% (2- 28%)	39 8.5% (2- 40%)	20 9.2% (3- 14%)	5 4.4% (1-7%)

Table 24: Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 1997/98-2009/10

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 2009/10. All analysed seizures of amphetamines in this period revealed methamphetamine rather than amphetamine

Data for 2010/11 was not available at the time of publication

	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	Jul- Sep 2005	Oct- Dec 2005	Jan- Mar 2006	Apr- Jun 2006
≤2g																
n	3	4	4	19	2	2	4	1	10	-	-	-	1	-	5	-
Median % purity	6.4	5.9	13.1	13.1	40.0	28.4	50.6	16.9	32.3	-	-	-	25.6	-	13.1	-
>2g																
n	1	4	7	1	8	1	5	-	-	-	-	-	1	-	-	2
Median % purity	6.3	10.4	12.8	7.6	17.4	15.4	4.1	-	-	-	-	-	38.7	-	-	5.5
Total																
n	4	8	11	20	10	3	9	1	10	-	-	-	2	-	5	2
Avg % purity	6.4	10.4	12.8	13.0	17.4	25.6	4.1	16.9	32.3	-	-	-	32.2	-	13.1	5.5

Table 25: Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, July 2002-June 2010

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 interval between the date of seizure by police and the date of receipt at the laboratory may vary between one day and several months

Table 25: Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, July 2002-June 2010 (continued)

	Jul- Sep	Oct- Dec	Jan- Mar 2007	Apr- Jun 2007	Jul- Sep	Oct- Dec 2007	Jan- Mar 2008	Apr- Jun 2008	Jul- Sep	Oct- Dec	Jan- Mar 2009	Apr- Jun 2009	Jul- Sep	Oct- Dec	Jan- Mar 2010	Apr- Jun 2010
	2000	2000	2007	2007	2007	2007	2000	2000	2000	2000	2009	2009	2009	2009	2010	2010
≤2g																
n	-	14	-	1	2	1	1	3	-	1	3	7	-	-	-	-
Median % purity	-	24.6	-	7.3	12.0	9.7	7.6	6.6	-	12.1	6.1	12.9	-	-	-	-
>2g																
n	3	8	1	12	6	6	13	7	5	1	3	-	-	-	3	2
Median % purity	9.9	2.4	8.4	7.0	9.6	8.0	9.1	7.1	8.3	11.8	6.1	-	-	-	6.2	1.3
Total																
n	3	21	1	13	8	7	14	10	5	2	6	7	-	-	3	2
Avg <mark>%</mark> purity	9.9	24.6	8.4	7.3	10.1	8.5	9.1	6.9	8.3	12.0	6.3	12.9	-	-	6.2	1.3

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 interval between the date of seizure by police and the date of receipt at the laboratory may vary between one day and several months

Data for 2010/11 was not available at the time of publication

5.3 Cocaine

Key Points:

- Reflecting the very low rate of use of cocaine amongst IDRS participants, few participants were able to comment on price, purity and availability trends;
- One gram of cocaine was reported to cost \$200, and availability was considered to be difficult;
- Tasmania Police reported making three seizures of cocaine in 2010/11, amounting to 28.3 grams.

5.3.1 Price

Just one participant was able to comment on the market price for gram purchases of cocaine, reporting this to be \$400. This price was somewhat higher than was reported by a single participant commenting on last purchase price, reporting this to be \$200 for one gram. Two KE in the current study commented on the current price of cocaine, reporting a one gram purchase costing \$300, but that some consumers were willing to pay more.

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 in 2008/09, this was reported to cost \$300. In 2009/10, the ACC reported 1 cap to cost \$60 and 1 gram \$300-400. Data from 2010/11 was not available at the time of publication. These very limited reports of cocaine prices reflect the weakness of the local market of the drug.

5.3.2 Availability

Reflecting the very low level of use of cocaine amongst the current sample, just one participant was able to comment on the local availability of cocaine in the preceding six months. This participant noted access was difficult, and that this had fluctuated over the preceding six months. Similarly, in 2010, just two participants reported that cocaine had been difficult to access, and one participant reported it had been easy to access. One KE in the current study noted availability to be 'difficult'. In 2010, a KE noted that to purchase cocaine, *'you need to be the right person in the right place at the right time – it can't be ordered'.*

Tasmania Police reported no seizures of cocaine between 1995/96 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, and in 2008/09 two seizures were made, amounting to 7g. In 2009/10, the ACC reported that Tasmania Police made three seizures of cocaine, totalling 46g, and the AFP made one seizure in Tasmania, weighing 750g. In 2010/11,²² three seizures were made, amounting to 28.3g.

The combination of few PWID reporting recent cocaine use (n=7, at a median frequency of use of two days, range 1-7 days), along with very few participants being able to comment on trends relating to price, purity or availability (n=1 respectively), and no KE reporting contact with clients

²² Note: 2010/11 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.

using cocaine, together suggest that there is a very low availability of cocaine in Tasmania, at least among the demographic sampled in this survey.

5.3.3 Purity

Just one participant was able to comment on subjective purity of cocaine: this was considered to be of 'high' purity, and this had remained stable over the preceding six months. In 2010, two participants noted high purity and one noted fluctuating purity. The ACC reported on the purity of a single seizure of cocaine in 2009/10 (AFP seizure of 750g), reporting this to be 71.7%. Prior to this, 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. Data for the 2010/11 period was not available at the time of publication.

5.3.4 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 39% and 61% of the cohorts between 2002 and 2011 have reported lifetime use of cocaine, an increase from patterns seen in the 2000 and 2001 surveys. There are also indications of an increasing prevalence level of use in the general population (AIHW, 2011). As such, trends in cocaine markets in the state merit continued examination.

5.4 Cannabis

Key Points:

Bush/outdoor-cultivated cannabis

- The modal price of a 1g purchase was \$25; the median price for a quarter ounce (7g) was \$70, and one ounce \$200. The majority of participants who commented reported stable price trends over the preceding six months;
- Overall decreased availability in comparison with reports from 2010, but still considered relatively easy to access;
- Most commonly purchased from friends;
- Potency was generally considered to be medium; this has not changed over the preceding six months.

Indoor/hydroponically-cultivated cannabis

- The modal price of a 1g purchase was \$25; the median (and modal) price for a quarter ounce (7g) was \$100, and \$300 for one ounce. The majority of participants who commented reported stable price trends over the preceding six months;
- Very easy/easy to access, no change to this in the preceding six months;
- Most commonly purchased from friends;
- Potency generally was considered to be high; this has not changed over the preceding six months.

5.4.1 Price

Participants were asked to comment on the current market price²³ for cannabis. The modal market price for outdoor cultivated cannabis was \$25 per gram (median \$15, range \$10-25, n=7); \$70 for quarter-ounce purchases (median \$70, range \$50-70, n=4); and \$200 for ounce purchases (median \$200, range \$180-300, n=8). These market price estimates are consistent with the prices participants reported actually paying.

For their last purchase of bush/outdoor-cultivated cannabis, participants reported a \$25 deal contained a modal amount of 1.0g (median 1.5g, range 1.0-3.0g, n=16) and a \$50 deal contained a modal amount of 7.0g (median 7.0g, range 7.0-14.0g, n=4). The median last purchase price for a quarter-ounce of outdoor cannabis was \$70 (no single mode, range \$50-80, n=11), and the median last purchase price for an ounce was \$200 (no single mode, range \$150-250, n=14). The most common amounts of outdoor cannabis purchased by the PWID interviewed were 1.0g (n=16) and ounces (n=14) (Table 26).

In general, market price estimates and actual purchase costs for indoor/hydroponically-cultivated cannabis were higher than the reported costs for bush/outdoor cannabis. The modal market price for indoor hydroponically-cultivated cannabis was \$25 per gram (median \$25, range \$10-25, n=20), \$300 for ounce purchases (median \$300, range \$235-350, n=10), and the median market price for quarter-ounce purchases was \$95 (no single mode, range \$70-100, n=5). These market price estimates are consistent with the prices participants reported actually paying.

'Deals' costing \$25 contained a modal amount of 1.0g (median 1.3g, range 1.0-2.5g, n=30) of indoor-cultivated cannabis, with \$50 'deals' containing a modal amount of 3.0g (median 3.0g, range 2.0-6.0g, n=6). The commonly purchased quarter-ounce amounts of hydroponically-cultivated cannabis were reported to cost a modal price of \$100 (median=\$100, range \$60-100, n=18). The modal last purchase price for an ounce of hydroponically-cultivated cannabis was \$300 (median \$300, range \$200-350, n=19).

The median price estimates for hydroponically-cultivated cannabis were greater than reported for outdoor-cultivated cannabis: the median price for quarter-ounce purchases was \$30 higher, and for ounce purchases \$100 higher. Price estimates over time are summarised in Tables 26 and 27.

KE reported that a \$25 purchase bought 1.2-1.5g of indoor or outdoor cannabis (n=2), and \$280-450 for one ounce purchases of indoor cannabis (n=2). One KE also noted a smaller purchase amount of a *'tenner'* (\$10), with the quantity fluctuating. This KE noted that this was aimed at the *'school kid market'*. In the current study, just two participants reported a purchase for \$10. Two KE noted that the price for cannabis purchases had remained largely unchanged over the preceding six months.

The majority of PWID (80% overall, 75%, n=30 in relation to outdoor cannabis and 84%, n=56 in relation to hydroponic cannabis) reported that the price of cannabis had not changed in the last six months.

²³ Market price refers to the price the drug is usually sold at, not necessarily the price paid.

Unit	20	03 IDRS		20	04 IDRS		20	05 IDRS		200	6 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 (1.0-3.0g)	\$10	4	1.0g <i>(0.5-1.0g)</i>	\$10	3	1.0 g [*] (1.0 g)	\$10	2	1.0g	\$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	1.7g* (1.5-2.0g)	\$25	8
\$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	7.0g	\$50	8
Quarter ounce	7.0g	\$60 [*] (\$25-90)	29	7.0g	\$60 [*] (\$35-85)	30	7.0 g	\$50 (\$50-90)	24	7.0g	\$50 (\$25-100)	2 8
Half ounce	14g	\$80 [*] (\$50-130)	7	14g	\$100 <i>(\$70-120)</i>	6	14 g	\$120 (\$100-200)	5	14.0g	\$130* <i>(\$120-140)</i>	3
Ounce	28g	\$150 (\$100-200)	20	28g	\$200 (\$100-260)	21	28 g	\$200 (\$25-350)	24	28.0g	\$170* (\$90-250)	1 9

Table 26: Modal prices and quantities of 'bush'/outdoor-cultivated cannabis purchased by PWID in Hobart, 2003-2011

Source: IDRS PWID interviews

^{*} Median substituted, as no single mode exists Note: Range in parentheses

Table 26: Modal prices and quantities of 'bush'/outdoor-cultivated cannabis purchased by PWID in Hobart, 2003-2011 (continued)

	20	2007 IDRS			2008 IDRS		20	09 IDRS		2010 IDRS			2011 IDRS		
Unit	Modal amount (grams)	Modal price	n	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	3	-	-	-	1.0g* (<i>0.7-1.3g</i>)	\$10	2	1.0g	\$10	1	1.0g	\$10	1
\$25 deal	1.0g (1.0- 2.0g)	\$25	14	2.0g (1.0- 3.0g)	\$25	18	1.0g (1.0-3.0g)	\$25	18	2.0g (1.0- 7.0g)	\$25	24	1.0g (1.0- 3.0g)	\$25	1 6
\$50 deal	7.0g (1.0- 7.0g)	\$50	9	7.0g	\$50	4	7.0g (3.0- 14.0g)	\$50	13	7.0g (3.0- 7.0g)	\$50	9	7.0g (7.0- 14.0g)	\$50	4
Quarter ounce	7.0g	\$60 (\$50-90)	29	7.0g	\$70 (\$50-90)	17	7.0g	\$50 (\$50-90)	22	7.0g	\$60* (\$25-90)	23	7.0g	\$70* (\$50-80)	1
Half ounce	14.0g	\$113* (\$100- 125)	2	14.0g	\$100 (\$75- 100)	4	14.0g	\$150 (\$50-160)	14	14.0g	\$100 (\$75- 150)	5	14.0g	\$90* (\$50- 100)	3
Ounce	28.0g	\$150 (\$150- 300)	9	28.0g	\$200 (\$75- 300)	20	28.0g	\$250 (\$100- 300)	20	28.0g	\$200 (\$100- 300)	24	28.0g	\$200* (\$150- 250)	1 4

Source: IDRS PWID interviews

^{*} Median substituted, as no single mode exists

Note: Range in parentheses

	200	03 IDRS		200	4 IDRS		200	05 IDRS		200	6 IDRS	
Unit	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 <i>(\$140-250)</i>	16	14.0g	\$150 (\$100- 180)	10	14.0g	\$150 (\$100- 200)	9	14.0g	\$160 (\$120- 200)	6
Ounce	28.0g	\$300 (\$2 <i>00-350)</i>	27	28.0g	\$250 (\$150- 350)	27	28.0g	\$300 (\$220- 350)	26	28.0g	\$250 (\$2 <i>00-</i> <i>450</i>)	21

Table 27: Modal prices and quantities of hydroponic/indoor-cultivated cannabis purchased by PWID in Hobart, 2003-2011

Source: IDRS PWID interviews

* Median substituted, as no single mode exists

Note: Range in parentheses

Table 27: Modal prices and quantities of hydroponic/indoor-cultivated cannabis purchased by PWID in Hobart, 2003-2011 IDRS (continued)

	200	7 IDRS		200	8 IDRS		200	9 IDRS		20 ⁻	10 IDRS		201	1 IDRS	
Unit	Modal amount (grams)	Modal price	n	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	0.8g <i>(0.5-0.8g)</i>	\$10	4	-	-	-	0.5g <i>(0.5-0.7g)</i>	\$10	3	0.5g	\$10	1	0.5g <i>(0.5-1.0g)</i>	\$10	3
\$25 deal	1.0g (1.0-2.0g)	\$25	24	1.0 g (1.0-2.0 g)	\$25	1 6	1.0g <i>(0.8-3.0g)</i>	\$25	38	1.2g (2.0- 7.0g)	\$25	15	1.0g <i>(1.0-2.5g)</i>	\$25	30
\$50 deal	3.0g (1.0-7.0g)	\$50	8	3.0 g* <i>(</i> 2.0-7.0 g)	\$50	3	3.0g (2.0-7.0g)	\$50	9	3.0g (2.0- 7.0g)	\$50	18	3.0g (2.0-6.0g)	\$50	6
Quarter ounce	7.0g	\$90 (\$20-120)	29	7.0g	\$90 (\$50-100)	3 1	7.0g	\$90 (\$50-100)	29	7.0g	\$100 <i>(\$50-100)</i>	33	7.0g	\$100 (\$60-100)	18
Half ounce	14.0g	\$160* <i>(\$125-200</i>)	4	14.0g	\$150 (\$100-160)	7	14.0g	\$150 (\$120-180)	15	14.0g	\$160* (\$100- 250)	11	14.0g	\$150 (\$140- 250)	4
Ounce	28.0g	\$250* (\$140-350)	14	28.0g	\$300 (\$2 <i>00-340)</i>	2 5	28.0g	\$300 (\$200-350)	22	28.0g	\$300 (\$200- 400)	23	28.0g	\$300 (\$200- 350)	19

Source: IDRS PWID interviews

* Median substituted, as no single mode exists Note: Range in parentheses



Figure 52: Modal prices of quarter and one ounce purchases of indoor and outdoor cultivated cannabis, 2003-2011

Source: IDRS PWID interviews

* Median substituted as no single mode

	Deal (1 gi	n 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	
2008/09	\$10-25	\$25	\$70	n/r	\$125	\$150	\$200-300	\$300	
2009/10	\$25	\$25	\$75	n/r	n/r	\$150-200	\$250	\$300-350	

Table 28: Cannabis prices in Tasmania reported to the Australian Crime Commission, 2000/01-2009/10

Source: Australian Crime Commission (previously the Australian Bureau of Criminal Intelligence), Tasmania Police State Intelligence Services n/r Not reported

Note: Data for 2010/11 not available at time of publication

Tasmania Police and the ACC provide annual reports on the price of illicit drugs (Table 28). Since 2000/01, the price of quarter-ounce purchases of cannabis head has fluctuated between \$65 and \$100 (\$75 in 2009/10). The price for one ounce of head has also fluctuated over this period, with the price ranging between \$150 and \$350 (\$250 in 2009/10). Conversely, the price for a half-ounce of head has decreased slightly, from \$150-160 in 2000/01 to \$125 in 2008/09 (no price data reported for 2009/10). 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 2010 IDRS, which reported on cannabis prices for the same period.

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. No price estimate was reported in 2008/09-2009/10. In the current IDRS study, two participants commented on the last purchase price paid for one gram of hashish: the median price was \$45 (range \$20-70), Just one participant commented on the purchase price of one 'cap' of hashish, reporting this to cost \$25. This is similar to reports in 2010: three participants reported on the purchase price of one gram of hashish, costing a median price of \$30 (no single mode, range \$20-70).

5.4.2 Availability

For both indoor- and outdoor-cultivated cannabis, the majority of the PWID sample who reported recent use perceived that cannabis was 'very easy' (51%) or 'easy' (44%) to obtain, and that the availability of cannabis had remained stable (69% of reports across both cannabis forms). Two KE noted that availability for cannabis was easy or very easy. Trends in availability and routes of access will be discussed separately for each type of cannabis.

	Ну	/dro	Bu	sn
Current availability	2010	2011	2010	2011
	(N=100)	(N=100)	(N=100)	(N=100)
Able to respond (%)	73	65	65	43
Of those who responded:				
Very easy (%)	74	60	75	37
Easy (%)	26	37	17	54
Difficult (%)	0	3	8	9
Very difficult (%)	0	0	0	0
Availability change over the	last six months			
Able to respond (%)	74	65	64	43
Of those who responded:				
More difficult (%)	1	8	8	12
Stable (%)	89	75	77	58
Easier (%)	7	9	16	14
Fluctuates (%)	3	8	0	16

Table 29: Participants' reports of cannabis availability in the past six months, 2009-2010

Source: IDRS PWID interviews

Almost all participants who commented (97%, n=63) reported that hydroponic/indoor-cultivated cannabis had been either 'very easy' or 'easy' (60%, n=39 and 37%, n=24 respectively) for them to access in the preceding six months (Table 29). Three-quarters of these respondents (75%, n=49) believed that the availability of this type of cannabis had remained stable in the preceding six months.

Hydroponically-cultivated cannabis was more commonly purchased from friends (60%, n=39), and less frequently from known dealers (29%, n=19) (Table 30). Participants also commented on the last venue in which they purchased hydroponic cannabis, of which the majority purchased at either a friend's home (34%, n=22), via home delivery (25%, n=16) or from a dealer's home (23%, n=15).

In regard to outdoor or 'bush' cannabis, the majority of the PWID commenting believed this to be 'very easy' (37%, n=16) or 'easy' (54%, n=23) to access in the preceding six months. This marks a decline from 2010, when 75% of respondents noted this form of cannabis to be 'very easy' to access ($\chi^2(1_{n=200})=14.2$, p<0.001). The majority of participants in the current study reported that availability had remained stable in this time (58%, n=25). Sixteen percent of participants reported that availability had fluctuated (n=7) over this period, 14% noted it had increased (n=6) and 12% noted it had decreased (n=5) (Table 29). Most PWID reported last purchasing this type of cannabis from friends (65%, n=28). Venues in which these purchases were last made were primarily reported to be a friend's home (37%, n=16), via home delivery (23%, n=10) (Table 26).

Table 30: People and venues from which cannabis was last purchased in the preceding six months, 2011

	Hydroponic cannabis n=65	Bush/outdoor cannabis n=43
Friends	60% (n=39)	65% (n=28)
Known dealers	29% (n=19)	21% (n=9)
Acquaintance	9% (n=6)	14% (n=6)
Street dealer	Ô	0 0
	Hydroponic cannabis	Bush/outdoor cannabis
	n=65	n=43
Friend's home	34% (n=22)	37% (n=16)
Dealer's home	23% (n=15)	16% (n=7)
Home delivery	25% (n=16)	23% (n=10)
Agreed public location	9% (n=6)	12% (n=5)
Acquaintance's home	5% (n=3)	9% (n=4)
Street market	3% (n=2)	0

Source: IDRS PWID interviews

Note: multiple responses allowed

As depicted in Figure 53, between 2001 and 2008 there was a gradual decline in the proportion of PWID respondents who considered cannabis (any form) as 'very easy' to access (90% in 2001 v. 37% in 2008: $\chi^2(1_{n=100})$ =64.6, p<0.001). In 2009 and 2010, this trend was temporarily reversed, with the proportion reporting very easy access increasing to 75% in 2010 ($\chi^2(1_{n=100})$ =39.7, p<0.001). In 2011, the proportion of participants reporting 'very easy' access to any form of cannabis again decreased (51%: $\chi^2(1_{n=246})$ =13.8, p<0.001).



Figure 53: Participant reports of current cannabis availability, among those who recently used cannabis, 2000-2011

Source: IDRS PWID 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

Figure 54 shows cannabis seizures made by Tasmania Police between 1999/00 and 2010/11. In general, the volume of cannabis seized and the number of seizures tended to increase over time. There was a notable increase in both the weight and number of seizures in 2001/02, with large increases noted in the weight of seizures in 2004/05 and the number of seizures in 2006/07. While there was a reduction in seizure weight and number in the 2005/06 reporting period, in this case seizure data for Tasmania Police was only reported to the ACC for part of the financial year. There has been a gradual increase in the weight and number of seizures in 2007/08 and 2010/11, with a further increase in both the weight and number of seizures in 2010/11 relative to 2009/10. In addition to the seizures shown in Figure 54 for 2009/10, Tasmania Police reported 703 seizures of plants (totalling 6,983 plants).



Figure 54: Seizures of cannabis by Tasmania Police, 1999/00-2010/11

Source: Australian Crime Commission, State Intelligence Service, Tasmania Police

* Seizures for 2005/06 were only reported to the ACC for part of the financial year

[^] In 2007/08, the AFP made 3 seizures of cannabis, amounting to 21g

Note: Data in 2010/11 were provided by Tasmania Police State Intelligence Service. This data was 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

5.4.3 Potency

The potency of cannabis across both modes of cultivation was generally rated as 'high' (48%) or 'medium' (38%) by the PWID sample, with most respondents indicating that this potency had remained stable (63%) in the preceding six month period. These reports are similar to those provided in recent IDRS studies.

Potency of outdoor or 'bush' cultivated cannabis was regarded by PWID as generally being 'medium' (63%, n=26), with smaller proportions reporting either 'high' or 'low' potency in the preceding six months (17%, n=7 respectively). This level of potency was regarded as having remained stable (68%, n=28) in the preceding six months.

Hydroponically-cultivated cannabis, however, was generally reported by PWID as being 'high' in potency (67%, n=44), and one-quarter of participants reported potency to be 'medium' (23%, n=15). Potency was predominantly regarded as remaining stable in the preceding six months (60%, n=40), although a notable minority reported increasing potency (19%, n=13), as did one KE. Seizures of cannabis by Tasmania Police are not analysed for potency, and, as such, no empirical data are available to examine trends.

5.5 Opioids

Key Points:

Morphine

- The median price was \$1/mg for all quantities of morphine, and in general, participants noted no change to price over the preceding six months;
- Availability was considered to be easy/very easy; the majority of participants noted that availability of morphine had remained stable over the preceding six months, however, a notable minority noted decreasing availability;
- Illicit morphine was most commonly sourced from friends, known dealers and acquaintances.

Oxycodone

- The median price was \$1/mg for all quantities of oxycodone; the majority of participants noted that prices had remained stable over the preceding six months, however, a notable minority noted increasing prices;
- Availability was considered to be easy/very easy; the majority of participants noted that availability of oxycodone had remained stable over the preceding six months, however, a notable minority noted decreasing availability;
- Illicit oxycodone was most commonly sourced from known dealers and friends.

Methadone syrup

- The median price was \$1/mg for all quantities of methadone syrup; the majority of participants noted that prices had remained stable over the preceding six months;
- Availability was considered to be difficult/very difficult; the majority of participants noted that availability had remained stable over the preceding six months, however, a notable minority noted decreasing availability;
- Illicit methadone was most commonly sourced from friends, generally in the context of a standing arrangement.

Physeptone

- The modal price of Physeptone tablets doubled between 2010 and 2011 to \$20. Participants were divided regarding price changes over the preceding six months, noting that prices had either increased or remained stable;
- Availability was considered to be difficult/very difficult; the majority of participants noted that availability had decreased or remained stable over the preceding six months;
- Illicit Physeptone was most commonly sourced from friends.

5.5.1 Price

Morphine

Participants reported the modal market price of morphine as around \$1 per mg; in keeping with reports from 2010 (modal price \$1/mg). Two KE in the current study reported that the price for morphine was \$1 per mg.

In line with these reports, the modal price that users actually paid for their most recent purchase of morphine was \$1 per mg. Modal prices for MS Contin were \$30 for a 30mg tablet (range \$25-40, n=13), \$60 per 60mg tablet (range \$40-80, n=45), and \$100 for 100mg tablets (range \$70-120, n=7) (Table 31). Purchase prices for Kapanol were similar: 50mg capsules cost a modal price of \$50 (range \$40-60, n=18), and 100mg Kapanol capsules cost a modal price of \$100 (range \$80-100, n=14).

These modal purchase prices are consistent with prices reported in the 2009 and 2010 IDRS studies, however, they are higher than reported in previous local IDRS surveys: 60mg MS Contin tablets cost a modal purchase price of \$50 between 2002 and 2008, increasing to \$60 in 2009; 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 again increased to \$100. The modal purchase price for Kapanol also increased: 50mg capsules cost a modal price of \$35 in 2005; this increased to \$50 in 2008, and has remained stable since then. Similarly, the modal price for 100mg capsules increased from \$70 between 2003 and 2007 to \$100 in 2009 and 2010.

The majority of consumers reporting on morphine prices (74%, n=45 of those able to comment) believed that these had remained stable in the preceding six months. However, one-quarter of consumers (25%, n=15 of those able to comment) noted an increase in price during this period.

Oxycodone

Prices for purchases of illicit oxycodone were first examined in the 2005 IDRS study²⁴. In the current study, participants reported the modal market price of oxycodone as around \$1 per mg, which was consistent with the prices reported for purchases in the preceding six months.

Participants reported a modal purchase price of \$1 per mg: modal price for a 20mg OxyContin tablet was \$20 (range \$20-25, n=7); \$40 per 40mg tablet (range \$20-60, n=15), and \$80 per 80mg tablet (range \$50-100, n=22) (Table 31). 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. An increase in the modal price for 40mg tablets was also observed: increasing from \$25 in 2006 to \$40 in 2007 (Table 31).

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=25), and one-quarter commented that the price for oxycodone had increased (25%, n=9). Comparison of the modal prices for most recent purchases of the drug amongst the 2010 and 2011 survey respondents provides support for reports of stable to increasing prices (Table 31).

Methadone

Consistent with reports in previous local IDRS studies, consumers reported the modal market price of methadone as \$1 per mg. Prices that participants reported paying for their last purchase of the drug were variable, however, the modal purchase prices provided by participants were the same as that for the market price. Since the nature of access to methadone syrup does not easily allow for standard purchase amounts to be made, PWID were asked to report the amounts and costs of their most recent purchase of methadone. Purchases, irrespective of quantity, cost a modal amount of \$1 per mg (Table 31). The majority of participants who commented on price trends for methadone syrup in the preceding six months indicated that the purchase price had remained stable (79%, n=31). A small minority of this group noted a trend toward an increasing price (18%, n=7). 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 31).

The modal purchase price for illicit 10mg Physeptone tablets of methadone was \$20 (median=\$15; range \$5-20, n=23). This is a 100% increase from modal price reports between 2002 and 2010, with the exception of 2007 (modal price \$15) and 2009 (median price \$12.50). This trend toward increasing price was supported by participant comments, with 56% (n=18) of those able to comment reporting the price of Physeptone tablets had increased in the preceding six months. Despite this, 41% of this group (n=13) noted no change in price.

²⁴ In IDRS studies prior to 2005, oxycodone price data have been collected where offered but not in a systematic fashion.

Preparation	2002 2003			2004		2005		2006		
	IDRS	-	IDRS		IDRS		IDRS		IDRS	
	Price	n	Price	n	Price	n	Price	n	Price	n
MS Contin										
10 mg tablet	\$7.50 (\$5-10)	2	\$5(\$5-15)	3	\$4 (\$3-15)	3	\$10 (\$10)	2	\$5 (\$5-10)	3
30 mg tablet	\$20 (\$10-30)	45	\$20 (\$20-30)	18	\$20 (\$1-25)	26	\$25 (\$15-35)	21	\$25 (\$15-30)	25
60 mg tablet	\$50 (\$18-60)	86	\$50 (\$15-60)	51	\$50 (\$4-58)	50	\$50 (\$25-60)	42	\$50 (\$20-60)	14
100 mg tablet	\$80 (\$20-100)	73	\$70(\$12-100)	44	\$70 (\$5-80)	44	\$70 (\$50-90)	47	\$80 (\$50-120)	16
Kapanol										
20 mg capsule	\$20 (\$10-20)	14	\$15 (\$10-30)	9	\$13 (\$5-20)	9	\$13 [*] (\$5-20)	6	\$10 (\$5-20)	11
50 mg capsule	\$40 (\$15-50)	43	\$35 (\$12-50)	35	\$40 (\$15-50)	35	\$35 (\$15-50)	29	\$35 (\$10-80)	31
100 mg capsule	\$80 (\$50-100)	36	\$70(\$17-100)	22	\$70 (\$30-80)	20	\$70 (\$30-90)	25	\$70 (\$20-120)	34
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	\$5	1
20 mg tablet	-	-	-	-	-	-	\$15(\$10-20)	5	\$15 [*] (\$10-20)	5
40 mg tablet	\$15	1	\$20 (\$20)	4	\$40	1	\$20(\$15-30)	11	\$25 (\$5-40)	14
80 mg tablet	-	-	-	-	-	-	\$40 [*] (\$30-80)	9	\$50 (\$40-50)	7
Methadone syrup										
(price per mg)	\$1.0(\$0.3-2.0)	43	\$1.0(\$0.3-1.0)	43	\$1.0 (\$0.4-1.0)	72	\$0.8 (\$0.4-1.0)	38	\$1.0(\$0.3-2.0)	43
Physeptone										
5 mg tablet	\$5	1	-	-	\$10	2	\$5	1	\$4.25*(\$3.5-5.0)	2
10 mg tablet	\$10 (\$5-15)	53	\$10 (\$3-20)	62	\$10 (\$5-15)	43	\$10 (\$5-15)	33	\$10 (\$7-150)	36

Table 31: Modal last purchase price for most recent purchase of pharmaceutical opioids, 2002-2011

Source: IDRS PWID interviews

*Median substituted for mode, as no single mode existed Note: Reported price range in parentheses

Preparation	2007 IDRS		2008 2009 IDRS IDRS		2010 IDRS		2011 IDRS			
	Price	n	Price	n	Price	n	Price	n	Price	n
MS Contin 10 mg tablet 30 mg tablet 60 mg tablet 100 mg tablet Kapanol 20 mg capsule 50 mg capsule 100 mg capsule	\$5 \$20(\$15-50) \$50(\$30-80) \$80(\$30-90) \$10(\$8-20) \$40(\$20-50) \$70(\$50-95)	1 20 53 40 7 24 22	\$5 \$25 (\$15-35) \$50 (\$20-70) \$80 (\$60-100) \$20 (\$15-30) \$50 (\$30-55) \$80 (\$50-100)	2 28 69 40 7 49 23	\$10(\$10-20) \$30 (\$15-30) \$60 (\$40-60) \$100 (\$60-100) \$20(\$10-25) \$50(\$30-80) \$100(\$60-100)	4 30 69 46 9 46 23	\$10 \$30(\$20-30) \$60(\$40-80) \$100(\$60-100) \$20(\$10-20) \$50(\$25-50) \$100(\$50-100)	14 40 64 48 16 44 30	\$10 \$30(\$25-40) \$60(\$40-80) \$100(\$70-120) \$20(\$40-60) \$50(\$40-60) \$100(\$80-100)	1 13 45 7 5 18 14
Anamorph 30 mg tablet		_	\$30	1	\$30(\$20-30)	5	\$30	10	\$30	5
OxyContin 10 mg tablet 20 mg tablet 40 mg tablet 80 mg tablet	\$10(\$10-20) \$20(\$20) \$40 [*] (\$15-50) \$40(\$30-100)	3 4 9 11	\$10 (\$5-10) \$20 (\$10-20) \$40 (\$20-50) \$80 (\$50-80)	4 20 26 13	\$10(\$7-10) \$20(\$5-20) \$40(\$15-40) \$80(\$40-80)	3 12 28 26	\$10(\$5-20) \$20(\$10-25) \$40(\$10-50) \$80(\$40-80)	17 27 43 35	\$9.5 [*] (\$9-10) \$20(\$20-25) \$40(\$20-60) \$80(\$50-100)	2 7 15 22
Methadone syrup (price per mg) Physeptone 5 mg tablet 10 mg tablet	\$1.0(\$0.5-2.0) \$5 \$15(\$5-20)	52 1 17	\$1.0 (\$0.5-2.0) \$5 \$10 (\$5-20)	53 1 35	\$1.0(\$0.4-1.0) - \$12.5 [*] (\$5-25)	46 0 44	\$1.0(\$0.5-1.0) \$5(\$5-12.5) \$10(\$10-20)	30 9 28	\$1.0(\$0.7-2.0) \$5 \$20(\$5-20)	25 2 23

Table 31: Modal last purchase price for most recent purchase of pharmaceutical opioids, 2002-2011 (continued)

Source: IDRS PWID interviews

*Median substituted for mode, as no single mode existed Note: Reported price range in parentheses

5.5.2 Availability

Morphine

The majority of the consumers interviewed who could comment on availability trends for morphine (n=59) reported that morphine was 'easy' or 'very easy' for them to obtain (75%: 53% 'easy'; 22% 'very easy'), and that the availability of morphine had remained stable (64%, n=38) in the six months prior to interview, with 24% (n=14) reporting access had decreased. In keeping with these reports, two KE noted that morphine was very easy to access.

Among the IDRS consumer sample, participants reported last purchasing morphine from a friend (39%, n=24), a known dealer (38%, n=23) or from an acquaintance (20%, n=12). Participants were also asked to comment on the last venue in which these recent purchases occurred: 30% (n=18) reported purchasing at a dealer's home; 21% (n=13 respectively) reported purchasing from either a friend's home or and agreed public location; and 12% (n=7) purchased via home delivery.

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. This trend has continued, with 230 tablets and 4ml of liquid morphine seized in 2008/09, and large increases in 2009/10 (932 tablets, 88 capsules and 15 ampoules seized) and 2010/11²⁵ (1,596 tablets of morphine, 37mls liquid morphine, 2.7g powder and one capsule).

Oxycodone

Almost two-fifths (37%) of the consumers interviewed in the 2011 IDRS study could confidently report on availability trends for oxycodone in the preceding six months, with two-thirds commenting that it was either 'easy' or 'very easy' to access (68%: 57% 'easy' and 11% 'very easy'). Half of the sample who commented reported that this situation had remained stable (50%, n=18), and small minorities reported that access had become more difficult (25%, n=9) or easier (11%, n=4), or had fluctuated (14%, n=5) in the preceding six months.

Participants had most commonly last purchased oxycodone from either a known dealer (39%, n=14) or a friend (36%, n=13). One-quarter of participants reported last purchasing oxycodone either from a dealer's home, a friend's home or in an agreed public location (27%, n=10 respectively).

Methadone

Two-thirds of participants commenting on access to illicit methadone syrup noted this was 'difficult' or 'very difficult' (68%: 53% 'difficult; 16% 'very difficult'). As noted by PWID 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*'. Almost three-fifths of those participants reporting on trends in availability of illicit syrup perceived it as remaining stable in the preceding six months (57%, n=21); however, 38% (n=14) noted that it had become more difficult to access the drug in this time.

²⁵ 2010/11 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 majority of participants that had used illicit methadone syrup reported last purchasing the drug from a friend (61%, n=23), with small minorities purchasing from an acquaintance (29%, n=11) or from a known dealer (8%, n=3). There were several venues in which these purchases occurred, including agreed public locations (39%, n=15) and in a friend's home (26%, n=10) (Table 32). Due to concerns among some KE in previous years about use of 'spat out' doses of methadone syrup, PWID were asked about the source of their last illicit purchase of methadone syrup, with 94% (n=31) of those who responded reporting that the drug had come from a 'take-away'²⁶ dose (Table 32).

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 (84%: 63% 'difficult'; 22% 'very difficult') in the preceding six months. Half of the participants who commented reported decreased availability of Physeptone over the preceding six months (52%, n=16), whilst 42% (n=13) note no change. Most PWID reported last purchasing Physeptone through a friend (55%, n=16), and less commonly through either a known dealer or an acquaintance (17%, n=5 respectively). Venues which were most commonly cited for these transactions included an agreed public location (41%, n=12) and a friend's home (31%, n=9) (Table 32).

	Illicit methadone syrup	Illicit Physeptone tablets
	(n=38)	(n=29)
Last source person of illicit		
purchase		
Friend	61%	55%
Known dealers	8%	17%
Acquaintances	29%	17%
Last source venue for illicit		
purchase		
Agreed public location	39%	41%
Friend's home	26%	31%
Acquaintance's home	13%	3%
Home delivery	8%	10%
Dealer's home	3%	10%
Source of last illicit syrup [#]		
Take-away dose	94% (n=31)	n/a

	Table 32:	Pathways	to illicit	methadone	access, 2011
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Source: IDRS PWID interviews

[#]For those reporting source

5.5.3 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 55). In 2010/11, there were 432 daily recipients of methadone, slightly lower than the figures reported between 2004 and 2010, which ranged from 444 to 531. Overall, the number of new admissions to pharmacotherapy treatments remained relatively stable since 2005. There were, however, notable differences in the number of new admissions to different forms of treatment. New admissions to the methadone program declined from 186 in 2000/01 to 45 in 2010/11, whilst the uptake of Subutex and Suboxone treatments increased, accounting for the decline in numbers of methadone maintenance clients (Figure 56). In 2010/11, there were 55 daily recipients of Subutex

²⁶ 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.

(buprenorphine) treatment – which was made available as a treatment option for the first time in 2000/01. The number of new admissions has remained relatively unchanged between 2000/01 and 2010/11, ranging between 55 and 85 per financial year. Suboxone treatment (buprenorphine-naloxone) was introduced in Tasmanian treatment settings in 2007. Since this time, the number of patients receiving this treatment has steadily increased from 13 to 177 in 2010/11. The overall number of clients receiving pharmacotherapy treatment remained largely unchanged between 2009 and 2011, ranging between 641 and 664.





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





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

Tasmanian prescription rates for Schedule 8 pharmaceuticals²⁷ since 1991 were also provided by Pharmaceutical Services (Tasmanian Department of Health and Human Services). Between 1991 and 2007, the rate of Tasmanian consumption of morphine was consistently 110% or more of the national average. Since 2008, this rate has decreased, with consumption of morphine in Tasmania in 2010 less than the national rate for the first time (96%) (Figure 57)

Despite consumption of morphine per 1,000 persons in Tasmania decreasing from 73.9g in 2003 to 43.1g in 2010, the number of applications received by Tasmanian Pharmaceutical Services for approval to prescribe narcotics²⁸ steadily increased, almost exponentially in recent years, from 351 in 1989/90 to 2,644 applications²⁹ in 2005/06, with a particularly marked increase in applications in 2006/07 to 4,317, and again in 2009/10, with 6,439 applications. In 2010/11, 5,667 applications were received (Figure 58).



Figure 57: Consumption of morphine per 1,000 persons, 1991-2010

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

²⁷ Pharmaceuticals classed under Schedule 8 (termed Section 59 from 2009) are variously classed as narcotic substances or drugs of addiction/dependence in differing jurisdictions.

²⁸ 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.

²⁹ 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 58: S22/Section 59 applications received by Pharmaceutical Services, Tasmania: 1989/90-2010/11



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 PWID sample in Tasmanian IDRS studies, local population rates of consumption of methadone syrup were continuously below that of the national average until 2003 (Figure 59). This partially reflected a sharp decline in consumption of methadone syrup nationally, beginning in 2001 with the wide introduction of Subutex (buprenorphine) maintenance treatment. Following some fluctuations in the extent of use of methadone syrup nationally, consumption has stabilised, whilst consumption rates in Tasmania have decreased over the preceding four years (63% of the national average in 2010) (Figure 59).

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 60) 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 60). However, since 2006, the rate of consumption in Tasmania has been decreasing, whilst the national rate has remained stable. Despite this, the consumption rate for Tasmania was 216% of the national rate in 2010.

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 61). Between 2004 and 2007, the national and local rates of consumption stabilised, with Tasmanian rates approximately 110% of the national average (Figure 61). In 2008, however, the rate of use in Tasmania was comparable with the national average. In 2009 and 2010, following a small increase in the national rate of consumption and a decrease in the local rate, the Tasmanian rate was below the national rate (78%).



Figure 59: Consumption of methadone syrup per 1,000 persons, 1994-2010

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





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





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

Tasmanian prescription rates for buprenorphine are detailed below in Figure 62. Following the trends in buprenorphine maintenance admissions, the rate of prescription of all forms of the drug³⁰ in the state increased tenfold between 2001 and 2003 from 0.04g to 0.46g per 1,000 persons, and again between 2005 and 2010, increasing eleven-fold from 0.5g to 5.5g per 1,000 persons. National prescription rates for all forms of buprenorphine have also increased remarkably rapidly since 2001, largely due to the enthusiastic uptake of buprenorphine treatment in Victoria. Despite this, the Tasmanian population rate of prescriptions is greater than the national rate (152%).

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 diversion of Suboxone to assist others to relieve opiate withdrawal symptoms. In the 2009 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 & Burns, 2012), 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.

³⁰ This data includes both buprenorphine (Subutex, Norspan) and buprenorphine-naloxone (Suboxone) preparations.

Figure 62: Consumption of all forms of buprenorphine per 1,000 persons, 1996-2010



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

Finally, prescriptions of oxycodone are detailed in Figure 63. 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 nine-fold in the eleven years between 2000 and 2010. In 2010, local consumption of oxycodone was 108% 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, Carr & Cousins, 2007 for a review on this issue).

Similarly, higher-than-average levels of opioid prescription do not indicate that PWID are responsible for these elevated rates. Indeed, a near-negligible proportion of PWID reported accessing opioids via licit means³¹ in the six months prior to interview: with the exception of methadone as part of a maintenance program, only 12 of the current PWID cohort reported accessing morphine, oxycodone or methadone tablets via licit means in this time (six morphine, four oxycodone, and single participants reporting use of Physeptone and a combination of Physeptone and oxycodone). More detailed examination of the issue of 'doctor shopping' and local PWID's experience with access to analgesia from medical practitioners (Bruno, 2007) concur with the fact that PWID are generally not accessing opioids from medical practitioners directly via 'doctor shopping'.

³¹ 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.





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

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

When PWID reports of the availability of illicit pharmaceutical opioids are compared across the 2003³² and 2011 IDRS studies (Figure 64), several changes are notable. Firstly, in regard to morphine availability, between 2003 and 2011 there has been only slight variation in the overall proportion reporting that availability was 'easy' or 'very easy'. In 2011, the overall proportion of participants reporting 'easy' or 'very easy' access remained stable (75% in 2011; 88% in 2010; 79% in 2009; and 81% in 2008).

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. Between 2007 and 2010, availability of methadone syrup was relatively stable: between 51% and 62% of each sample reported access to be either 'easy' or 'very easy'. In the current study, this rate was slightly, but not significantly lower (32%, p=0.15).

Availability reports for Physeptone were relatively stable between 2004 and 2010 (between 31-37% reporting 'easy' or 'very easy' access), with the exception of 2009 and 2011, when 'easy' and 'very easy' access decreased to 19% and 16% respectively (2010: 38%, p=0.089).

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. In 2005, 39% of participants who commented reported access to be 'easy' or 'very easy'; this rate has increased to 68% in the current study (p=0.08).

³² 2003 was the first year in which explicit differentiation was made between methadone syrup and Physeptone tablets in regard to availability.





Source: IDRS PWID interviews
5.6 Benzodiazepines

Key Points:

- Benzodiazepines were most commonly sourced from a medical practitioner, followed by either a gift or purchase from a friend;
- Participants were divided regarding availability of illicit benzodiazepines: three-fifths of the participants who commented noted access to be 'easy' or 'very easy' and two-fifths noted it to be 'difficult' or 'very difficult';

Alprazolam

• The median purchase price of a 2mg alprazolam tablet was \$12.50. This has increased substantially following regulatory change aimed at limiting extra-medical use of alprazolam.

5.6.1 Price

Data regarding purchase price was collected for alprazolam. This was in response to regulatory changes made by the Pharmaceutical Services Branch (of the Tasmanian Department of Health and Human Services) in September 2007. These changes were aimed at reducing extra-medical use of alprazolam – including injection – as anecdotal evidence indicated an increase in various harms, primarily vascular damage (which in some instances lead to gangrene and amputation of affected limbs/digits) and overdose. 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 the current study, the median last purchase price for a 2mg alprazolam tablet was \$12.50 (range \$8-20, n=26). The median purchase price has steadily increased from \$5 in 2006 following the regulatory change (Figure 65). Similarly, the range of prices paid by participants has increased: in 2006, \$10 was the maximum price paid for a 2mg tablet, in 2011 this increased to \$20,

Participants were asked to comment on perceived changes in price over the six months preceding the interview: 57% (n=13) noted an increase in the price, whilst 43% (n=10) noted no change.



Figure 65: Median and upper limit of prices paid for 2mg alprazolam, 2006-2011^{*}

This data was not collected in the 2007-2008 surveys

Source: IDRS PWID interviews

5.6.2 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 PWID were asked their primary source of benzodiazepines in the preceding six months, three-fifths reported accessing these through a medical doctor for genuine symptoms (60%, n=49), and two-fifths reported accessing these drugs through friends as either a gift or purchase (42%, n=34) (Table 34). Similarly, when considering all modes of access to benzodiazepines in the preceding six months, the majority of respondents reported accessing tablets from doctors for genuine symptoms (63%, n=51) and through friends as either a gift or purchase (47%, n=38) (Table 33).

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 lower in 2011 (47%) than reported in 2010 (70%: $\chi^2(1_{n=100})=7.3$, p=0.007). No significant differences were found for other modes of access.

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. Three-fifths of participants who commented (60%, n=28) felt that benzodiazepines were either 'easy' or 'very easy' to access ('easy': 38%, n=18; 'very easy': 21%, n=10), however, a sizeable minority of this group reported that it was 'difficult' or 'very difficult' for them to access illicit benzodiazepines (40%: 'difficult': 36%, n=17; 'very difficult': 4%, n=2). Three-fifths of this group reported availability had remained unchanged during the six months preceding (59%, n=27), and one-third reported it had become more difficult to access illicit benzodiazepines (33%, n=15).

Trends from Tasmania Police in regard to benzodiazepines appeared to remain 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 varying 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 2008/09, 347 tablets were seized: of these 265 were believed to be diazepam, 50 were believed to be flunitrazepam and 32 temazepam. In 2009/10, 220 tablets were seized: 121 temazepam and 99 diazepam tablets, and in 2010/11³³, 230 tablets were seized: 180 tablets that were believed to be diazepam and 50 temazepam tablets.

³³ 2010/11 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.

All modes of access	2002 [#] (n=75) %	2003 (n=88) [*] %	2004 (n=85) %	2005 (n=86) %	2006 (n=81) %	2007 (n=77) %	2008 (n=83) %	2009 (n=75) %	2010 (n=70) %	2011 (n=81) %
Doctors (genuine	53	n/a	59 (n=50)	64	59	62	49 (n=41)	56 (n=42)	47 (n=33)	63
Doctors (fake symptoms)	8 (n=6)	n/a	2 (n=2)	0	2 (n=2)	9 (n=7)	2 (n=2)	9 (n=7)	9 (n=6)	2 (n=2)
Forged prescriptions	0	n/a	0	0	0	1 (n=1)	0	1 (n=1)	0	1 (n=1)
Friends (gift or purchase)	59 [†] (n=44)	n/a	56 (n=48)	53 (n=46)	69 (n=56)	75 (n=57)	60 (n=50)	65 (n=49)	70 (n=49)	47 (n=38)
Friends (purchase)	n/a [†]	n/a	40 (n=34)	30 (n=26)	44 (n=36)	21 (n=16)	47 (n=39)	41 (n=30)	49 (n=34)	27 (n=22)
Dealer / street (purchased)	28 (n=21)	n/a	22 (n=19)	9 (n=8)	12 (n=10)	21 (n=16)	30 (n=25)	24 (n=18)	33 (n=23)	20 (n=16)
Dealer / street (swap drugs)	12 (n=9)	n/a	31 (<i>n=26</i>)	17 (n=15)	37 (n=30)	28 (n=21)	12 (n=10)	19 (n=14)	19 (n=13)	17 (n=14)
Theft	n/a	n/a	2 (n=2)	1 (n=1)	0	9 (n=7)	2 (n=2)	4 (n=3)	0	4 (n=3)

Table 33: All modes of obtaining benzodiazepines in the six months prior to interview, 2002-2011

Source: IDRS PWID 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 distinguish between these two methods of acquisition

Primary	2002 [#]	2003	2004	2005	2006	2007	2008	2009	2010	2011
mode of	(n=75)	(n=88) [*]	(n=85)	(n=86)	(n=80)	(n=76)	(n=83)	(n=75)	(n=57)	(n=81)
access	%	%	%	%	%	%	%	%	%	%
Doctor (genuine	47	48	44	56	53	61	49	52	56	60
symptoms)	(n=35)	(n=38)	(n=37)	(n=48)	(n=42)	(n=46)	(n=41)	(n=39)	(n=32)	(n=49)
Doctor (fake	1	1	2	0	3	7	2	9	8	1
symptoms)	(n=1)	(n=1)	(n=2)		(n=2)	(n=5)	(n=2)	(n=3)	(n=5)	(n=1)
Forged prescriptions	0	0	0	0	0	0	0	0	0	1 (n=1)
Friends (gift	35	27 [†]	26	20	19	64	52	67	63	42
or purchase)	(n=26)	(n=21)	(n=22)	(n=17)	(n=15)	(n=49)	(n=43)	(n=38)	(n=36)	(n=34)
Friends	n/a [†]	20 [†]	13	14	18	25	37	27	47	26
(purchase)		(n=16)	(n=11)	(n=12)	(n=14)	(n=19)	(n=31)	(n=20)	(<i>n</i> =27)	(n=21)
Dealer/street	13	4	5	5	4	17	23	12	30	15
(purchase)	(n=10)	(n=3)	(n=4)	(n=4)	(n=3)	(n=13)	(n=19)	(n=9)	(n=17)	(n=12)
Dealer/street	1	n/a	7	6	5	16	4	13	7	10
(swap drugs)	(n=1)		(n=6)	(n=5)	(n=4)	(n=12)	(n=3)	(n=10)	(n=4)	(n=8)
Theft	n/a	n/a	0	0	0	3 (n=2)	0	0	0	4 (n=3)

Table 34: Primary modes of obtaining benzodiazepines in the six months prior to interview, 2002-2011

Source: IDRS PWID 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 distinguish between these two methods of acquisition

Alprazolam prescription rates

Pharmaceutical Services (Tasmanian Department of Health and Human Services) has provided data summarising alprazolam prescription changes from 2007/08 (when the regulatory changes were implemented) to 2010/11. The total number of patients receiving prescriptions for alprazolam in the 2007/08 period was 3,806 (Figure 66). This number increased slightly over the following reporting period to 4,156 (2008/09), and has remained relatively stable since this time (3,999 in 2009/10 and 3,943 in 2010/11 (Figure 66). The total number of patients receiving prescriptions for both alprazolam and a Schedule 8 (S8) drug has gradually increased from 746 in 2007/08 to 845 in 2010/11.



Figure 66: Total numbers of Tasmanian patients receiving alprazolam and both alprazolam and a Schedule 8 drug, 2007/08-2010/11

Source: Pharmaceutical Services, Department of Health and Human Services

Flunitrazepam consumption

Flunitrazepam (Hypnodorm, previously sold as Rohypnol) is a benzodiazepine that is preferred by some PWID 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 67) 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 1998 and 2010.



Figure 67: Consumption of flunitrazepam per 1,000 persons, 1998-2010

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

5.7 Other drugs

Key Points:

Ecstasy:

• The Tasmanian EDRS reported the median price of ecstasy was lower in 2011 than in 2010, and availability and subjective purity were lower in 2010 and 2011 than in 2009;

Alkaloid poppies:

• Over the preceding four years, the number of thefts of alkaloid poppies has decreased, as has the number of seizures reported by Tasmania Police.

5.7.1 Ecstasy and related drugs

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, Peacock & Bruno, 2012), and examines trends in ecstasy and other 'party drug' use in greater depth. This study found that the median price of ecstasy was \$30 in 2011; lower than the price reported in 2010 (\$30). Both availability and subjective purity were reported to be lower in 2010 and 2011 than in previous years.

Figure 68 shows that there were no ecstasy tablets seized by Tasmania Police prior to the 1999/00 financial year. Since this time the number of tablets and the number of seizures have increased, with considerable increases observed in the number and total weight of seizures in the 2003/04 and 2006/07 reporting periods and a substantial increase in the total number of tablets seized during the 2008/09 period (4,478 tablets). In 2009/10, there was a notable decrease in both the number of seizures (n=45) and number of tablets seized³⁴ (619 tablets), and in 2010/11, the number of seizures continued to decline with 852 tablets seized across just 17 seizures. In addition, there was also one seizure totalling 10.7 grams of tablets in 2010/11.

³⁴ 2009/10 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.

There were three samples of phenethylamines (the class of drugs that ecstasy, or MDMA, and drugs such as 3,4 methylenedioxyamphetamine (MDA), 3,4 methylenedioxyethamphetamine (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%), in 2007/08, three seizures were analysed, returning a median purity of 24.6% (range 6.4-26.6%), and in 2008/09, two seizures were analysed returning a median purity of 34.3% (range 33.8-34.8%) (ACC, 2010). In 2009/10, just one seizure was analysed, returning a purity level of 34.2%. Data for 2010/11 was not available at the time of publication.

Figure 68: Total number of tablets suspected to contain ecstasy seized by Tasmania Police, 1997/98-2010/11



Source: ACC & State Intelligence Services, Tasmania Police

²2010/11 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, Peacock & Bruno, 2012) indicate that availability and perceived purity have decreased since 2009. In 2010, an increase in use of similar psychoactive substances such as methyl-methcathinone ('miaow', 'm-cat') was observed, however, this was not observed in 2011. This, and the dramatically decreased seizures by Tasmania Police in 2009/10 and 2010/11, suggests lower levels of ecstasy in Hobart in 2010 and 2011 than were present in the preceding four years.

5.7.2 Hallucinogens

In 2001/02, the ACC reported the price of one tab of LSD as \$20-25 in this period. No price data was reported until 2008/09, when one tab reported to cost \$40; and in 2009/10 one tab was reported to cost \$25.

ACC data for hallucinogens includes tryptamines such as LSD and psilocybin (mushrooms). There have been a small number of arrests and seizures in Tasmania in relation to hallucinogens between

1997/98 and 2009/10. In the 2010/11³⁵ period Tasmania police reported six consumer and two provider arrests in relation to LSD and three consumer arrests in relation to mushrooms. There were 3 seizures of mushrooms totalling 102.9g, 1 seizure of LSD totalling 138 tabs. In addition there were 12 seizures of tryptamines totalling 85 tabs/tablets.

5.7.3 Alkaloid poppies

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. Seizures of poppy products are reported in a variety of measures (including grams of tar, resin, seed, poppy product and vegetable manner, numbers of capsules and plants, and units of plant material), rendering it difficult to clearly identify trends in seizure data (Table 35). In 2010/11³⁶, Tasmania Police reported making 11 seizures of poppy products, amounting to 56 plants, 15.5g of seed and 114g of poppy 'vegetable matter'.

The diversion rate of Tasmanian alkaloid poppy crops, shown in Table 35 below, had been in 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 PWID 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 (2010/11: 1,473 capsules stolen and 11 incidents of theft reported).

 ³⁵ Note: 2010/11 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.
 ³⁶ Note: 2010/11 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.

	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11
Number of capsules stolen	30,424	66,013	62,700	7,765	15,946	20,223	24,128	16,201	10,263	9,344	820	2,280	4,772	1,473
Cost per hectare of securing poppy crops	\$39	\$33	\$27	\$28	\$28	\$30	\$47	\$44	\$62	\$68	\$71	\$33	\$30	\$26
Number of capsules stolen per hectare sown	2.44	4.41	2.99	0.39	0.81	1.11	1.97	1.25	1.06	1.04	0.07	0.14	0.23	0.06
Number of theft incidents reported	38	34	39	20	27	27	39	35	13	7	8	17	33	11
% of PWID sample reporting use	-	-	34	13	14	12	13	21	8	10	10	11	7	8
Median days used (among PWID 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)	14 (1-45)	15 (2-30)
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	908 capsules; 3 units liquid; 2 units plant material; 49.2g seed; 0.3g veg matter	56 plants; 15.5g seed; 114g vegetabl e matter

 Table 35: Tasmanian alkaloid poppy crop diversion rates, 1996/97-2010/11

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

* 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

Note: 2010/11 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

6.0 HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE

6.1 Overdose and drug-related fatalities

Key Points:

- 36% of the sample reported ever having experienced an opioid overdose, and 7% reported this occurring in the preceding 12 months;
- No participants reported experience of a stimulant overdose in the preceding 12 months.

6.1.1 Opioids

Non-fatal overdose

All but one participant reported that they had used some form of opioid in their lifetime, and 36% of these had ever experienced a (non-fatal) opioid overdose. Among the 36 individuals that had ever experienced an opioid overdose, 21 had overdosed on heroin, 11 with morphine, four on methadone and one on oxycodone (one of these participants reported overdosing on two different opioids) (Table 36). The proportion of the sample reporting ever having overdosed on an opioid was slightly higher in 2011 (36%) than in 2010 (29%), but this difference was not statistically significant (p=0.4). Seven participants in the current cohort had overdosed on any opioid in the year prior to interview: 5 with morphine; and single participants with heroin; and a combination of pharmaceutical opioids. Of those participants who had ever overdosed on any opioid, the median number of times they had overdosed was once. Specifically, for heroin overdose: median once, range 1-20 times; for morphine overdose: median once, range 1-10 times; for methadone overdose: median once, range 1-4; and thrice for oxycodone: range 3 times. Among those that had ever experienced an opioid overdose, the median time since their last overdose was five and a half years: amongst those that had overdosed on heroin it was ten and a half years (range 12-300 months); for morphine it was one year (range <1-120 months); for methadone ten years (range <1-120 months) and for oxycodone 3 months (range 3 months).

Participants reporting an opioid overdose in the 12 months preceding the interview were asked to comment on any treatments they received for this. All five participants who commented reported they did not receive any treatment for this.

	% of Pwid in past month											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
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)	29% (17% heroin; 10% morphine; 7% methadone; 3% oxycodone)	36% (21% heroin; 11% morphine; 4% methadone; 1% oxycodone)
Median times ever overdosed	2	1	1	2	3 thrice (heroin); once (morphine)	2 twice (heroin); once (morphine; methadone)	2 thrice (heroin); once (morphine)	1 twice (heroin); once (morphine)	1 twice (heroin; morphine); once (methadone)	1 once (heroin; morphine; methadone)	1 once (heroin; morphine; methadone)	1 once (heroin; morphine; methadone) thrice (oxycodone)
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	4% 1% morphine; 1% methadone; 1% oxycodone; 1% both morphine and oxycodone	7% 5% morphine; 1% heroin; 1% multiple pharmaceuti cal opioids

Table 36: Reported experience of non-fatal opioid overdose among the PWID sample (N=100), 2000-2011 % of DWID in past month

Source: IDRS PWID interviews.

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

Heroin

One 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 PWID cohorts over time (Figure 69), 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.





Source: IDRS PWID interviews

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

Methadone

Four participants in the current cohort reported ever having experienced a non-fatal methadone overdose. Of this group, one participant reported experiencing an overdose after using multiple pharmaceutical opioids, including methadone, in the 12 months preceding the interview. The numbers of reports of experience of methadone overdoses are similar to those in 2010, where one participant had experienced a methadone overdose in the 12 months prior to interview.

Morphine

Overall, eleven PWID participants (11%) 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 (one also reporting concomitant use of other opioids). The rate of these experiences in the current cohort was similar to previous local IDRS studies.

Oxycodone

One participant (1%) in the current cohort reported ever having experienced a non-fatal oxycodone overdose, which occurred in the year prior to interview (in combination with other opioids).

Fatal Opioid Overdoses

The Australian Bureau of Statistics (ABS) has changed the way they collate deaths data, making comparisons to earlier overdose bulletins published by the National Drug and Alcohol Research Centre (Degenhardt and Roxburgh, 2007a, Degenhardt and Roxburgh, 2007b) difficult. Since 2003, the ABS has progressively ceased visiting jurisdictional coronial offices to manually update causes of death that had not been loaded onto the computerised National Coronial Information System

(NCIS). It was in 2006 that the ABS began to rely solely on data contained on NCIS at the time of closing the deaths data file. Given that coronial cases can take to some time to complete, this is likely to have an impact on the number of opioid-related deaths recorded at a national level. The ABS have implemented a number of additional strategies, including examination of death certificates and coroners reports, to ensure that as many of the deaths as possible have a cause of death coded at the time the data file is closed. The following data represent findings from preliminary data for 2009. The ABS will be releasing two subsequent revisions of the 2009 deaths data in March 2012 and March 2013 respectively. Accordingly, these figures may represent an underestimate of opioid-related deaths (ABS causes of death data).

In 2009, nationally there were 433 accidental deaths due to opioids (Table 37). Twenty-five percent of deaths occurred in New South Wales, with 68% of all opioid-related deaths occurring in New South Wales, Victoria and Queensland (Roxburgh & Burns, *in press*). The number of deaths in Tasmania has not been reported since 2007 to protect confidentiality, as there were less than ten per annum (10 in 2006; 11 in 2007) (Roxburgh & Burns, *in press*).

Table 37: Accidental deaths due to opioid use among those aged 15-54 years, 2006-2009

	2006	2007	2008	2009
No. of accidental deaths due to opioid use Tasmania Australia	10 269	11 266	пр 337	пр 433

Source: Roxburgh & Burns, in press

np Data were not published in order to protect confidentiality (i.e. n<10)

Note: data for causes of death for 2009 are preliminary, and are likely to change with the release of the first and final revision of the 2009 causes of death data

6.1.2 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, no participants reported ever having experienced a non-fatal methamphetamine overdose. In 2010, three participants reported such an event, all of which were related to use of powder form.

Fatal stimulant overdoses

As mentioned above, 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 was collated by the ABS, it was not possible to compare 2006-2009 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*).

There were fewer deaths attributable to methamphetamine than were attributable to opioids. There was a limited understanding of the role of methamphetamine in causing death and, therefore, mortality data may under-represent cases where methamphetamine contributed to the death, such as premature death related to cerebral vascular pathology (e.g. haemorrhage or thrombosis in the brain).

ABS data on accidental deaths where amphetamines were mentioned have been analysed since 1997. Nationally in 2009, there was a total of 62 'drug induced' deaths in which methamphetamine was mentioned among those aged 15-54 years (Table 38). Methamphetamine was determined to be the underlying cause of death in 21% (n=13) of all methamphetamine related deaths in 2009

(Roxburgh & Burns, *in press*). The 2010 ABS data on amphetamine deaths were not available at the time of publication.

Nationally in 2009, 17 drug related deaths in which cocaine was mentioned occurred among the 15-54 year age group (Roxburgh & Burns, *in press*). Cocaine was determined to be the underlying cause of death in 24% (n=4) of all cocaine-related deaths in 2009. The 2010 ABS data on cocaine-related deaths were not available at the time of publication.

Table 38: Number of methamphetamine or cocaine deaths among those aged 15-54 years in Australia, 2006-2009

Cause of death	2006	2007	2008	2009
Any mention of methamphetamine	66	49	55	62
Methamphetamine underlying cause	18	20	13	13
Any mention of cocaine	13	11	11	17
Cocaine underlying cause	6	7	2	4

Source: Roxburgh & Burns, *in press*

Note: data for causes of death for 2009 are preliminary, and are likely to change with the release of the first and final revision of the 2009 causes of death data

6.2 Drug treatment

Key Points:

- The 2009/10 National Minimum Data Set Alcohol and Other Drug treatment data (AIHW, 2011)reported that cannabis was the principal drug of concern in 44% of treatment episodes in Tasmania, significantly higher than the national rate (23%);
- Alcohol was the second most frequently reported drug of concern (34%);
- Meth/amphetamine was reported as the principal drug of concern for 6% of treatment episodes in Tasmania and 9% nationally;
- Morphine was reported as the principal drug of concern in 6% of treatment episodes in Tasmania, a rate significantly greater than reported nationally (1.2%).

6.2.1 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 has slowly declined in recent years: between 2000/01 and 2003/04, there were between 1,827 and 2,422 calls per financial year. Since this time, this has ranged between 1,414 and 1,525 calls (1,414 in 2010/11).

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 (56-63% male between 2002/03 and 2010/11).

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 53% in 2010/11). Additionally, the proportion of ADIS calls from young people (i.e. aged less than 20 years) regarding drug use was stable at around 10% between 2001/02 and 2004/05. This rate rose slightly in 2006/07 to 17%; however, since this time this rate has been notably lower (1% in 2010/11).

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 were 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 was notably lower in 2010/11 (18%). A slight increase was apparent in calls in relation to amphetamine in 2006/07 (ranging between 6-13% between 2000/01-2005/06; 18% in 2006/07). In the subsequent four financial years this rate has been lower (9.7% in 2010/11) (Figure 70).





Source: ADIS Tasmania Reports, Turning Point Alcohol and Drug Centre * 2005/06 data were only provided for amphetamines and cannabis Note: Calls referring to heroin, other opioids, benzodiazepines and ecstasy were not specified in the 2004 reporting

6.2.2 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 39 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 2009/10 data show 71% of those receiving services were male and 10% identified as being ATSI. Figures for the reported principal drug of concern in 2009/10 show 44% of clients reported cannabis and 34% alcohol, followed by amphetamine and morphine (6% respectively) (Table 39).

There are several notable changes in the NMDS figures between the 2000/01 and 2009/10 datasets (Figure 71). 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, since 2006/07, more episodes were reported for cannabis as the principal drug of concern than alcohol (44% and 34% respectively in 2009/10). 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, since 2006/07, 1% or less of treatment episodes were reported for nicotine. Specific changes in relation to other drug types are discussed separately in following sections.

Total Data	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08 [*]	2008/09 [*]	2009/10
561										
n	1,404	1,735	2,568	2,357	1,921	1,512	1,564	2,302	2,081	1,544
% receiving	91%	97%	89%	68%	71%	90%	95%	92%	95%	94%
service for their	(n=1,279)	(n=1,691)	(n=2,286)	(n=1,603)	(n=1,364)	(n=1,357)	(n=1,478)	(n=2,124)	(n=1,983)	(n=1,451)
For those rec	eiving serv	ices								
for their	r own use	1003								
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~1,455)	70% (n=1,388)	71% (n=1,030)
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)	10% (n=198)	10% (n=141)
Principal drug of concern Alcohol Nicotine Cannabis Amphetamine Cocaine 'Ecstasy' and related Heroin Morphine Methadone Other opioids Benzodiazepines Other	39% (n=496) 2% (n=31) 23% (n=290) 12% (n=155) <1% (n=3) <1% (n=3) 2% (n=30) 7% (n=84) 6% (n=77) 4% (n=53) 3% (n=37) <1% (n=10)	37% (n=620) 17% (n=280) 25% (n=418) 10% (n=161) 0 <1% (n=15) 1% (n=18) 7% (n=121) <1% (n=3) 1% (n=19) 2% (n=29) <1% (n=7)	41% (n=933) 18% (n=412) 19% (n=426) 8% (n=180) 0 <1% (n=12) n/r 4% (n=79) 8% (n=173) <1% (n=16) 2% (n=55)	29% (n=463) 13% (n=200) 37% (n=593) 9% (n=136) <1% (n=11) <1% (n=13) n/r 3% (n=48) n/r 1% (n=16) 7% (n=114)	31%(n=423) 17%(n=226) 31% (n=423) 10% (n=134) 0 <1% (n=10) <1% (n=3) 6% (n=80) 2% (n=27) <1% (n=12) <1% (n=11) 1% (n=15)	38%(n=515) 2% (n=27) 34% (n=462) 12% (n=160) <1% (n=1) 1% (n=15) <1% (n=11) 5% (n=64) 3% (n=46) n/r 1% (n=18) 1% (n=15)	36% (n=532) 0 39% (n=583) 13% (n=190) 0 2% (n=25) <1% (n=6) 3% (n=40) 2% (n=25) n/r 1% (n=21) 3% (n=48)	32% (n~682) n/r 45% (n~936) 11% (n~239) 0 2% (n~36) <1% (n~7) 5% (n~97) 1% (n~23) <1% (n~12) 1% (~27) 2% (n~36)	38%(n~748) 1%(n~22) 39% (n~767) 9% (n=167) 0 1% (n~26) <1% (~10) 6% (n~127) 1% (n~26) 2% (n~38) 1% (n~28) 0	34% (n~499) n/r 44% (n~644) 6% (n~89) n/r 2% (n~28) <1% (n~28) 6% (n~89) 1% (n~17) 2% (n~22) 1% (n~19) 3% (n~36)

Table 39: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set, 2000/01-2009/10

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

Note: The data presented for 2009/10 are taken from AIHW data cubes, and differ from the NMDS 2009/10 National Report, as there were errors in the Tasmanian data that were included in this report.

Figure 71: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set: Principal drug of concern, 2000/01-2009/10



Source: Australian Institute of Health and Welfare Note: Data for nicotine presentations was not provided in 2009/10

Heroin

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 9.9% of treatment episodes were related to heroin as a principal drug of concern in 2009/10 ($\chi^2(1_{n=142752})=196.9$, p<0.001) (AIHW, 2011). Data for the 2010/11 financial year were not available at the time of publication.

Methamphetamine

In the 2009/10 NMDS, meth/amphetamine was reported as the principal drug of concern for 6.1% of treatment episodes in Tasmania and 9.2% nationally (p=0.2) (AIHW, 2011). This local rate is significantly lower than reported in 2008/09 (8.5%: $\chi^2(1_{n=3434})=6.02$, p=0.014) (Table 39).

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 subsequent reporting periods, this rate has remained between 6 and 12%.

Cocaine

In 2008/09, there were no reports of treatment episodes provided in which cocaine was the principal drug of concern (this data was not provided in 2009/10). Reports of cocaine as the principal drug of concern amongst Tasmanian clients of drug treatment services are uncommon, comprising just 0.2% or less of annual treatment episodes between 2000/01 and 2006/07 (AIHW, 2008c). This is comparable with national figures: in 2008/09, just 0.3% of treatment episodes reported in the NMDS related to individuals whose principal drug of concern was cocaine.

Cannabis

In 2009/10, 44.4% of Tasmanian drug treatment episodes reported to the NMDS related to clients reporting cannabis as their principal drug of concern (AIHW, 2011). This was significantly higher

than the national rate reported for cannabis (23.2%: $\chi^2(1_{n=142220})=358.2$, p<0.001). 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 has remained between 31% and 45% since this time.

Between 2007/08 and 2010/11, approximately one-fifth of calls to ADIS reported cannabis to be the primary drug of concern (18-21%). 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 70). 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 (1.2%) and the levels seen nationally (1.4%) in 2009/10 (AIHW, 2011). 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 between 2006/07 and 2009/10 (ranging between 1.2 and 1.7%).

Morphine

During 2009/10, morphine was reported as the principal drug of concern in 6.0% of treatment episodes in Tasmania (AIHW, 2011). This was a significantly greater proportion than reported nationally (1.2%: $\chi^2(1_{n=142220})=279.2$, p<0.001). The local Tasmanian rate of treatment episodes for morphine has remained relatively unchanged since 2000/01, ranging between 2.7% to 7.2%.

6.3 Hospital Admissions

Key Points:

Heroin and other opioids

• In 2006/07, the number of hospital admissions increased dramatically, but subsequently decreased in 2008/09; the rate per million population of hospital admissions in Tasmania was 68% of the national rate in 2008/09.

Methamphetamine

• Between 2006/07 and 2007/08, the Tasmanian rate of admissions was 130% of the national rate; this was reversed in 2008/09, with the Tasmanian rate of decreasing to 48% of the national rate in 2008/09.

Cannabis

• In 2008/09, the rate of admissions per million persons in Tasmania was 121, equating to 78% of the national rate (155 per million persons).

Hospital morbidity data in relation to use of drugs have been provided by the AIHW for the 1993/94 to 2008/09 financial year periods (data for 2009/10 were not available at the time of publication) (Roxburgh & Burns, 2012). 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 were only included in this dataset from June 2002.

6.3.1 Heroin and other opioids

Tasmanian hospital admissions in relation to opioids are presented in Figure 72. 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, however, in 2008/09, this decreased to 79 admissions (data for 2009/10 and 2010/11 were not available at the time of publication). As can be seen in Figure 73, 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. This trend was reversed in 2008/09, with a dramatic decrease in the rate of admissions locally (68% of the national rate) (Figure 73).

Figure 72: Public hospital admissions amongst persons aged 15-54 in Tasmania where opioid use was noted as the primary factor contributing to admission, 1993/94-2008/09



Source: Roxburgh & Burns, 2012

Figure 73: 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, 1993/94-2008/09



Source: Roxburgh & Burns, 2012

6.3.2 Methamphetamine

Population-adjusted rates of Tasmanian public hospital admissions, where methamphetamine use was noted as the principal diagnosis, are presented in Figure 74. 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 2002/03 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. This was reversed in 2008/09, with the Tasmanian rate of admissions per million population decreasing from 210 in 2007/08 to 76 in 2008/09 (48% of the national rate) (data for 2009/10 and 2010/11 were not available at the time of publication).

Figure 74: 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, 1999/00-2008/09



Source: Roxburgh & Burns, 2012

6.3.3 Cocaine

Consistent with the apparent low levels of availability and use of cocaine locally, the rate of cocainerelated 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 75). When the local rates of cocaine-related public hospital admissions are compared to the national Australian rate (Figure 75), 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 2008/09 (data for 2009/10 and 2010/11 were not available at the time of publication).

Figure 75: 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, 1999/00-2008/09



Source: Roxburgh & Burns, 2012

6.3.4 Cannabis

Tasmanian public hospital admissions where cannabis use was noted as the principal diagnosis among persons aged 15-54 years are presented in Figure 76. 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 and 2008/09, this number again decreased, with 41 and 32 admissions respectively reported (data for 2009/10 and 2010/11 were not available at the time of publication).

The population-adjusted rates for cannabis-related admissions in Tasmania increased overall between 1994/95 and 2006/07, from 30 per million population to 267 (Figure 77). In 2007/08 and 2008/09, this trend was reversed, with 156 and 121 admissions per million persons reported respectively. 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 2008/09, the Tasmanian admission rate (Figure 77).





Source: Roxburgh & Burns, 2012

Figure 77: 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, 1993/94-2008/09



Source: Roxburgh & Burns, 2012

6.4 Injecting risk behaviours

Key Points:

- In 2011, 8% of participants reported using another person's used needle/syringe in the preceding month, and 10% reported lending their used needle/syringe to another person in this period;
- Half of the sample reported re-using their own injecting equipment in the preceding month, most commonly winged-infusion sets ('butterflies'), 1ml syringes and 3/5ml barrels;
- The majority of participants reported use of filters in the preparation of morphine, oxycodone, prescription stimulants and benzodiazepines for injection. Conversely, small proportions used filters when preparing methadone syrup and methamphetamine for injection.

6.4.1 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 four financial years following this, the rate has declined, and was 0.05% in 2010/11 (Figure 78). These rates have been consistently lower than reported by participants in the IDRS studies.





Source: Population Health, Department of Health and Human Services. IDRS PWID interviews * 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 PWID Data

Amongst the IDRS PWID sample, sharing and re-use of injecting equipment was seen at similar levels to previous studies, with the exception of 2007 (in 2007, many of the measures for sharing of injecting equipment increased dramatically from previous stable levels).

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 remained relatively stable since 2003, ranging between 2 and 8% of each sample, with the exception of 2007, when 16% of the sample reported this (Figure 78). 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.

Among the 2011 IDRS PWID sample, 10% of participants reported providing a used needle/syringe to others in the month prior to interview, slightly, but not significantly lower than the rate reported in 2010 (13%) (Table 40). These participants reported providing their used equipment to others either once (n=2), twice (n=3), on six to ten occasions (n=1) or more than 10 times (n=2) in the preceding month.

Overall, 13% of the sample had used another person's used needle/syringe and/or lent such equipment to another person in the preceding month. This is a similar rate as reported in 2010 (16%)

Half of the consumers sampled (51%) reported re-using their own injection equipment in the month prior to interview, similar to the rate reported in 2010 (44%). Among the current group who reported re-use of their injecting equipment, the majority had done this on either one (27%, n=14), two occasions (33%, n=17) or three to five occasions (20%, n=10) in the last month; with small minorities doing so on six to ten occasions or more than 10 occasions in the month preceding the interview (10%, n=5 respectively). The equipment most commonly re-used were winged-infusion sets ('butterflies', 35%, n=18), followed by 1ml syringes (25%, n=13), 3/5ml barrels (20%, n=10) and 20ml barrels (14%, n=7). In August 2006, the Tasmanian Department of Health and Human

Services (Population Health) amended the policy regarding provision of injecting equipment at nonpharmacy NSP: 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. Participants predominately noted that they had re-used because they required equipment on occasions when accessible outlets were closed (nights or weekends, 59%, n=30) or because the outlet was too far away for them to access (26%, n=13).

Sharing of other types of injecting equipment in the month prior to interview (such as tourniquets, water, swabs and mixing containers) was reported by 22% of the sample in 2011. Spoons and mixing containers were shared by 17% of participants, tourniquets were shared by 10%, filters were shared by 3% and water was shared by 8% of participants in this time. All rates of sharing of injecting equipment appear to have remained relatively stable since 2004, with the exception of 2007, when large increases in a range of sharing practices were recorded (Table 40). 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 40: Proportion of the PWID sample (N=100) reporting sharing of injection equipment in the month prior to interview, 2003-2011

		P	roportio	n of IDR	S PWID	in the pa	ast mon	th	
	2003	2004	2005	2006	2007	2008	2009	2010	2011
	%	%	%	%	%	%	%	%	%
Borrowed used needles	6	8	5	4	16	7	2	3	8
Lent used needles to others	3	12	14	13	29	9	13	13	10
Shared spoons/containers	1	8	4	7	20	15	17	19	17
Shared water	2	11	5	11	17	11	6	6	8
Shared filters	1	8	2	5	8	6	8	12	3
Shared tourniquets	11	21	15	16	22	11	16	14	10

Source: IDRS PWID interviews

Note: Multiple responses allowed

In the current study, some aspects of injection practices were examined in more detail. Despite the current PWID cohort being regular injecting drug users, only three-quarters (73%) reported that they always injected themselves. Six percent of participants 'never' self-injected (n=6), 5% self-injected 'sometimes' (n=5), 6% 'about half the time' (n=6) and 9% 'usually' injected themselves in the preceding month (n=9). 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, sexual preference, education, employment, income sources, accommodation, prison history, frequency of injection, drug of choice, drug first injected and duration of injecting career. However, participants who reported not always injecting themselves were significantly more likely to be female (62% v. 37%: $\chi^2(1_{n=100})=4.6$, p=0.02), were less likely to report a pharmaceutical opioid as the drug they had most commonly injected in the preceding month (46% v. 76%: $\chi^2(1_{n=100})=7.6$, p=0.007) and to report current engagement in methadone maintenance treatment ($\chi^2(1_{n=100})=8.2$, p=0.003) than those participants reporting always injecting themselves in the preceding month.

6.4.2 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 μ m wheel filters (hereafter referred to as a 'pill filter'), 0.22 μ m 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

Morphine

The majority of participants who commented had used some form of filter the last time they prepared morphine for injection (89%, n=59). The most commonly used filter amongst this group was roll-your-own cigarette filters (54%, n=36) followed by pill filters (20%, n=13) (Table 41). Amongst participants reporting no use of a filter on the last occasion of use of morphine (n=7), 71% (n=5) noted they felt there was no need to filter. A recent study examining the effectiveness of a range of filters on morphine tablets found no significant loss of the active drug when at least two flushes with water for injection were carried out (McLean et al., 2009). One KE working in an NSP noted a decrease in requests for 3ml barrels in favour of 5ml barrels, as consumers were using more water during the filtering process (as is recommended to avoid crystallisation of the morphine). Two other KE noted an increase in the clients using filters with morphine, and a fourth noted that filters were now commonly used by consumers injecting morphine.

Participants reporting recent injecting use of morphine were asked if they had heated the morphine tablet/capsule during preparation for injection. This question was included as a recent study investigating effectiveness of filtration on morphine tablets for injection found that heating morphine tablets in water for injection prior to filtering may allow wax to pass through filters, subsequently forming into particles when cooling, which effectively undermines the effectiveness of the filtering process (McLean et al., 2009). Three-quarters of recent morphine injectors reported this practice (75%, n=52): of this group, 14% (n=4) did not filter; 52% (n=15) used a roll-your-own cigarette filter; 24% (n=7) a 'tailor' cigarette filter; 14% (n=4) used a pill filter; and 7% (n=2) used a bacterial filter.

Oxycodone

Of those participants commenting on use of a filter during the preparation of oxycodone tablets for injection (n=39), the majority used some sort of filter (95%, n=37). The filters most commonly used for the last injection of oxycodone were roll-your-own cigarette filters (49%, n=19) and 'tailor' cigarette filters and/or pill filters (26%, n=10 respectively) (Table 41).

Participants reporting recent injection of oxycodone were asked if they had heated the tablet during preparation. Seventy-one percent of recent oxycodone injectors reported this practice (n=29): of this group, 14% (n=4) did not filter; 52% (n=15) used a roll-your-own cigarette filter; 24% (n=7) a 'tailor' cigarette filter; 14% (n=4) used a pill filter; and 7% (n=2) used a bacterial filter.

Methadone syrup

Among those able to comment on preparation of methadone syrup for injection (n=48), three-fifths had not used a filter last time they injected this drug (60%, n=29), and two-fifths of the group reported use of a bacterial filter (40%, n=19) (Table 41). Of the 29 participants reporting no use of a filter on the last occasion of methadone injection, the majority (79%, n=23) felt there was no need to use a filter.

Physeptone

Half of the participants who commented on use of a filter in preparation of Physeptone to inject had used a filter the last time they injected the drug (50%, n=17). Pill filters were the most commonly used (32%, n=11), with small minorities reporting use of bacterial filters and/or roll-your-own cigarette filters (9%, n=3 respectively). Of the 17 participants reporting no use of a filter on the last occasion of Physeptone injection, half reported they felt no need to filter (53%, n=9) and 12% (n=2) reported they didn't know why they didn't filter.

Methamphetamine

Participants who reported recent use of any form of methamphetamine were asked if they had used a filter the last time they injected this drug (n=75) (Table 41). Two-thirds of this group reported no use of a filter (66%, n=50), with the remainder reporting use of a roll-your-own cigarette filter (16%, n=12), a 'tailor' cigarette filter (5%, n=4), cotton wool or a bacterial filter (3%, n=2 respectively). Of the 50 participants reporting they had not used a filter, the majority reported they saw no need for filtering (58%, n=35), 12% reported they either didn't know how to filter or didn't know this was possible, and 8% (n=5) noted concerns about loss of the drug through filtering.

In 2010, one NSP KE commented that whilst most methamphetamine users don't filter, fewer injecting complications were observed amongst this group. This KE also noted, however, that many primary methamphetamine users tend not to engage with the NSP service to the same degree as other service users, so it is possible that these harms are experienced, but are not discussed with the NSP worker as readily.

Pharmaceutical stimulants

Two-thirds 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 (68%, n=15). The most commonly cited filter was a pill filter (41%, n=9); small minorities reported use of a roll-your-own cigarette filter (18%, n=4) and/or a bacterial filter (9%, n=2) (Table 41). Of the seven participants reporting no use of a filter on the last occasion, 71% (n=5) reported they saw no need to filter.

Benzodiazepines

Twenty participants commented on their use of a filter during the preparation of a benzodiazepine tablet or capsule for injection. Eighty percent (n=16) of this group reported use of a filter the last time they injected. The predominant form of filter used was a pill filter (45%, n=9), with smaller minorities reporting use of a bacterial filter (20%, n=4) and/or a roll-your-own cigarette filter (15%, n=3) (Table 41). Amongst the participants reporting no use of a filter on the last occasion of injection of a benzodiazepine, two-thirds felt there was no need to filter (67%, n=4) and 17% (n=1) reported they didn't know how to filter.

	No filter	0.45 μm wheel filter ('pill filter')	0.22 μm wheel filter ('bacterial filter')	Commercial filter for hand- rolling tobacco ('roll- your-own filter')	Filter from tailor-made cigarette <i>('tailor</i> cigarette filter')	Cotton wool
Opioids Morphine (n=66) Oxycodone (n=39) Methadone syrup (n=48) Physeptone (n=34)	11% (n=7) 5% (n=2) 60% (n=29) 50% (n=17)	20% (n=13) 26% (n=10) 4% (n=2) 32% (n=11)	6% (n=4) 5% (n=2) 40% (n=19) 9% (n=3)	54% (n=36) 49% (n=19) 0 9% (n=3)	15% (n=10) 26% (n=10) 0 6% (n=2)	5% (n=3) 3% (n=1) 0 0
Methamphetamine (n=75)	66% (n=50)	1% (n=1)	3% (n=2)	16% (n=12)	5% (n=4)	3% (n=2)
Pharmaceutical stimulants (n=22)	32% (n=7)	41% (n=9)	9% (n=2)	18% (n=4)	5% (n=1)	0
Benzodiazepines (n=20)	20% (n=4)	45% (n=9)	20% (n=4)	15% (n=3)	5% (n=1)	0

Table 41: Use of a filter the last time injected a drug, 2011 (N=100)

Source: IDRS PWID interviews

Note: Multiple responses allowed

6.4.3 Location of injections

Participants were asked to comment on the location in which they last injected in the month preceding the interview (Figure 79). Injecting in a public space is of particular concern as it is related to increased risk of overdose and injecting related vascular problems (Darke, Kaye & Ross, 2001). Between the 2001 and 2007 surveys, 15% to 34% of each cohort reported last injecting in public; however, in the 2008 to 2011 surveys, the proportion reporting last injecting in public locations such as a public toilet, a car, or on the street, slightly decreased (ranging between 13% and 19%) (Figure 79).

Figure 79: Proportion of PWID participants reporting injecting in a public place, 2001-2011



Source: IDRS PWID interviews

Note: Since 2009, only 'location of last injection' was asked

6.4.4 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 42). This is consistent with the fact that the majority of participants were recruited and interviewed at non-pharmacy NSP outlet sites.

Sources of needles/syringes	%
	(N=100)
Non-pharmacy NSP	98%
Pharmacy	12%
Friend	8%
Partner	4%
Dealer	2%
Vending machine	0

Table 42: Sources of clean needles/syringes in the preceding six months, 2011

Source: IDRS PWID interviews. Note: Multiple responses allowed

6.5 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 43 indicates the number of cases of BBVI recorded in the state between 1991 and 2011. 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 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, with the exception of 2006 (10 cases reported) (Figure 80).

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 remained relatively stable between 2006 and 2010, ranging between 240 and 260 cases per annum (with the exception of a small increase in 2008 to 327 cases). In 2011, this decreased slightly to 203 cases.

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 2011 (ranging between 3 and 11 cases over this period). Reports of unspecified HBV infections (not new cases) have varied around 40 cases (22-76) per annum between 1991 and 2011, showing no clear trend in any direction.

		Blood-borne v	viral infections	
Year	Hepatitis C (incident)	Hepatitis C	Hepatitis B (incident)	Hepatitis B
		(unspecified)		(unspecified)
1991	n/a	n/a	n/a	50
1992	n/a	n/a	n/a	52
1993	n/a	n/a	0	33
1994	n/a	n/a	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	254	9	36
2008	21	327	11	59
2009	22	260	9	76
2010	23	240	6	51
2011	26	203	11	42

Table 43: Rates of notifiable blood-borne viral infections in Tasmania, 1991-2011

Source: Communicable Diseases Network – Australia New Zealand – National Notifiable Diseases Surveillance System, and Public Health, Department of Health and Human Services (data as of Jan 25, 2012 and subject to revision)

n/a Refers to cases where either no data were available or where recorded data were not specifically broken into incident and unspecified cases

Figure 80: Total notifications of incident hepatitis B and C infections in Tasmania, 1995-2011



Source: Communicable Diseases Network – Australia New Zealand – National Notifiable Diseases Surveillance System, and Public Health, Department of Health and Human Services. (data as of Jan 25, 2012 and subject to revision)

6.6 Self-reported injection-related health problems

Key Points:

 Three-fifths (61%) of the sample reported experience of at least one injectionrelated problem in the preceding month, most commonly difficulty injecting and scarring/bruising of the injection site.

There was a substantial rate of injection-related problems reported by the PWID surveyed, with 61% reporting at least one such problem in the preceding month (Table 44). This rate of experience of injection-related health problems is similar to the rate reported in 2010 (63%). Between 2000 and 2004, 72% to 78% of each sample reported an injection-related health problem; this decreased over the 2005 to 2011 period, with between 50% and 63% of each sample reporting this – with the exception of 2009 (80%).

The most commonly reported problems among the current PWID cohort were 'difficulty injecting' (42%) - indicating vascular damage - and scarring/bruising of injection sites (38%). Rates of recent injection-related problems between 2010 and 2011 have remained relatively stable. A small decrease was observed in the rate of reports of experience of scarring and bruising (51% v. 38%), however, this difference was not statistically significant (p=0.3).

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 44). Experience of a 'dirty hit' – feeling physically unwell soon after injection – is commonly due to the injection of contaminants or impurities. In the 2011 cohort, of the 14 participants reporting experience of a 'dirty hit', six noted that this followed injection of methadone, a further three participants reported methamphetamine, and single participants reported morphine, morphine and heroin, benzodiazepines, and oxycodone. This association of 'dirty hits' with methadone injection has been reported in the current and 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, one KE noted they were continuing to receive reports of pharmacies diluting methadone syrup with tap water.

	2000 %	2001 %	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %	2010 %	2011 %
Scarring/bruising	59	42	53	49	42	31	29	33	31	71	51	38
Difficulty injecting	50	48	48	51	49	47	38	40	39	53	42	42
Thrombosis	18	21	5	10	8	12	5	3	4	10	9	4
'Dirty hit'	15	31	18	31	24~	19 [@]	15^	15⁺	9**	17α	12^^	14#
Infections/abscesses	9	9	8	8	11	11	7	11	5	7	10	4
Overdose	0	0	0	0	1	1	1	4	0	4	2	1
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 [°])	63 (range 1-4, median 2 [°])	61 (range 1-4, median 1 [°])
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						
% injecting daily	31	29	29	17	27	30	37	20	29	30	43	36

Table 44: Injection-related health problems reported by participants in the PWID survey in the month prior to interview (N=100)

Source: IDRS PWID interviews

^{*} For those noting injection-related problems:

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

⁶67% 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

^a 47% of these were attributable to methadone injection, 41% to morphine, and 12% to methamphetamine injection and benzodiazepine injection

^{^^} 25% of these were attributable to either methadone or methamphetamine, 17% to morphine, 8% to either oxycodone, Suboxone, a combination of oxycodone and morphine or morphine and benzodiazepines

[#] 43% of these were attributable to methadone, 21% to methamphetamine, 7% respectively to either morphine, morphine and heroin, benzodiazepines, oxycodone and methadone

6.7 Mental and physical health

Key Points:

- 69% of the sample self-reported experience of a mental health problem in the preceding six months, most commonly depression and anxiety;
- Using a measure of psychological distress, two-fifths of the IDRS sample scored in the 'very high' category (indicative of the need for professional help). This was significantly higher than the rate reported for the general Australian population (4%);
- The mean Physical and Mental Component Scores generated by the SF12 indicate that IDRS participants experienced poorer mental and physical health than the population average.

6.7.1 Mental health

As there exists a substantial body of work identifying increased rates of mental health issues among those who use illicit drugs, PWID participants were asked if they had experienced a mental health problem in the six months preceding the interview (Table 45). Sixty-nine percent of participants self-reported experiencing a mental health problem in this period, an increase from the rate reported in 2010 (52%: $\chi^2(1_{n=194})=5.26$, p=0.02) (Table 45). Four-fifths of the group reporting recent experience of a mental health problem had recently attended a health professional for mental health issues (80%, n=52). The most commonly reported mental health problems amongst this group of participants were depression (72%, n=47) and anxiety (46%, n=30). 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 PWID participants across these studies, reports of depression (among those reporting recent experience of any mental health problem) have remained relatively stable since 2005 (between 72% 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 high-potency forms of methamphetamine amongst the cohorts since 2007, the proportions self-reporting anxiety disorders have decreased. Between 2004 and 2006, this rate had been steadily increasing, from 42% to 62%; however, in subsequent years, a lower rate has been observed (46% in 2011). 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 remained at very low levels between 2006 and 2011 (ranging between 0% and 4%, with the exception of 2010: 12%). Self-reported rates of psychosis and related problems (psychotic episodes, schizophrenia, drug-induced psychosis) have ranged between 11% and 18% between 2004 and 2011, with the exception of 2008 (7%).

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 had been prescribed such a medication (n=46), three-quarters (74%, n=36) reported being prescribed an antidepressant. There was a wide range of types of antidepressants participants named, including mirtazepine (n=11), venlafaxine (n=5), escitalopram (n=4), desvenlafaxine, sertraline and citalopram (n=2 respectively).

Seventeen participants reported being prescribed antipsychotic medication: quetiapine, olanzapine, risperidone, and amisulpride; and 20 participants reported being prescribed benzodiazepines for mental health treatment (diazepam n=17; temazepam n=2; oxazepam and alprazolam n=1 respectively).

i	2004 IDRS		2005 IDRS		2006 IDRS		2007 IDRS		2008 IDRS		2009 IDRS		2010 IDRS		2011 IDRS	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
% self-reporting mental health problem last 6 months	53	53	58	58	50	50	60	60	43	43	46	46	52	52	69	65
<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	73	38	80	52
Specific type of mental health problem experienced																
amongst those with a self-reported mental health																
problem																
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Depression	81	43	83	48	80	40	57	34	79	34	67	31	77	40	72	47
Bipolar Disorder	8	4	5	3	6	3	15	9	9	4	20	9	14	7	12	8
Anxiety	42	22	57	33	62	31	48	29	42	18	43	20	52	27	46	30
Panic	8	4	19	11	8	4	8	5	19	19	11	5	19	10	9	6
Paranoia	11	6	14	8	4	2	2	1	-	-	4	2	12	6	3	2
Schizophrenia/Psychosis	13	7	17	10	14	7	18	10	7	3	11	5	15	8	15	10
Obsessive-compulsive disorder	4	2	2	1	2	1	2	1	-	-	-	-	4	2	2	1
Personality disorder	4	2	3	2	4	4	5	3	-	-	7	3	10	5	5	3
Post-traumatic stress disorder	-	-	-	-	-	-	5	3	-	-	4	2	8	4	12	8

Table 45: Experience of mental health problems amongst IDRS PWID participants, 2004-2011

Source: IDRS PWID interviews
With the aim of a more objective assessment of the degree of psychological distress amongst the PWID 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. Eighty-one participants in the current study completed the K10 (Figure 81). Thirty-eight percent of participants (n=31) scored in the 'very high' category of psychological distress, 28% scored in the 'high' category (n=23), 21% in the 'moderate' category (n=17), and 12% fell into the 'low' level of psychological distress category (n=10). 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) (ABS, 2006), in which two-thirds of the participants (63%) were classified in the 'low' level of psychological distress (compared with 12% of the Tasmanian IDRS: $\chi^2(1_{n=19.761})=86.43$, p<0.001), and just 4% were classified in the 'very high' level (compared with 38%) in the IDRS: $\chi^2(1_{n=19,761})=230.23$, p<0.001), indicative of a potential need for professional assistance (Figure 81). 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.





Source: IDRS PWID interviews and National Health Survey (ABS), 2004/05

6.7.2 Physical Health problems (SF-12)

The Short Form-8 Health Survey (SF-8) and Short Form-12 Health Survey (SF-12) are questionnaires designed to provide information on general health and wellbeing. These questionnaires were administered for the first time in the IDRS in 2008. The SF-8 and SF-12 measure 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 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 2011 Tasmanian IDRS study scored a mean of 34.6 (SD=11.5) for the MCS, one and a half standard deviations lower than the Australian general population mean score of 49.8 (ABS, 1995) ($t_{(87.1)}$ =7.15, p<0.001). Similarly, the mean score for the PCS for the IDRS sample was 41.4 (SD=11.4), almost one standard deviation lower than the Australian general population mean score of 50.1 (ABS, 1995) ($t_{(87.2)}$ =12.3, p<0.001). This indicates that PWID had both poorer mental and physical health than the population average (Figure 82).





Source: IDRS PWID interviews, Australian Bureau of Statistics, 1995

6.7.3 Quality of Life

The Personal Wellbeing Index (PWI) was developed by Cummins and colleagues (1994) 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. 1994). The Tasmanian IDRS participants scored significantly lower on the aggregated score than the Australian normative data (51.7 v. 75.2: $t_{(86.6)}$ =11.10, p<0.001). The mean scores for the Tasmanian IDRS participants (n=88) for all domains were significantly lower than the Australian normative scores (Cummins et al., 2011) (Figure 83).





Source: IDRS PWID interviews, Cummins, et al., 2011 ^{***} p≤0.001

6.7.4 General health

Participants were asked about their access to a variety of health services over the preceding six months. Two-thirds of participants (68%, n=68) reported they had seen a GP in this period, at a median frequency of six occasions (range 1-24). More than one-quarter of participants reported attending an Accident and Emergency Department (28%, n=28, at a median frequency of one occasion, range 1-14) and an opioid pharmacotherapy doctor (30%, n=30, at a median frequency of six occasions, range 1-30). Smaller proportions of participants reported admission to hospital (13%, n=13, median one occasion, range 1-3) and visiting a pain specialist (8%, n=8, median two occasions, range 1-4) in the preceding six months.

Participants in the 2011 study were asked to comment on whether they had experienced a range of general health problems in the preceding six months. Overall, 56% (n=53) of the sample reported experience of a long-standing health condition. Of this group, 37% (n=19) reported musculoskeletal problems (e.g. arthritis, joint pain), most of whom had received some form of treatment for this in the preceding 12 months (68%, n=13). Chronic respiratory problems, such as asthma and emphysema, were reported by 23% (n=12). Three-quarters of this group had received treatment for this in the preceding 12 months (75%, n=9). Infectious diseases such as viral hepatitis were reported by 21% (n=11), however, only two participants had received treatment for this in the preceding 12 months. Gastrointestinal problems were reported by 21% (n=11), and half of this group had received some form of treatment in the preceding 12 months (46%, n=5)

6.8 Driving risk behaviour

Key Points:

- 67% of participants who reported having driven a vehicle in the preceding six months reported doing so within one hour of consuming illicit drugs;
- Cannabis and illicit morphine were the most commonly reported drugs used prior to driving;
- Almost three-quarters of participants commenting on the effect drug use had on their last occasion of driving noted no impact.

The majority of consumers interviewed in the current study had driven a car in the preceding six months (63%). Of these participants, two-thirds self-reported that they had driven within one hour of consuming illicit drugs³⁷ (67%, n=40). This rate is similar to the rate reported in 2010 (73%, p=0.6). Table 46 summarises the drugs that were used: cannabis (35%, n=14); illicit morphine (33%, n=13); illicit benzodiazepines and/or methamphetamine (20%, n=8 respectively).

When reviewing rates of reported driving soon after consuming an illicit drug over time, one of the more notable changes was the extent of use of methamphetamine in this context. In 2006, 62% of participants reported use of methamphetamine, whereas in 2011, this rate was 20% ($\chi^2(1_{n=90})=14.3$, p<0.001). Similarly, in 2006 56% of participants reported use of illicit methadone prior to driving, a notably higher rate than reported in subsequent years (2011: 15%: $\chi^2(1_{n=90})=30.7$, p<0.001).

The extent of reports of driving while under the influence of cannabis remained relatively stable in the 2006-2009 cohorts, ranging between 51% and 67% of those drug-driving. Lower rates were reported in 2010 (37%) and 2011 (35%), however this decrease was not statistically significant (2006: 56% v. 2011: 35%, p=0.08).

Given the overall relatively stable and high rates of driving under the influence of drugs in the past six cohorts, it is important to monitor changes in such behaviour in future PWID cohorts as roadside drug testing and drug driving education campaigns are increasingly implemented in the state.

Fifty-one participants who had recently drug-driven commented on their perceived level of impairment on the last occasion this occurred. Seventy-one percent of this group perceived that their drug use had had no impact on their driving ability on this occasion (n=36). Small minorities reported the driving was slightly impaired (18%, n=9), quite impaired (4%, n=2), slightly improved (6%, n=3) or quite improved (2%, n=1).

Of the 60 participants who reported having driven a vehicle in the preceding six months, 22% (n=13) reported they had driven whilst under the influence of alcohol in this period. Of this group, 10 reported they had driven whilst over the legal limit for blood alcohol concentration in the preceding six months, at a median frequency of three occasions (range 1-50 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 blood sample for confirmation of this result. In Tasmania, drivers are typically tested for cannabis, amphetamine and MDMA. Eighteen participants in the current study reported they had ever undergone such testing, with seven participants reporting this had occurred on one occasion and eleven reporting this had occurred on more than one occasion. Six of these participants reported testing positive for the most recent test.

³⁷ Note that this includes prescription drugs but only if they were not prescribed to the individual using them.

	20	06	20	07	20	08	20	09	20	10	20	11
	%	n	%	n	%	n	%	n	%	n	%	n
Drove a vehicle in last	73	73	57	57	64	64	65	65	59	59	63	60
6months												
Of these:												
% driven within 1 hour of	68	50	74	42	64	41	78	51	73	43	67	40
consuming illicit drugs												
Opioids												
Heroin	2	1	-	-	-	-	-	-	-	-	3	1
Methadone (illicit)	56	28	50	21	22	9	18	9	35	15	15	6
Morphine (illicit)	38	19	33	14	42	17	24	12	30	13	33	13
Methamphetamine												
(any)	62	31	40	17	7	3	25	13	12	5	20	8
Powder	30	15	36	15	5	2	16	8	12	5	15	6
Base	26	13	5	2	-	-	10	5	-	-	3	1
Crystal/ice	24	12	5	2	2	1	-	-	-	-	3	1
Cannabis	56	28	67	28	56	24	51	26	37	16	35	14
Benzodiazepines	18	9	33	14	22	9	6	3	9	4	20	8
Ecstasy	-	-	-	-	-	-	2	4	2	1	-	-

Table 46: Proportion of PWID driving a car in the preceding six months that had driven soon after using non-prescription drugs, 2006-2011

Source: IDRS PWID interviews

7.0 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH DRUG USE

Key Points:

• One-third of participants self-reported they had been arrested in the preceding 12 months.

Tasmania Police arrests

- The number of methamphetamine-related arrests decreased between 2009/10 and 2010/11;
- The number of cannabis-related arrests has remained relatively stable since 2006/07.

Drug-related charges in Tasmanian courts

• The number of individuals before the Hobart Magistrates Court and the number of individuals incarcerated at Hobart Prison in relation to drug offences were greater in 2010/11 relative to 2009/10. However, in 2010/11, the Magistrates Court introduced a new data coding system (ASOC 2008), which means direct comparisons with data from previous years should be made with caution.

7.1 Reports of criminal activity among PWID participants

One-third of participants self-reported they had been arrested in the preceding 12 months (34%). This is slightly – but not significantly – lower than the rate reported in 2010 (47%, p=0.08). Property crimes were the most commonly cited (15%) (Table 47).

Participants were asked to comment on the frequency of any criminal activity in the month preceding the interview. Among those reporting involvement in property crimes (n=29), 34% (n=10) noted such activity occurring either more than weekly (less than daily) (34%, n=10); once per week (28%, n=8); less than once per week (24%, n=7) or daily (14%, n=4).

One-quarter of participants reported dealing drugs in the month preceding the interview (26%, n=26). Amongst this group, this most commonly occurred once per week (38%, n=10) or less than once per week (27%, n=7); with smaller minorities reporting such activities on a daily basis (19%, n=5) or more than weekly (less than daily) (15%, n=4).

Just four participants commented on the frequency of carrying out fraud-related activities, with single participants noting this occurring less than once per week, once per week, more than weekly (less than daily) or daily.

Lastly, five participants commented on the frequency of carrying out violent crimes in the month preceding the interview: four participants reported such a crime occurring less than weekly; and a single participant reported this occurring more than weekly but less than daily.

In 2011, the rate of participants self-reporting involvement in any criminal activity in the month preceding the interview was 41%, slightly lower than reported in 2010 (51%, p=0.2). These rates are similar to those reported in previous local IDRS studies (rates have fluctuated between 48% and 63% since 2002) (Figure 84). It should be noted that these fluctuations are within the range expected for sampling variability.

Activity	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %	2008 %	2009 %	2010 %	2011 %
% arrested last 12 months	41	46	51	47	55	46	47	49	47	34
% arrested for:										
Property crime	25	21	29	16	16	19	20	23	20	15
Use/possession-drugs	9	2	9	5	5	2	10	4	9	4
Violent crime	14	5	9	11	16	9	8	10	19	4
Fraud	0	3	2	1	3	2	1	2	0	1
Dealing/trafficking	1	0	1	2	3	1	0	4	2	1
Driving offence	5	2	6	11	10	6	10	12	6	7
Alcohol and driving	2	1	1	0	0	6	1	5	5	1
Drugs and driving	3	3	2	0	1	6	1	2	2	5
Use/possession-weapons [~]	-	-	-	-	-	-	2	5	2	-
Other reason	8	16	14	16	22	17	11	9	6	5

Table 47: Self-reported arrests among PWID (N=100), 2002-2011

Source: IDRS PWID interviews

This response was only included in the 2008-2011 studies

Figure 84: Self-reported criminal activity in the preceding month amongst PWID, 2000-2011



Source: IDRS PWID interviews

7.2 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 7.2.4).

7.2.1 Heroin and other opioids

Between 1997/98 and 2001/02, there were small and variable numbers of arrests made by Tasmania Police involving offences relating to opioids (including heroin and other narcotics³⁸), fluctuating around 22 cases per annum (range 16-34). Amended counting rules applied from 2002/03 mean that subsequent data is not directly comparable. Since this time, the number of arrests remained relatively small and stable, fluctuating at around 13 cases per annum (range 9-17) between 2002/03 and 2010/11³⁹ (Figure 85), with the exception of 2009/10 (30 such arrests).

Figure 85: Number of arrests for opioid-related offences in Tasmania, 1997/98-2010/11



Source: Australian Illicit Drug Reports 1997/98-2001/02, Australian Bureau of Criminal Intelligence; Illicit Drug Data report 2002/03- 2008/09, Australian Crime Commission; and Tasmania Police State Intelligence Services State-wide Illicit Drug Reports

^{*} 2010/11 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: Counting rules for arrests prior to 2002/03 differ from those applied currently, so these years are not directly comparable

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

7.2.2 Methamphetamine

Arrest data for methamphetamine-related offences indicated a marked increase in the number of arrests between 1998/99 and 2001/02 (n=7 and n=89 respectively) (Table 48). 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

³⁸ For recording purposes, Tasmania Police class any Schedule 8 drug as 'Narcotic'. Schedule 8 drugs are ^{(D}Drugs of Addiction'.

³⁹ 2010/11 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.

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 (ranging between 6-71 arrests from 1996/97 to 2005/06; n=107 in 2007/08) and provider-type arrests (n=8 in 2003/04; n=70 in 2007/08). In 2008/09, ACC reported a decrease in total number of arrests (n=117), with much of this decrease attributable to a decline in consumer arrests (n=47). In 2009/10, the ACC reported a small increase (n=128) in overall arrests, which was due to an increase in consumer arrests (n=77). Preliminary data supplied by Tasmania Police for 2010/11 suggests a decrease in total arrests (n=95⁴⁰), with decreases reported for both consumer (n=50) and provider arrests (n=42). 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.

⁴⁰ In 2010/11, there were 3 arrests that were not recorded as provider or consumer arrests.

	4000	4007	4000	4000		0004		0000	0004	0005	00001	0007/	0000/	0000/	00404
	1996 /97	/98	1998 /99	1999	/01	/02	/03	/04	2004 /05	2005	2006/	08	2008/	2009/	2010/ 11 [†]
	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Consumers															
Female	3	5	0	4	9	18	8	10	9	10	24	26	10	16	11
Male	15	9	4	14	51	53	34	21	34	33	84	81	37	61	39
Unknown	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0
Total	18	15	6	20	60	71	42	31	43	43	108	107	47	77	50
Providers															
Female	0	0	0	0	1	6	2	1	3	9	14	13	7	9	5
Male	2	0	1	7	9	12	17	7	23	25	55	57	61	42	37
Unknown	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	1	8	10	18	19	8	26	34	69	70	68	51	42
Total arrests	20	15	7	28	70	89	66	39	69	83	179	177	117	128	95

Table 48: Consumer and provider arrests for methamphetamine and related substances, 1996/97-2010/11

Source: Australian Crime Commission (previously the Australian Bureau of Criminal Intelligence) and State Intelligence Services, Tasmania Police [†] 2010/11 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 supplytype 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

7.2.3 Cocaine

Arrests for cocaine-related offences in Tasmania have been infrequent. One arrest for a cocaine offence was made by Tasmania Police in 2010/11⁴¹, three arrests were made in 2009/10; and single arrests were made in 2008/09, 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, 2009, 2010 & 2011; and State Intelligence Services, Tasmania).

7.2.4 Cannabis

Figure 86 shows the number of cannabis-related arrests made by Tasmania Police between 1997/98 and 2010/11. Cautions and arrests relating to cannabis increased steadily from 736 in 1998/99 to 1,830 in 2002/03. This trend reversed in 2003/04, declining to 929 cases in 2005/06 (although arrests for 2005/06 were only reported to the ACC for part of the financial year). A substantial increase in cannabis-related arrests was observed in 2006/07 and this has remained relatively stable since this time with 1,767 cases reported in 2010/11.

Figure 86: Number of arrests (including cautions and diversions) for cannabisrelated offences in Tasmania, 1997/98-2010/11



Source: Australian Crime Commission and State Intelligence Services, Tasmania Police Note: 2010/11 data were provided by State Intelligence Services 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

*Arrests for 2005/06 were only reported to the ACC for part of the financial year

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 2006/07 (Table 49). A notable increase in diversions was apparent in 2007/08 (1,681 diversions) with this level maintained in the subsequent reporting periods (1,528-1,609). There was a reduction in the total number of diversions in 2010/11 relative to 2009/10 reporting period (1,132 v. 1,609). This reduction was in part due to a change in

⁴¹ 2010/11 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 way IDDI cautions and diversions were made: at the end of 2010, following advice from the Solicitor General, Tasmania Police made a policy decision that minor drug offenders under the age of 18 years would be dealt with in accordance with the *Youth Justice Act 1997* and encouraged to access appropriate health interventions, but would not be included in IDDI. As a result, data from the second half of the 2010/11 does not include persons under 18 years of age. A reduction was also found in the number of second- and third-level diversions (to health interventions) (413 in 2010/11 v. 615 in 2009/10).

	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06*	2006 /07	2007 /08	2008/ 09	2009/ 10	2010/ 11
Number cautions/ diversions	612	978	1,337	1,398	1,330	1,158	1,361	1,681	1,528	1,609	1,132
No. diverted to health intervention	151	n/a	263	179	365	236	369	634	536	615	413

Table 49: Drug diversions or cautions issued state-wide by Tasmania Police, 2000/01-2010/11

Source: Department of Police and Emergency Management Corporate Reporting Services, Annual Corporate Performance Reports – Total District Drug Diversions; Alcohol and Drug Service

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. *Arrests and cautions for 2005/06 were only reported for part of the financial year.

'n/a' refers to cases where the relevant data were not provided to the authors.

7.2.5 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 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); in 2008/09, seven arrests were made (five consumer and two provider arrests); in 2009/10, six arrests were made, all of which were consumer arrests; and in 2010/11, 15 arrests were made (13 consumer and two provider arrests).

7.2.6 Drug-Related Charges in Tasmanian Courts

In 2010/11, the Magistrates Court introduced a new data coding system (ASOC 2008), which means direct comparisons with data from previous years should be made with caution. In 2010/11, 217 individuals (247 alleged offences) were before the court for dealing and trafficking charges; five individuals (8 alleged offences) for importing and/or exporting drugs; 140 individuals (147 alleged offences) for manufacturing and/or growing of drugs; 772 individuals (1,164 alleged offences) for possession and/or use of drugs; and 239 individuals (276 alleged offences) for 'other drug offences'.

The number of individuals before the Magistrates Court for drug-related matters remained relatively stable between 2003/04 and 2009/10 (Table 50, Figure 87), however, in 2008/09, the number of individuals before the court for possession and use offences increased from a range of 414-517 individuals in previous financial years to 886. In 2009/10, this decreased to 637 individuals.

Since 2004/05, the number of individuals incarcerated at Hobart Prison in relation to drug offences remained stable (between 53 and 57 per financial year⁴²), with the exception of 2008/09 and 2010/11, when this increased slightly to 84 and 80 individuals respectively. The number of offences among those incarcerated has increased overall from 84 in 2003/04 to 183 in 2010/11 (Table 50). These changes largely relate to increases in the numbers imprisoned with charges of possessing a controlled drug (12 in 2003/04; 25 in 2010/11); possession of a controlled plant or its products (21 in 2003/04; 56 in 2010/11); use of a controlled drug (3 in 2003/04; 16 in 2010/11); possession of a thing used for administration of a controlled drug (3 in 2003/04; 22 in 2010/11); and trafficking in a controlled substance (7 in 2003/04; 23 in 2010/11) (Table 50).

⁴² In 2007/08, the total number of people incarcerated in the Hobart Prison was not provided to the authors

	2003/	2004/	2005/	2006/	2007/	2008/	2009/	2010/
	04	05	06	07	08	09	10	11
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 <i>(114)</i>	128 <i>(130</i>)	125 (132)	217 <i>(</i> 247)
Importing /exporting of drugs	1 (1)	0	2 (3)	0	0	0	0	5(8)
Manufacturing/growing of drugs	102 (105)	80 (81)	93 (96)	107 (114)	96 (102)	98 (102)	112 (113)	140 (147)
Possession and/or use of drugs	414 (829)	414 (800)	422 (823)	480 (996)	517 <i>(</i> 982)	886(1056)	637(1171)	772(1164)
Other drug offences	4 (6)	1 (1)	1 (1)	0	1 (1)	1 (1)	0	239 (276)
HOBART PRISON* Number of individuals	36	55	57	56	n/p	84	53	80
incarcerated	84	101	117	128	144	166	121	183
Number of offences among those incarcerated								
OFFENCE BREAKDOWN:								
Grow prohibited plant/substance								
Cultivate a controlled plant	4	11	4	7	10	11	8	8
Cultivate prohibited plant	0	2	9	6	1	5	1	0
Possession/use Possess a	12	14	8	7	12	18	14	25
controlled drug	2	1	2	3	0	2	1	0
Possess a prohibited plant	21	26	36	41	42	38	30	56
Possess controlled plant or its products	4	1	3	1	0	1	1	0
Possess prohibited substance	0	2	1	0	0	0	0	1
Possess restricted substance	0	1	2	2	5	0	1	2
Possess/Use/Administer a controlled drug	3	1	0	0	0	0	0	0
Possess narcotic substance	3	7	6	3	9	7	16	16
Use a controlled drug	2	1	2	0	0	0	0	0
Use prohibited substance	3	9	11	15	15	10	12	22
Possess thing used for administration of controlled drug								

Table 50: Number of individuals before Tasmanian courts or imprisoned on drug charges, 2003/04 -2010/11

Sources: Department of Public Prosecutions (Supreme Court data); Magistrates Court (Magistrates Court data); Corrective Services (Prison data), Department of Justice and Industrial Relations

* 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 drugs for sale, selling a controlled precursor for use in manufacturing a controlled drugs.

[#] In 2010/11, Magistrates Court data are not directly comparable due to a change in coding practices, which now utilises ASOC 2008

	2003/	2004/	2005/	2006/	2007/	2008/	2009/	2010/
	04	05	06	07	08	09	10	11
Prescription offences								
Possess a prescription knowing it to be forged or unlawfully	0	0	1	0	0	0	0	0
altered	0	0	1	0	1	0	0	0
Unlawfully alter a prescription	0	0	1	0	0	0	0	0
Unlawfully possess blank prescription form	1	0	3	0	1	1	2	0
Utter a prescription knowing it to be forged or unlawfully altered								
Sell/supply narcotic substance								
Supply or Sell raw narcotic or narcotic substance	1	0	0	0	0	0	0	0
Selling/Supplying controlled drug	5	6	4	1	3	8	5	10
Sell/supply prohibited substance/plant								
Make, refine, prepare, sell or supply a prohibited substance	0	1	0	0	0	0	0	0
Sell prohibited substance	0	2	0	1	0	0	1	0
Sell or supply controlled plant	3	3	1	1	4	4	5	10
Sell prohibited plant	0	0	1	0	0	0	0	0
Cultivate a controlled plant for sale	1	0	1	1	1	5	2	0
Possessing thing intended for use in cultivation of controlled	1	0	0	0	0	1	1	3
plant for sale								
Traffic in controlled/prohibited/narcotic substance								
Traffic narcotic substance	1	0	3	0	0	0	0	0
Trafficking in controlled substance	7	7	8	22	36	52	22	23
Traffic prohibited plant								
Traffic in a prohibited plant	4	1	4	1	1	0	0	0
Manufacture a controlled drug for sale								
Manufacturing a controlled drug for sale	0	0	2	1	0	1	0	1
Manufacturing controlled drug	0	0	0	0	1	0	0	0
Possessing thing intended for use in manufacture of controlled	1	1	1	1	0	1	0	0
substance for sale								
Other Fail to comply with Poisons Act	2	0	0	0	0	0	0	0
provisions	1	3	1	0	0	0	0	0
Possess implement Contrary to the Act	0	0	1	1	2	0	0	0
Supplying controlled drug to a child								

Table 50: Number of individuals before Tasmanian courts or imprisoned on drug charges, 2003/04 -2010/11 (continued)

Sources: Department of Public Prosecutions (Supreme Court data); Magistrates Court (Magistrates Court data); Corrective Services (Prison data), Department of Justice and Industrial Relations



Figure 87: Number of individuals before the Hobart Magistrates Court for drug-related offences, 2003/04-2010/11*

Source: Hobart Magistrates Court

* In 2010/11 data coding practices, data should be compare Magistrates Court data are not directly comparable due to a change in coding practices, which now utilises ASOC 2008

7.3 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 51. This shows that half of the cohort (48%) spent money on illicit drugs the day prior to the interview, and that this was distributed relatively equally between \$20 and \$49 (13%, n=13), \$50 and \$99 (15%, n=15) and \$100 and \$199 (11%, n=11). The average amount of money spent amongst the sample was \$41 (SD=\$66, range \$0-300, median \$0). Amongst the group that did spend money on illicit drugs on the day prior to the interview, the average expenditure was \$87 (SD=\$73, range \$5-300, median \$80). Between 2004 and 2010, the proportion of participants spending any money on illicit drugs on the day prior to the interview increased (40% in 2004 v. 70% in 2010: χ^2 (1_{n=189})=15.51, p<0.001), however in 2011, this trend was reversed (70% in 2010 v. 48% in 2011: χ^2 (1_{n=187})=8.96, p=0.003).

	2004	2005	2006	2007	2008	2009	2010	2011
Amount spent	N=100	N=100	N=100	N=100	N=100	N=96	N=89	N=98
on day prior to interview	%	%	%	%	%	%	%	%
Nothing	60	55	45	49	46	34	30	52
Less than \$20	3	2	4	4	2	5	5	3
\$20-\$49	19	15	12	19	18	15	15	13
\$50-\$99	10	14	17	13	15	24	21	15
\$100-\$199	2	8	11	12	17	18	21	11
\$200-\$399	5	4	8	2	2	4	6	4
\$400 or more	1	2	3	1	0	0	2	0

Table 51: Amount spent on illicit drugs on day prior to interview, 2005-2011

Source: IDRS PWID interviews

8.0 IMPLICATIONS

The findings of the Tasmanian 2011 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 2011 Tasmanian IDRS, high levels of injecting use of morphine and oxycodone have continued. In addition, new formulations of drugs, such as Suboxone sublingual film, potentially introduce new harms to consumers who inject these drugs. As such, research into factors that would reduce the harms associated with these preparations used within the local PWID population, and dissemination of this information to users through continued training of NSP staff and peer groups, are necessary.

Recent Hobart-based studies investigated the efficacy of a range of different filtration methods on samples of morphine and oxycodone tablets. These studies found that the commercially available filters (0.22 μ m bacterial filter and 0.45 μ m 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), and, when used appropriately, do not result in any loss of the active drug (McLean et al., 2009). However, preparation of injections using a sterilising 0.22 μ m bacterial filter is a time-consuming process, and further work is required to identify simple and effective techniques that are both low-cost and acceptable to consumers.

In the face of relatively high rates of injection of pharmaceutical opioid tablets and capsules amongst injecting drug users locally and in other Australian jurisdictions, consideration of other effective harm reduction approaches such as trials of injectable opioid treatments warrant renewed attention.

2. Monitoring of the impact of changes in the availability of equipment through needle syringe programs in Tasmania; and interventions to improve injection-related health

Budgetary cutbacks across Tasmanian Government departments in 2011 have resulted in the removal of sterile waters from the Tasmanian NSP. Unlike heroin and methamphetamines which are readily soluble in small amounts of solution, significant amounts of water (3-6mL per dose) are needed for injection of pharmaceutical opioid tablets (e.g. morphine, oxycodone) according to best-practice evidence (McLean et al, 2009). Non-sterile water may be contaminated with bacteria or insoluble particles, which, if injected, may cause harm to the consumer, for example, with infections or inflammation at injection sites. It will be important to monitor the impact of these equipment changes on the health of consumers in the months ahead, and if there are increases in harms, then health interventions or changes in equipment availability are important considerations to address these.

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 2011, half of the sample reported reusing their own injecting equipment in the preceding month, and 13% had given a used needle to another individual and/or reused another person's used needle. 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 and abscesses), both among the current PWID 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 – such as the lack of an after-hours NSP service – 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 PWID, is clearly warranted.

3. Increased attention to mental and physical health and wellbeing amongst people with substance dependence issues

The current study identified, on average, poorer physical and mental health and 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. Two-thirds of the IDRS participants self-reported experience of a recent mental health problem, and one-fifth of these did not attend a health professional for this. In addition – and not surprisingly – the self-reported quality of life of participants was significantly lower than the Australian norm.

These findings support the large body of knowledge relating to comorbid disorders and complex vulnerabilities that affect 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 services including – but not limited to – mental health and AOD sectors, general practitioners, Housing and Child and Family Services, are crucial to meet the needs of this group.

4. 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 PWID, but still infrequent, it may be the case that knowledge of the drug amongst the consumer community is still developing. Reviews of opioid equianelgesic 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 – 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 minimise the risk to users of 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.

Research examining misuse of pharmaceutical products, such as opioids, benzodiazepines and codeine-based products in populations other than PWID is warranted, as this has been a demographic identified in both KE interviews in the current study and in associated local research (Nielsen & Cameron, 2009; 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.

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. Continued monitoring and focused interventions to reduce the harms associated with benzodiazepine injection

Intravenous administration of benzodiazepines has proved resilient amongst local PWID despite the removal of temazepam gel capsules from the market and the restrictions on prescribing of alprazolam. 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. This change, in combination with a growing awareness amongst users of the serious harms associated with alprazolam injection, contributed to a decrease in injecting use of alprazolam in 2010; however, a small increase was reported in 2011. 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.

7. Continued monitoring of new and emerging drugs

In the current study, several participants and KE noted increasing use and availability of quetiapine, a drug not reported on in previous IDRS surveys. Suggestions have been made that this drug is a cheaper, more accessible alternative to benzodiazepines. Of particular concern are the potential harms and side-effects of this drug amongst this population, given that the drug increases the risk of agranulocytosis and diabetes. The IDRS plays an important role in the continued identification and monitoring of these new drug use trends and related harms.

8. 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.

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 (two-thirds of those with access to a vehicle). This has remained stable across the past six IDRS PWID cohorts, despite the implementation of roadside drug-testing by Tasmania Police and associated driver education campaigns. While reports of driving while affected by several drug types remained relatively unchanged, there were declines in reports of driving under the influence of cannabis (67% in 2007 v. 35% in 2011), illicit methadone (50% in 2007 v. 15% in 2011), and methamphetamine (62% in 2006 v. 20% in 2011). 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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