

R. Bruno

TASMANIAN DRUG TRENDS 2004
Findings from the
Illicit Drug Reporting System (IDRS)

NDARC Technical Report No. 215

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DRUG TRENDS
2004**



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Illicit Drug Reporting System
(IDRS)**

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ABBREVIATIONS

ABCI	Australian Bureau of Criminal Intelligence
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AIHW	Australian Institute of Health and Welfare
ASSAD	Australian School Students' Alcohol and Drugs survey
COAG	Council of Australian Governments
COTSA	Clients of Treatment Service Agencies
DACAS	Drug and Alcohol Clinical Advisory Service
DHHS	Department of Health and Human Services
HIV	Human Immunodeficiency Virus
IDDI	Illicit Drug Diversion Initiative
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug User
KE	Key Expert (previously referred to as Key Informant)
KES	Key Expert Study (previously referred to as Key Informant Study)
LSD	<i>d</i> -lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDEA	3,4-methylenedioxyethamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MMT	Methadone Maintenance Therapy
N	(or n) Number of participants
NAP	Needle Availability Program
NDARC	National Drug and Alcohol Research Centre, University of New South Wales
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NMDS	National Minimum Data Set (for Alcohol and Drug Treatment Services)
NSP	Needle and Syringe Program
PBS	Pharmaceutical Benefits Scheme
SD	Standard Deviation
SIS	State Intelligence Services, Tasmania Police

SPSS	Statistical Package for the Social Sciences
SSRI	Specific Serotonin Reuptake Inhibitor
TASCAHRD	Tasmanian Council on AIDS, Hepatitis and Related Diseases
TASPOL	Tasmania Police
TCA	Tricyclic Antidepressant

EXECUTIVE SUMMARY

In 1998, the National Drug and Alcohol Research Centre was commissioned by the Commonwealth Department of Health and Family Services (now the Australian Government Department of Health and Ageing) 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.

The 1999, the Tasmanian component of the national IDRS gathered information on drug trends using two methods: key expert interviews with professionals working in drug-related fields, and an examination of existing indicators. For the 2000 IDRS, funding was provided by the National Drug Law Enforcement Research Fund to expand this methodology and include a survey of people who regularly inject illicit drugs in addition to the methods employed previously. This funding and methodology was continued in 2001 and into 2004.

Injecting drug user (IDU) survey

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

Key Expert (KE) survey

Thirty-one 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 needle availability program staff, drug treatment workers, health workers, youth and outreach workers, and staff from police and justice-related fields. Of these individuals, 9 reported on groups that predominantly used opioids (diverted pharmaceuticals), 7 on cannabis and 15 on groups primarily using methamphetamine.

Other indicators

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

Included in this analysis were telephone advisory data, drug offence data, hepatitis C incidence data, data from the 1998 and 2001 National Drug Household Studies, and data from clients of the State's Needle Availability and Pharmacotherapy programs, as well as drug and alcohol treatment services.

Demographic characteristics of injecting drug users (IDU)

Demographic characteristics of the regular injecting drug user (IDU) participants interviewed were generally very similar to those interviewed in previous Hobart IDRS studies. Participants were predominantly male (65%), and had an average age of thirty

years. On average, participants had completed 10 years of education, and three-quarters (76%) were currently unemployed. One-quarter of participants had a previous prison history. A high proportion of the current IDU participants were involved in some sort of drug treatment at the time of interview, with 54% currently enrolled in a methadone maintenance program.

The majority of participants (53%) were injecting a few times per week, but not every day, with 27% injecting at least once per day. As per previous IDRS IDU samples, two-thirds (70%), reported an opiate as their drug of choice, with the remainder predominantly nominating a stimulant drug. While heroin was the most commonly nominated drug of choice (38%), in no instance was it the drug most commonly injected by IDU participants, with 48% most commonly using methadone, 29% methamphetamine, and 20% morphine in the six months prior to interview.

Patterns of drug use among IDU

The 2004 IDRS detected a number of trends during the preceding six to twelve months. Table A below provides a summary of the trends in price, availability and prevalence of use of the major drug types examined in the current study:

Table A: Price, availability, purity and prevalence of use of heroin, methamphetamine, cannabis, methadone and morphine

	Heroin	Methamphetamine		Cannabis	Morphine	Methadone
		'Paste'	Crystal	Bush/Hydro		
Price						
1 mg	-	-	-	-	\$0.7-0.8, stable/↓	\$1, stable
0.1 gram	\$50, stable	\$50, stable	\$50, stable	-	\$70, stable/↓	\$80, stable
Gram	\$350, stable	\$300, stable	\$400, stable/↑	\$25, stable	-	-
Ounce	-	-	-	\$200/↑ \$300/↓	-	-
Availability	Difficult Stable	Very easy Stable/↑	Easy Stable/↓	Easy-Very easy Stable/(↓)	Easy-Very easy Stable/↓	Easy (l) Difficult (t) Stable (l) ↓ (t)
Purity*	Low-medium Mixed reports	Medium-high Stable/↑	Medium-high Stable/(↓)	Medium/High Stable Stable/↑	Pharmaceutical	Pharmaceutical
Prevalence of use	Very low and decreasing	Increased (to 2002 levels)	Decreased	Slight decline over time	↓ number, ↓ frequency	Decreasing use of Physeptone

Source: IDRS IDU and KE Interviews, and drug use indicator data

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

Heroin

While the availability of heroin in the state appeared to have been slowly increasing during 1999 and 2000, data from local IDRS studies since this time have suggested that the drug has become steadily more difficult to access locally. Recent use of heroin was seen in just 19% of the IDRS IDU sample, despite the fact that 38% regarded it as their drug of choice. Use of heroin among clients of the state's Needle Availability Program remained below 2% of all client transactions in 2003/04.

The small number of participants that could report prices for heroin indicated that the drug was purchased for \$50 per 'packet' (approximately 0.1g) and \$350 per gram, similar prices to those reported in previous IDRS studies. There were mixed opinions regarding the purity of heroin, with many IDU wary of purity of the drug purchased locally.

As further evidence of a low availability of the drug locally, the majority of individuals that had recently used the drug reported it as 'difficult' or 'very difficult' to access and Tasmania police have not made any seizures of heroin in the past two financial years. The majority of indicators, and findings such as the low median rate of use of heroin (4 days in the last six months amongst the 19% of the sample that had used the drug), indicate that the traditional low availability of heroin in Tasmania has continued, and possibly further declined, in 2004.

Methamphetamine

Over the past four years of the IDRS in Hobart, higher-purity forms of methamphetamine have generally increased in availability in the state. This easy availability of high-potency forms of the drug may have made use of methamphetamine particularly attractive among IDU, with almost all of those surveyed in the current study using some 'form' of the drug in the six months prior to interview (91%), despite the participants predominantly preferring opioids (70%). Moreover, the proportion of clients of the state's Needle Availability Program reporting predominant use of methamphetamine has steadily increased from 31% of recorded transactions (almost 3,000 cases) in 2000 to 52% in 2004 (almost 20,000 transactions).

In terms of the 'forms' of methamphetamine used among the IDU cohort, the traditional low-purity powder form, which reports from Tasmania police suggest remains the most common form of the drug available in the Tasmanian market, was used by approximately three-fifths (60%) of the IDU participants in the current study in the six months prior to interview. This is a clear increase from the 51% of the IDU participants reporting recent use of this preparation in the 2003 study, however, methamphetamine powder remains uncommon as the form of methamphetamine predominantly used by this demographic (31%). In a reversal of the trends seen in the previous IDRS study, the major change seen this year was in the level of availability, and hence use, of the higher potency forms of the drug. Among the 2003 IDRS IDU participants, the 'form' of methamphetamine most commonly used was the high purity crystalline methamphetamine ('crystal meth' or 'ice'), used by 68% of the 2003 cohort in the six months prior to interview. In the current study, this form was used by just over half the participants (52%), and was rarely reported as the form of methamphetamine participants had predominantly used in the preceding six months. Instead, use of the waxy, sticky, gel-like 'base/paste' presentation of the drug had substantially increased from 51% of the IDU participants in 2003 to 72% in 2004, and was the form of methamphetamine most commonly used recently by almost half of those sampled. This is a return to the patterns of use of methamphetamine seen in the 2002 IDRS IDU cohort, prior to the rapid increase in availability of crystal methamphetamine in 2003. As would be expected, reported patterns of availability of each of these different 'forms' of methamphetamine were consistent with the patterns of recent use: IDU consumers regarded powder and base as very easy to access and stable in the preceding six months, with ice predominantly regarded as being 'easy' to access and remaining stable or declining in recent months.

The price for all three forms of methamphetamine (powder, base/paste and crystal) remained stable in 2004, with the most commonly price paid \$50 for a point or packet. However, gram prices were more variable. While prices for grams of base/paste remained stable at \$300 per gram, prices for crystal methamphetamine increased from \$350 to \$400 between the 2003 and 2004 surveys.

The signs of decreased availability of crystal methamphetamine locally may be attributed to the impact of arrests made by Tasmania Police of high level suppliers of this form of the drug, disrupting the supply chain for ice into the state. However, as per previous years, there continue to be anecdotal reports of increased local production of methamphetamine powder, and possibly base.

There continue to be IDU and key expert reports of an increasing number of users, and an increase in younger (late teen) users and female consumers of methamphetamine locally. Also, consumers reported the rise of a different 'type' of methamphetamine consumers, described as the "crystal meth set", groups more likely to be regularly employed and have more disposable income. IDU also reported the continuation of a trend noted since 2001, with increasing numbers of IDU shifting from being predominant users of opioids to becoming predominant users of methamphetamine. While the level of use and availability of crystalline methamphetamine had declined in the window of time tapped by the 2004 IDRS study in comparison to the 2003 sample, there are anecdotal reports of increasing availability of this form in the late months of 2004. As this form had proved particularly attractive both to regular IDU and other demographic groups, careful monitoring of both the methamphetamine market and the impacts on the physical and mental health of users is warranted in the coming years.

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. This low availability of the drug locally is supported by similar low levels of use reported in a recent sample of 100 regular ecstasy users in Hobart (Matthews & Bruno, 2005). Only a very small proportion of the IDRS IDU sample reported recent use of the drug (4%), which was exclusively in powder form. By the few IDUs who could comment on trends in availability, cocaine was considered difficult to access, a situation that was reported as being stable in the preceding six-month period. The cocaine that is used by Tasmanian IDU appears generally to be directly imported by consumers from dealers in mainland states or require an extended wait to access. Tasmania Police made no seizures of cocaine in 2002/03 or 2003/04, following single seizures in the preceding two financial years. These patterns of low levels of availability and use seem to have remained reasonably stable over the past few years, with possible indications of further declining availability in recent months. However, it is noteworthy that around half of the Tasmanian IDU sample over the past three years have reported lifetime use of cocaine, an increase from patterns seen in the 2000 and 2001 surveys, and there are indications of some use among different populations of drug consumers locally (Bruno & McLean, 2004; Matthews & Bruno, 2005).

Cannabis

Most aspects of the cannabis market and patterns of use appear to be relatively stable. Among the IDU surveyed, cannabis use continued to be almost ubiquitous, with 84% using the drug in the preceding six months, and the majority of these individuals using the drug daily.

The price of bush and hydroponic cannabis has remained stable at \$25 per gram. Bush cannabis was purchased at modal prices of \$200 an ounce (28g), compared to hydroponic/indoor cultivated cannabis at \$250 an ounce. Both key experts and IDU consumers reported that these prices had remained reasonably stable in the preceding six months, however modal purchase prices of outdoor cannabis had increased, and prices

of indoor cannabis decreased in comparison to the 2003 survey (\$150 for outdoor and \$300 for indoor respectively).

Hydroponically-cultivated cannabis head remains the form most commonly smoked by IDU, although substantial proportions also reported using both hydroponically-grown and outdoor cannabis in the preceding six months. Both indoor- and outdoor- cultivated cannabis was reported as 'easy' to 'very easy' to obtain by consumers and key experts, with this availability regarded as remaining stable in recent months. However, there are indications that the availability of cannabis has possibly reduced in comparison to the situation identified in the 2003 survey, following large seizures by Tasmania police in late 2003 and early 2004. Intelligence reports from Tasmania police in recent years have indicated an increasing trend toward hydroponic or indoor cultivation of the drug, and smaller sizes of those crops grown outdoors.

Cannabis remains the most widely used illicit drug both in the IDU sample and the State, however there is an indication of decreasing prevalence of use of cannabis in recent years in the State from two large studies (the National Drug Strategy Household Survey and the Australian School Students' Alcohol and Drugs Survey), along with a slowly decreasing prevalence in the local IDRS IDU samples (90% in 2000, 84% in 2004).

Morphine

Morphine was reported to cost \$70 per 100 mg, and the price was described as stable. Morphine was considered 'easy' to 'very easy' to obtain and the availability in the six months preceding interview as stable to becoming more difficult to obtain. Nearly two thirds (62%) of the sample had used morphine in the past six months, with all but two injecting the drug in this time. MS Contin remains the predominant preparation used by this group, used by 48% of the sample as a whole and the form used predominantly by two thirds of those reporting recent morphine use, with Kapanol, Ordine, and Anamorph used to a lesser extent. The median frequency of use of morphine amongst local IDU cohorts, and in recent years, the proportion of cohorts reporting recent use, has steadily declined over time. There are continuing reports both from consumers and key experts that morphine is losing users to methamphetamine and other types of pharmaceutical opiates.

Illicit use of methadone

Diverted methadone syrup was reported to cost \$1 per mg of the drug, a price that was considered stable by participants. This was reported as 'easy' to access, and this regarded as remaining stable in recent months. However, both IDU consumers and key experts note that the drug is really only available where there is a standing arrangement with a person on the program, and is almost uniformly reported as being accessed from friends (86%). Moreover, much of the use of diverted methadone syrup comes from individuals themselves receiving methadone maintenance, with key experts noting clients purchasing small amounts of the drug to avoid physical withdrawal if they had precipitously used their takeaway doses, or traded it due to, or to avoid, 'standover' threats and aggression from others.

Diverted Physeptone tablets of methadone were reported as costing \$10 per 10mg tablet, a price that was considered stable by IDU. These were predominantly regarded as 'difficult' to access, with this level of availability regarded as remaining stable to decreasing in recent months. Consistent with this, both the proportion of the IDRS IDU sample and the frequency of this use had declined for the first time in the 2004 survey

following steady increases since 2000: from 32% of the IDU sample reporting use in 2000, rising to 64% in 2003, and 52% in the current study.

Illicit use of buprenorphine

Buprenorphine, recently adopted as a maintenance treatment option for opioid addiction in the state, appears to have made little impact on the illicit opioid market, with only four individuals participating in the 2004 survey reporting illicit use of the drug in the preceding six months (all but one injecting the drug in this time). However, given that substantial levels of diversion have occurred in jurisdictions where buprenorphine maintenance treatment is more common, careful monitoring of this issue is clearly warranted as Tasmania's buprenorphine program expands, particularly given the existing culture of use of pharmaceutical products among local IDU.

Other opioids

The level of use of oxycodone use amongst the IDU sample has risen steadily in the two years that such use has been examined, rising from 21% in 2003 to 32% of the cohort using such drugs in the six months prior to interview in 2004, following anecdotal reports of use in 2002.

Continuing the trend seen in the past two years of the IDRS, both use of preparations of alkaloid poppies and the number of poppy crop thefts remained low in 2004. Rates of both were around one-third that of the rates seen in the 2000 study: in 2004, only 13% of the IDU surveyed reported using some preparation of alkaloid poppies, with 24,128 poppy capsules stolen, in comparison to the 34% reporting use and 62,500 capsules stolen in 2000.

Benzodiazepines

There are clear indications that, following a reduction of the injection of benzodiazepines among IDU between 2002 and 2003, arising from the restriction and eventual removal of the preferred temazepam gel capsules from the market, injection of these drugs has largely stabilised among local IDU consumers, at a level relatively high in comparison to that in other Australian jurisdictions. As noted in the 2003 study, it is also clear that alprazolam (Xanax in particular) appears to have largely replaced the local illicit market for temazepam gel capsules among those IDU particularly interested in benzodiazepine injection, with this drug being used in similar ways to temazepam capsules by consumers, such as in simultaneous combination with methadone syrup or other opioids. Between the 2003 and 2004 studies, both the proportion of the IDU samples reporting recent injection of alprazolam, and the frequency of such use in the preceding six months, had increased (11%, median frequency of 20 days in the preceding six months among the 2003 IDU cohort, to 17% and a median frequency of 24 days in 2004), and there are anecdotal reports both of increased demand for, and increased availability of, alprazolam locally. This is a particular concern given the serious psychological and physical harms associated with benzodiazepine injection. Additionally, the level of use and availability of benzodiazepines generally remains high within local IDU (used by 85% of the 2004 IDU sample), particularly among primary users of opiates, 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.

Associated harms

Self-reported rates of sharing of needles or syringes among clients of non-pharmacy Needle Availability Program outlets have steadily declined over time from 2.6% of all

transactions in 1995/96 to 0.5% in 200/04. However, all IDRS studies in Hobart have suggested that 5-10% of these cohorts share used needles or syringes at least once in a month. Similar to the improving trends for sharing of needles and syringes, self-reported rates of sharing of other injection equipment (such as water, tourniquets and mixing containers) has steadily decreased among clients of non-pharmacy Needle Availability Program outlets (5.5% in 1996/97 to 0.5% in 2003/04). However, the more stringent definitions applied in the IDRS research suggests that there is still the potential for blood borne virus transmission in the injection practices adopted by approximately half of the IDU cohort, with many sharing mixing containers (30%), water (22%) or tourniquets (21%) in the preceding month (albeit, in most cases, in situations where both people were using sterile injection equipment). Moreover, there are possible indications that some IDRS IDU participants may be relaxing their vigilance around blood awareness in regard to sharing of injecting equipment other than syringes, with rates of sharing of these items somewhat higher than comparative rates in previous local studies.

In more targeted examination of injection practices in the current IDRS study, two notable points for health education interventions were identified. Firstly, in the current cohort, despite being regular injecting drug users, only two thirds of the 2004 local IDRS cohort always self injected in recent months, with those that did not always self inject being significantly younger, more likely to be female and less likely to have completed any further education outside of school. Secondly, two-thirds of the IDU participants had injected others in the month prior to interview, most commonly on occasions where they were also injecting themselves, although in only half of these cases did participants report washing their hands between injections – clearly a behaviour that increases the exposure risk to blood borne viruses.

Blood borne viruses, such as HIV/AIDS and hepatitis B and C are a major health risk for individuals who inject drugs. Surveillance data on the number of hepatitis C cases reported to the Public Health department indicate that, reported incident cases of hepatitis C infection in the state appear to have been steadily declining since 2000, falling to less than 10 cases per annum in the past two calendar years. Reported unspecified (not new infections) cases of hepatitis C, however, appear to have remained relatively stable between 1995 and 2004 at around 300 cases per annum

A substantial proportion of IDU surveyed experience injection-related health problems, at a relative rate greater than those seen amongst IDU in other jurisdictions, possibly due to the increased harms associated with the injection of pharmaceuticals, which is less common in other jurisdictions. Scarring, difficulties finding veins to inject into (indicative of vascular damage) and experience of 'dirty hits' (feeling physically unwell soon after injection, often associated with the injection of contaminants or impurities, and particularly with the injection of methadone syrup) were the commonest injection related problems experienced by the current IDRS IDU cohort

In 2004, there was a comparable rate of recent experience of non-fatal opioid overdose in the Tasmanian IDU sample in comparison with the National IDRS IDU cohort, despite the predominant local use of pharmaceutical opioids where the dosage is known (which may protect against accidental administration of too large a dose). The increase in rate of experience of non-fatal opioid overdose in the local sample from 2003 may reflect the common use of multiple CNS depressants simultaneously amongst these local participants. In contrast, however, the number of opioid overdose deaths among those aged 14-54 years noted by the State Coroners office appears to have declined in 2003

against a backdrop of a steadily increasing population rate of overdose in Tasmania in recent years

More than two-fifths (44%) of the IDRS IDU participants reported presenting to a health professional for a mental health issue in the preceding six months. This rate of presentations is substantially greater than that seen in the general population. In comparison to reports in earlier local IDRS IDU surveys, there has been a sharp increase in the number of IDU participants reporting presenting to a practitioner for depression (and using antidepressants) since trends in earlier years, and a steadily increasing rate of individuals presenting for anxiety-related issues (consistent with an increasing use of methamphetamine in these cohorts over time).

Implications

The findings of the Tasmanian 2004 IDRS suggest the following areas for further investigation and possible consideration in policy:

- As Tasmanian illicit drug use culture has been consistently shown to substantially differ from other jurisdictions (with regard to, for example, 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 minimisation information campaigns need to be tailored to the particular needs and types of substances used within the state.
- Extension of a regular drug trend monitoring framework into other regions within the state (such as Launceston and the North-West coast) as there has been little specific research examining patterns of drug use within these areas, and due to their access to air and sea ports, and establishment of organised motor cycle group headquarters, availability and use of illicit substances may differ substantially in these regions from patterns seen in Hobart. As such, it may not be appropriate to infer similarity between drug trends and emergent issues identified in Hobart-based studies to these regions.
- Continued emphasis on, and support for, targeted strategies to further reduce the rates of sharing of needles/syringes and other injection equipment (such as tourniquets, filters and mixing containers) among IDU, as well as to minimise the harms associated with poor injecting practice through improving awareness and adoption of safe injection techniques and vein care among IDU. It was identified in the current study that there are a substantial proportion of regular injecting drug users that do not always self-inject, and similarly, large proportions of consumers that inject others but do not always maintain a vigilant cleanliness routine when doing so, and both these groups would be appropriate targets for a focused health education campaign from front line NAP workers, or indeed peer groups, in order to maintain downward pressure on exposure to blood borne viruses among IDU.
- Investigation into the factors associated with the experience of ‘dirty hits’ among local IDU and development of strategies to reduce this occurrence.
- Continuing monitoring of the expanding methamphetamine market and patterns of methamphetamine use.

- As use and availability of the higher potency forms of methamphetamine appear to be substantially increasing, clear and practical harm-reduction information for use of these forms of the drug should be accessed and distributed to consumers and health intervention workers. It is important to note also that there are indications that these drugs are increasingly being used by populations other than regular injecting drug users, such as primary ecstasy-using groups, that may not be accessing traditional health/health information services (Matthews & Bruno, 2005). Additionally, since increased levels of use of such high-potency methamphetamine may increase the level of experience of the negative effects of excessive methamphetamine use, development and implementation of practical strategies and training for dealing with such affected individuals should be considered for front line health intervention workers and emergency services workers. Moreover, investigation of the requirement for specialist treatment programs and/or services for primary consumers of these drugs is warranted.
- With the firm establishment of a culture of injection of methadone syrup locally (although this remains predominantly within 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 use of butterflies and biological filters; and/or at the policy level, requiring use of sterile water for dilution of methadone doses or switching to Biodone syrup, as this preparation does not contain the agent sorbitol, which can cause irritation and harm to the venous system. Given the level of recent experience of ‘dirty hits’, primarily associated with methadone syrup injection, among the current IDU cohort, these issues merit renewed attention.
- Use of liquid preparations of morphine (Ordine) has continued to rise over the past four years of the IDRS. This is of some concern as the drug is typically sold ‘preloaded’ in syringe barrels, and it is often unclear to the user if the injection equipment or the solution is free from infection or contamination. Approaches to reducing the potential harms of this situation, such as increasing the awareness of the risk of this situation among users, or varying prescription practices to reduce the availability of larger containers of the drug, merit consideration as use expands.
- Use of diverted oxycodone among IDU populations has quickly increased across the past three local IDRS studies. Given the rapidly increasing prescription rates for these drugs, and the experience in other countries where diverted oxycodone has been used problematically by demographic groups outside of the regular IDU demographic, continued monitoring of the illicit use of these drugs is particularly important, both locally and nationally.
- Given that injection of buprenorphine carries with it a substantial degree of risk for the development of abscesses, careful monitoring of the diversion of the drug is warranted as Tasmania’s buprenorphine program expands. If, as has been seen in other jurisdictions with larger buprenorphine maintenance programs, injection of the drug becomes an issue locally, IDU should be made aware of harm-reducing injection techniques for the drug through front-line harm reduction workers.
- Research into factors that would reduce the harms associated with the intravenous administration of the pharmaceutical preparations of morphine, methadone and

benzodiazepines commonly used within the local IDU population, and dissemination of this information to users through continued training of Needle Availability Program staff and peer groups.

- Continued monitoring of the intravenous use of benzodiazepines, particularly in terms of the combined injection of alprazolam and methadone syrup, as this is a practice that substantially increases the risk of overdose.
- Characterisation and potency testing of cannabis cultivars to investigate continuing reports of high or increasing potency of cannabis.
- While self-reported rates of experience of mental health issues are likely to under-represent the true extent of these issues, more than two-fifths of the IDU sample reported recently attending a health professional for mental health concerns, a level substantially greater than seen in the general population. As such, the increasing systemic focus in the state toward development and implementation of interventions for such co-morbid populations is clearly warranted and continued enhancement of partnerships between the mental health and alcohol and other drug sectors is crucial to meet the needs of this group.
- Research examining the extent of use, and demographic profiles of (mis)users of drugs such as anabolic steroids, inhalants, and pharmaceutical stimulants in the state, as these populations are not well accessed within the methodology of the IDRS.

1. INTRODUCTION

In 1998, the National Drug and Alcohol Research Centre was commissioned by the Commonwealth Department of Health and Family Services (now the Australian Government Department of Health and Ageing) to begin a national trial of the Illicit Drug Reporting System (IDRS), following a successful pilot study of the methods in New South Wales in 1996 (Hando, O'Brian, Darke, Maher & Hall, 1997) and a multi-state trial of the methodology in New South Wales (Hando & Darke, 1998), South Australia (Cormack, Faulkner, Foster-Jones & Greaves, 1998) and Victoria (Rumbold & Fry, 1998) the following year.

The intention of the IDRS is to provide a co-ordinated approach to the monitoring of trends associated with the use of methamphetamine, opioids, cannabis and cocaine, in order that this information could 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 individuals who have regular first-hand contact with groups of people who use illicit drugs ('key experts'), 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, with these states continuing to follow the full methodology, while Western Australia, Northern Territory, the Australian Capital Territory, Queensland and Tasmania examined drug use trends using an abbreviated design, utilising key expert interviews and examination of secondary data sources only. The National Drug Law Enforcement Research Fund has provided these states with additional funding to expand data collection to the full IDRS methodology for 2000 through to the current year.

The 2004 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 2003 (Bruno & McLean 2000, 2001, 2002, 2003, 2004) and state comparisons (McKetin et al., 2000; Topp et al, 2001, Topp et al, 2002, Breen et al., 2003 and Breen et al, 2004), are available as technical reports from the National Drug and Alcohol Research Centre, University of New South Wales.

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.

2. METHOD

The IDRS is essentially a convergent validity study, where information from three main sources, each with its own inherent advantages and limitations, is compiled and compared to determine drug trends. The three components of the IDRS are: a survey of people who regularly inject illicit drugs (IDU), a “key expert” study of professionals working in the illicit drug (or related) field 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 injecting drug users are a good sentinel group for detecting illicit drug trends due to their high exposure to many types of illicit drugs. This group also possess first-hand knowledge of the price, purity and availability of illicit drugs. Key expert interviews provide contextual information about drug use patterns and health-related issues, such as treatment presentations. The collection and analysis of existing drug use indicator data provides quantitative contextual support for the drug trends detected by the IDU and key expert surveys (McKetin, Darke & Kaye, 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 trends. Findings from the 2004 Tasmanian IDRS are also compared with findings from the previous Tasmanian studies (Bruno & McLean, 2000, 2001, 2002, 2003, 2004) to determine any changes in drug trends over time.

2.1 Survey of injecting drug users (IDU)

The IDU survey was completed during June 2004, and consisted of face-to-face interviews with 100 people who regularly inject 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 availability program outlets (NAPs), 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, NAPs or, where invited by the participant, private homes. Three agencies: Nufit; The Link Youth Health Service; and the Tasmanian Council on AIDS, Hepatitis and Related Diseases (TASCAHRD) assisted the researchers by participating as recruitment and interview sites for IDRS participants. The major location for recruitment and subsequent interview was Hobart city, although approximately one third of the sample was recruited and interviewed in Glenorchy city (in the northern suburbs of Hobart).

A standardised interview schedule used in previous IDRS research (Hando & Darke, 1998; McKetin et al., 1999; Topp, Hando & Darke, 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 drug trends. 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 participant’s knowledge of injecting drug use practice. Both the University of New

South Wales and University of Tasmania institutional Ethics Committees granted ethical approval for the survey. Participants were given an information sheet describing the interview content prior to commencement (subsequent to screening), allowing them to make a more 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 30 and 45 minutes (averaging 40 minutes, and ranging from 25 to 70 minutes), and participants were reimbursed \$30 for their time and out-of-pocket expenses.

Data analysis was conducted using SPSS for windows, release 12.0.1 (SPSS Inc, 2003).

2.2 Survey of key experts (KES)

Thirty-one key experts who were working with illicit drug users in the greater Hobart area participated in face-to-face interviews between July and September 2004 (36% were males). Twenty (65%) participants were recruited from the pool of key experts that had taken part in the 2003 IDRS (Bruno & McLean, 2004), while 8 (26%) had also participated in the 2002 IDRS (Bruno & McLean, 2003), with 7 (23%) participating in the 2001 and 2000 IDRS' (Bruno & McLean, 2002, 2001), and 3 (10%) in the 1999 study (Bruno & McLean, 2000). All other participants in the current study were identified and recruited either as replacements for the 2003 IDRS participants drawn from the same agencies or on the basis of referrals from the Tasmanian IDRS steering committee or professionals in the field.

Key experts included youth workers (n=4), members of the department of justice (police; diversion programs: n=3), and pharmacists (n=1), and a forensic pathologist (n=1), with the remainder working specifically in the drug and alcohol field, comprising counsellors (n=3), needle and syringe outlet workers (n=8), outreach/street workers (n=2), medical practitioners prescribing methadone or specialising in alcohol and other drug treatment (n=2), and other health professionals working in a variety of more general roles in the drug and alcohol field, including assessment, nursing, education, detoxification and advocacy (n=7).

Entry criteria for inclusion in the study were, at least, weekly contact with illicit drug users in the past 6 months and/or contact with 10 or more illicit drug users in the last 6 months. With one exception, all key experts satisfied these criteria: the median number of days contact with illicit drug users in the past 6 months was 5 days per week (mode 5 days per week, range 1 - 5), and all but one key expert reported contact with more than 10 users in the week prior to interview (with 52% seeing more than 50 in the past week, and 85% had contact with more than 20 individuals in this time). The exception to these criteria was a forensic pathologist that provided expert opinion in regard to the harms associated with the intravenous administration of diverted pharmaceutical products.

Although the key experts predominantly came from generic services (77%, n=24), many worked with special populations, including youth (41%, n=13), prisoners (7%, n=2), persons identifying as having Aboriginal (7%, n=2) or non-English Speaking backgrounds (7%, n=2) and injecting drug users (26%, n=8).

Key experts were asked to specify the main illicit drug used by the drug users they had most contact with in the past 6 months. The majority of key experts reported on the use of methamphetamine (n=14), with the remainder reporting on groups of primary morphine (n=4), methadone (n=5), cannabis (n=7), or ecstasy/methamphetamine (n=1) users. This breakdown is consistent with those reported on by the key experts in the 2003 survey, but is a slight shift to that in the 2000 and 1999 Tasmanian IDRS surveys, where there was a more even proportion of key experts reporting on the use of methamphetamines and of opioids, and the 2001 and 2002 surveys where the majority of key experts reported on primary users of opioids. However, such distinctions are unlikely to necessarily indicate a substantial change in the illicit-drug using patterns of the individuals tapped in the key expert survey, as most participants in all years were referring to predominantly poly-substance using populations.

The interview schedule was a structured instrument that included sections on drug use patterns, drug availability, criminal behaviour and health issues. Half (48%, n=15) of the respondents were rated by interviewers as being extremely knowledgeable in most areas of the interview, with the remainder moderately knowledgeable in most areas of the interview schedule (n=13, 42%) or having discrete pockets of knowledge (n=3, 10%). Interviews took between 20 and 80 minutes to administer (average = 40 minutes). Notes were taken during the interview and subsequently transcribed in full. Open-ended responses were analysed using a word processor, sorting for recurring themes across respondents. Single reports from key experts have been presented where they were deemed reliable by the interviewer, and where the information provided contributed to the explanation of particular trends. Closed-ended questions were analysed using SPSS for Windows, release 12.0.1 (SPSS Inc, 2003).

2.3 Other indicators

To complement and validate data collected from the key expert study and IDU survey, a range of secondary data sources was examined, including survey, health, and law enforcement data. The pilot study for the IDRS (Hando et al., 1997) recommended that such data should be available at least annually; include 50 or more cases; provide brief details of illicit drug use; be collected in the main study site (Hobart or Tasmania for the current study); and include details on the four main illicit drugs under investigation (heroin, cannabis, cocaine and methamphetamine). However, due to the relatively small size of the illicit drug using population in Tasmania (in comparison to other jurisdictions involved in the IDRS), and a paucity of available data (several key services are in the process of adopting computerised or more systematic information storage and retrieval systems), 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 as follows:

Needle Availability Program Data

The Needle Availability Program (NAP) 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 90 outlets participating in the program, and

for participating non-pharmacy outlets, data is collected regarding age, sex, equipment shared since last visit, last drug used, and disposal methods for each client transaction. The data provided represents responses from 38,083 occasions of service in the 2003/04 financial year. It should be noted that data is not necessarily collected systematically for all data fields – for example, while there are 38,083 recordings for gender of client, there are only 34,529 recorded for the substance used (90.7% of the recorded cases¹). Additionally, there is 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.

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

The Australian NSP survey has been carried out over one week each year since 1995. During a designated survey week, NSP staffs 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 viruses such as hepatitis B and C). The data provided here represent the last drug reported to be injected by survey respondents in Tasmania each year from 1995 to 2003 (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: Buddle, Zhou, & MacDonald 2003; Thein, Maher & Dore, 2004).

The 1998 and 2001 National Drug Strategy Household Surveys

This survey represents a prevalence study of drug use amongst the general community, surveying 1,031 individuals in Tasmania in the 1998 study, and 1,349 individuals in 2001, who were over 14 years of age, could speak English, and who lived in private dwellings (Australian Institute of Health and Welfare, 1999; 2002). The survey covered the following illicit drugs: cannabis, methamphetamine, hallucinogens, cocaine, ecstasy/designer drugs and heroin. Respondents were asked whether they had ever used these drugs and whether they had used them within the past twelve months.

1996 and 1999 Australian School Students' Alcohol and Drugs (ASSAD) Surveys

This is a triennial survey on secondary school students' use of tobacco and alcohol, conducted by the Tasmanian Cancer Council, and extended by the Department of Health and Human Services to include questions on the use of other licit and illicit substances. The 1996 survey includes data from 2,553 Tasmanian students from years 7 to 12. In 1999, 2,671 Tasmanian students from years 7 to 12 were surveyed.

Police and Justice Department Data

Tasmania Police State Intelligence Services, the Australian Crime Commission (ACC, previously the Australian Bureau of Criminal Intelligence, ABCI), and the state Justice Department have provided information on drug seizures, charges, and costs. Data on the purity of drugs seized is also provided through the ACC, however, drugs are only

¹ However, this is a marked improvement in the data recording rate – in 2000/01, only 44% of the 32,507 occasions of service included information regarding principle drug used, while in 2001/02, the relevant rate was 78%, rising to 87.5% in 2002/03.

analysed by Tasmania Police Forensic Services in seizures where the person involved denies that the seizure in question contains illicit substances. Hence, for the 2003/04 financial year, a very small number of samples of methamphetamine were analysed for purity.

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 reasonably steadily over time, although the 2003/04 figures are in difference to this trend (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).

Blood borne virus surveillance data

Blood borne viruses, and, in particular HIV/AIDS and hepatitis B and C 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 and hepatitis B and C 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 hepatitis C 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.

Tasmanian Pharmacotherapy Program Data

Pharmaceutical Services in the Department of Health and Human Services maintains a database that records all methadone and buprenorphine program registrations in Tasmania. The number of annual new admissions to the program, and information regarding the number of active daily clients are presented.

Coronial Findings On Illicit Drug-Related Fatalities

Mortality data regarding illicit drug related deaths prior to 2000 was obtained from the state coroners office. Data provided contains a summary of the toxicology analysis for each case. More recent figures in this report were provided by Australian Bureau of Statistics annual reports on fatal opioid overdoses among 15 to 44 year olds (Degenhardt, 2001; 2002; 2003; Degenhardt, Roxburgh & Black, 2004).

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 has been provided by the Poppy Board of the Tasmanian Justice Department, as this is a useful indicator of potential illicit use of opium or poppy tar.

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. Additionally, at that same time a new information service, the Drug and Alcohol Clinical Advisory Service (DACAS) was established to provide health professionals assistance with the clinical management of drug and alcohol problems. Turning point systematically record data for each call received, which comprised 2208 and 63 calls to ADIS and DACAS respectively during the 2000/01 financial year; 2129 and 94 calls to the respective services in 2001/02; with 1984 and 48 calls to the respective services in 2002/03; and 1554 and 44 calls respectively during 2003/04.

3 RESULTS

3.1 Overview of the IDU sample

A total of 100 individuals were interviewed. The demographic characteristics of the IDU sample are presented in Table 1 below. The mean age of participants in the 2004 study was 29.6 years (SD = 7.8, range 18-54), one year older than the average in the 2003 cohort. Sixty-five percent of the current participants were male (from 70% in 2003). Female participants were significantly younger than males participating in 2004 (males 31.1 years, females 26.9 years, Mann-Whitney $U = 767.5$, $p=0.07$), while in previous cohorts there had been no age differences between the groups.

Table 1: Demographic characteristics of IDU sample

Characteristic	2003 n=100	2004 n=100
Mean age (years)	28.6 (range 17-57)	29.6 (range 18-54)
Sex (% male)	70	65
Ethnicity (%):		
English speaking background	100	93
Non-English speaking background	0	7
Aboriginal or Torres Strait Islander	14	10
Employment (%):		
Not employed	69	76
Full time	3	5
Part time / casual	7	8
Student	7	3
Home Duties	14	8
Accommodation (%):		
Own house/flat	60	76
Parent's/family house	19	9
Boarding house/hostel	4	10
Friends/house-sitting	6	-
No fixed address/homeless	11	5
School education (mean years)	10.3 (range 7-12)	10.0 (range 6-12)
Tertiary education (%):		
None	74	59
Trade / technical	21	37
University	4	4
Prison History (%)	25	25
Treatment History (%):		
Not currently in treatment	35	35
Methadone maintenance therapy	58	54
Buprenorphine maintenance therapy	3	4
Drug & alcohol counselling	3	3
Other treatment	0	4

Source: IDRS IDU interviews

Among those sampled in 2004, there was a mean of 10.0 years (SD = 1.4, range 6-12) of school education, similar to the cohort in 2003. While the majority of both the 2003 and 2004 participants had not completed any further studies (74% and 59% in 2003 and 2004 respectively), a greater proportion of the 2004 participants had attained trade or technical

qualifications (21% vs. 37% respectively), and four percent had attained university qualifications across both years. The majority of the 2004 sample (76%) were not currently employed, with a further 8% involved in home duties, and 3% enrolled students, while 8% were working on a casual basis, and 5% working full-time. When asked about their main source of income, the majority (83%) reported this as a government pension, allowance or benefit, with 11% reporting this as a wage, and 6% as being via criminal activity. In terms of all sources of income, 93% had received some income from a government pension, allowance, or benefit in the past month, 23% from a wage or salary, 34% from some form of criminal activity, 8% from child support and 1% respectively from sex work or worker's compensation.

The sample was drawn from 32 suburbs within the northern, eastern, southern, and inner city areas of Hobart, with the bulk of participants either living in close proximity to Hobart city (21%) or Glenorchy city (19%). A more detailed breakdown, on the basis of local council areas, is as follows: Hobart City (38%); Glenorchy City (27%); Clarence (26%); Brighton (2%); Kingborough (4%); no fixed address (3%).

One quarter of the sample (25%) of participants had been imprisoned at some stage in their lives (consistent with the 2003 cohort), with males not being significantly more likely than females to have been so, as 23% of males and 28% of female participants had a previous prison history: $\chi^2(1, n=100) = 0.37, p = 0.55$.

Almost two-thirds (65%) of the sample were in some form of drug treatment at the time of interview, with the majority (54% of the sample) reporting methadone maintenance therapy as their primary treatment. Mean duration of time on methadone maintenance was 62 months (SD = 41 months, range 1-132 months). Four individuals were currently receiving primary treatment via buprenorphine maintenance therapy (mean duration = 11.0 months, SD = 11.5 months, range 2-26 months), and three receiving primary treatment via drug counselling (mean duration = 8.7 months, SD = 13.3 months, range 1-24 months). Four other individuals were currently receiving other forms of treatment, including benzodiazepine pharmacotherapy (n=2), supportive programs or residential rehabilitation (n=1 respectively). Of those currently receiving methadone maintenance, 20 had received counselling at some stage in the previous six months, and a further three had attended detoxification in this time. Three of those currently receiving buprenorphine maintenance had previously received counselling at some stage in the preceding six months, and one individual had terminated buprenorphine maintenance in the previous six months. No participant reported using naltrexone in the six months prior to interview.

The demographic characteristics of the Tasmanian 2004 IDU sample are generally very similar to the previous Tasmanian IDU samples (Bruno & McLean, 2004, 2003; 2002; 2001). Despite the sampling procedure for these studies being largely convenience samples, the similarities between samples may largely reflect the degree of overlap in the IDRS samples over time: of the 100 participants in the 2004 study, 42% participated in the 2003 study, 36% in 2002, 11% in 2001 and 5% in 2000. This is consistent with previous IDRS samples: in 2003, 37% had participated in the previous year's study, while in 2002, 39% had participated for at least two studies in a row. Notable discrepancies between the 2004 IDU and previous IDU samples are discussed in subsequent sections of this report.

3.2 Drug use history and current drug use

The mean reported age at first injection of a drug was in the late teens (18.7 years, SD = 5.1 years), ranging from 12 to 38 years (strongly similar to that identified in the 2003 cohort: mean 18.3 years, range 11-50). There was no significant difference between age of first injection for females and males in the sample (17.9 and 19.2 years respectively).

As previous IDRS reports (e.g. McKetin, Darke & Kaye, 2000) and local key experts have suggested that there may have been a fall in the age of initial injection among new recruits to injecting, the sample was dichotomised (using a median split) into those that had first injected in the preceding 8 years and those that had begun injecting 9 years or more ago. There was no significant difference between these groups: 18.8 years for the more recent initiators and 18.7 years for those that had been injecting for longer. Similarly, in previous Tasmanian IDRS studies there has been no difference between age of initiation based on similar median injection career splits, and as such, it is difficult to support the suggestion of a declining age of initiation into injection amongst local regular injecting drug users. There was considerable variation in the length of participant's injecting drug use careers, with the mean length of time since first injection being 10.9 years, ranging from 1 to 34 years. There was a sex difference with regard to length of injection career for the current cohort (previous IDRS studies have not found such a difference), with mean injection career for male participants (11.9 years) significantly longer than for the females sampled (9.0 years: Mann-Whitney $U = 844, p=0.34$).

Methamphetamine was the first drug injected by 49% of respondents, with 32% reporting morphine, 9% reporting heroin, 2% methadone, and 8% other substances (including benzodiazepines, codeine, ketamine, dextromoramide tartarate, and pentazocine hydrochloride: Table 2). These proportions are highly similar to those reported by the 2003 IDRS IDU cohort, with the exception of a decrease in the proportion reporting heroin as the drug they had first injected (18% in 2003 and 9% in 2004). There was a significant length of injection career-related difference in first drug injected. Those participants who had first injected within the past eight years had a larger proportion of people reporting pharmaceutical opioids as first drug injected (36% methamphetamine, 58% morphine, 4% methadone, 0% heroin, 2% other), in comparison to the longer-term injecting group, where methamphetamine, and, to a lesser extent, heroin, were more predominant (62% methamphetamine, 11% morphine, 16% heroin, and 10% other): $\chi^2(10, n=100)=36.8, p < 0.001$. Of the 49 respondents that reported methamphetamine as their first drug injected, 33 (67%) had most often injected opioids in the month prior to interview (7 participants reporting morphine, 26 methadone).

Heroin was the reported drug of choice for the majority of participants (38%), followed by methamphetamine (19%), methadone (16%) and morphine (16%), as indicated in Table 2 below, generally similar to the preferences reported in the 2003 cohort. Despite this high preference for heroin, only one participant reported it as their last drug injected, and none as the drug most often injected in the month prior to interview. The drugs most commonly used were methadone (48%), morphine (20%), and methamphetamine (29%). This is very much consistent with the patterns among the 2003 cohort (Table 2).

Table 2: Drug of initiation into injecting, drug of choice and current injection patterns for IDU in the current study

Variable	2003 n=100	2004 n=100
Age of first injection (years)	18.3 (range 11-50)	18.7 (range 12-38)
First drug injected (%)		
Heroin	18	9
Methadone	3	2
Morphine	29	32
Methamphetamine	46	49
Cocaine	1	0
Ecstasy	0	0
Benzodiazepines	0	2
Other	3	5
Drug of choice (%)		
Heroin	41	38
Methadone	13	16
Morphine	10	13
Methamphetamine	25	19
Cocaine	2	1
Ecstasy	0	1
Benzodiazepines	3	4
Other	7	9
Drug most often injected in past month (%)		
Heroin	3	1
Methadone	48	48
Morphine	19	20
Methamphetamine	29	29
Cocaine	1	0
Ecstasy	0	0
Benzodiazepines	0	1
Other	0	1
Most recent drug injected* (%)		
Heroin	5	0
Methadone	49	42
Morphine	18	20
Methamphetamine	26	36
Cocaine	1	0
Ecstasy	0	0
Benzodiazepines	2	5
Other	0	1
Frequency of injecting in last month (%)		
Weekly or less	15	20
More than weekly	68	53
Once a day	8	13
Two to three times per day	6	10
More than three time per day	3	4
Polydrug use		
Mean number of drug classes ever tried	12.4	12.5
Mean number of drug classes used in last 6 months	8.0	7.9
Mean number of drug classes ever injected	6.5	6.6
Mean number of drug classes injected in last 6 months	3.8	3.5

Source: IDRS IDU interviews

*one participant reported their drug of choice as methadone in combination with alprazolam; and two participants reported their last drug injected as morphine and benzodiazepines, and methadone and benzodiazepines respectively; these have been included in both the relevant opiate and benzodiazepine categories, and as such these columns will sum to greater than 100%

Frequency of injection by IDU during the month prior to interview (Table 2) was varied, with most injecting more than once per week (80%), and 27% injecting at least once per day. This is a change both in terms of an increase in less-than-weekly injectors and daily injectors in comparison to the 2003 IDU cohort (where 85% injected more than weekly, and 17% injected daily: Table 2).

Respondents were asked how much they had spent on illicit drugs on the day before the interview. The responses to this question are summarised in Table 3. This indicates that under half of the sample (40%) had spent money on illicit drugs on the day before the interview, and that this was most commonly between \$20 and \$99. The average amount of money spent amongst the sample was \$32 (SD \$73, range \$0-450, median = \$0). Amongst only those 40 participants who had spent money on illicit drugs on the day prior to interview, the average amount of money spent was \$40 (SD \$99, range \$1-450, median = \$40). In comparison to the 2003 sample, slightly more participants reported not spending any money on drugs on the day prior to interview (60% in 2004 vs. 55% in 2003), and those that had spent money on drugs had, on average, spent less (\$40 in 2004 vs. \$70 in 2003), although the overall average was similar across years (\$32 in 2004 vs. \$31 in 2003).

Table 3: Amount spent on illicit drugs on day prior to interview

Amount spent on day prior to interview	2003 n=100 %	2004 n=100 %
Nothing	55	60
Less than \$20	7	3
\$20-49	16	19
\$50-99	12	10
\$100-199	7	2
\$200-399	2	5
\$400 or more	1	1

Source: IDRS IDU interviews

Respondents reported the drugs they used on the day prior to their interview (Table 4). Despite only 40% paying for drugs on the day prior to interview, only 4% had not used any drugs on this day. Almost two-thirds had used cannabis on the day prior to interview (62%), with a similar proportion reporting use of methadone (57%, although only used by 9 people not currently enrolled in methadone maintenance therapy). Use of benzodiazepines (40%), methamphetamine (18%), alcohol (20%), and morphine (17%) were also commonly used in this time. In comparison to this measure in the 2003 IDRS cohort, there were *less* people reporting cannabis use (62% in 2004, 72% in 2003), and slight increases in those reporting use of methadone (57% in 2004, 50% in 2003, with the difference largely reflecting those using illicitly, with 9% doing so in 2004 and 4% in 2003), morphine (17% in 2004, 11% in 2003), methamphetamine base (12% in 2004, 4% in 2003) and antidepressants (15% in 2004, 6% in 2003).

Polydrug use was widespread, with 83% of those reporting using drugs taking more than one drug on the day prior to interview, and the median number of drugs used was two (37%, range 0-6). Multiple studies have clearly established that the risk of overdose increases when central nervous system depressants are used in addition to opioids (see Warner-Smith, Lynskley, Darke & Hall, 2000), with concomitant use of alcohol or benzodiazepines with opioids proving especially prominent in opioid overdose fatalities.

Of concern then was the finding that, of the 69% of the 2004 IDU sample that reported using an opioid on the previous day, 57% reported using an opioid in conjunction with either benzodiazepines (44%, n=31) or alcohol (14%, n=10) or both (9%, n=6) on the previous day.

Table 4: Drugs taken on the day prior to interview among the IDU sample

Drug*	2003	2004
	n=100 %	n=100 %
Cannabis	72	62
Methadone	50	57
Benzodiazepines	43	40
Morphine	11	17
Methamphetamine: powder	6	3
Methamphetamine: base/paste	4	12
Methamphetamine: crystal	6	3
Amphetamine: pharmaceutical	4	5
Heroin	1	1
Cocaine	1	0
Alcohol	17	20
Antidepressants	6	15
Buprenorphine	3	3
Other opiates	3	1
Ecstasy	0	1
Did not take any drugs	5	4

Source: IDRS IDU interviews *Note: could list more than one drug

Participants were also asked about their usual place of injection and where they had last injected. These responses are summarised in Table 5 below, indicating that the majority of the sample tend to inject in private homes (91% usually, 85% last time they injected), while much smaller proportions tend to inject in public places (9% usually, 15% last time). The main difference between location of injection reported between the 2003 and 2004 cohorts reflect an increase in use of private homes and a decrease in use of vehicles as locations to inject.

Table 5: Location in which respondents usually injected in the month prior to interview, and location of last injection

Location	Usual		Last	
	2003 n=100 %	2004 n=100 %	2003 n=100 %	2004 n=100 %
	Private Home	85	91	72
Public Toilet	3	5	9	8
Car	9	4	12	5
Street/park or beach	2	0	7	2

Source: IDRS IDU interviews

Drug use histories of the IDU respondents are summarised in Table 6 below. There was a substantial level of polydrug use among this group, as almost all individuals had used methadone syrup, physeptone, morphine, methamphetamine, hallucinogens, benzodiazepines, alcohol, cannabis, anti-depressants and tobacco at some stage in their lives. Of the 17 possible drug classes (treating all forms of methamphetamine and methadone as single classes of drugs), subjects had used a median of 13 (mean = 12.5, sd = 2.5, range 4-17) drug classes in their lives, and 8 (mean = 7.9, sd = 2.3, range 1-15) in the preceding six months. A median of 7 drug classes had been injected over their lifetimes (mean = 6.6, sd = 2.3, range 1-12), and 3 (mean = 3.5, sd = 1.5, range 1-10) in the preceding six months². Each of these mean figures are virtually identical to those in the 2003 cohort.

² These figures appear greater than previous Tasmanian IDRS reports prior to 2003, due to the inclusions of buprenorphine and homebake new drug classes in the 2002 study.

Table 6: Drug use history of the IDU sample (N=100)

Drug Class	Ever used %	Ever Injected %	Injected last 6 months %	Median number of days injected in last 6 months [#]	Ever Smoked %	Smoked last 6 months %	Ever snorted %	Snorted last 6 months %	Ever Swallowed %	Swallowed last 6 months %	Used last 6 months %	Median number of days used in last 6 months [#]
Heroin	69	68	19	4	28	1	15	0	20	2	19	4
Methadone svrup (licit)	68	64	50	48					68	53	54	180
Methadone svrup (illicit)	83	82	62	16					36	24	64	12
Physeptone (licit)	23	18	4	38	1	0	0	0	17	7	7	77
Physeptone (illicit)	83	76	47	6	1	0	2	0	54	21	52	6
Morphine	94	93	60	12	2	0	0	0	59	17	62	12
Homebake	20	19	3	6	6	0	2	1	7	3	5	6
Other opiates	69	18	6	1	33	9	3	1	59	27	33	2
Methamphet. powder	96	94	59	6	16	2	50	5	43	9	60	8
Methamphet. liquid	11	10	2	2					0	0	2	2
Methamphet. base	89	89	72	10	5	1	8	1	27	15	72	12
Crystal methamphet.	79	78	51	4	18	7	7	2	12	7	52	4
Pharmaceutical stimulants	88	76	43	3	4	0	7	0	62	26	51	4
Cocaine	48	36	1	2	8	1	29	3	8	0	4	2
Hallucinogens	77	26	1	1	8	1	2	1	76	19	20	2
Ecstasy	61	31	7	2	2	0	14	3	57	24	25	2
Benzodiazepines	77	64	30	6	13	1	9	1	93	82	85	50
Alcohol	100	16	0	0					100	75	75	9
Cannabis	100										87	180
Anti-Depressants	79	8	0	0					79	41	41	180
Inhalants	42										8	3
Tobacco	97										94	180
Buprenorphine (licit)	11	6	2	180	0	0	0	0	10	4	5	180
Buprenorphine (illicit)	7	6	3	1	0	0	0	0	2	1	4	2
Polydrug use (<i>mean drug classes used out of 17</i>)	13	7	3								8	

Source: IDRS IDU interviews #Among those using the drug * Median days used any form of methamphetamine/pharmaceutical stimulant = 22; †Median days used any methadone = 180, but 24 among those accessing illicit forms of methadone; median days used any buprenorphine = 75

4 HEROIN

Less than one-fifth of respondents on the IDU survey were able to comment confidently on the price, purity or availability of heroin (n=16). Of the key experts reporting on groups that predominantly used opioids (n=8), none reported that the group they had most contact with had primarily used heroin in the past six months.

Among the IDU sample, 69% reported they had tried heroin at some stage in their lives, and almost all of these had injected heroin (78% of sample). Nineteen percent had used heroin in the past six months, all injecting the drug. However, two people also reported swallowing and one as smoking heroin in the six months prior to interview.

The demographics of the group that had used heroin in the past six months was similar to that of other IDU (see Section 2.1) in terms of sex, age, cultural and educational background, drug treatment and employment status, prison history, duration of injection career, and age at first injection. However, those that had recently used heroin were significantly more likely to inject (any drug) daily than those that had not used heroin in the preceding six months (52.7% vs. 20.9%: $\chi^2(4, n=100)=13.1, p=0.010$). Also, those that had recently used heroin were significantly more likely to report receiving income from criminal activity in the preceding month (57.9% vs. 28.4%: $\chi^2(1, n=100)=5.6, p=0.15$) and that this was their main source of income (21.1% vs. 2.5%: $\chi^2(2, n=100)=10.5, p < 0.005$) than those that had not recently used heroin.

Of those IDU surveyed who had used heroin in the past six months (n=19), 68% regarded heroin as their drug of choice, 16% methamphetamine, 11% methadone, and 5% morphine. None of the IDU sample indicated that heroin was the drug they had most often used in the month prior to interview, despite 38% reporting it as their drug of choice. When asked to clarify the reasons for this discrepancy, 29 respondents (76%) reported that they had not recently used heroin due to low availability, 1 (3%) due to the health effects of use, 2 (5%) that they had moved on from using the drug, and 2 (5%) that they were trying to stay away from that 'scene' for them and their family, 1 (3%) that they now preferred stimulant drugs, and 2 (5%) reported staying away from heroin as it was less effective while they were also receiving opioid replacement therapies.

4.1 Price

IDU who could comment on the price of heroin generally referred to purchasing it in units of 'points' (referring to 0.1 g), 'packets' or 'tastes', the latter two appearing to be a generic descriptor for a varying amount of the drug. Perhaps reflecting this, IDU reports on the estimated weight of the heroin they had recently purchased were highly variable. IDU reports of price of heroin are summarised in Table 7 below.

There were widely varying reports of the availability of heroin from the eleven individuals that could confidently comment on price changes in the preceding six months: 4 (36%) felt that the price had fluctuated in this time, 3 (27%) that prices had remained stable or decreased respectively and 1 (9%) that the price had increased in this time. While the reported purchase prices in Table 7 may appear to suggest largely stable modal prices in comparison to the 2002 survey, the number of individuals reporting

prices are so small, and the amount involved (particularly in reference to the most popular purchase amount, ‘cap’/’taste’/’point’) so variable, that it is difficult to clearly make any clear inferences in regard to the purchase price of heroin locally.

Table 7: Modal price of heroin purchased by IDU, 2000-2004 IDRS

Descriptor	2000 IDRS		2001 IDRS		2002 IDRS		2003 IDRS		2004 IDRS		
	n	\$*	n	\$*	n	\$*	n	\$*	n	\$*	Price Range
‘Cap’, ‘taste’, ‘point’ (~0.05-0.15g)	1	\$50	15	\$50	12	\$100	7	\$50	6	\$50	\$50-80
2 ‘points’/‘tastes’ (~0.2g)	2	\$100	8	\$100	2	\$92.50*	1	\$100	1	\$50	\$50
1/4 gram (0.25g)	1	\$50	1	\$100	4	\$135*	1	\$100	1	\$100	\$100
half-weight (0.5g)	0	-	1	\$170	1	\$250	0	-	2	\$370*	\$140-600
gram (1.0g)	2	\$375*	2	\$300	1	\$350	2	\$350	4	\$350	\$250-400

Source: IDRS IDU interviews *where multiple modes existed, median price was substituted.

The Australian Crime Commission (ACC, previously the Australian Bureau of Criminal Intelligence) provides quarterly figures on the price of covert drug purchases and informant reports of prices in each Australian jurisdiction. According to these figures, a ‘taste’ (0.1-0.3 g) of heroin cost \$50, and a true gram \$400-\$500, in Hobart during the 2001/02 financial year (Table 8). These estimates were reasonably consistent with IDU reports of price in the 2002 IDRS survey, and provide support for the assertion that local heroin prices remained relatively stable throughout the 2001/02 financial year, particularly as ACC reported prices of heroin in Tasmania had not changed between January 2000 and June 2002. Price information for the 2003/04 financial year was not reported to the ACC in 2003/04, which is perhaps reflective of low availability of the drug locally (discussed below).

Table 8: Heroin prices in Tasmania reported by the Australian Crime Commission, 1997-2004

Amount	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
1 Taste/Cap (0.1-0.3 gm)	\$60-80	\$50	\$50	\$50	\$50	\$50	n/r
1/2 Weight (0.4 - 0.6 gm)	\$150	\$100-200	\$100-200	\$100-200	\$100-200	\$100-200	n/r
1 Street weight (0.6 - 0.8 gm)	\$400	\$400	\$200-400	\$200-300	\$200-300	\$200-300	n/r
Full Gram	\$600	\$500-700	\$400-600	\$400-500	\$400-500	\$400-500	n/r

Source: Australian Crime Commission & Tasmania Police State Intelligence Services;
n/r = data not reported

4.2 Availability

Of the twelve IDU participants that were able to comment on trends in the availability of heroin, consistent with reports in previous years, the majority (67%, n=8) considered it as difficult (25%) or very difficult (42%) for them to obtain, with the remainder (33%, n=4) reporting it as easily accessed. There were mixed reports in regards to changes in the availability of the drug in the preceding six months, with half the respondents (50%, n=6) perceiving no change in this time, and 17% (n=2) respectively reporting increasing, decreasing and fluctuating local availability in the six months prior to interview. No key experts could comment on the availability of heroin. Two key experts talked about heroin use amongst the groups of IDU that they were familiar with, although in both cases this was restricted to extremely small proportions of such groups.

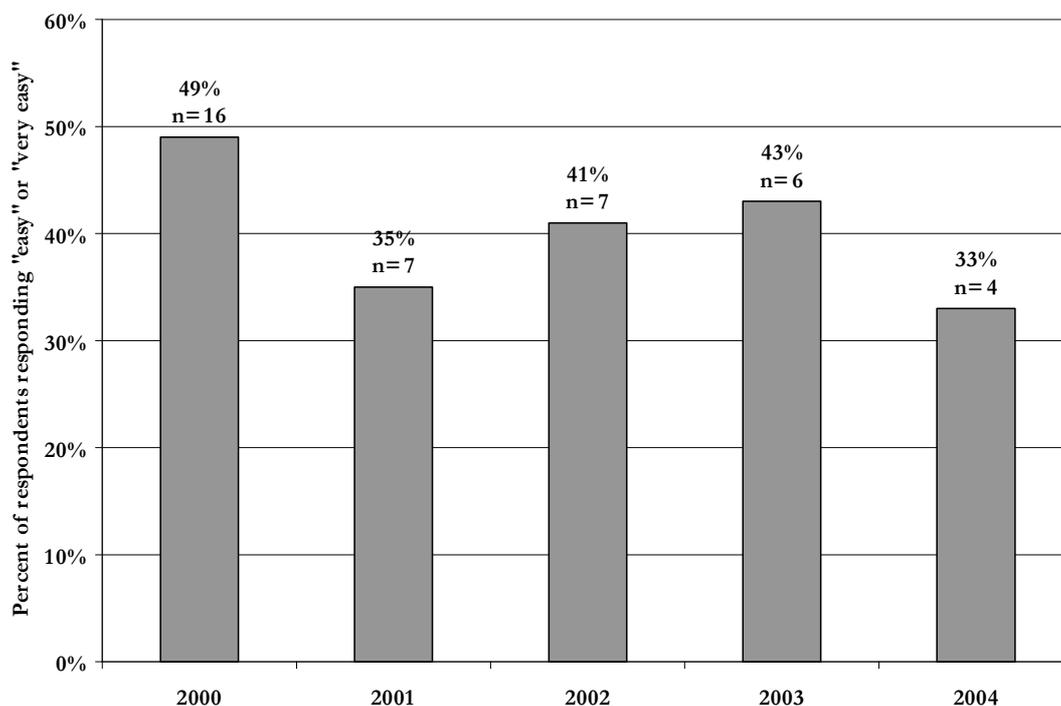
In another indication of relatively stable limited availability of heroin locally, only 19% of the IDU sample in 2004 reported recent use of the drug, with a median frequency of use of only four times in the preceding six months. This is the lowest proportion of use of heroin in the local regular IDU cohort in the past five years of the Tasmanian IDRS study, despite a similar proportion of the participants reporting heroin as their drug of choice: with six-monthly use falling from 38% in 2000, 24% in 2001, 21% in 2002 and 26% in 2003. Frequency of use has remained relatively stable and low during this time (a median frequency of 7 days out of the preceding six months in 2000). This low level of use in a regularly injecting sample of individuals, where 38% regard heroin as their drug of choice (and 67% nominate an opioid as their drug of choice), is a good indication that heroin is in poor supply locally. Furthermore, when those IDU that reported heroin as their drug of choice were asked the reasons for this not being the drug they had most often used in the past month, 29 (76%) reported that they had not recently used heroin due to low availability of the drug.

Half of those IDU reporting their source of heroin noted usually purchasing the drug in the past six months from a friend (50%, n=7), with smaller proportions reporting usually accessing from a dealer's home (14%, n=2), or a mobile dealer (14%, n=2), and 7% (n=1) respectively reported usually purchasing the drug from a street dealer, from a dealer providing home delivery or having the drug sent directly from the mainland to them. More than one-third (36%, n=5) of those reporting the source of their recent heroin purchases reported that they had usually purchased the drug through a contact in a mainland jurisdiction and had it sent down directly to them. Participants reported that it usually took a median of 240 minutes (range 10 – 1440 minutes, n=12) for them to score heroin in the preceding six months.

There were no seizures of heroin made by Tasmania police in the 2001/02, 2002/03 or 2003/04 financial years, in comparison to one seizure (totalling 3 grams) in 2000/01, and five seizures (totalling approximately 18 grams) in 1999/00. No seizures of heroin were reported to the Australian Bureau of Criminal Intelligence (now the ACC) in 1996/97 or 1997/98.

Taken together, it appears that the historical pattern of limited availability of heroin locally has continued, and possibly declined further in the preceding six to twelve months (availability over time is detailed in Figure 1). While some better-connected IDU appear to have reasonably stable access to the drug, the availability of heroin in the state is still relatively low, as indicated by the low level of recent use of the drug by the IDU sample.

Figure 1: IDU reports of availability of heroin: 2000-2004 IDRS



Source: IDRS IDU Interviews

4.3 Purity

Following trends seen in previous years, most IDU that could comment on purity of heroin they had used (n=11) considered it as medium (36%, n=4) or low (27%, n=3) in purity, although 18% (n=2) regarded purity as high, and 18% (n=2) reported purity as fluctuating. No key experts could comment on the purity of heroin used by the groups that they were familiar with. In previous surveys, IDU have commented that this low 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 morphine, as the exact quantity of drug purchased is clear.

Of the IDU sample, 7% reported use of heroin powder in the last 6 months, with 17% using rock form heroin. Most of those that had recently used heroin reported that they had most commonly used rock form heroin in the preceding six months (15%), while 3% reported using heroin powder most often in this time (one participant had recently used heroin but had predominantly used homebake heroin).

In previous IDRS surveys, key experts and IDU have noted that, in general, heroin sold as ‘rock’ was actually powder, compressed to look like true ‘rock’ form heroin. Similar reports were made by key experts in Victorian IDRS studies (e.g. Dwyer & Rumbold, 2000). As noted in previous IDRS reports, these two forms may reflect two very different qualities of heroin available. Anecdotal reports from several IDU and KE suggest that the powder form heroin available in the state is heavily ‘cut’ and very low in purity, with the purity of rock form heroin being slightly higher. In previous years, those

that had most often used powder form heroin most commonly reported the purity of heroin as low, with those most often using rock form heroin commonly reporting purity as medium. However, this pattern did not hold in the current data set, although the small sample size of participants that had used heroin recently renders it difficult to easily identify any particular trends in the data.

There was some division among IDU in regard to trends in the purity of heroin over the preceding six months, with 44% (n=4) indicating an increasing purity over this time, however, 22% (n=2) respectively perceiving a stable or fluctuating purity, and 11% (n=1) perceiving a decrease in purity in this time. No key expert could confidently comment on trends in purity of heroin. As there have been no seizures of heroin made by Tasmania Police or the Australian Federal Police in 2003/04, no objective purity data is available for comparison.

There are two pieces of objective purity data available for heroin seized within Tasmania. The first relates to a single seizure of less than two grams, made by the Australian Federal Police and analysed during the first quarter of 2000, which returned a measurement of 74.6% purity. The second relates to eight seizures of less than two grams, made by Tasmania Police and analysed during the third quarter of 2002, which returned a median measurement of 70.4% purity (range 69.6-71.0%). It should be noted that there may be a delay of days to several months between the date of the seizure and the date of receipt of the samples in the laboratory, and as such it is not clear which financial year these analyses refer to.

4.4 Use

Prevalence of heroin use

The 1998 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 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. While the small numbers involved mean that meaningful inferences are difficult to draw, the figures from the 2001 survey (Australian Institute of Health and Welfare, 2002) are very similar, with 0.3% (n=4) of Tasmanians sampled reporting using heroin in the year prior to interview.

Heroin use among IDU

Reported use of heroin as the main drug injected by non-pharmacy Needle Availability Program (NAP) outlet clients had shown a steady decrease between 1999/00 and 2001/02, decreasing from 4.3% to just 0.7% of clients in this time (Table 9). However, while still remaining relatively low, particularly given the attractiveness of heroin among IDU, the figures for 2002/03 represent a clear increase over the preceding financial year, with 446 clients (1.5%) reporting heroin as the drug that they most often injected. Data from NAP clients in 2003/04 shows a slight drop in use to 1.1% or 384 clients during the financial year. While there are acute limitations of the data collected from Needle Availability Program outlets (see Section 1.4), this slight decline seen amongst NAP statistics is consistent with the similar slight decline in proportion of the local IDRS IDU cohort reporting recent use of heroin. It is important to note, however, that NAP data may underestimate the extent of heroin use, as different NAP 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. As indicated previously, although 19% of the IDU sample had used heroin in the past six months, none reported it as the drug they most often injected. Additionally, there was a very high level of polydrug use amongst those who reported recent use of heroin (detailed below).

Table 9: Percentage of heroin reported as ‘drug most often injected’ by Tasmanian non-pharmacy Needle Availability Program outlets, 1997-2004

Year	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04
Number of clients reporting heroin	390	257	457	405	143	446	384
Percent of total clients reporting heroin	5.7%	2.9%	4.3%	2.8%	0.7%	1.5%	1.1%

Source: Sexual Health, Department of Health and Human Services

The Australian Needle and Syringe Program Survey (National Centre in HIV Epidemiology and Clinical Research on behalf of the Collaboration of Australian Needle and Syringe Programs) has reported heroin as the last drug injected of 10% or less of their Tasmanian participants for their 1996, 1997, 1998 and 1999 surveys, increasing to 22% in 2000, and declining from 2001 into 2002 and again into 2003 (Table 10). This trend is generally consistent with that seen from the NAP client data. However, given that these studies only sampled a very small number of clients each year, these figures should be interpreted with caution.

Table 10: Australian Needle and Syringe Program (NSP) Survey: Prevalence of heroin within “last drug injected”, 1996-2003

	1997		1998		1999		2000		2001		2002		2003	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Heroin	0	0	5	10	2*	8	0	0	5	10	5 [†]	3	1	1
Total Sample Size	23		51		25		23		51		151		118	

Source: Thein, Maher and Dore (2004)

*Note: these two cases reporting heroin injection actually reported their last drug injected as heroin and morphine combined; [†]of these 5 individuals, one reported their last drug injected as a mixture of heroin and cocaine

Current patterns of heroin use

Nineteen percent of the IDU sample reported using heroin in the six months prior to interview. The median number of days that heroin was used in the past six months by this group was 4 (range 1-150). All those that reported using heroin in this time had injected the drug (median number of days injected 4, range 1-150), although two had both injected and swallowed heroin, and one both injected and smoked heroin in the preceding six months. There was a very high level of polydrug use amongst those who had used heroin in the past six months (Table 11), predominantly of other opioids and benzodiazepines, a finding in keeping with reports from key experts that, because of fluctuating availability, primary users of opioids have to be flexible in their patterns of use, turning to other opioids or benzodiazepines if their opioid of choice is unavailable. Additionally, there was a high level of use of methamphetamine amongst this group, although it was generally used less frequently than other opioids/depressants.

Table 11: Patterns of drug use reported by those IDU who had used heroin in the past 6 months (n=19)

	% of those who had used heroin in last 6 months reporting use	Median days use for those using the drug
Methadone syrup (illicit)	79	12 (range 1-7)
Physeptone (illicit)	79	8 (range 1-72)
Morphine	79	4 (range 1-180)
Other opioids	37	10 (range 1-72)
Benzodiazepines	95	61 (range 3-180)
Cannabis	84	108 (range 2-180)
Methamphetamine		
<i>powder</i>	68	10 (range 1-180)
<i>base/point</i>	84	20 (range 1-90)
<i>ice/crystal</i>	74	5 (range 2-180)
Alcohol	79	24 (range 1-140)

Source: IDRS IDU Interviews

4.5 Heroin related harms

Law enforcement

Tasmania Police State Intelligence Services reported no arrests involving offences relating to heroin between 2000/01 and the 2003/04 financial year³. Due to the small numbers (n=5 in 1999/00) and lack of specificity of reporting of opioid-related arrests in previous years⁴, the identification of trends from such data is difficult, other than to provide further support for indications from other data sourced of a limited availability and use of the drug locally.

³ ACC report six male and four female consumer arrests relating to 'heroin and other opioids' in the 2003/04 financial year, with all of these arrests relating to pharmaceutical opiates rather than heroin.

⁴ Data specifically regarding heroin-related offences prior to 1999/00 is unavailable as the Australian Crime Commission reports offences related to all opioids (including, for example, morphine and methadone) within a single category.

Health

Given that pharmaceutical opioids such as morphine and methadone tend to be the predominant opioids used by the local IDU population, a more detailed discussion of health-related harms (such as overdose and treatment) is located in a separate section of this report (Section 10.1 and Section 10.2 respectively).

4.6 Trends in heroin use

The majority of indicators, and findings such as the low median rate of use of heroin (4 days in last 6 months amongst those who had used the drug) and, that of the 38% of the IDU sample that reported heroin as their drug of choice, only around one-third (34%) had recently used heroin, indicate that the low availability of heroin in the state, identified in earlier IDRS studies, has continued in 2004. However, with the high use of other opioids and very stable strong preference for heroin amongst the IDU sampled by the IDRS, future trends in use of the drug in the state continue to merit close attention, particularly as heroin markets nationally and globally regain equilibrium.

4.7 Summary of heroin trends

Table 12: Summary of Heroin Trends

<p>Price (mode) <i>'packet'/'taste' point (0.05-0.15g)</i> <i>gram</i></p>	<ul style="list-style-type: none"> • \$50, relatively stable • \$350, relatively stable
<p>Availability</p>	<ul style="list-style-type: none"> • difficult to very difficult (67%) • availability stable (50%) • IDU and other data indicate that heroin remains poorly available over the past 6-12 months
<p>Purity and form</p>	<ul style="list-style-type: none"> • Both 'rock' and powder heroin used, but 'rock' is predominant • No objective purity data is available for locally-purchased heroin, however consumer estimates suggest 'low' to 'medium' purity • Consumers estimate that the purity of heroin has increased in the preceding 6 months (44% of those responding), although others suggest that purity has remained stable or fluctuated
<p>Use</p>	<ul style="list-style-type: none"> • Used by 19% of the IDU sample in past six months, but low rate of use (median = 4 days) despite high preference as drug of choice • Use most common amongst regular users of other opioids • Multiple indicators (NAP, NSP, IDRS) suggests that local use of heroin has decreased slightly in recent months from an already low level amongst local regular IDU

5 METHAMPHETAMINE

In previous years, IDRS reports have used the overarching term 'amphetamines' to refer to both amphetamine and methamphetamine. 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. Throughout the 1990s, the proportion of amphetamine-type substance seizures that were methamphetamine⁵ (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. The more potent forms of this family of drugs, known by terms such as ice, shabu, base, paste and crystal meth, are also methamphetamine. Therefore, the term methamphetamine will be used in the IDRS to refer to the drugs available in this class.

As methamphetamine markets across the country have expanded over the past few years, it has become apparent that there is a diversity of forms of methamphetamine sold in the Australian illicit drug market. While there is some disagreement among both users and researchers as to the nature of these forms, it is clear that these are marketed differently to IDU and often sold on differing price scales. As such, trends in regard to each of these forms will be discussed separately where appropriate.

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

Powder form methamphetamine⁶ 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, yellow, brown, orange or pink), depending on the chemical process used in its production and the quality of that process. It is produced within Australia, most commonly in small, portable 'laboratories', and is usually based on pharmaceutical pseudoephedrine (extracted from, for example, *Sudafed* tablets). Because of its powder form, it is fairly easy to 'cut' (dilute) and is commonly sold at fairly low purity/potency (although this can vary substantially). In the 2003 IDRS survey, IDU that reported using each 'form' of methamphetamine were asked to indicate what each 'form' they had purchased in the past six months most closely resembled from a series of exemplars (see Bruno & McLean, 2004)⁷, and methamphetamine powder was commonly reported as a beige/yellowy/off-white powder.

⁵ Methamphetamine is an abbreviation of the name methylamphetamine, and as such, both terms are interchangeable.

⁶ Powder form methamphetamine is also referred to in National and other jurisdiction IDRS reports as 'speed'.

⁷ The exemplars provided, along with a discussion of the proposed groupings of the pictures, is available at: <http://ndarc.med.unsw.edu.au/ndarc.nsf/website/IDRS.bulletins>, and an article discussing evolving changes in Australian methamphetamine markets by Topp and Churchill (2002) is also accessible at the same address.

The two other 'forms' of methamphetamine are traditionally higher in potency (due to being more difficult to 'cut') and have been increasing in availability across all Australian Jurisdictions in the past few years (Topp et al, 2002). The first, referred to in some jurisdictions as 'base' or 'paste' is commonly a gluggy, oily, 'wet' powder. Although it does not seem to have a particular moniker in Tasmania, it is usually sold in units of 'points' (0.1 grams) in comparison to powder methamphetamine, which is traditionally sold in gram units at similar prices. 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 2003 IDRS IDU survey (Bruno & McLean, 2004), respondents that had recently purchased this form of the drug locally reported it as appearing as a 'oily', 'gunky', 'gluggy' gel, brown or 'bloody' in colour (not unlike tree sap, burnt sugar or dried honey).

The final form of methamphetamine, often referred to as 'ice' or 'crystal meth(amphetamine)' is the product of a careful production process, and is believed to chiefly be imported into Australia from Asian countries (Topp & Churchill, 2002), although there are also indications of local production in recent years (ACC, 2003). It commonly appears as clear, ice-like, crystals, and as such, is difficult to 'cut' (dilute), resulting in a relatively high-purity/potency product. Those 2003 IDRS IDU survey respondents that had recently purchased this form locally commonly described this form as white / clear crystals or rocks, looking like crushed glass or rock salt (with crystals commonly larger than sugar crystals).

Ninety percent of the respondents on the IDU survey were able to confidently comment on at least some aspects of the price, purity and availability of some form of methamphetamine. For the 2004 IDRS, IDU were asked to differentiate between methamphetamine powder, 'base/paste' and crystalline methamphetamine. This distinction had a good level of face validity to those IDU surveyed, despite there often being a substantial amount of overlap in the physical form of these 'groups'. IDU reported making these distinctions on the basis of physical form, purchase cost and potency of subjective simulant effect. Thirty IDU were able to report distinct trends for all three 'forms' of methamphetamine, 33 reported trends on two 'forms', while 27 reported on trends in regard to a single form. Fifty-nine IDU reported trends on methamphetamine powder, 69 reported on 'base/paste', and 55 on crystalline methamphetamine (in the 2003 survey, the respective figures were 59, 69 and 55 participants).

Ninety-four percent of the IDU sample had used methamphetamine or pharmaceutical stimulants (91% had used methamphetamine) at some time in the six months prior to interview (in the 2003 study, 88% of the IDU cohort had recently used some form of methamphetamine). Participants that had used methamphetamine in the past six months (n=94), and those that reported methamphetamine as the drug they most often injected in the preceding month (n=36) were similar to other IDU (see Section 2.1) in terms of sex, cultural background, accommodation type, frequency of injection, educational and employment levels and prison history. However, those that had used methamphetamine

in the preceding six months were significantly younger than those that had not (29.0 years vs. 35.9 years: Mann-Whitney $U = 186.0$, $p=0.007$) and had a significantly shorter injection career than those that had not (10.4 years vs. 15.6 years: Mann-Whitney $U = 229.0$, $p=0.029$). Those that reported methamphetamine as the drug they had most often used in the preceding six months were significantly less likely to be in treatment at the time of interview (48.3% vs. 74.6%: $\chi^2(1, n=100) = 6.5$, $p = 0.011$) and were significantly more likely to select methamphetamine as their drug of choice (51.7% vs. 5.6%: $\chi^2(11, n=100) = 41.3$, $p < 0.01$).

Fourteen key experts reported on groups that primarily used methamphetamine. Key experts included justice workers / police ($n=2$), an outreach support worker ($n=1$), needle availability program workers ($n=7$), alcohol and other drug-specific workers ($n=3$) and a general health worker. Key experts were familiar with methamphetamine users from virtually the whole range of Hobart suburbs, including the northern suburbs ($n=6$), eastern shore ($n=5$), and inner Hobart suburbs ($n=5$). Locations mentioned tended to be in lower socio-economic regions, although this is likely to simply reflect the nature of the services the key experts worked for, as the majority were in the public sector. All key experts described primary users of methamphetamine from an English-speaking background, covering an age range between 15 and 50. Reported modal ages matched this wide spectrum, with key experts referring to groups ranging between 18 and 30, although the median modal age reported was 25. In IDRS reports previous to 2003, the methamphetamine users described by key experts were predominantly males (70%) while in the 2003 study, key experts reported a closer balance between genders (mode of 60% male), however in the current study, while the estimates of the proportion of male methamphetamine users that the KE were familiar with ranged from 40-99% male, the mode had returned to 70% male. Education history of methamphetamine users described covered the whole range from low levels to university graduates. Key experts described methamphetamine users with high levels of unemployment, with the remainder in a range of part-time and full-time occupations.

5.1 Price

As discussed above, and indicated in previous Tasmanian IDRS reports, it is clear that there are three main 'forms' of non-pharmaceutical methamphetamine available in Hobart, each with separate pricing schedules (more apparent at larger purchase amounts), which will be discussed separately.

IDU reported the modal price of 'base/paste' methamphetamine as costing \$50 per 'point' (0.1 g: modal price estimate \$50, range \$30-80, $n=60$), and \$300 per gram (modal price estimate \$300, range \$300-400, $n=6$). This represents a slight drop in price in comparison to the modal estimated costs reported in the 2003 survey (\$350 per gram). These price estimates are reasonably consistent with the modal prices reported as actually paid for their last purchased 'point' of 'base/paste' methamphetamine (mode = \$50, range \$35-80, $n=45$) and last gram (mode = \$300, range \$200-350, $n=7$: Table 13).

Modal market price reported by IDU for the higher-purity crystalline methamphetamine/'ice' was again, \$50 per 'point' (0.1 g: modal price estimate \$50, range \$50-80, $n=46$), and \$350 per gram (range \$350-600, $n=5$). These corresponded closely with the price IDU reported as actually paying for their last 'point' of crystalline

methamphetamine (mode = \$50, range \$30-80, n=34) and last gram (median = \$400, range \$280-500, n=7: Table 13).

The median (there was no single mode reported) market price reported by IDU for the traditional powder methamphetamine was \$100 for a gram (range \$50-350, n=7), which was substantially lower than the price IDU reported as paying for their last gram (mode \$300, median \$290, range \$50-350, n=10: Table 13). Modal market prices for a 'point' of methamphetamine powder (mode \$50, range \$40-80, n=53), however, more closely matched the prices most recently paid by IDU (mode \$50, range \$40-50, n=34). The discrepancy in price of the larger purchase amounts of the drug most likely reflects the fact that powder methamphetamine is sold in widely varying degrees of purity due to its easy 'cutting' with other substances.

Reported modal prices for the last purchase of pharmaceutical stimulants were \$5 per 10mg methylphenidate tablet (Ritalin, Attenta: range \$0-10, n=12) and \$5 per 5mg dexamphetamine tablet (range \$0-15, n=52, Table 13).

Ten key experts could confidently comment on costs of methamphetamine to the groups that they were familiar with, reporting prices reasonably consistent to those detailed by the IDU: \$35-50 per 'point' of methamphetamine (mode \$50, n=8); \$50-300 per gram of methamphetamine powder (n=2); and \$50-80 per 'point' of crystal methamphetamine (n=3).

The majority of both key experts and IDU who commented on price of any form of methamphetamine reported that prices had remained stable over the preceding six months (all key experts referring to methamphetamine generally, n=3; with others also all suggesting a stability of prices for the 'paste/base' forms, n=2; methamphetamine powder, n=2; and crystal methamphetamine n=1⁸; 81% of IDU referring to powder, n=42; 90% of IDU referring to base, n=55; 77% of IDU referring to crystal methamphetamine, n=33; and 68% of IDU referring to pharmaceutical stimulants, n=32).

A minority of IDU felt that there had been price changes in regard to methamphetamine powder (6% reporting increasing prices, n=3; 8% fluctuating prices, n=4; and 6% decreasing prices, n=2). A small proportion reported changes in 'base/paste/methamphetamine prices (7% fluctuating prices, n=4; and 2% each that the price had increased and decreased, n=1 respectively). There was a clearer perception amongst IDU respondents (albeit still a minority) that the price of crystal methamphetamine had increased in the preceding six months (19% reporting increasing prices, n=8; 2% respectively suggesting decreasing and fluctuating prices, n=1 respectively). Similarly, there was a clear but minority perception that the price of (diverted) pharmaceutical stimulants had increased in the preceding six months (21%, n=10), with smaller numbers of respondents suggesting fluctuating (9%, n=4) or decreasing prices (2%, n=1) in the preceding six months.

While the small number of participants reporting prices for some purchase categories, and the high variability of reported prices (Table 13) renders clear comparisons difficult,

⁸ While other key informants discussed trends in methamphetamine, all of those referring to price of methamphetamine felt that the price had remained stable in the preceding six months, with all other respondents not being able to provide any response to the question as it was outside the scope of their knowledge.

it appears that, concordant with IDU reports, market prices for methamphetamine remain reasonably similar to those reported in the 2003 IDRS. There are some indications, however, for an increase in the price of crystal methamphetamine and a possible decrease in the price of methamphetamine powder, particularly in relation to larger purchase amounts of the drug.

Tasmania Police area drug bureaux gather regular information regarding current prices of illicit drugs, both through informant reports and covert drug purchases. 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 Australian Crime Commission). During the 2003/04 financial year, Tasmania Police reported prices as being \$50-70 per 'point' (0.1g) of methamphetamine, \$300-600 per gram, and \$3000-10000 per ounce (Table 14). These prices were reasonably consistent with IDU and KE reports of prices in the current survey, although over a longer time period, providing support for IDU and KE suggestions that the price of methamphetamine had remained stable in the preceding six months. It should be noted that the prices reported in Table 14 for the 2003/04 financial year are substantially greater than those reported for the 2001/02 financial year. It is likely that this change is due to a shift in focus in that the earlier reported prices were primarily reflective of the prices of methamphetamine powder, which was the form that Tasmania Police were primarily identifying at this time.

Table 13: Most common amounts and prices of methamphetamine purchased by IDU, 2000-2004

Descriptor*	2000 Survey Modal Price (range in parentheses)	n	2001 Survey Modal Price (range in parentheses)	n	2002 Survey Modal Price (range in parentheses)	n	2003 Survey Modal Price (range in parentheses)	n	2004 Survey Modal Price (range in parentheses)	n
Crystal Methamphetamine										
<i>'point' or packet (0.1 g: 0.05-0.1 g)</i>	#	#	#	#	\$50 (\$20-120)	12	\$50 (\$20-70)	49	\$50 (\$30-80)	34
<i>2 points (0.2 g: 0.15-0.2 g)</i>	#	#	#	#	\$150	1	\$65 (\$50-80)	4	\$100	1
<i>quarter-gram (0.25 g: 0.2-0.3 g)</i>	#	#	#	#	\$180	1	-	-	-	-
<i>half-gram (0.5 g: 0.4-0.6 g)</i>	#	#	#	#	\$275 (\$200-275)	3	\$195† (\$190-300)	4	\$200 (\$180-250)	6
<i>gram (1.0 g)</i>	#	#	#	#	\$400	1	\$350† (\$150-500)	8	\$400* (\$280-500)	7
Methamphetamine base/paste#										
<i>'point' or packet (0.1 g: 0.05-0.1 g)</i>	\$50 (\$40-100)	52	\$50 (\$50-80)	34	\$50 (\$25-80)	66	\$50 (\$50-80)	24	\$50 (\$35-80)	45
<i>2 points (0.2 g: 0.15-0.2 g)</i>	\$80 (\$70-100)	19	\$80 (\$50-100)	13	\$80† (\$50-150)	7	\$70 (\$50-80)	4	\$80 (\$70-80)	2
<i>quarter-gram (0.25 g: 0.2-0.3 g)</i>	-	-	-	-	\$100 (\$100-150)	4	-	-	\$150* (\$100-200)	2
<i>half-gram (0.5 g: 0.4-0.6 g)</i>	\$250 (\$150-250)	3	\$150 (\$50-400)	18	\$200 (\$80-400)	32	\$200 (\$150-400)	8	\$200 (\$100-250)	21
<i>gram (1.0 g)</i>	\$350 (\$280-400)	8	\$400 (\$80-450)	17	\$400	29	\$300† (\$200-400)	6	\$300 (\$200-350)	7
Methamphetamine powder										
<i>'point' or packet (0.1 g: 0.05-0.1 g)</i>	-	-	\$50 (\$40-80)	15	\$50 (\$50-60)	12	\$50 (\$40-80)	27	\$50 (\$40-50)	34
<i>half-gram (0.5 g)</i>	\$50	3	\$50 (\$50-60)	4	\$50 (\$50-800)	10	\$70† (\$50-200)	4	\$160* (\$30-250)	16
<i>gram (0.8 g: 0.8-1.0 g)</i>	\$80 (\$50-100)	6	\$50 (\$50-100)	5	\$80 (\$50-450)	18	\$215† (\$80-400)	8	\$300 (\$50-350)	10
Pharmaceutical stimulants										
<i>dexamphetamine tablet (5 mg)</i>	-	-	\$5 (\$1-10)	29	\$2 (\$2-5)	5	\$5 (\$1-10)	40	\$5 (\$0-15)	52
<i>methylphenidate tablet (10 mg)</i>	-	-	\$5 (\$2-10)	14	-	-	\$5 (\$1-10)	23	\$5 (\$0-10)	12

Source: IDRS IDU interviews *Note: Common quantities and weight range for each purchase unit in parentheses, †Median price was substituted where no single mode was reported. #Note: prior to 2002, higher purity methamphetamine was not separated into 'crystal' and 'base/paste' forms; as base/paste methamphetamine was the predominant form of higher purity methamphetamine available on the market during these years, prices have been allocated to this form, however, due caution should be made when inferring price changed based on this data.

Table 14: Methamphetamine prices in Tasmania reported by the Tasmania Police Drug Bureaux, 1996-2004

	Point (~0.1g)	Street Gram (0.6-0.8g)	Full Gram (1.0g)	Ounce (28 gms)
July-Sept 1996	<i>price not reported</i>	\$50-80	\$100-120	\$1400
Oct-Dec 1996	<i>price not reported</i>	\$50-80	\$100-120	\$1400
Jan-Mar 1997	<i>price not reported</i>	\$50-80	\$100-120	\$1400
April-June 1997	<i>price not reported</i>	\$70-80	\$100-120	\$1400
July-Sept 1997	<i>price not reported</i>	\$50	\$100-120	\$1200-1400
Oct-Dec 1997	<i>price not reported</i>	\$50	\$100-120	\$1400-1600
Jan-Mar 1998	<i>price not reported</i>	\$50	\$70-100	\$1400-1600
April-June 1998	<i>price not reported</i>	\$50	\$70	\$1400-1600
July-Sept 1998	<i>price not reported</i>	<i>price not reported</i>	<i>price not reported</i>	<i>price not reported</i>
Oct-Dec 1998	<i>price not reported</i>	\$50	\$70-80	\$1200-1400
Jan-Mar 1999	<i>price not reported</i>	\$50	\$70-80	\$1200-1400
April-June 1999	<i>price not reported</i>	\$50	\$70-80	\$1200-1400
July-Sept 1999	\$50	<i>price not reported</i>	<i>price not reported</i>	<i>price not reported</i>
Oct-Dec 1999	\$50	\$50	\$70-80	\$1200-1400
Jan-Mar 2000	\$40-50	\$40-50	\$70-80	\$1200-1400
April-June 2000	\$40-50	\$40-50	\$70-80	\$1200-1400
July-Sept 2000	\$40-50	\$40-50	\$70-80	\$1200-1400
Oct-Dec 2000	<i>price not reported</i>	\$40-50	\$70-80	\$1200-1400
Jan-Mar 2001	\$40-50	\$40-50	\$70-80	\$1200-1400
April-June 2001	\$40-50	\$40-50	\$70-80	\$1200-1400
July-Sept 2001	\$40-50	\$40-50	\$70-80	\$1200-1400
Oct-Dec 2001	\$40-50	\$40-50	\$70-80	\$1200-1400
Jan-Mar 2002	\$40-70	\$40-50	\$70-80	\$1200-1400
April-June 2002	\$40-70	\$40-50	\$70-80	\$1200-1400
July-Sept 2002	\$50-60	<i>price not reported</i>	<i>price not reported</i>	<i>price not reported</i>
Oct-Dec 2002	\$50-60	<i>price not reported</i>	<i>price not reported</i>	\$3500-5000
Jan-Mar 2003	\$50	\$100-300	\$200-300	\$5000
April-June 2003	\$50	\$150	\$400	\$5000-6000
July-Sept 2003	\$50-70*	\$100-300	\$300-600*	\$3000-10000*
Oct-Dec 2003	\$50-70*	\$100-300	\$300-600*	\$3000-10000*
Jan-Mar 2004	\$50-70*	\$100-300	\$300-600*	\$3000-10000*
April-June 2004	\$50-70*	\$100-300	\$300-600*	\$3000-10000*

Source: Australian Crime Commission; Tasmania Police State Intelligence Services; *Note: these prices are those reported by Tasmania Police State Intelligence Services. For this period, the Australian Crime Commission reported the following prices: \$50-60 per 0.1g; \$200-400 per 1.0g; \$3500-6000 per ounce.

5.2 Availability

Across all 'forms' of methamphetamine, most KE and IDU reporting on availability suggested that the drug was easy or very easy to obtain (IDU: very easy 43%, easy 44%; KE: very easy 65%, easy 35%), and that availability had remained stable (IDU: 59%; KE: 39%) or had increased (IDU: 20%; KE 39%) in the preceding six months. Trends for each 'form' of the drug are discussed separately below.

Almost all IDU sampled who could comment on the availability of powder form methamphetamine thought it was easy or very easy to obtain (94%, n=52), with the majority (49%, n=27) reporting that it was very easy to access. The clear majority also reported that the availability of powder methamphetamine had remained stable in the preceding six months (65%, n=36), with smaller proportions reporting an increase (22%, n=12), decrease (7%, n=4) or fluctuating (5%, n=3) availability.

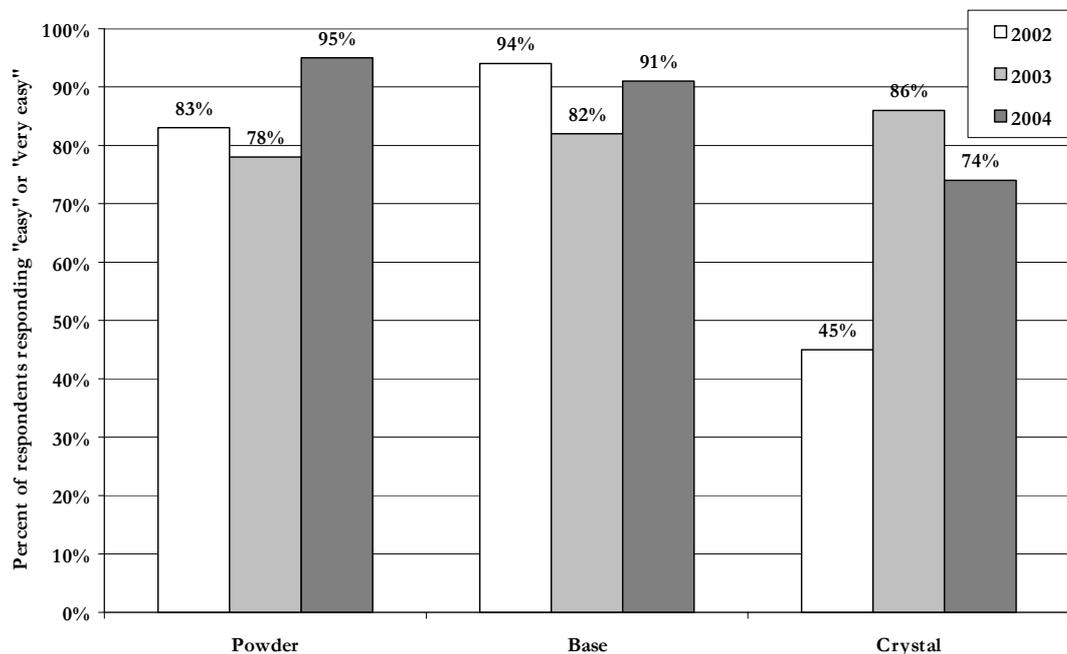
In regards to 'base/paste' forms of methamphetamine, remarkably similar trends were reported, with 53% (n=35) of IDU reporting it as very easy to obtain, and 38% (n=25) regarding this form as easily accessed. Just 8% (n=5) suggested that it had been difficult for them to access 'base/paste' methamphetamine in the preceding six months. Again, most regarded this level of availability as remaining stable during this time (68%, n=44), although 25% (n=16) reported increased availability, and 8% (n=5) decreased availability.

Trends were slightly different for crystalline methamphetamine. This form of the drug was substantially less commonly used by IDU in IDRS studies prior to 2003, with just 45% reporting it was 'easy' or 'very easy' for them to access the drug. In 2003, there were clear indications that the availability of this form of the drug had increased substantially, with 86% of those responding suggesting that it was 'easy' (37%) or 'very easy' (52%) for them to access this form. However, in 2004, it appears that this trend has somewhat reversed: only 22% (n=10) perceived that it was very easy for them to access crystal methamphetamine in the preceding six months, and 52% (n=24) reported that it was 'easy' for them to access this form. Consistent with this trend, while the largest proportion of those responding on availability trends perceived availability of crystal methamphetamine to have remained stable in the preceding six months (46%, n=21), a substantial minority (26%, n=12) suggested that the drug had become more difficult to access in the preceding six months. It should be noted that 22% (n=10) also suggested that availability had increased in this time. Part of the reason for this discrepancy will be apparent in subsequent sections: there has clearly been a decrease in the proportion of respondents reporting recent use of the drug, and Tasmania Police report that they made a substantial impact on the supply chain for this form of the drug locally during December 2003, which would mean that the availability change would have occurred just outside the range of the six monthly window that IDU participants are asked to report on.

In contrast to these reports of easy availability of most illicit forms of stimulants, IDU indicated that prescription stimulants such as dexamphetamine or methylphenidate were more challenging to access, with a greater proportion indicating that these were difficult or very difficult (61%, n=30) to access, rather than being easy or very easily (39%, n=19) accessed. The majority of IDU also that the availability of these stimulants had not changed (52%, n=24) in the six months prior to interview, although a substantial proportion had reported that availability had decreased (26%, n=12) in this time.

As can be seen from Figure 2 below, IDU reports of availability of powder and base/paste methamphetamine have increased somewhat when compared to the results of the 2002 IDRS. However, fitting with IDU reports of slightly decreased availability of crystal methamphetamine in 2004, the proportion of IDU regarding this form of the drug as easily or very easily available has dropped more than 10% from the 2003 study (86%) to 2004 (74%), in contrast to the near-doubling in reported ease of availability between 2002 (45%) and 2003 (86% reporting the form as easy or very easily accessed).

Figure 2: IDU reports of ease of availability of different methamphetamine forms: 2002-2004 IDRS



Source: IDRS IDU Interviews

Tasmania Police seizures (Table 15) of methamphetamine have continued a downward trend, following a reasonably stable level of seizures in the 2000/01 and 2001/02 financial years (3030g and 3041g respectively), falling to 2022g in 2002/03 and 1182g in 2003/04⁹. However, this may be a reflection of a changing methamphetamine market, where 0.1g ('point') units are currently the most commonly sold amounts (in comparison to 1g amounts when powder methamphetamine was predominant). As an example of this, Tasmania Police seized 17.3 grams of crystalline methamphetamine in the 2003/04 financial year.

There does not appear to be a substantial street-based methamphetamine scene, with the majority of IDU usually purchasing the drug (over all forms) from dealer's homes (35%), through friends (36%) or mobile dealers (17%: Table 16). IDU reported that

⁹ Data reported by the Australian Crime Commission (ACC) differs to that provided by Tasmania Police State Intelligence Services (SIS), with the ACC reporting 109 seizures, totalling 1737g of 'amphetamine-type stimulants' made in Tasmania during the 2003/04 financial year. As the other data reported in Table 15 represent SIS figures, SIS figures for 2003/04 are reported for consistency.

methamphetamine powder was most commonly purchased at a dealer's home (36%), through a friend (35%), or via a mobile dealer (16%), with only 7% reporting most commonly purchasing this form of methamphetamine from a street dealer. Participants reported it taking a median time of 20 minutes (range 0-120 minutes) to score methamphetamine powder in the preceding six months. Similar patterns were reported for 'base/paste' methamphetamine, with 36% most commonly purchasing from a dealer's home, 32% via a friend, and 18% commonly purchasing via a mobile dealer, with just 3% most commonly purchasing 'base/paste' from a street dealer. Base was reported as usually taking a median time of 28 minutes to score (range 1-120 min) in the preceding six months. Crystalline methamphetamine was reported as most commonly being purchased through a friend (43%) or from a dealer's home (30%), with only a small number of IDU reporting usually purchasing this form from a street dealer (6%) or importing it from a mainland jurisdiction (2%). Participants reported it usually taking a median time of 30 minutes to score crystal methamphetamine in the preceding six months.

Table 15. Tasmania Police data for methamphetamine: July 2000-June 2004

	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
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Methamphetamine Powder Seized (g)*

<i>South</i>	1113	330	469	1077	882	457	96	495
<i>North</i>	17	86	70	1	196	27	23	44
<i>West</i>	1073	411	822	602	144	316	469	55
total	2203g	827g	1361g	1680g	1222g	800g	588g	594g
% within southern region	51%	40%	34%	64%	72%	57%	16%	83%

Methamphetamine Tablets Seized

<i>South</i>	2	0	1	1	24	21	146	0
<i>North</i>	4	17	0	0	13	11	43	3
<i>West</i>	0	0	0	42	1	0	0	0
total	6	17	1	43	38	32	189	3
% within southern region	33%	0%	100%	2%	63%	66%	77%	100%

Price in Southern District

<i>Taste</i>	\$40-50	\$40-50	\$40-50	\$40-70	n/r	n/r	\$50-70	\$50-70
<i>Gram</i>	\$70-80	\$70-80	\$70-80	\$70-80	n/r	n/r	\$300-600	\$300-600

Source: Tasmania Police State Intelligence Services *This row includes powder seized and verified as containing methamphetamine, and unknown powder seized, believed to be methamphetamine; n/r: information was not available for inclusion in the current report.

Table 16: Pathways to access of methamphetamine by IDU

	Methamphetamine form			
	Powder (n=56) %	'Base/paste' (n=66) %	'Ice'/Crystal (n=47) %	All Forms (n=168) %
Usual Access				
<i>Street Dealer</i>	7 (n=4)	3 (n=2)	6 (n=3)	5 (n=9)
<i>Dealer's Home</i>	36 (n=20)	36 (n=24)	30 (n=14)	35 (n=58)
<i>Friend</i>	35 (n=19)	32 (n=21)	43 (n=20)	36 (n=60)
<i>Mobile Dealer</i>	16 (n=9)	18 (n=12)	15 (n=7)	17 (n=28)
<i>Home Delivery</i>	4 (n=2)	8 (n=5)	4 (n=2)	5 (n=9)
<i>Gift</i>	2 (n=1)	2 (n=1)	-	1 (n=2)
<i>Sent down from mainland</i>	-	2 (n=1)	2 (n=1)	1 (n=2)
Median Time To Access	20 min (range 0-120 min)	28 min (range 1-120 min)	30 min (range 0-360 min)	

Source: IDRS IDU Interviews

5.3 Purity

IDU participants that had recently used the various methamphetamine 'forms' were asked to rate their subjective purity.

When asked to describe the purity of powder form methamphetamine, IDU responses were quite mixed, with 32% (n=17) describing it as low purity, 38% (n=20) describing it as medium in purity, 9% (n=5) as high in purity, and 21% (n=11) reporting purity as having fluctuated in the preceding six months. There was also some dissention in regard to the stability of this level or purity, with 31% (n=15) reporting that purity had fluctuated in the past six months, 25% believing that purity had remained stable (n=12), 29% reported that purity had decreased in this time (n=14), and 15% (n=7) that purity had increased in the preceding six months.

The purity of 'base/paste' methamphetamine also appears to be quite variable, with 16% (n=10) reporting purity to have fluctuated in the preceding six months, 8% (n=5) that base/paste was low in purity, 45% (n=29) reporting that this form was medium in purity, and 31% (n=20) that 'base/paste' was quite high in purity. When asked about the stability of the purity of 'base/paste' methamphetamine, 29% (n=17) reported that this fluctuated, although 39% (n=23) reported purity as having remained stable, with 29% (n=17) reporting that purity had increased, and 3% (n=2) that purity had decreased, in this time.

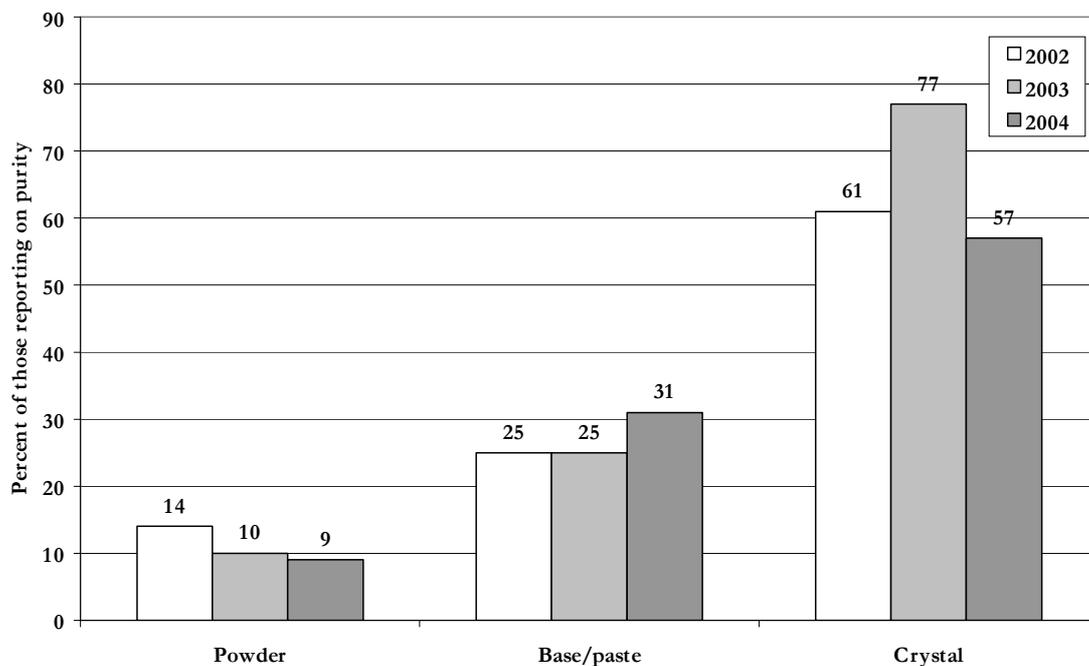
Crystalline methamphetamine was generally regarded as high (57%, n=27) or medium (28%, n=13) in purity by IDU. Most reported this level of purity to have remained stable (35%, n=15) or to have increased in the preceding six months (35%, n=15), with a small number of IDU reporting fluctuating (23%, n=10), and decreasing (7%, n=3) purity levels in this time.

Several key experts felt confident in reporting on the purity of methamphetamine available to the groups they were familiar with, and these reports were similar to those from IDU: those referring to methamphetamine powder perceived the purity levels for this form as being medium (n=3) or

low (n=1), and that this had fluctuated (n=2) or remained relatively stable (n=2) in the preceding six months; in reference to ‘base’ or ‘paste’ methamphetamine, key experts reported a medium (n=1) or high (n=1) level of purity, and that this had remained stable (n=1) or increased (n=1) in the six months prior to interview; all key experts referring to crystal methamphetamine reported that this form was high in purity and had remained so over the preceding six months (n=3 respectively). Three key experts talked about the purity of methamphetamine generally, considering it a ‘medium’ level of purity overall (n=1) or generally fluctuating in purity (n=1); with two reporting that purity in general had increased and one that purity had decreased in the preceding six months.

Figure 3 displays the proportion of those reporting on purity levels of the different ‘forms’ of methamphetamine in each of the 2002, 2003 and 2004 Tasmanian IDRS studies. Taking into account the varying number of respondents in each of these surveys reporting on purity levels, this figure suggests that there has been little change in overall reports of purity for the powder and base/paste forms of methamphetamine, however, in keeping with the somewhat decreased availability of crystalline methamphetamine identified in the current study, there are suggestions that the purity of this form of the drug locally may have also declined slightly in the preceding six months.

Figure 3: Proportion of IDU reporting methamphetamine powder, base/paste and crystal methamphetamine purity as ‘high’, 2002-2004



Source: IDRS IDU Interviews

Data for purity of methamphetamine received at police analytical laboratories has been provided for the 1997/98 to 2003/04 financial years (Table 17, Table 18). All amphetamine-type stimulants tested for purity during 2003/04 were methylamphetamine rather than amphetamine. Drugs seized by Tasmania Police are only tested for composition and purity if the alleged offender pleads not guilty to the associated charge. Hence, purity data for drug seizures in the state are minimal. This very restricted sample size renders it difficult to make inferences about trends in purity of methamphetamine. However, the data does seem to suggest that the level of

purity of consumer-type amounts of methamphetamine seized in Tasmania has remained relatively stable over the period 1997/98 to 2000/01. The apparent sharp ‘jump’ in purity of analysed methamphetamine samples between 2000/01 and 2001/02 relates to samples analysed in the October-December 2001 and January-March 2002 period (Table 18). This increase in purity may have simply reflected the analysis of a more representative sampling of methamphetamine seizures (afforded by the greater sample size) rather than being indicative of changes in market purity, particularly given the decline in both number and purity of analysed seizures in subsequent months (Table 18). Overall purity data in 2003/04 represents a slight increase in purity (17%) when compared to those analysed in the previous year (12%: Table 17), and are in line with IDU and KE reports of ‘medium’ purity levels of the drug. That noted, however, the range in purity levels has remained relatively stable in the past three financial years (0.1-71% in 2001/02; 2-79% in 2002/03; 2-80% in 2003/04). As shown in Table 18, the higher-purity seizures were those of small amounts (purity range of 2-81% for seizures of 2 grams or less, and 4-22% for larger seizures analysed in 2003/04). Anecdotal reports from Tasmania Police suggest that these particularly high-purity samples may have been seizures of small amounts of crystal methamphetamine.

Table 17. Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 1997/98 – 2003/04

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
<=2 g							
<i>n</i>	4	31	9	10	20	30	9
<i>avg % purity</i>	5 %	5 %	7.4 %	10.4%	26.6%	12.7%	25.6%
> 2g							
<i>n</i>	2	8	11	14	28	13	14
<i>avg % purity</i>	7 %	21 %	6.6 %	3.6 %	19.2%	11.2%	9.8%
5.3.1 Total							
<i>n</i>	6	39	20	24	48	43	23
<i>avg % purity</i>	6 %	8 %	7 %	6.4 %	22.2%	12.2%	16.9%
<i>Range in % purity</i>	3-8%	2-59%	2-26%	0.5-50%	0.1-70.6%	1.9-78.5%	2.4-80.5%

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 during this period. All analysed seizures of amphetamines in this period revealed methylamphetamine rather than amphetamine.

Table 18. Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, July 1999-June 2004

	Jul-Sep 1999	Oct-Dec 1999	Jan-Mar 2000	Apr-Dec 2000	Jan-Mar 2001	Apr-Jun 2001	Jul-Sep 2001	Oct-Dec 2001	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Jan-Mar 2003	Apr-Jun 2003	Jul-Sep 2003	Oct-Dec 2003	Jan-Mar 2004	Apr-Jun 2004
<=2 g																		
<i>n</i>	2	1	6	-	9	1	1	6	12	1	3	4	4	19	2	2	4	1
<i>median % purity</i>	15.3%	3.0%	6.0%	-	3.2%	5.2%	9.0%	31.1%	26.0%	6.7%	6.4%	5.9%	13.1%	13.1%	40.0%	28.4%	50.6%	16.9%
> 2g																		
<i>n</i>	1	2	8	-	12	2	6	7	13	2	1	4	7	1	8	1	5	-
<i>median % purity</i>	6.0 %	2.5%	6.0%	-	3.8%	3.1%	5.5%	30.1%	20.0%	18.5%	6.3%	10.4%	12.8%	7.6%	17.4%	15.4%	4.1%	-
Total																		
<i>n</i>	3	3	14	-	21	3	7	13	25	3	4	8	11	20	10	3	9	1
<i>avg % purity</i>	6.0%	2.5%	6.0%	-	3.4%	4.3%	6.8%	30.1%	24.9%	6.7%	6.4%	10.4%	12.8%	13.0%	17.4%	25.6%	4.1%	16.9%

Source: Australian Bureau of Criminal Intelligence; Australian Crime Commission; Tasmania Police State Intelligence Services. Note: No seizures made by the Australian Federal Police in Tasmania were submitted for purity testing in this period. All analysed seizures of amphetamines in this period revealed methylamphetamine rather than amphetamine. Figures represent the purity of seizures received at the laboratory within the relevant quarter, and the interim between the date of seizure by police and the date of receipt at the laboratory may vary between one day and several months.

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 organised motorcycle groups or particular criminal groups, via post or domestic sea or air terminals. While this situation overall may not have changed, there have been suggestions in recent years that local production of methamphetamine may be increasing: in 2001/02, three illegal methamphetamine production laboratories (or 'box labs') were detected by Tasmania Police, an increase from the one located in 2000/01; and in the past three IDRS studies (including the current study), there have been anecdotal reports from law-enforcement-related key experts of a possible increase in local production of the drug. As detailed in the 2002 IDRS report, police intelligence at the time suggested that the methamphetamine produced in local methamphetamine 'laboratories' is based on pharmaceutical pseudoephedrine, and local methamphetamine laboratories are increasingly using pharmacy-grade reagents (iodine in particular) in the production of the drug. Reports from the current series of interviews suggest that similar processes continue to be used in local production. In both the 2003 and current studies, law-enforcement key experts report that there is no evidence for local production of crystal methamphetamine (with local producers generally producing base/paste or powder), but that this form of the drug was commonly imported from mainland jurisdictions.

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 support of this, in the 2002 IDRS study, several IDU 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.

5.4 Use

Prevalence of methamphetamine use

The most recent survey of methamphetamine use within the general community of Tasmania was undertaken within the 2001 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2002), which sampled 1349 Tasmanian residents. Results indicated that 2.1% (n=28) had used the drug in the 12 months prior to interview. This is a slight increase from the 1.6% of those sampled in the 1998 Household Survey (Australian Institute of Health and Welfare, 1999; sample size = 1,031) reporting use of the drug in the preceding 12 months. Lifetime prevalence of methamphetamine use is not available from the 2001 Survey, but the 1998 survey indicated that 6.3% of those sampled reported ever using methamphetamine. The 2001 survey estimates 3,700 injecting drug users aged 14 years and over in the state, with methamphetamine being the predominant drug injected amongst these individuals (86% of recent injecting drug users injecting methamphetamine, 41% injecting other opiates – morphine or methadone). In comparison, all of the respondents in the 1998 Survey that reported injecting illicit drugs (n=6) in the 12 months prior to interview had injected methamphetamine.

The Australian School Students Alcohol and Drugs (ASSAD) Survey (Cancer Council of Tasmania, 1997) sampled 2,553 students in years 7 to 12 from schools across Tasmania during the 1996 school year, and 2,671 students in 1999 (Cancer Council of Tasmania, 2001). Results were divided between 12-15 year olds, and 16-17 year olds. Within the

younger age group, in the 1996 study, 6% of those sampled reported ever using methamphetamine, with 4% reporting lifetime use of the drug in the 1999 study. In regard to recent use, 2% of those interviewed in 1996 and 3% of those interviewed in the 1999 study reported use in the month prior to interview. Reported lifetime use among 16-17 year olds surveyed was slightly higher, with 5% of those surveyed in 1996 and 7% of those surveyed in 1999 ever using methamphetamine, but 3% of those sampled in both studies reported using the drug in the month prior to interview. These rates are generally consistent with those found in the 2001 and 1998 National Drug Strategy Household Surveys, and there were no significant changes in patterns of methamphetamine use between the 1996 and 1999 ASSAD surveys.

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 2003/04. These figures may underestimate the level of use amongst this group however, due to the relatively rapid elimination of this drug from the body.

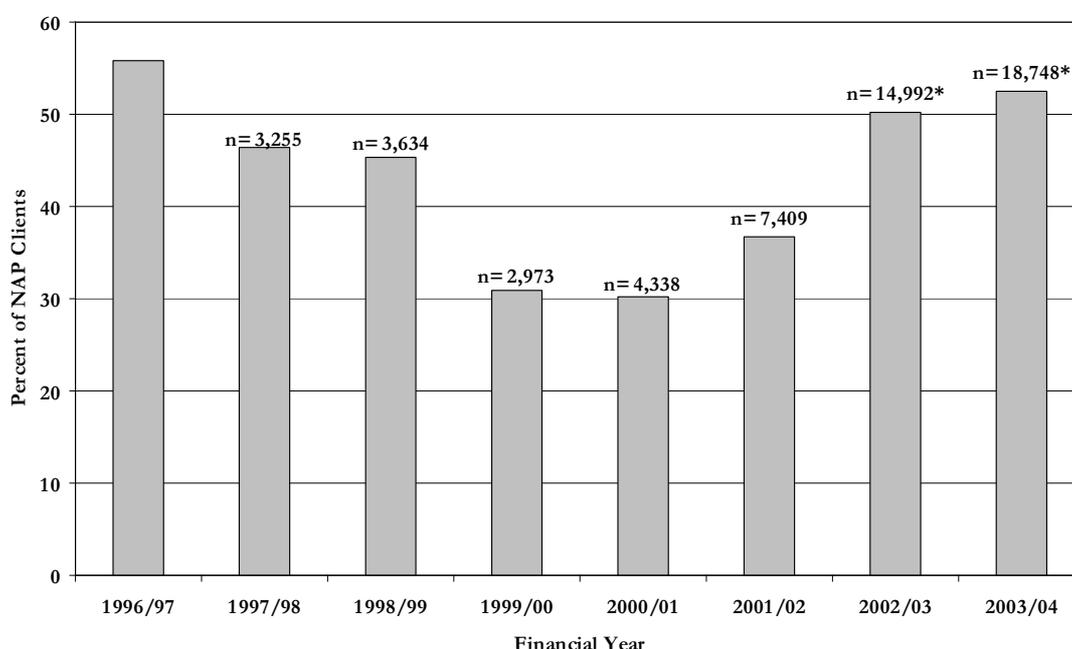
Methamphetamine use among IDU

The Australian Needle and Syringe Program Survey (Thein, Maher & Dore, 2004: National Centre in HIV Epidemiology and Clinical Research on behalf of the Collaboration of Australian Needle and Syringe Programs) takes an annual one-week survey of individuals presenting to Needle Availability Program Outlets. Those that participate in the survey are asked, among other things, the last drug they injected. In the 1997 and 1998 surveys, methamphetamine was the last drug injected of around 30% of the Tasmanian participants. In subsequent years, the proportion reporting recent methamphetamine use varied substantially: 20% in 1999, rising to 41% in 2000, and falling again to 25% in 2001. The past two surveys have seen a return to 1997 and 1998 levels: 30% in 2002 and 28% in 2003. However, given that the pre-2002 studies only sampled small numbers of clients (23, 51, 25, 27, 28 clients respectively for the 1999-2001 studies, and 151 and 118 clients respectively in the 2002 and 2003 surveys), such small sample sizes render it difficult to make any reliable inferences regarding trends in use.

Since 1997, clients of non-pharmacy Needle Availability Program (NAP) outlets have been asked which drug they mostly inject. While methamphetamine has been the most commonly reported single drug used for the past 5 years, the proportion of NAP clients reporting methamphetamine as the drug they most commonly use was in steady decline from 56% in 1996/97 to 30% in 2000/01 (Figure 4). However, this trend has been reversed in the past three financial years, with the proportion increasing to 37% in 2001/02, 50% in 2002/03 and to 52% in 2003/04. While this appears to represent a substantial change in the market over time, this data should be interpreted with caution: firstly, prior to 2001/02, this drug use data was reported by only around 40% of total non-pharmacy NAP clients, predominantly those larger, inner-city outlets, which are biased toward regular, opiate consumers – in recent years, this figure has risen to 90% of non-pharmacy clients (80% in 2001/02, 88% in 2002/03 and 91% in 2003/04). As such, recent data may be somewhat more representative and the apparent recent increase in proportions of NAP clients reporting methamphetamine use in the past three financial years, in contrast to trends over preceding years, may simply reflect this more consistent

level of reporting across NAP outlets. Secondly, a recent study has estimated that approximately 15% of all injection equipment distributed on a monthly basis is distributed through pharmacy-based outlets (Bruno, 2004, unpublished), where no client data is collected. However, given that the clear bulk of injection equipment distributed through pharmacy outlets (1mL barrels) is appropriate for methamphetamine injection (and not for pharmaceutical opiates, the other drugs most commonly injected in Tasmania), it is likely that the majority of this equipment is used for injection of methamphetamine: as such, the non-pharmacy outlet data presented in Figure 4 is likely to be an underestimation of the true proportion of methamphetamine injection amongst Tasmanian IDU.

Figure 4: Percentage of methamphetamine reported as ‘drug most often injected’ by Tasmanian non-pharmacy Needle Availability Program clients, 1996/97-2003/04



Source: Sexual 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 was missing.

Current patterns of methamphetamine use

IDU reports of the forms of methamphetamine they had used in the previous six months clearly show that a wide range of forms and potencies of the drug are available to the IDU community. Sixty-four percent of those recently using methamphetamine reported using powder form methamphetamine (n=60). Similar to preceding surveys, use of liquid form methamphetamine (often known as ‘ox blood’) was extremely rare in the previous six months (n=2). Recent use of pharmaceutical stimulants according to a medical practitioner’s prescription (i.e. licitly) was uncommon in the sample (n=1), but use of illicit/diverted tablets was more common (n=52: dexamphetamine n=39, methylphenidate n=14, both =13).

The patterns of use of the differing 'forms' of methamphetamine in the preceding six months but IDRS IDU participants across the 2002 to 2004 studies (Figures 5 and 6) displays the changing face of the local methamphetamine market in this time. The major change has revolved around the availability, and therefore use, of crystalline methamphetamine. In the 2002 study, use of this form was quite rare, consumed by just 22% of methamphetamine-using IDU in the preceding six months (n=20), with just 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 methamphetamine (68% of the sample in total) but was also the form most commonly used by the largest proportion of those using the drug (45%, n=41). In the current study, along with indications of both decreased availability and a possible slight decrease in purity, both overall use of crystal methamphetamine (55%, n=52) amongst those using any form of the drug, and the proportion of methamphetamine users reporting this as the form they had predominantly used (15%, n=14) had fallen substantially since the 2003 survey.

Largely matching these changes, base/paste methamphetamine had been used by the majority of those recently using methamphetamine in the 2002 survey (83%, n=74), and was the form most commonly used by the majority (65%, n=58). Both overall use (51%, n=46) and predominant use (24%, n=22) declined sharply in 2003 when the availability of crystal methamphetamine increased, however, the current study showed a return to levels similar to those in 2002: with 77% of recent methamphetamine users reporting use of this form (n=72) and 43% (n=40) reporting it as the form they had predominantly used in the preceding six months.

Use of powder form methamphetamine, in contrast, has steadily increased among the IDRS IDU samples in the past three studies: rising from 39% (n=35) of recent methamphetamine users in the 2002 study, to 56% (n=51) in 2003, and 64% (n=60) in the current study. While the proportion reporting powder form methamphetamine as the form that they had predominantly used in the preceding six months remained stable in the 2002 and 2003 surveys (n=13, 15% and 14% of recent methamphetamine users respectively), the proportion reporting that they had most often used methamphetamine powder in recent months doubled in the current study to 31% (n=29).

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, these pharmaceuticals form an important part of the overall picture of stimulant use amongst these IDU cohorts. The use of prescription stimulants has remained relatively stable in the preceding three IDRS surveys, recently used by 53% (n=47) of those that had used methamphetamine in the preceding six months in the 2002 survey, 55% (n=50) in 2003 and 54% (n=51) in 2004. Similarly, those reporting that they had used diverted pharmaceutical stimulants more often than methamphetamine in the preceding six months has remained relatively stable across the past three surveys (17%, n=15 in 2002; 16%, n=15 in 2003 and 12%, n=11 in the current study).

Ninety-one percent of the IDU sample reported using some form of methamphetamine in the six months prior to interview (a further three participants reported using diverted pharmaceutical stimulants but not methamphetamine), with the drug predominantly injected by this sample. The median frequency of use of any form of methamphetamine was 22 days in the preceding six months (which is between 3 and 4 days per month on

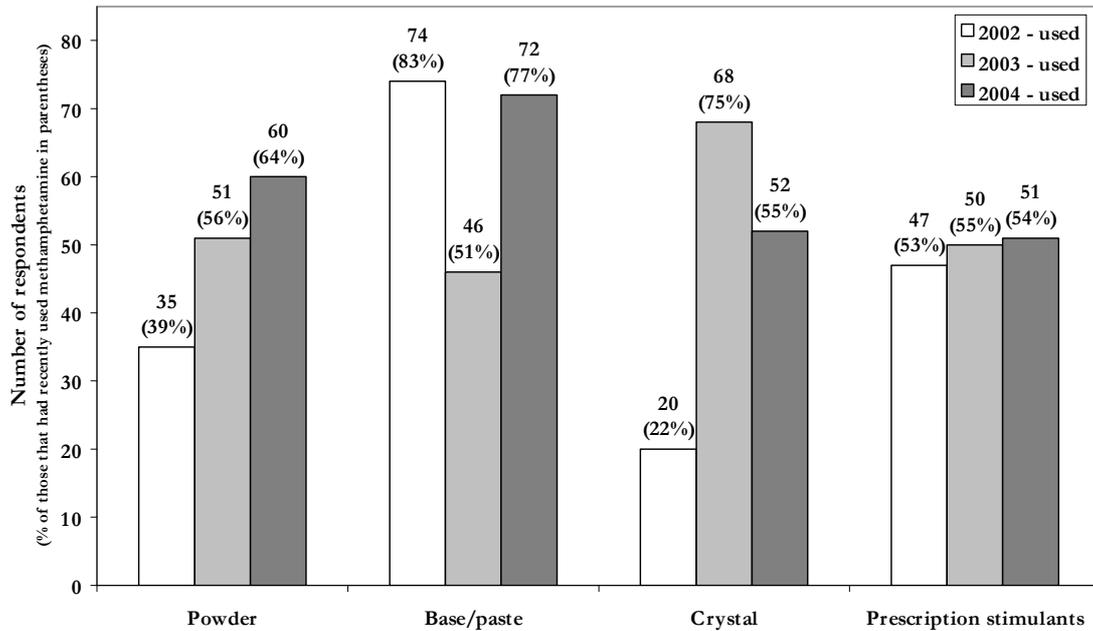
average), ranging between 1 and 180 days in this time. Across the history of the IDRS surveys in Hobart, despite the samples remaining predominantly opiate-referring (approximately two-thirds of participants in each study selected an opiate as their drug of choice), there has been a slow increase in the proportion of IDU participants reporting recent use of methamphetamine, although the median frequency of this use has remained relatively stable in this time: in 2003, 91% of the sample had used methamphetamine in the preceding six months, at a median frequency of 20 days in this time; in 2002 89% of the sample had used the drug, at a median frequency of 25 days in the six months prior to interview, in 2001 85% had used the drug, at a median frequency of 24 days, and in 2000, 83% used methamphetamine, at a median frequency of 25 days.

Of the IDU surveyed, 100% had used some form of methamphetamine at some time in their lives (96% had used methamphetamine powder alone at some stage in their lives), with 91% using some form in the past 6 months, however, only 19% of the sample indicated that methamphetamine was their drug of choice. These patterns are highly similar to those surveyed in the 2000-2003 Tasmanian IDRS studies. Of the 19 IDU that reported methamphetamine as their drug of choice, the majority (63%, n=12) reported methamphetamine as the drug they had most often injected in the month prior to interview. Of these seven IDU that had not used their drug of choice most often in the preceding month, 1 instead most commonly injected morphine, and 3 methadone. Two of this group explained this discrepancy as due to being involved in drug treatment, and one each due to the level of availability, and the level of purity of methamphetamine available to them.

For those IDU that had reported the drug they had most often injected in the preceding month as being methamphetamine (any form) (n=29), the drug was used for a median of 48 days in the preceding six months (range 8-180). In the 71 IDU that had most frequently used another illicit (all but two were primary users of some form of opioid) and had used methamphetamine recently (n=65), it had been used a median 14 days (range 1-180) in the past 6 months. Taken together, it is clear that a moderate level of methamphetamine use is common amongst primary users of other drugs, which was supported by comments from key experts reporting on primary users of either cannabis or opioids that some form of methamphetamine was occasionally used by the people with whom they were in contact with (n=4/8 of primary opiate-using groups; n=3/7 of primary cannabis-using groups, although many key experts were not aware of drugs used by their groups other than their primary drug). Most recreational users of methamphetamine in these groups were noted by key experts to use intravenously. Those key experts that could make a distinction between the different forms of methamphetamine indicated that their groups used methamphetamine powder (n=5, predominantly referring to primary cannabis using groups), base/paste (n=4, all in the primary opioid using groups) or crystal methamphetamine (n=4).

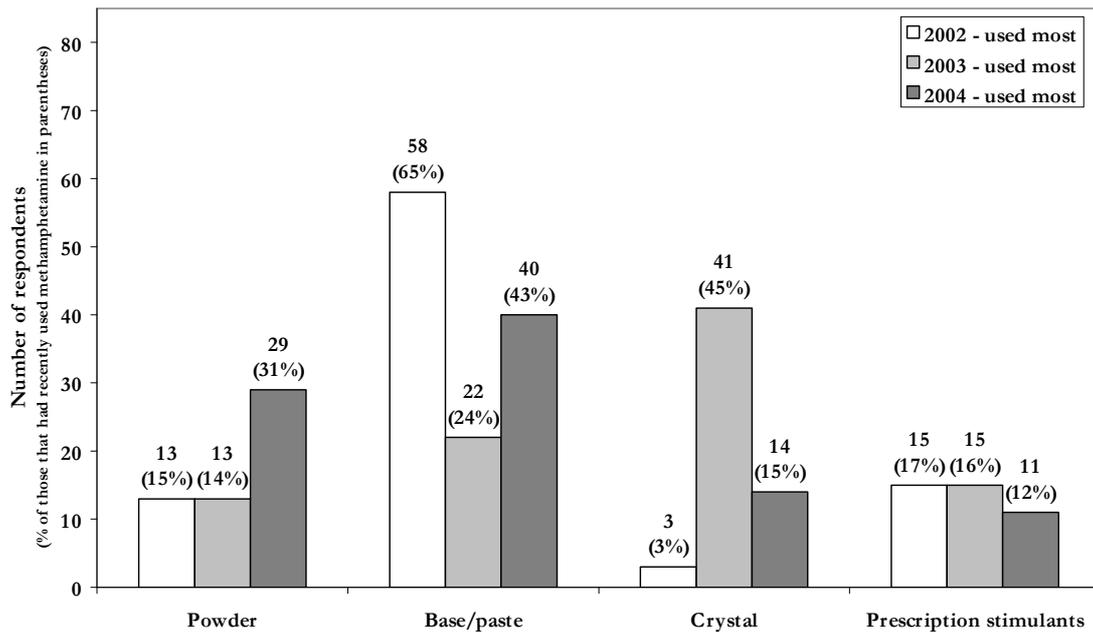
Key expert reports suggested that the most common other drug used by primary methamphetamine users was cannabis (n=10/10 of those key experts reporting on methamphetamine consumers rather than providers), with a minority using benzodiazepines, both often being used functionally to help users 'come down' from their methamphetamine use. Key experts also reported opioid use in a minority of primary methamphetamine users.

Figure 5: Use of various forms of methamphetamine and prescription stimulants among IDRS IDU participants, 2002-2004.



Source: IDRS IDU Interviews

Figure 6: Forms of methamphetamine and prescription stimulants most often used among IDRS IDU participants that had used stimulants, 2002-2004.



Source: IDRS IDU Interviews

5.5 Methamphetamine related harms

Law enforcement

Arrest data for methamphetamine-related offences indicate a marked increase in the number of arrests between 1998/99 and 2000/01, with an upward trend continuing into 2001/02 (Table 19). 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 methamphetamines (discussed below), although there was a concomitant, albeit less marked, increase in the number of supply-type arrests in this period. There has been a decline on overall methamphetamine arrest rates in the past two financial years, with the largest drop being seen in consumer-type offences (falling from 71 in 2001/02 to 31 in 2003/04). However, these numbers of arrests remain substantially larger than those seen prior to 2000/01.

Table 19: Consumer and provider arrests for methamphetamine and related substances, 1996/97-2003/04

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
	n	n	n	n	n	n	n	n
<i>Consumers</i>								
Female	3	5	0	4	9	18	8	10
Male	15	9	4	14	51	53	34	21
Unknown	0	1	2	2	0	0	0	0
Total	18	15	6	20	60	71	42	31
<i>Providers</i>								
Female	0	0	0	0	1	6	2	1
Male	2	0	1	7	9	12	17	7
Unknown	0	0	0	1	0	0	0	0
Total	2	0	1	8	10	18	19	8
Total Arrests	20	15	7	28	70	89	66	39

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

Note: “Consumer” refers to persons charged with use-type offences (e.g. possession, administration), while “provider” refers to persons charged with supply-type offences (e.g. supply, cultivation or manufacture). Where a person has been charged with multiple offences within a category, that person is only counted once in these statistics.

Key experts reported no real changes in the type or extent of criminal activities engaged in during the preceding six months by the methamphetamine-consuming groups that they were familiar with. Two law-enforcement key experts reporting on methamphetamine providers reported that there had been changes in terms of providers being less willing to trade general items directly for drugs (with the exception of items specifically requested, such as laptop computers or data projectors). Moreover, these key experts also noted an increase in aggression in recent months from providers directed toward consumers following up on drug-related debts. As noted above, there were

anecdotal reports of an increase in local production of methamphetamine (n=5), not necessarily restricted to the previous six months, but anecdotally a change that has been evolving in recent years.

Health

Four key experts reported that there had been an (anecdotal) increase in overdoses related to methamphetamine in recent months, attributed to a higher purity of methamphetamine in the past year. Two NSP outlet workers noted increased reports of 'heart palpitations' following injection of methamphetamine, and one noted that consumers had made reports of 'tingling' in their arms following methamphetamine use. Key experts working in health-related fields reported three particularly notable instances in the past twelve months of substantial harms anecdotally associated with methamphetamine use, one male experiencing a burst brain abscess following intravenous methamphetamine use; one person experiencing an epileptic seizure due to discontinuing anti-epileptic medication during a methamphetamine binge; and one young individual (who died due to suicide, anecdotally following amassing substantial methamphetamine-related drug debt) having substantial scarring on their heart possibly as a consequence of methamphetamine use (arising from the adrenalin-like actions of the drug).

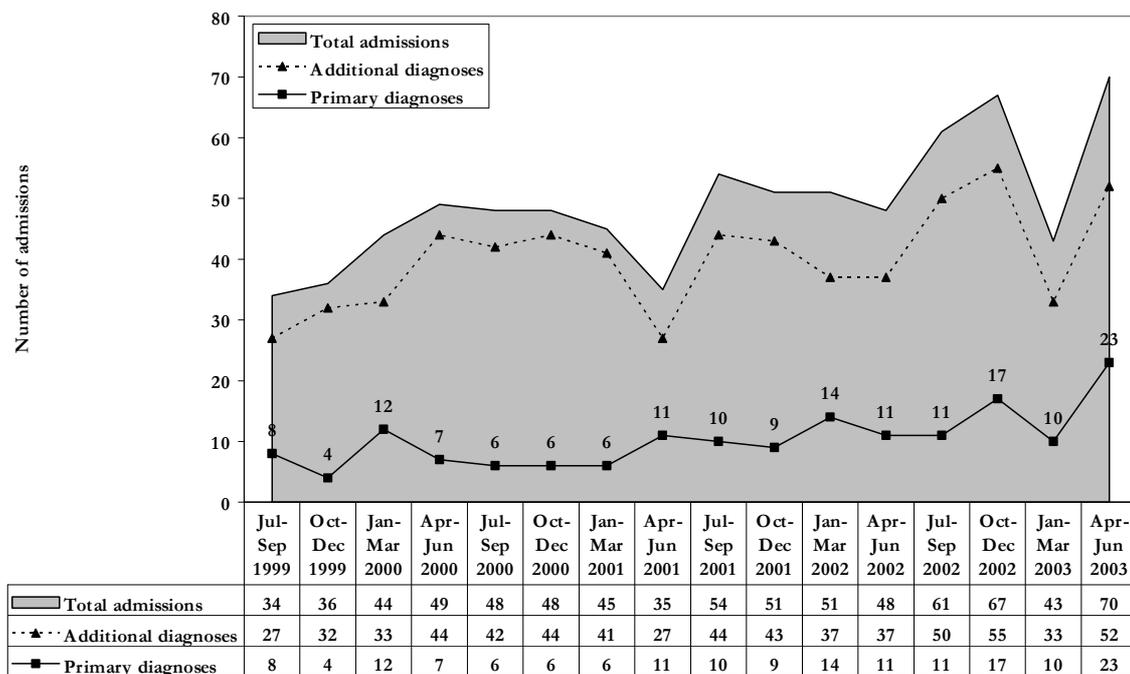
As noted in previous sections, methamphetamine appears relatively easily available to local IDU populations, and there are some indications of an increasing level of use generally. In keeping with this, ten key experts noted an increase in the number of people presenting to services (either NAP outlets for support or to drug counselling/treatment services) for methamphetamine-related issues, although some perceived this as a continuation of a trend that has been occurring over a longer time period than the preceding six months. Data from the Alcohol and Drug Minimum Data Set provide some support for this suggestion, with the number of treatment episodes where methamphetamine was the principal drug of concern increasing in the past three financial years (n=155 in 2000/01, n=161 in 2001/02, and n=180 in 2002/03), however, given that the overall treatment numbers have increased in this time, the proportion of such clients has been declining in this dataset over that period (12.1% in 2001/02 to 7.9% in 2002/03). Finally, four key experts noted a substantial decrease in nutrition amongst the methamphetamine consumers they were familiar with in recent months, with some KE attributing this to consumers using for more extended periods ('longer binges').

Hospital morbidity data in relation to use of drugs has been provided by the Australian Institute of Health and Welfare for the 1999/00 to 2002/03 financial year periods. This data relates to public hospital admissions where drug use was recorded as related to the admission. There are two categories for such involvement: 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; and secondly, the 'additional diagnosis', being a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care. These were 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 only public specialist detoxification centre is only included in this dataset from June 2002.

Tasmanian public hospital admissions where methamphetamine is noted as a contributing factor towards diagnosis are presented in Figure 7 below. The trend in this data is that of a generally increasing number of cases, both in terms of primary diagnoses

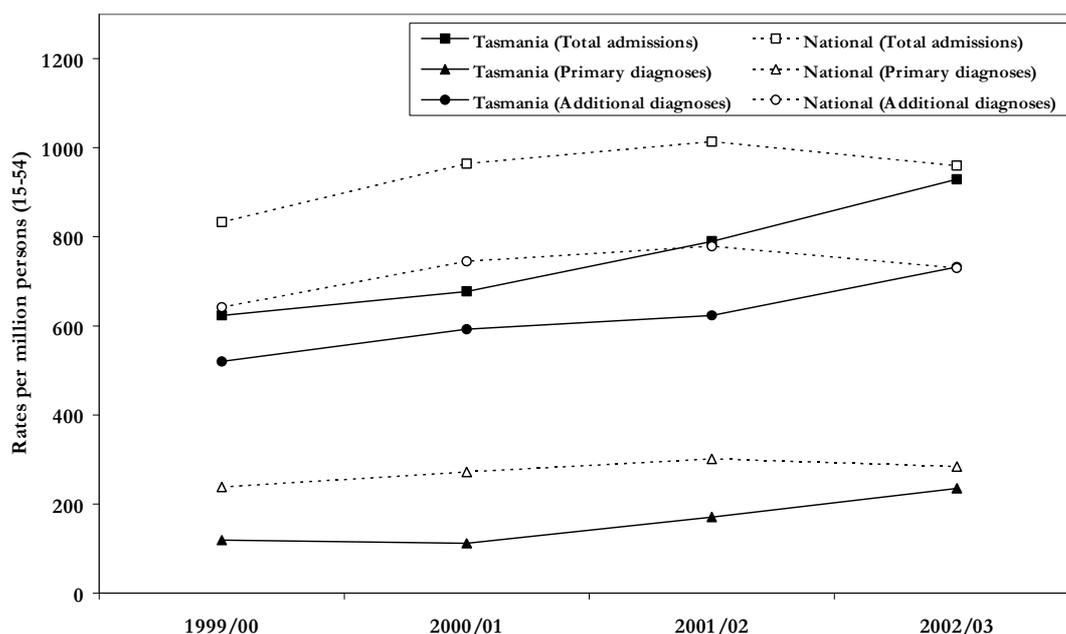
and total admissions where methamphetamine is noted as a contributing factor. Prior to 2001, methamphetamine-related primary diagnoses averaged less than 10 cases per quarter, which has risen to above 10 cases per quarter since this time. Following the inclusion of admissions to the public detoxification centre into these figures (as of July 2002), the number of cases where there were methamphetamine-related additional diagnoses has risen to around 50 per quarter. Comparing the rates of Tasmanian methamphetamine-related admissions to National admission rates (Figure 8), prior to 2002/03, total methamphetamine-related admissions locally were around 75% that of the national rate, and principal diagnoses related to methamphetamine use were around 50% that of the national average. In 2002/03, the inclusion of data from the detoxification service and the generally increasing pattern of methamphetamine-related admissions locally, in concert with a stabilisation or declining rate of admissions nationally, saw overall Tasmanian admission rates very similar to that of the national rate (total Tasmanian methamphetamine-related admissions in 2002/03 being 97% that of the national rate, and local rates of additional diagnoses being almost exactly equivalent with the national level), although the rate of Tasmanian hospital admissions where methamphetamine was noted as the primary contributing factor was somewhat lower than that of the national rate (83%), at around 235 admissions per million population in the 15-54 year age group.

Figure 7: Public hospital admissions where methamphetamine was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03



Source: Australian Institute of Health and Welfare

Figure 8: Public hospital admissions where methamphetamine was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

5.6 Trends in methamphetamine use

In 2003, an increased availability of crystal methamphetamine, or ‘ice’, reported by IDU as beginning between January and April of that year, provided a major shift in the local methamphetamine market. Again in 2004, a shift in crystal methamphetamine availability, this time in the opposite direction, appears to have underwritten further shifts in the local market. Tasmania Police report that two arrests made late in December 2003 disrupted the supply chain for crystal methamphetamine in the state, and a clear decline in the use, availability, and possibly purity of crystal methamphetamine in the 2004 sample clearly supports this assertion. However, the overall level of use of methamphetamine appears to have remained at least stable in the IDRS cohort and, indeed, there are indications of a trend toward a slowly increasing level of methamphetamine use among IDU groups generally (in NAP and IDRS IDU cohorts). As such, use of both base/paste and powder forms of methamphetamine have increased accordingly (Figure 5 and 6).

As noted by one IDU participant in the 2003 study, crystal methamphetamine was a “very attractive drug, luring more people into taking more drugs”. Indeed, eight IDU participants noted an increase in the number of people using methamphetamine in the preceding six months. However, importantly, IDU also noted a shift in the demographics of methamphetamine users in recent months: six IDU noted that there were more “posher” people using methamphetamine (described as the “crystal methamphetamine set” by one participant), and primary ecstasy users also using methamphetamine. An increase in the number of younger users, particularly those in their late teens (14-20

years, noted by 8 IDU and 2 key experts) and especially among females (noted by 4 KE) were reported by many of the individuals interviewed in the current study.

Continuing a trend noted in the 2002 IDRS study, three IDU noted that they had seen primary users of opioids change to being primary users of methamphetamine in the preceding six months, both due to the increasing quality and increased availability of the drug. In conjunction with this, an increase in both the amount and frequency of methamphetamine use among existing users was noted by 9 and 2 IDU and KE respectively.

In the 2003 IDRS, key experts that worked closely with regular injecting drug users, noted that polydrug use was increasingly common amongst their client groups in the preceding six months, with IDU increasingly using opioids or benzodiazepines on the same day as methamphetamine and/or to 'come down' from crystal methamphetamine use. It is clear from the patterns of use in the current IDU sample that this pattern is continuing, with polydrug use very much the norm. Noted in the current study by 16 IDU and one KE was the use of antipsychotic medications (such as chlorpromazine or quetiapine) used by a small number of individuals (predominantly younger males, in late teens to early twenties, and particularly heavy consumers) to help the come-down from methamphetamine binges. However, some IDU noted that this sort of use had been occurring for some time but was not widespread or frequent.

5.7 Summary of methamphetamine trends

Table 20: Summary of trends in methamphetamine use

	Methamphetamine 'Powder'	'Base/Paste' Methamphetamine	Crystalline Methamphetamine
Price (mode) <i>'point' / packet (~0.1g)</i> <i>gram</i>	<ul style="list-style-type: none"> • \$50, stable • \$300, stable 	<ul style="list-style-type: none"> • \$50, stable • \$300, stable 	<ul style="list-style-type: none"> • \$50, stable • \$400, stable to increasing
Availability	<ul style="list-style-type: none"> • Very easy to obtain • Availability stable 	<ul style="list-style-type: none"> • Very easy to obtain • Availability stable to increasing 	<ul style="list-style-type: none"> • Easy to access • Availability stable or decreasing
Purity and form	<ul style="list-style-type: none"> • IDU reports of low-medium, fluctuating purity • Form: beige/yellowy/of-white powder 	<ul style="list-style-type: none"> • IDU reports of medium to high purity, quality stable or increasing • Form: oily/'gunky'/gluggy brown gel 	<ul style="list-style-type: none"> • IDU reports of medium to high purity, quality possibly decreasing • Form: white/clear, hard crystals or 'rocks' similar to crushed glass or rock salt
Use	<ul style="list-style-type: none"> • Use steadily increasing in IDRS IDU samples over time 	<ul style="list-style-type: none"> • Used by three quarters of the IDU sample recently, a return to levels close to the pre-2003 increase in availability of crystal methamphetamine 	<ul style="list-style-type: none"> • Used by half of the IDU sample recently, a marked decrease from 2003; and IDU reports of this form as the predominant methamphetamine has decreased substantially
Other trends	<ul style="list-style-type: none"> ▪ Decreased availability of crystal methamphetamine, possibly due to the impact of Tasmania Police on the supply chain for this drug into the state, has seen a shift back to patterns of use of two years ago, where base/paste was the methamphetamine form predominantly used by the IDRS regular IDU cohort ▪ Purity of the small number of analysed seizures has increased between 2002/03 and 2003/04 (median purity = 12%, range 2-79%, n=43 samples in 2002/03; 17%, 2-81%, n=23 samples in 2003/04), particularly in relation to seizures of small amounts of the drug (for seizures of 2mg or less, in 2002/03, median purity was 13%, range 2-79%, n=30; in 2003/04, median purity was 26%, range 2-81%, n=9). ▪ Anecdotal reports of increased local production of methamphetamine powder and possibly base/paste in recent years ▪ Anecdotal IDU and KE reports of an increase in the number of users, and increase in younger (teenage) users and female consumers, and also a different 'type' of users, described as the "crystal meth set", with more disposable income and more likely to be regularly employed ▪ Continued concerns around the health impacts of extended periods ('binges') of methamphetamine use on consumers 		

6 COCAINE

Similar to the patterns in the previous Tasmanian IDRS surveys, only a very small number of IDU (n=3) could comment on price, purity or availability of cocaine. However, 48% of the sample indicated that they had tried cocaine at some stage in their lives, with 4 respondents reporting that they had used cocaine in the six months prior to interview (1 had injected, one had smoked, and all 3 had snorted the drug in this time), although the median frequency of use was only twice in this period (range 1-3 times overall; with the single individual that reported injecting cocaine in this time doing so on two separate days in the preceding six months). The cocaine that these participants had used was exclusively powder. Due to the extremely small number of respondents who were able to provide information on cocaine, the information provided in this section should be interpreted with caution. With this noted, however, the reported extent of recent use of cocaine in the Tasmanian IDRS IDU samples has steadily dropped over the past three surveys, from 12% in the 2002 cohort, 9% in 2003 and just 4% in the current study.

Only one IDU participant in the current study reported cocaine as being their drug of choice, and no participants reported this as the drug they had most often injected in the preceding month. This individual had instead most often injected methadone in the month prior to interview. When asked the reasons for this discrepancy, that individual attributed this to the low availability of the cocaine locally.

6.1 Price

Only two IDU could provide information on the price of cocaine, with IDU reporting purchase prices of \$120 for approximately 0.2g of cocaine (n=1), and making markedly differing reports of the purchase price of one gram of cocaine, with one individual reporting purchasing this amount for \$150, the other for \$500, in the preceding six months. The median of these purchase prices (\$325) for a gram of cocaine is somewhat higher than prices reported in other jurisdictions in the 2004 surveys (\$290 in NSW, \$190-\$350 in other jurisdictions, although these estimates are based on extremely small numbers of reports: Stafford, et al, 2005). Only one of these IDU participants could comment on the stability of cocaine prices over time, perceiving this price as remaining stable over the preceding six months. One key expert reporting on cocaine use in primary methamphetamine/ecstasy consumers reported that it was currently available locally for \$200 per gram.

Tasmania Police have been unable to report prices of cocaine from either informant reports or covert bust operations between 1995/96 and 1999/00, however, in 2001 Southern Drug Investigation Services estimated the price of cocaine as \$250 per gram, on the basis of an informant report, and the price reported by Tasmania Police remained stable during the remainder of the 2001/02 financial year. Price information for cocaine was not provided in 2002/03 and 2003/04.

6.2 Availability

Of the three IDU participants that could comment on the local availability of cocaine in the preceding six months, one described it as easily accessed, with the remainder describing it as very difficult to access. All three participants suggested that there had been no change in this level of availability in the six months prior to interview. No key

experts could comment on the availability of cocaine to the individuals they had contact with.

Of the three IDU participants reporting on cocaine trends, all reported usually accessing the drug from different sources: either from a 'street dealer', from a dealer's home, or through a friend (in another jurisdiction, who would send the drug directly to the individual). Of the two participants that reported purchasing the drug locally, they reported that it usually took them a range of 7200-10080 minutes to access, a median time of 8640 minutes, or 6 days.

While there had been no seizures of cocaine made by Tasmania Police made between 1995/96 and 1999/00, two seizures, totalling 29g were made in 2000/01, both by Western Drug Intelligence Services in November, 2000. One seizure of cocaine was made from a person intercepted upon arrival into the state, who was also in possession of a number of tablets of ecstasy. The other seizure resulted from a search of the home of a member of an organised motor-cycle gang. There were no seizures of cocaine made by Tasmania Police between 2001/02 and 2003/04.

Just two of the thirty-one key experts reported rarely hearing about use of cocaine among their groups, and where some use was reported, in primary injecting drug user groups, it was generally in very small proportions of their clients (1-2%, n=1) or in primary ecstasy-using groups. Taken together, these reports, and the small number of respondents who had used cocaine in the past six months (n=4) and that were able to report on trends (n=3), it would seem that there is a very low availability of cocaine in Tasmania, at least among the demographic sampled in this survey.

6.3 Purity

The three IDU that had used cocaine recently reported that it was low (n=2) or fluctuating (n=1) in purity, and, similarly, that this level of purity had fluctuated (n=2) over the preceding six months. The last analysed sample of cocaine seized within the state by Tasmania Police was from the first quarter of 2001. This was an amount of less than two grams, and was analysed during the first quarter of 2002 at 44.0% purity.

6.4 Use

Prevalence of cocaine use

According to the findings of the 1998 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 1999) 2.3% of surveyed Tasmanian residents (n=29) reported ever trying cocaine, while only 0.1% (n=3) had used it in the 12 months prior to interview. Findings of the 2001 survey (Australian Institute of Health and Welfare, 2002) were very similar, with 0.2% of those sampled reporting using the drug in the preceding year.

Of the 2,553 year 7 to 12 students sampled from Tasmanian schools in 1996 by the Australian School Students Alcohol and Drugs (ASSAD) Survey (Cancer Council of Tasmania, 1997), 3% indicated they had ever tried cocaine. Among the 2,671 students surveyed in 1999 (Cancer Council of Tasmania, 2001), 5% reported ever trying the drug. There were no significant changes in patterns of reported cocaine use between the 1996 and 1999 studies.

Cocaine use among IDU

Only 0.1% of clients of non-pharmacy Needle Availability Program clients in 2003/04 indicated that cocaine was the drug they most often injected. This figure has been reasonably stable over the past three financial years (Table 21), relating to around 10-30 clients each year. However, it is important to note that, despite there being some discrepancy between NAP outlets in the question asked (some asking ‘what is the drug you most often inject’, while others prefer ‘what is the drug you are about to inject’), it is likely that the question ‘what is the drug you most often inject’ will tend to underestimate the extent of use of cocaine, as none of the IDU sampled in the IDRS survey reported it as the drug they most often used in the preceding month, despite four recently using the drug and one indicating that it was their drug of choice.

Table 21: Percentage of cocaine reported as ‘drug most often injected’ by Tasmanian non-pharmacy Needle Availability Program clients, 1997/98-2003/04

Year	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Number of clients reporting cocaine	12	28	19	13	20	36	29
Percent of total clients reporting cocaine	0.2%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%

Source: Sexual Health, Department of Health and Human Services

None of the Tasmanian participants in any of the 1995, 1996, 1997, 1998 or 1999 Australian Needle and Syringe Program Survey (Thein, Maher & Dore, 2004: National Centre in HIV Epidemiology and Clinical Research on behalf of the Collaboration of Australian Needle and Syringe Programs, 2002) has reported cocaine as the last drug they injected, although in 2000, one participant reported last using a combination of heroin and cocaine, with the same report occurring again in 2001 and 2002. None of the 2003 participants (from a sample of 118) reported last injecting cocaine. It is important to note that the samples prior to the 2001 study (which sampled 151 clients) are extremely small (6, 18, 23, 51, 25, 27, and 28 for the 1995 to 2000 annual studies respectively). As such, these are of very limited power for the detection of low frequency occurrences such as the injection of cocaine.

Current patterns of cocaine use

Of the four IDU that reported using cocaine in the past six months, the median frequency of use was just two days in the last six months (range 1-3 days).

Just two of the thirty-one key experts reported rarely hearing about use of cocaine among their groups, and where some use was reported, in primary injecting drug user groups, it was generally in very small proportions of their clients (1-2%, n=1) or in primary ecstasy-using groups. The majority of key experts (n=14) indicated that there was definitely no current use of cocaine amongst the groups they came into contact with.

Examining the extent of use of cocaine among the Tasmanian IDRS IDU participants in over the past five years (Table 22) suggests that the level of use of cocaine in this demographic appears to have remained largely similar during this time: generally used by only a minority of participants in the preceding six months (4%-12%), and, in the main, used very infrequently (median frequency of less than monthly use in the preceding six months). While it is difficult to infer any stable trends from such small numbers, it may be cautiously suggested that, in 2004, the already low level of availability of cocaine to the demographic accessed in the IDRS IDU survey, may have declined further, as evidenced by both a declining proportion of the sample reporting recent use, and a decline in the median, and maximum, reported frequency of use in the preceding six months.

Table 22: Patterns of cocaine use among Tasmanian IDRS IDU participants, 2000-2004

Year	2000	2001	2002	2003	2004
Proportion of sample reporting use of cocaine in the preceding six months	6%	8%	12%	9%	4%
Median days cocaine use in last six months (range in parentheses)	4 (1-40)	5 (1-20)	2 (1-12)	4 (1-74)	2 (1-3)
Proportion of IDU sample reporting ever using cocaine	39%	39%	47%	52%	48%

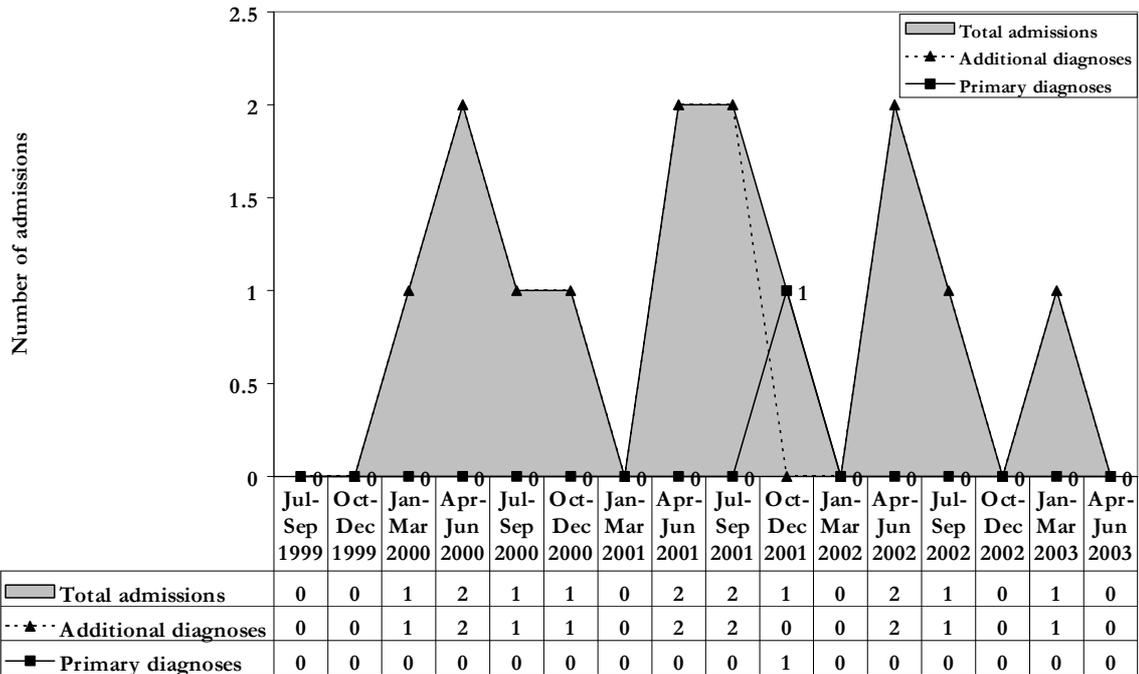
Source: IDRS IDU interviews

Hospital admissions in relation to cocaine use

Hospital morbidity data in relation to use of drugs has been provided by the Australian Institute of Health and Welfare for the 1999/00 to 2002/03 financial year periods. This data relates to public hospital admissions where drug use was recorded as related to the admission. There are two categories for such involvement: 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; and secondly, the 'additional diagnosis', being a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care. These were 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 only public specialist detoxification centre is only included in this dataset from June 2002.

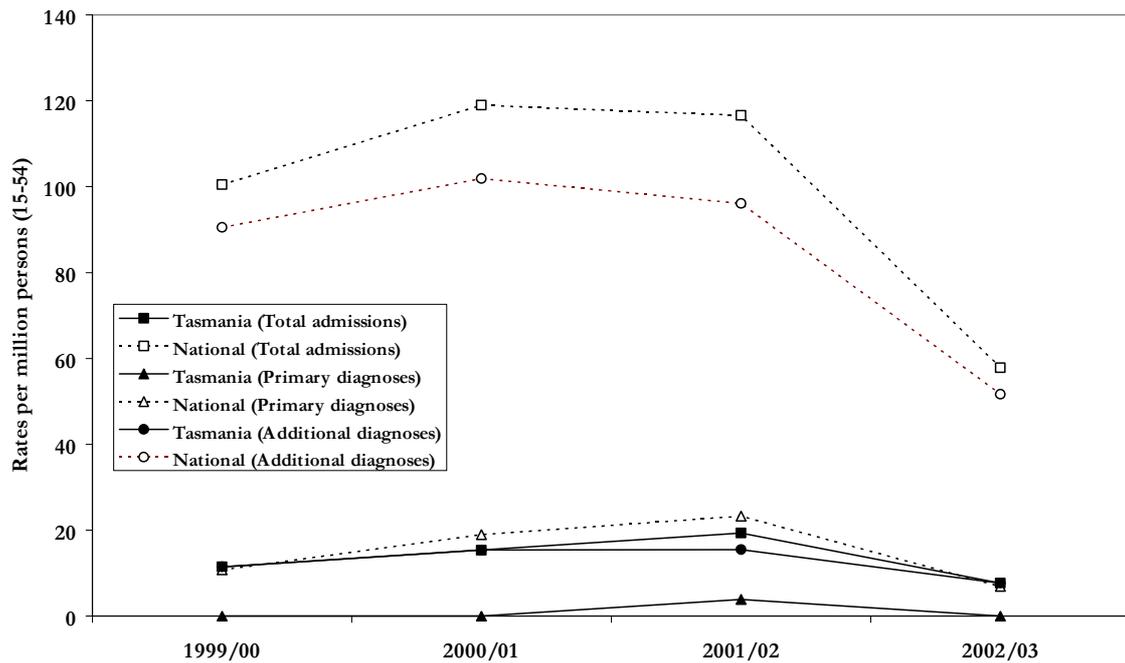
Consistent with the apparent low levels of availability and use of cocaine locally, cocaine-related hospital admissions (Figure 9 below) are virtually non-existent, with only one instance where cocaine was listed as related to the principal diagnosis during the 1999/00 to 2002/03 period, and generally only one or two cases where cocaine is included as part of an additional contributing factor in each quarter. As such, when the local rates of cocaine-related public hospital admissions amongst those aged between 15 and 54 years are compared to the national Australian rate (Figure 10), these are substantially lower, with the total local admissions where cocaine was noted as contributing to the diagnosis remaining around 15% that of the national rate between 1999/00 and 2002/03.

Figure 9: Public hospital admissions where cocaine was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03



Source: Australian Institute of Health and Welfare

Figure 10: Public hospital admissions where cocaine was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

6.5 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. The cocaine that is used by Tasmanian IDU appears generally to be directly imported by consumers from dealers in mainland states or require an extended wait to access. These patterns seem to have remained reasonably stable over the past few years, with possible indications of further declining availability in recent months. However, it is noteworthy that around half of the Tasmanian IDU sample over the past three years have reported lifetime use of cocaine, an increase from patterns seen in the 2000 and 2001 surveys, and there are indications of use among different populations of drug consumers locally (Bruno & McLean, 2004; Matthews & Bruno, 2005). As such, trends in cocaine markets in the state merit continued examination.

7 CANNABIS

Among the IDU respondents, cannabis was the most commonly used illicit drug, with all of the sample using it at some time in their lives, and 87% using in the six months prior to interview. IDRS IDU participants were asked to comment separately on trends around 'bush' (outdoor-grown) cannabis and indoor/hydroponically grown cannabis. Eighty-six IDU could comment confidently on aspects of price, potency, or availability of indoor/hydroponically grown cannabis, 76 reported trends on bush/outdoor cannabis, with 76 reporting trends on both types. Almost all key experts 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.

Seven key experts reported on groups that were primary users of cannabis. Key experts included one individual associated with the law enforcement drug diversion program, three individuals working specifically within the drug and alcohol sector (one nurse and two counsellors), and three youth workers/youth social workers. Key experts were familiar with cannabis users from all suburbs of Hobart. The groups of cannabis users described by key experts were predominantly from an English-speaking background, with various levels of education (although many tended to have lower levels of education due to the fact that the KE predominantly worked in public services) and current employment. Cannabis users that key experts were familiar with ranged in age from teenagers to 50 years, although the majority were in their late teens to early twenties.

7.1 Price

The modal market price reported by the IDU for indoor/hydroponically grown cannabis was \$25 per gram (n=30, median = \$25, range \$10-25), and \$300 per ounce (n=50, range \$150-400). These were slightly higher than the modal market prices reported for bush/outdoor cannabis, at \$25 per gram (n=14, median = \$22.50, range \$10-25) and \$200 per ounce (n=41, range = \$50-320). These prices were reasonably consistent with prices reported by the key experts: modal price \$25 per 1-1.5 gram (n=4), although some commented that their groups were also often purchasing \$10 and \$15 amounts of cannabis. While there was good agreement that these were the 'market prices' for cannabis, most IDU did not report paying these prices for the last amounts of cannabis they purchased.

For their last purchase of bush/outdoor grown cannabis, a \$25 'deal' was reported to contain 1.0-3.0g (mode 1.0g) of cannabis, with 5.5-7.0g (mode 7.0g) in a \$50 'deal'¹⁰. With the exception of \$25 'deals', the most common amount of outdoor cannabis purchased by IDU was, as per previous IDRS surveys, was quarter ounce (7g) amounts (n=30). The median last purchase price for a quarter ounce of outdoor cannabis was \$60 (no mode, range \$35-85, n=30). Ounces of outdoor cannabis were a median of \$180 (mode = \$200 range \$100-260, n=21).

In general, purchase costs for indoor/hydroponically cultivated cannabis were slightly higher than the reported costs for bush/outdoor cannabis. 'Deals' costing \$25 contained a mode of 1.0g (range 1.0-2.0g, n=37), with \$50 'deals' containing a mode of 3.0g (range 2.5-3.5g, n=6) of cannabis. The more commonly-purchased quarter-ounce amounts of hydroponically cultivated cannabis were reported to be a modal last purchase price of

¹⁰ This amount is likely to be skewed by a substantial number of IDU purchasing quarter-ounce amounts for \$50.

\$80 (range \$60-100, n=48), \$20 more than the comparable figure for outdoor cannabis. Modal last purchase prices for an ounce of hydroponically cultivated cannabis was \$50 more than that for outdoor cannabis, at \$250 (range \$150-350, n=27). The modal prices of cannabis reported by IDU in the 2003 and 2004 studies are summarised in Table 24 below.

The majority of IDU (75% overall, 74% in relation to outdoor cannabis and 76% in relation to hydroponic cannabis) and key experts (100%, n=3) reported that the price of cannabis had not changed in the last six months. A noteworthy minority reported decreasing prices for outdoor-cultivated cannabis in the preceding six months (19%, n=13), and increasing prices for hydroponic cannabis (18%, n=8). The 2003 IDRS study was the first where clear distinctions in the pricing of indoor and outdoor cultivated cannabis were made.

Despite IDU reports of stable or decreasing prices of outdoor cultivated cannabis in recent months, comparison of purchase prices between the 2003 and 2004 studies suggest the opposite: a decrease in the modal amount of cannabis contained in a \$25 deal (2.0g in 2003, 1.0g in 2004), and an increase in the modal purchase price for half-ounce and ounce amounts (increasing by \$20 and \$50 respectively between the 2003 and 2004 studies). Changes for indoor/hydroponically cultivated cannabis were mixed: the modal amount of cannabis contained in a \$50 deal decreased (3.5g in 2003 and 3.0g in 2004, although this is based on a small number of respondents: Table 24), however, for larger purchase amounts a decrease in price was seen across the surveys, with the modal purchase price of ounce amounts dropping by \$50, and the price range (but not the modal purchase price) decreasing for quarter- and half- ounce amounts. As previous studies have not made such clear distinctions in pricing of indoor and outdoor cultivated cannabis it is somewhat difficult to make clear comparisons to price data from previous years, however, the reported prices in the current study appear reasonably consistent with previous years (Table 23), particularly when the preference for hydroponically cultivated cannabis among the previous samples is taken into consideration.

Tasmania Police provide quarterly figures on the price of covert drug purchases and reports by experts. According to prices reported to the ABCI (now the ACC), in June 2002, one gram of cannabis cost \$25 and one ounce cost \$250 (outdoor)¹¹ and \$300 (indoor/hydroponic), with these ounce prices both \$50 higher than the modal purchase prices for IDU nominated in the current study (Table 25). Prices reported by Tasmania Police have remained stable during the 2003/04 financial year, adding support to IDU and key expert reports of price stability during 2004.

Tasmania Police report the price of one gram of cannabis hash/resin as \$30-50 in the 2001/02 financial year, and \$20-25 during the 2002/03 and 2003/04 financial years. Two IDU participants in the current study reported purchasing a gram of cannabis hash during the six months prior to interview, reporting prices of \$25 and \$40 respectively. One also purchased a 'cap' of hash oil for \$40 in this period.

¹¹ Tasmania Police State Intelligence Services report outdoor cannabis as costing \$250 per ounce, while the ABCI report this as \$250-300 per ounce in Tasmania during the 2003/04 financial year.

Table 23: Modal prices of cannabis in Hobart purchased by IDU, 2000-2002 IDRS (range in parentheses)

	2000 IDRS			2001 IDRS			2002 IDRS		
Unit	Modal amount (grams)	Modal Price	n	Modal amount (grams)	Modal Price	n	Modal amount (grams)	Modal Price	n
	<i>All cannabis types</i>			<i>All cannabis types</i>			<i>All cannabis types</i>		
\$10 deal	-	-	-	-	-	-	1.0 g (0.5-7.0 g)	\$10	5
\$25 deal	1.0 g (1.0-2.5 g)	\$25	37	1.5 g (1.0-2.5 g)	\$25	39	1.0 g (0.8-7.0 g)	\$25	18
\$50 deal	2.0 g (2.0-7.0 g)	\$50	13	3.0g* (2.0-7 g)	\$50	22	7.0 g† (2.0-28.0 g)	\$50	23
Quarter ounce	7 g	\$90 (<i>\$50-120</i>)	55	7 g	\$80 (<i>\$40-150</i>)	71	7 g	\$80 (<i>\$10-120</i>)	70
Half ounce	14 g	\$150 (<i>\$100-250</i>)	17	14 g	\$150 (<i>\$70-180</i>)	30	14 g	\$150 (<i>\$40-225</i>)	56
Ounce	28 g	\$280* (<i>\$100-350</i>)	16	28 g	\$250 (<i>\$100-400</i>)	50	28 g	\$250 (<i>\$50-390</i>)	62

Source: IDRS IDU Interviews. * Median substituted, as no single mode exists; †This amount is likely to be skewed by a substantial number of IDU purchasing quarter-ounce amounts for \$50. The most common amount of cannabis purchased other than the reported mode was 3.5 g, which is more consistent with IDU reports of the amount commonly received if asking specifically for a \$50 ‘deal’.

Table 24: Modal prices of cannabis in Hobart purchased by IDU, 2003-2004 IDRS (range in parentheses)

	2003 IDRS			2004 IDRS			2003 IDRS			2004 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
	<i>Bush / outdoor</i>			<i>Bush / outdoor</i>			<i>Indoor / hydroponic</i>			<i>Indoor / hydroponic</i>		
\$10 deal	1.0 g (1.0-3.0 g)	\$10	4	1.0g (0.5-1.0g)	\$10	3	0.6 g* (0.5-1.0 g)	\$10	3	0.5g (0.3-0.5g)	\$10	4
\$25 deal	2.0 g (1.0-7.0 g)	\$25	27	1.0g (1.0-3.0g)	\$25	24	1.0 g (1.0-2.0 g)	\$25	46	1.0g (1.0-2.0g)	\$25	37
\$50 deal	7.0 g (3.5-14.0 g)	\$50	15	7.0g (5.5-7.0g)	\$50	9	3.5 g (2.0-7.0 g)	\$50	16	3.0g (2.5-3.5g)	\$50	6
Quarter ounce	7 g	\$60* (\$25-90)	29	7g	\$60* (\$35-85)	30	7 g	\$80 (\$50-250)	47	7g	\$80 (\$60-100)	48
Half ounce	14 g	\$80* (\$50-130)	7	14g	\$100 (\$70-120)	6	14 g	\$150 (\$140-250)	16	14g	\$150 (\$100-180)	10
Ounce	28 g	\$150* (100-200)	20	28g	\$200 (\$100-260)	21	28 g	\$300 (\$200-350)	27	28g	\$250 (\$150-350)	27

Source: IDRS IDU Interviews. * Median substituted, as no single mode exists; †This amount is likely to be skewed by a substantial number of IDU purchasing quarter-ounce amounts for \$50. The most common amount of cannabis purchased other than the reported mode was 3.5 g, which is more consistent with IDU reports of the amount commonly received if asking specifically for a \$50 ‘deal’.

Table 25: Cannabis prices in Tasmania, 1997-2004

	Deal (1 gm approx)			1/4 Bag (7 gms)		1/2 Bag (14 gms)		1 Ounce (28 gms)	
	Leaf	Head	Hydro*	Head	Hydro*	Head	Hydro*	Head	Hydro*
April-June 1997	\$10	\$25	\$50	\$80	\$100	\$175	\$200	\$350-450	\$450
July-Dec 1997	\$10	\$25	\$50	\$80	\$100-120	\$150-175	\$200-250	\$350-450	\$450
Jan-Mar 1998	\$10	\$25	\$50	\$80	\$100-120	\$160	\$200-250	\$400	\$450
April-June 1998	\$10	\$25	\$50	\$80	\$100-120	\$160	\$200-250	\$250-350	\$350-450
Oct-Dec 1998	\$10	\$20-25	\$25	\$80-90	\$90-110	\$160-180	\$180-230	\$300-350	\$350-450
Jan-June 1999	\$10	\$20-25	\$25	\$80-90	\$90-110	\$160-180	\$180-230	\$300-350	\$350-450
Oct-Dec 1999	\$5-10	\$20-25	\$25	\$80-90	\$90-110	\$160-180	\$180-230	\$300	\$350-400
Jan-June 2000	\$5	\$25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$300	\$300-400
July-Sept 2000	\$5	\$25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$300	\$300-400
Oct-Dec 2000	\$5	\$25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$300	\$300-350
Jan-Mar 2001	\$5	\$25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$300	\$300-350
April-June 2001	\$5	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$200-300	\$300-350
July-Sept 2001	\$5	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$200-300	\$300-350
Oct-Dec 2001	\$5	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$200-300	\$300-350
Jan-Mar 2002	\$5	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$200-300	\$300-350
April-June 2002	\$5	\$20-25	\$25	\$80-90	\$90-110	\$150-160	\$170-220	\$200-300	\$300-350
July-Sept 2002	n/r	\$20-25	\$25	\$80	\$90	\$150	\$160	\$250-300	\$300
Oct-Dec 2002	n/r	\$20-25	\$25	\$90	\$90-100	\$150	\$160	\$300	\$300
Jan-Mar 2003	n/r	\$20-25	\$25	\$65-75	\$100	\$125	\$180	\$250-300	\$300
April-June 2003	n/r	\$20-25	\$25	\$65-75	\$85-90	\$125	\$150	\$250	\$300
July-Sept 2003	n/r	\$25	\$25	\$65-90	\$85-100	\$125-150	\$150-180	\$250-300	\$300
Oct-Dec 2003	n/r	\$25	\$25	\$65-90	\$85-100	\$125-150	\$150-180	\$250-300	\$300
Jan-Mar 2004	n/r	\$25	\$25	\$65-90	\$85-100	\$125-150	\$150-180	\$250-300	\$300
April-June 2004	n/r	\$25	\$25	\$65-90	\$85-100	\$125-150	\$150-180	\$250-300	\$300

Source: Australian Crime Commission (previously the Australian Bureau of Criminal Intelligence), Tasmania Police State Intelligence Services. *Note: Reporting criteria were expanded in April 1997 to provide separate data for (outdoor) cannabis head and hydroponically grown cannabis or “skunk”. Thus, definitions of what constitutes cannabis “leaf” and “head” may have changed during this time period

7.2 Availability

Across both indoor and outdoor cultivated cannabis, the majority of the IDU sample reported that cannabis was very easy (60%, n=92) or at least easy (33%, n=51) to obtain, and that the availability of cannabis had remained stable (64%, n=34) or increased (22%, n=34) in the preceding six months. Key experts echoed these reports, with 60% (n=3) reporting that cannabis was very easily accessed (with the remainder indicating that it was easy for consumers to access, n=2), and that this level of availability had remained stable (100%, n=5) in the six months prior to interview. Trends in availability and routes of access will be discussed separately for each type of cannabis below.

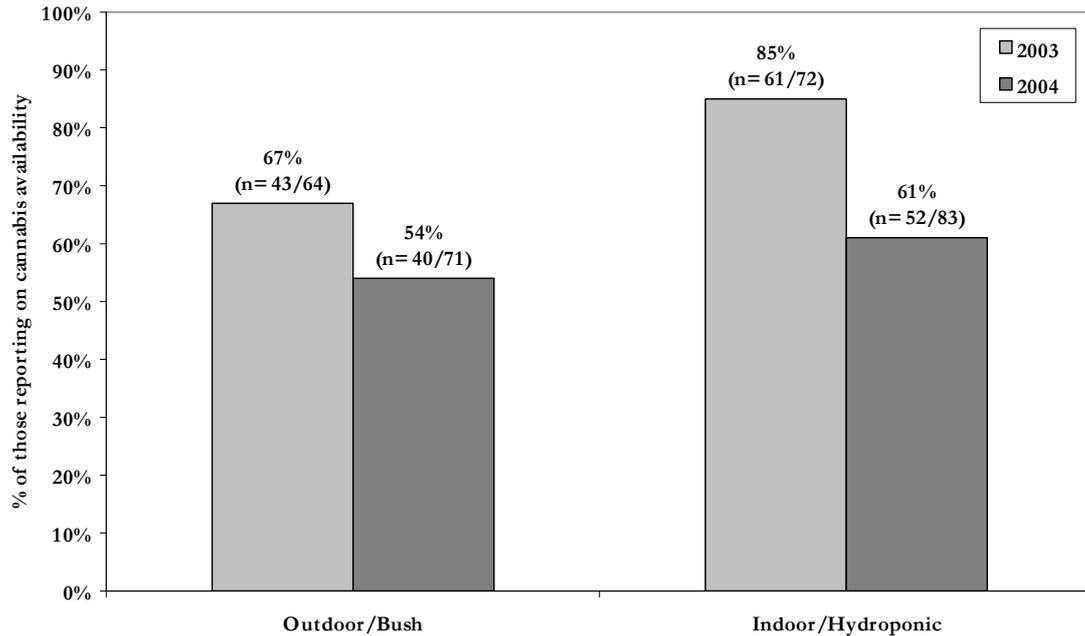
In regard to outdoor or 'bush' cannabis, the majority of the IDU commenting believed this to be very easily (56%, n=40), or at least easily (37%, n=26), accessed in the preceding six months, and that this situation had remained stable in this time (64%, n=45). However, a notable minority believed that outdoor-cultivated cannabis had become easier to access in the six months prior to interview (21%, n=15; with equal numbers reporting decreasing and fluctuating availability 7%, n=5 respectively). Most IDU reported usually purchasing this type of cannabis from friends (53%, n=39) or at a dealer's home (32%, n=23), with small minorities growing the drug themselves (10%, n=7), receiving it as a gift (3%, n=2) or purchasing from a 'street' or mobile dealer (1%, n=1 respectively). Participants estimated that it usually took them a median of 10 minutes (range 0-1440 minutes, n=67) to score outdoor/bush cannabis in the preceding six months.

Almost two thirds of the IDU reporting on hydroponic / indoor cultivated cannabis (63%, n=52) regarded it as very easily accessed in the preceding six months, with the majority of the remainder (30%, n=25) reporting that it was 'easy' for them to access the drug (7%, n=6 suggested that it was difficult to access) in this time. Again, two-thirds (63%, n=52) believed that this availability of this type of cannabis had remained stable in the preceding six months, with 23% (n=19) reporting that availability had increased in this time (6%, n=5 perceived that the availability had decreased, and 7%, n=6 that availability had fluctuated in the six months prior to interview). As per trends reported for outdoor cultivated cannabis, hydroponically cultivated cannabis was reported as usually being purchased from friends (52%, n=44) or at a dealer's home (42%, n=35), with very small proportions of participants reporting usually growing their own hydroponic cannabis (4%, n=3) or buying from a 'street' or 'mobile' dealer (1%, n=1 respectively). Participants estimated that it usually took them a median of 10 minutes (range 0-2880 minutes, n=82) to score indoor/hydroponic cannabis in the preceding six months, similar to the median time required to access outdoor/bush cannabis.

While participants referring to both indoor and outdoor cultivated cannabis reported that the availability of the drug had remained stable (64%, n=34) or increased (22%, n=34) in the preceding six months, these suggestions may have been made in comparison to a change in availability occurring between the sampling windows in the 2003 and 2004 IDRS studies. As indicated in Figure 11, while the majority of the 2004 IDU sample report both indoor and outdoor cannabis as very easily available, these proportions are reduced in comparison to such reports in the 2003 study. There were anecdotal reports from consumers of a decreased availability of cannabis in the early months of 2004. On examination of recent cannabis seizures by Tasmania Police (Figures 12 and 13), it is notable that there were some large seizures in recent months: 5883 cannabis plants in the second half of 2003; and some particularly large seizures in the south of the state in the

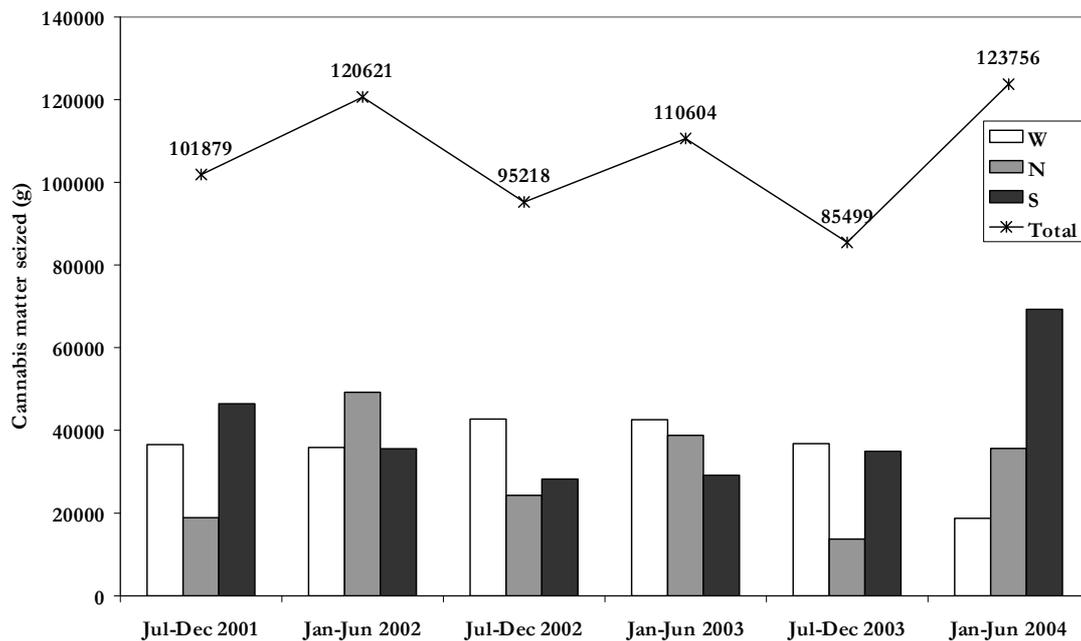
early months of 2004. It is possible that these seizures had an impact on the local cannabis market during these periods and hence IDU participants interviewed mid-year were less likely to report a 'very easy' availability than participants in the previous study, but would not perceive a *recent* change in the availability of the drug due to the timing of the seizures.

Figure 11: Proportion of IDU reporting different cannabis forms as 'very easy' to access: 2003-2004 IDRS



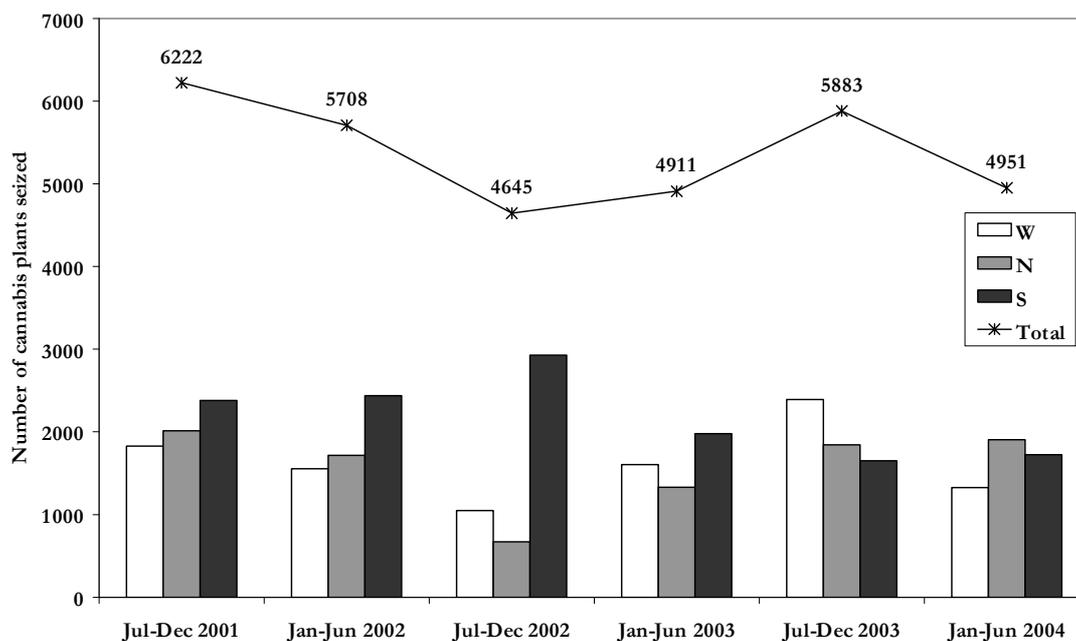
Source: IDRS IDU Interviews

Figure 12: Seizures of cannabis (leaf and head) by Tasmania Police district drug bureaux, 2001-2004



Source: Tasmania Police State Intelligence Services

Figure 13: Seizures of cannabis plants (and seedlings) by Tasmania Police, 2001-2004



Source: Tasmania Police State Intelligence Services

IDU were also asked about the source of the cannabis that they had used last time they had used the drug. Among those that reported ‘very sure’ or ‘moderately sure’ of the original source of the drug (n=66), the majority (59%, n=39) believed it to have been grown by small-time, ‘backyard’ user/growers, with 35% (n=23) reporting it to have been grown by a larger-scale cultivator/supplier (such as a crime syndicate, or organised motor-cycle group), and 6% (n=4) grew their own cannabis. These figures are very similar to those reported in previous studies (2003: 52% small-time user/grower; 31% large scale cultivator/supplier; 17% grew own cannabis; 2002: 66% small-time user/grower; 26% large scale cultivator/supplier; 8% grew own cannabis).

7.3 Potency

The cannabis used in the past six months by those participating in the IDU survey was marijuana head (the flowering top sections of the female plant), with most cannabis-using IDU reporting some use of both hydroponically-grown (84%) and outdoor crops (or ‘bush buds’, 80%). Most reported a preference for hydroponically grown head, which was borne out by the finding that 69% (n=60) reported this as the type of cannabis that they had most often used in the last six months, in comparison to 31% (n=27) reporting predominant use of outdoor crops. This is a change from the 2003 study, where indoor/hydroponically-cultivated cannabis was the type most commonly used by 81% of recent cannabis-consuming IDU, with just 19% reporting predominantly using outdoor cannabis. Reports made by key experts were in line with these patterns (use of both indoor- and outdoor- produce but predominant use of indoor/hydroponic cannabis), and use of cannabis leaf was almost non-existent among the groups the key experts were familiar with. Seventeen percent of the IDU sample had used hash, and 9% had used hash oil in the preceding six months.

In concert with the reporting of predominant use of hydroponically grown cannabis, in 2001 Tasmania Police reported an increasing trend toward hydroponic, or indoor,¹² production of the drug. In 1999/00, approximately 12,700 Indian hemp plants were seized by Tasmania Police, of which 16% were grown hydroponically. In comparison, during 2000/01, 10,500 plants were seized, of which 38% were hydroponically cultivated. This trend was continued in 2001/02, with 41% of the 12,000 plants seized in this period being hydroponically cultivated. Cannabis seizures in 2002/03 and 2003/04 were not divided according to cultivation type due to inconsistencies in recording on exhibit sheets, however, in 2002/03, 9,556 plants, and in 2003/04, 10,834 plants were seized state-wide by Tasmania police (Figure 13). Law enforcement officers interviewed in the current study noted that there continued to be a trend away from large outdoor cannabis crops toward smaller, scattered outdoor crops, and that police were identifying an increasing number of larger indoor crops in recent months as well.

All key experts reporting use of cannabis among their groups stated that the predominant method of cannabis use was smoking through ‘buckets’ or ‘bongs’ (water pipes) rather than ‘joints’ (cannabis cigarettes) or cannabis cookies.

The potency of cannabis across both modes of cultivation was generally rated as ‘high’ (35%, n=53) or ‘medium’ (33%, n=51) by the IDU sample, with most respondents indicating either that this potency had remained stable (49%, n=74), or had fluctuated (29%, n=44) in the preceding six month period. Just two key experts could comment on cannabis potency, with one reporting this as ‘high’ and remaining stable in the preceding six months; the other that purity had fluctuated in this time.

Potency of outdoor or ‘bush’ cultivated cannabis was regarded by IDU as generally being ‘medium’ (47%, n=33), with smaller proportions reporting ‘low’ (26%, n=18) or fluctuating (24%, n=17) purity in the preceding six months. This level of potency was regarded as having remained stable (51%, n=35), or, as having fluctuated (33%, n=23) in the preceding six months, although a small number of IDU felt that purity had decreased (10%, n=7) and a similar number that purity had increased (6%, n=4) in this period.

Hydroponically cultivated cannabis, however, was generally reported by IDU as being ‘high’ (61%, n=51) or ‘medium’ (22%, n=18) in purity, with a minority reporting that purity had fluctuated in the preceding six months (12%, n=10). Purity was predominantly regarded as remaining stable in the preceding six months (48%, n=39), although substantial minorities reported recent increases (23%, n=19) or fluctuations (26%, n=21) in purity.

Seizures of cannabis by Tasmania Police are not analysed for potency, and as such no empirical data is available to examine trends in potency.

¹² For the purpose of reporting, Tasmania Police record all cannabis plants seized that had been grown indoors as hydroponically cultivated, rather than just those plants that are grown without the use of soil.

7.4 Use

Prevalence of cannabis use

The 1998 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 1999), which sampled 1031 Tasmanian residents, indicated that 37.5% had ever used cannabis, while 15.8% had used the drug in the 12 months prior to interview. These patterns were stable for both urban and rural survey participants. Of those urban respondents who had ever used cannabis, 6% reported using daily, 8% weekly, 11% monthly or every few months, and 13% used cannabis less often, with 56% not using during the 12 months prior to interview. Of those currently using cannabis, 55% obtained it from friends or acquaintances. Ten percent of participants further indicated that cannabis was their favourite drug (from a selection which also included tobacco and alcohol). Following a similar trend to the rest of the country, around 22% of Tasmanian participants indicated that they had been offered cannabis in this period.

Findings of the 2001 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2002) indicated a decline in the proportion of participants reporting recent use of cannabis, with 11.9% of the 1349 participants sampled reporting use of the drug in the year prior to interview, down from 15.8% in the 1998 survey. Prevalence of cannabis use in the 12 month period prior to survey was estimated to be 22.1% in people aged between 14-24 (24.3% in males, 19.8% in females), 22.9% in 25-39 year olds (29.8% in males, 16.7% in females), and 3.4% in those aged 40 and above (4.3% males, 2.6% females).

The 1996 Australian School Students Alcohol and Drugs (ASSAD) Survey (Cancer Council of Tasmania, 1997) sampled 2,553 students in years 7 to 12 from schools across Tasmania during the 1996 school year. Results indicated that 34% of 12-15 year olds (37% males, 31% females), and 54% of 16-17 year olds (57% males, 50% females) reported using cannabis at some stage in their lives. Eighteen percent of the 12-15 year olds, and 25% of the 16-17 year olds surveyed reported smoking cannabis in the month prior to interview. Within the 1999 sample of 2,671 students (Cancer Council of Tasmania, 2001), 30% of 12-15 year-olds (31% males, 28% females), and 48% of the 16-17 year olds surveyed (52% males, 42% females) surveyed reported using cannabis at some stage in their lives. In terms of recent use, 17% of the 12-15 year olds surveyed and 19% of the 16-17 year olds surveyed reported using cannabis in the month prior to interview. The main difference between the findings of the 1996 and 1999 studies was a statistically significant reduction in reported rates of both lifetime and recent use of cannabis between these samples. The rates of use reported in these surveys are somewhat elevated in comparison to the prevalence estimates reported in the 2001 National Drug Strategy Household Survey, but this may be expected given the more experimental nature of these younger age groups in comparison to the wider age range sampled in the Household survey.

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, 120 in 2002/03 and 109 in 2003/04) during this period. It should be noted that cannabis

remains detectable for a longer period of time than most other drugs, and as such is the most likely drug to be identified in such screening procedures.

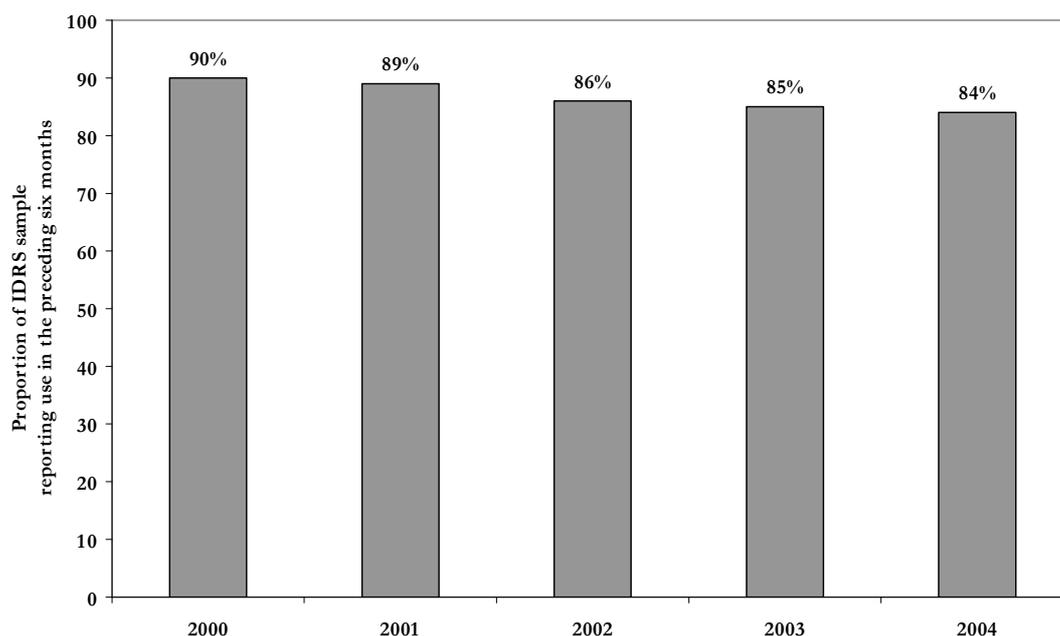
Current patterns of cannabis use

Many of the cannabis users who were known to the key experts were polydrug users. Other drugs that were used included methamphetamine (most commonly powder form), ecstasy, benzodiazepines, hallucinogenic, morphine and methadone, although use was generally sporadic and limited to a small percentage of the groups that the key experts were familiar with.

Cannabis use among IDU

Almost all key experts referring to primary consumers of opiates or methamphetamine reported or suspected some level of cannabis use within the populations they had contact with. While cannabis was reported as the drug of choice for only 8% of the IDU sample, 84% of the entire sample reported some use of cannabis in the preceding six months. Among those that had recently used cannabis, the median frequency of use in the past six months was 180 days (range 2-180), which equates to daily use of the drug. The majority of cannabis users described by key experts also smoked cannabis daily (dependant on finances). Examining recent cannabis use in the five Tasmanian IDRS IDU cohorts (2000-2004: Table 14), there appears to have been a slow, and slight, yet steady, decline in the proportions reporting use of the drug across these samples. However, while this proportion has reduced, those that did report using the drug were predominantly daily smokers, with the median frequency of use in the six months prior to interview remaining at 180 days in each of the cohorts.

Figure 14: Proportion of Tasmanian IDRS IDU cohorts reporting use of cannabis in the six months prior to interview, 2000-2004.



Source: IDRS IDU Interviews

7.5 Cannabis related harms

Law enforcement

When asked about changes in the level of criminal activity among the cannabis users that key experts had contact with, the majority indicated that there had been no change in the past six months, in relation to property crimes, dealing of drugs or fraud. While most key experts also noted no change in violent crimes among the cannabis users they had contact with (n=3), one noted their client group experiencing a reduction in problems associated with violent behaviour in recent months.

Several key experts noted an increase in the number of cannabis-consuming individuals being diverted to treatment or brief intervention in recent months through the Illicit Drug Diversion Initiative (detailed in Section 10.8 below), and also that there appeared to be a decrease in age of those so diverted. Data from this initiative (Section 10.8) show a relatively stable number of cases over time, with approximately 1000 diversions made per annum in the past three financial years.

Details of cannabis-related consumer and provider arrests are detailed in Section 10.8. Since the implementation of the Cannabis Cautioning Program (which evolved into the Illicit Drug Diversion Initiative), cautions and arrests relating to cannabis increased steadily from 736 in 1998/99 to 1830 in 2002/03, with the first reversal of this trend, a decline to 1638 cases in 2003/04. The bulk of these cases (90% in 2002/03, 92% in 2003/04) relate to consumer-type offences.

Health

Most key experts reported that there had been little change in health-related trends within the primary cannabis using groups that they were familiar with over the past six months. However, individual key experts noted an increase in the number of clients seeking group counselling or support for their use, with another noting a decrease in age of people presenting for cannabis use issues (teenagers). Most other key experts reporting on these groups noted no real changes in treatment seeking for cannabis-related issues in the preceding six months. In support of this, there has been little change in the number of calls to the Alcohol and Drug Information Service (ADIS) telephone line in recent years (see Section 10.1).

Several key experts noted either an increase in people giving up on cannabis and tobacco use, or a decrease in frequency of use, anecdotally attributed to reactions following the death of Premier Jim Bacon due to smoking-related illnesses in mid-2004.

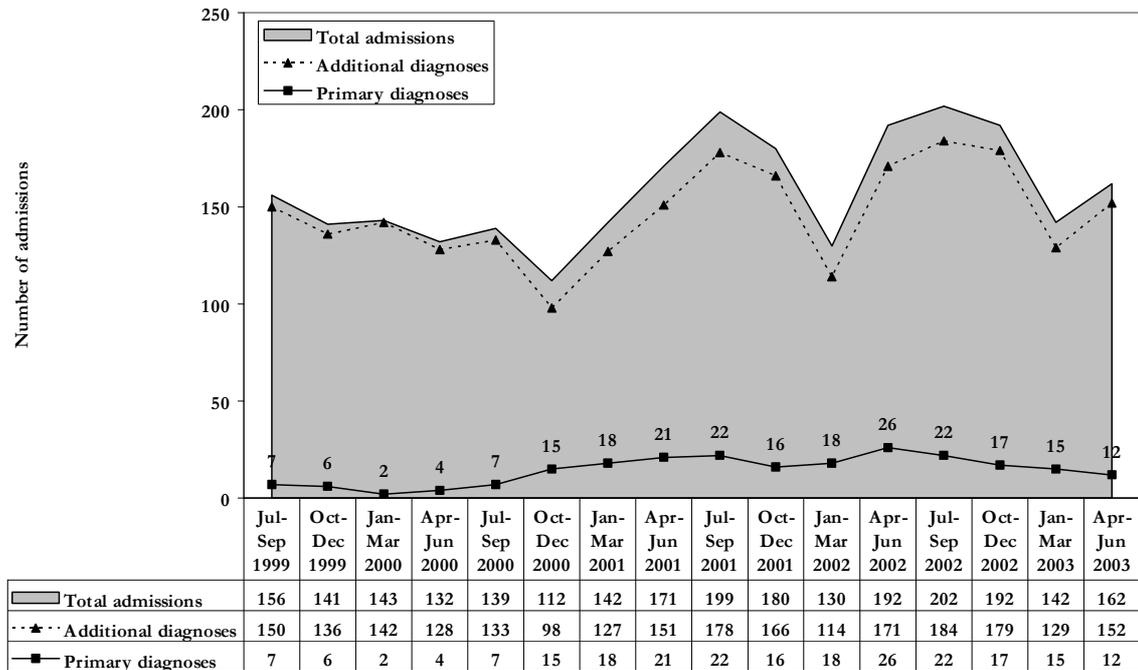
Those key experts in counselling roles saw a minority of those clients that they were working with in regard to cannabis use as experiencing mental health problems, most commonly depression, anxiety, low self-esteem and relationship problems (although these are the most common presenting issues for counselling in a general sense). These key experts noted no real changes in the types of presenting issues in these groups other than anecdotal changes or service-related changes.

Three key experts also noted an increase in accommodation problems in recent months among the cannabis-consuming groups that they were working with (all were youth workers).

Hospital morbidity data in relation to use of drugs has been provided by the Australian Institute of Health and Welfare for the 1999/00 to 2002/03 financial year periods. This data relates to public hospital admissions where drug use was recorded as related to the admission. There are two categories for such involvement: 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; and secondly, the 'additional diagnosis', being a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care. 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 only public specialist detoxification centre is only included in this dataset from June 2002.

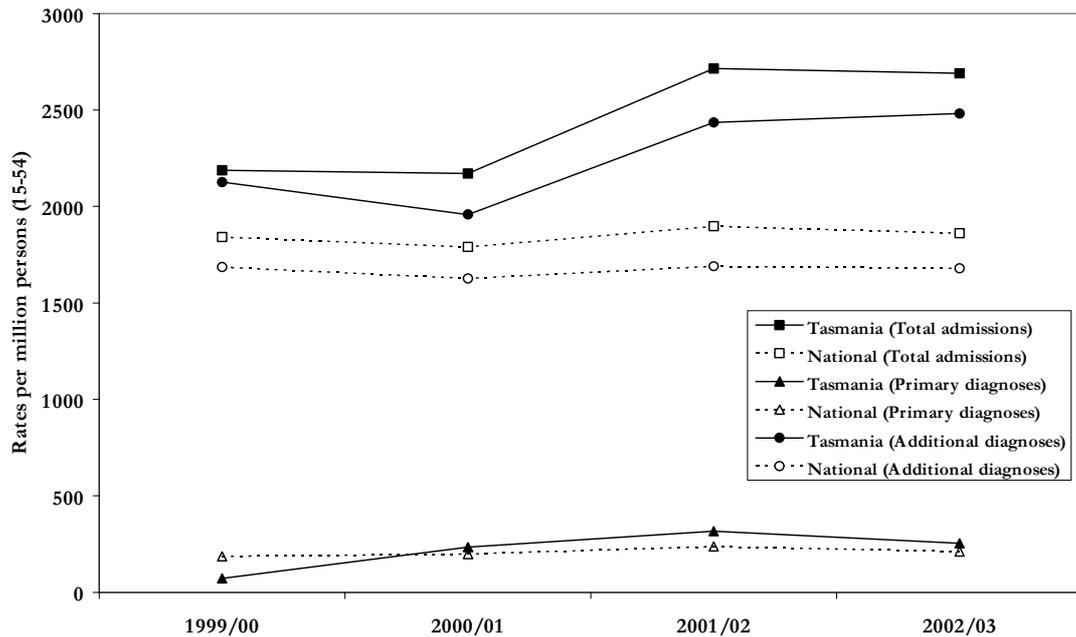
Tasmanian public hospital admissions where cannabis was noted as a contributing factor towards diagnosis are presented in Figure 15 below. The trend in this data is that of a slightly increasing number of such cases over time, largely due to cannabis-related additional diagnosis mentions, with the total number of admissions where cannabis is noted rising from around 140 admissions per annum in 1999/00 to 175 in 2002/03. However, the number of admissions where cannabis is noted as part of the primary diagnoses appears to be trending lower in 2002/03 following slight increases between 1999/00 and 2001/02. Comparing the rates of Tasmanian cannabis-related admissions to National admission rates (Figure 16), between 1999/00 and 2002/03, Tasmanian admissions where cannabis is noted as a contributing factor has consistently remained higher than the national rate (120% the national rate between 1999/00 and 2000/01, and 140% the national rate between 2001/02 and 2002/03 in terms of the total number of cases where cannabis is noted). However, the clear bulk of such admissions are clearly cases where cannabis is noted as a secondary or additional factor in the admission diagnosis. In 2002/03, the Tasmanian hospital admission rate where cannabis is noted as the primary contributing factor was around 255 admissions per million population, just one-tenth that of the total number of admissions where cannabis was noted (2700 admissions per million population in Tasmania), with the rate of admissions where cannabis was noted as the primary factor contributing to admission being approximately 20% above that of the national rate.

Figure 15: Public hospital admissions where cannabis was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03



Source: Australian Institute of Health and Welfare

Figure 16: Public hospital admissions where cannabis was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

7.6 Trends in cannabis use

Two IDU participants noted a decrease in the age of people using cannabis, although noting this as people in their mid-teens, and as such this is unlikely to represent any objective change in use (similar changes have been reported in all previous Tasmanian IDRS surveys). One IDU also noted a change, in regard to more ‘older’ (in their thirties and forties) and ‘straighter’ individuals using cannabis in recent months.

Consistent with trends discussed elsewhere in this report, one key expert and two IDU noted a recent increase in the use of methamphetamine and ecstasy use among groups that were previously predominant cannabis users, with one further IDU also noting an increase in the use of hallucinogens (psychedelic mushrooms) among primary cannabis-consuming groups, and also an increase in inhalant use (aerosol, butane) in such groups in the preceding six months. In contrast to this latter report, two key experts working with ‘at-risk’ groups noted a decrease in inhalant use by their cannabis-using groups in recent months.

7.7 Summary of cannabis trends

Table 26: Summary of cannabis trends

	Outdoor / 'bush'	Indoor / hydroponic
Price <i>Gram</i> <i>Quarter-Ounce</i> <i>Ounce</i>	<ul style="list-style-type: none"> • \$25 • \$60 • \$200 • prices stable in recent months, but <i>increased</i> in comparison to the 2003 survey 	<ul style="list-style-type: none"> • \$25 • \$80 • \$250 • prices stable in recent months, but <i>decreased</i> in comparison to the 2003 survey
Availability	Both indoor- and outdoor- cultivated cannabis: <ul style="list-style-type: none"> • Easy-very easy to obtain • Availability stable in recent months, but possibly decreased in comparison to the 2003 survey, following large seizures by Tasmania Police in late 2003 and early 2004 	
Potency	<ul style="list-style-type: none"> • Medium-low (based on IDU estimates) • Potency level stable or fluctuating 	<ul style="list-style-type: none"> • Medium-high (based on IDU estimates) • Potency level stable to increasing
Use	<ul style="list-style-type: none"> • Most widely used illicit drug • Indications of decreasing prevalence of use of cannabis in recent years in the State from two large studies (NSDS and ASSAD), and slowly decreasing prevalence in IDRS IDU samples • High level of daily use among IDU sample and groups discussed by key experts • Hydroponically-grown head preferred by users • Predominantly smoked using 'buckets' and 'bongs' (water pipes) 	
Other Trends	<ul style="list-style-type: none"> • Increase in methamphetamine and ecstasy use among some cannabis users • Continued anecdotal reports of decreasing age of cannabis users 	

8 OPIOIDS

Nine key experts reported on groups of people who were primarily users of opioids, populations that were using both diverted pharmaceutical morphine and methadone; either at equal frequency, or using one preferentially, but also regularly using the other depending on availability. When pressed to describe an illicit drug that was predominantly used among members of their group, four key experts indicated morphine, and five nominated methadone. These patterns were similar amongst key expert reports in the 2003 study, although morphine was more often reported as the predominantly used drug in those cohorts.

Similar trends were noted among the IDU sample, with there being a large overlap between people reporting recent use of these drugs – of those who reported use of morphine in the six months prior to interview, 82% also reported some illicit use or some form of methadone, and 92% reported some use of methadone (either tablets or syrup, licit or illicitly accessed: Table 27). Additionally, of those who had used morphine in the six months prior to interview, 44% (n=27) reported methadone as the drug they most often injected in the past month (32%, n=20 reporting this as being morphine: Table 28). Because of this substantial level of overlap, trends for these drugs are discussed together here.

Table 27: Use of other drugs by those reporting use of morphine in the past six months (n=62)

Drug	% of morphine users reporting use	Median days used by those who had used the drug (range in parentheses)
Heroin	24	5 (1-72)
Other Opioids	44	2 (1-180)
Benzodiazepines	89	72 (1-180)
Cannabis	87	180 (5-180)
Methadone Syrup (licit)	53	12 (1-96)
Methadone Syrup (illicit)	71	6 (1-180)
Physeptone (illicit)	63	14 (1-180)
Methamphetamine (<i>any</i>)	98	14 (1-180)
<i>Powder</i>	65	6 (1-180)
<i>Base/paste</i>	69	10 (1-96)
<i>Crystal</i>	55	5 (1-180)
Homebake	7	7 (1-72)

Source: IDRS IDU Interviews

Table 28: Drug of choice and drug most often injected among those reporting use of morphine in the past six months (n=62)

	Drug of choice %	Drug most often injected %
Heroin	39	-
Methadone	11	44
Morphine	19	32
Methamphetamine	16	23
Benzodiazepine	5	2

Source: IDRS IDU Interviews

Key experts reporting on the use of opioids included staff involved in pharmacotherapy programs (2 prescribers, one support nurse and one pharmacist), drug treatment workers (n=2), and single individuals from an array of other health positions (one involved in health support, one needle and syringe worker, and one forensic pathologist).

Key experts were familiar with users of opioids from all Hobart suburbs, but they were often from inner-city suburbs, or lower socio-economic areas from the eastern shore or northern suburbs, possibly reflecting the nature of the services that the key experts worked in (largely government-run health services). The majority of key experts described opioid users from a predominantly English-speaking background, ranging in age between 15 and 55 years, however, in general, the groups that key experts were referring to were either in their early twenties, or in their early thirties. A preponderance of males was noted among these groups, with key experts noting their primary-opioid populations were between 60-66% male (median = 60%, which is a change from the 2003 study, where the groups were regarded as a median of three-quarters male). The majority of the opioid users described by key experts had only completed 9 to 10 years of schooling (although a wide range of education history was noted), and were predominantly currently unemployed.

Of the IDU sample, 94% reported they had tried morphine at some stage in their lives, and all but one of these had injected morphine. Sixty-two percent had used morphine in the past six months, with all but two injecting the drug in this time, and recent oral use only reported by 17% of the sample. Similar patterns of use were found for illicitly accessed physeptone tablets of methadone, with 83% of the sample ever using the drug, and all but 7 having injected. Of the 52 participants using illicitly accessed physeptone tables in the past six months, 47 had injected the drug and 21 had used the drug orally. Use of illicitly accessed methadone syrup was similarly prevalent: with 83% of the sample ever using illicit syrup, and all but one of these participants injecting it at some stage in their lives. Almost two-thirds of the sample (64%) had used illicit methadone syrup in the preceding six months, with all but two reporting recent injection (62% of the sample), and a smaller proportion swallowing syrup (24%) in this time. As would be expected given the high proportion of the current IDU sample that were receiving methadone maintenance treatment at the time of interview (54%), more than two-thirds (68%) of the sample had used methadone syrup accessed licitly at some stage of their lives, although it is noteworthy that again almost all had injected licitly-accessed syrup (64%) at some time, which is not consistent with a supervised methadone maintenance program (according to policy and the method that the drug is currently distributed in the program currently). Fifty-four percent of the sample had used methadone syrup as part of a maintenance program in the preceding six months, although, again, almost all had recently injected the

medication (50% of the sample). Participants receiving licit prescriptions of physeptone tablets of methadone were much less common, with just 23% of the sample being in receipt of these at some stage of their lives (18% had injected licitly-accessed physeptone at some stage), with just 7% of the sample receiving these via legitimate means in the preceding six months, four of whom had injected the drug in this time.

The demographics of the group that had used morphine ($n=62$) in the past six months was similar to that of other IDU (see Section 2.1) in terms of sex, age, cultural and educational background, treatment and employment status, prison history, drug of choice, frequency of injection, age of first injection, first drug injected and duration of injection career. However, as would be expected, they were significantly more likely to report morphine as the drug they had most often injected in the month prior to interview (32% vs. 0%: $\chi^2(7, n=100) = 22.7, p = 0.02$), and as the last drug injected (29% vs. 0%: $\chi^2(9, n=100) = 18.1, p = 0.034$). The demographics of those that had used any form of methadone by either licit or illicit means in the past six months ($n=85$, although these differences are consistent for those reporting use of any pharmaceutical opiate, $n=90$, or for any illicitly-accessed pharmaceutical opiate, $n=86$) were similar to those of other IDU (see Section 2.1) in terms of sex, age, cultural and educational background, prison history, age of first injection, first drug injected, and duration of injection career. Again, those that had recently used methadone were significantly more likely to report an opiate as their drug of choice (75% vs. 20%: $\chi^2(11, n=100) = 41.4, p < 0.001$), and methadone as the drug they had most often injected in the preceding month (56% vs. 0%: $\chi^2(7, n=100) = 40.0, p < 0.001$), and last injected (47% vs. 0%: $\chi^2(9, n=100) = 26.7, p = 0.02$), and be receiving methadone maintenance therapy (64% vs. 0%: $\chi^2(1, n=100) = 20.7, p < 0.01$). Importantly, however, those that had recently used any form of methadone were significantly less likely to be currently employed (81% of those that had used methadone were unemployed and not involved in education or home duties at the time of interview vs. 47% of those who had not recently used the drug: $\chi^2(4, n=100) = 20.0, p < 0.001$), and were significantly more likely to inject more frequently than weekly (85% vs. 53%: $\chi^2(4, n=100) = 12.4, p = 0.015$) than those that had not used methadone in the preceding six months.

Sixty-two participants in the IDU sample could comment on aspects of price, purity and availability of morphine, with 71 respondents providing information on illicit methadone syrup and 61 commenting on illicit physeptone tablet trends.

8.1 Price

8.1.1 Morphine

Both key experts and IDU reported the market price of morphine as around \$1 per milligram, the same price reported in previous IDRS reports. However, as indicated in Table 29 below, the modal price that users paid for their most recent purchase of the drug was generally lower than this figure. The majority of IDU (76%, $n=44$) commenting on morphine prices believed that these had remained stable over the preceding six months, although the majority of key experts (80%) and a minority of IDU (10%, $n=6$) reported a decrease in price during this period. Comparison of the modal prices for most recent purchases of the drug amongst the 2003 and 2004 IDRS survey respondents provide support for reports of stable prices (Table 29), however there are indications of a decrease in the price range (despite the modal price remaining stable across surveys) for

MS Contin and 100mg capsules of Kapanol, although the price of 30mg tablets of Anamorph and 50mg capsules of Kapanol may have increased between the two surveys.

Table 29: Market prices of morphine and related products reported by IDU and modal price for most recent purchase of particular forms of the drug, 2000-2004 IDRS (range in parentheses).

Preparation	2000 IDRS		2001 IDRS		2002 IDRS		2003 IDRS		2004 IDRS	
	Price	n	Price	n	Price	n	Price	n	Price	n
Morphine \$ per mg	\$1	20	\$1	8	\$1	15	\$1	14	\$1	10
Morphine \$ per 100 mg	\$80	2	\$80	5	\$75*	3	\$75	8	\$80	24
MS Contin										
10 mg tablet	\$8 (\$3-15)	9	\$5 (\$5-10)	3	\$7.50 (\$5-10)	2	\$5(\$5-15)	3	\$4 (\$3-15)	3
30 mg tablet	\$25 (\$8-40)	41	\$25 (\$10-35)	42	\$20 (\$10-30)	45	\$20 (\$20-30)	18	\$20 (\$1-25)	26
60 mg tablet	\$50 (\$13-60)	62	\$40/\$50 (\$18-60)	74	\$50 (\$18-60)	86	\$50 (\$15-60)	51	\$50 (\$4-58)	50
100 mg tablet	\$80 (\$15-100)	54	\$80 (\$50-100)	68	\$80 (\$20-100)	73	\$70 (\$12-100)	44	\$70 (\$5-80)	44
Kapanol										
20 mg capsule	\$15 (\$10-20)	16	\$10 (\$5-25)	14	\$20 (\$10-20)	14	\$15 (\$10-30)	9	\$13 (\$5-20)	9
50 mg capsule	\$40 (\$15-50)	36	\$40 (\$25-50)	40	\$40 (\$15-50)	43	\$35 (\$12-50)	35	\$40 (\$15-50)	35
100 mg capsule	\$80 (\$60-100)	12	\$80 (\$50-90)	31	\$80 (\$50-100)	36	\$70 (\$17-100)	22	\$70 (\$30-80)	20
Anamorph										
30 mg tablet	\$25 (\$15-30)	29	\$25 (\$15-30)	26	\$25 (\$10-30)	44	\$20* (\$10-30)	9	\$30 (\$15-30)	16
Oxycontin										
40 mg tablet	-	-	-	-	\$15	1	\$20 (\$20)	4	\$40	1

Source: IDRS IDU interviews *Median substituted for mode, as no single mode existed.

8.1.2 Methadone

Both key experts and IDU reported the market price of methadone as around \$1 per milligram, the same price reported in previous IDRS reports. However, prices that IDU respondents reported paying for their last purchase of the drug were highly variable, and, as indicated in Table 30 below, the modal price that users paid for their most recent purchase of larger amounts of the drug (more than 80mg) was generally lower than the \$1 per milligram figure. Since the nature of access to the drug does not easily allow for standard purchase amounts to be made, IDU were asked to report the amounts and costs of their most recent purchase of methadone, and these were divided into purchases of less than 80mg or 80mg and above, on the basis of a clear split in the data. Among those purchases of less than 80mg, the modal price paid by IDU was \$1 per milligram, while modal prices for amounts 80mg and above were approximately 80 cents per milligram (Table 30). The clear majority of IDU reported that these prices for diverted methadone syrup had remained stable in the preceding six months (76%, n=48), with a minority perceived increasing prices (10%, n=6 IDU and one KE) in this time. Prices for Physeptone tablets of methadone appear to have remained stable across the past five years of the Tasmanian IDRS study, at \$10 per 10mg tablet (Table 30). Consistent with this, 70% of the IDU commenting on Physeptone prices perceived that this price had remained stable in the preceding six months, although a notable minority (21%, n=9) believed that Physeptone prices had increased in this time.

Table 30: Market prices of methadone reported by IDU and modal price for most recent purchase of particular forms of the drug: 2000-2004 IDRS (range in parentheses).

Preparation	2000 IDRS		2001 IDRS		2002 IDRS		2003 IDRS		2004 IDRS	
	Price	n	Price	n	Price	n	Price	n	Price	n
Methadone \$ per mg	\$1	40	\$1 (\$0.4-1)	49	\$1 (\$0.5-1)	49	\$1 (\$0.5-1)	29	\$1 (\$0.5-1.2)	62
Methadone syrup (price per mg)										
Amounts less than 80 mg	\$1.0 (\$0.5-1.0)	30	\$1.0 (\$0.5-1)	11	\$1.0 (\$0.4-1)	19	\$1.0 (\$0.3-1)	21	\$1.0 (\$0.4-1)	30
Amounts greater than 80 mg	\$0.8 (\$0.5-1.2)	23	\$0.55 (\$0.3-1)	15	\$0.8 (\$0.4-0.9)	24	\$0.8 (\$0.5-1)	22	\$0.8 (\$0.4-1)	42
All purchase amounts	\$1.0 (\$0.5-1.2)	53	\$1.0 (\$0.3-1.0)	26	\$1.0 (\$0.4-1.0)	43	\$1.0 (\$0.3-1.0)	43	\$1.0 (\$0.4-1)	72
Physeptone										
5 mg tablet	-	0	\$7*(\$5-10)	3	\$5	1	-	-	\$10	2
10 mg tablet	\$10 (\$4-12)	17	\$10 (\$2-15)	53	\$10 (\$5-15)	53	\$10 (\$3-20)	62	\$10 (\$5-15)	43

Source: IDRS IDU Interviews

8.2 Form

8.2.1 Morphine

IDU respondents were asked to nominate the preparations of morphine that they had used in the preceding six months. Of the 62 participants reporting use of morphine in the preceding six months, use of illicit MS Contin (77%, n=48) and illicit Kapanol (68%, n=42) was most common, with smaller proportions reporting use of illicit Ordine¹³ (liquid morphine: 35%, n=22, with half of these purchasing the drug 'preloaded' in a syringe, used on a median of 3 days, range 1-48 days in the preceding six months), illicit Anamorph (29%, n=18) or illicit MS Mono (3%, n=2). Use of licitly-accessed morphine in the preceding six months was relatively scarce within the IDU sample, with just three individuals reporting use of licit MS Contin in this period. When asked to nominate which form they had used most often in the preceding six months, 64% (n=38) reported illicit MS Contin, 22% illicit Kapanol (n=13), 9% illicit Ordine (n=5), 2% illicit Anamorph (n=1), and 3% (n=2) licit MS Contin.

This pattern was supported by four key experts, and the predominance of MS Contin is in concert with patterns noted in previous Tasmanian IDRS reports. Use of Ordine has been steadily increasing in the past three IDRS samples, with the proportions nominating it as the form of morphine they had most often used increasing from 2% in 2002 to 9% in the current study, following anecdotal reports of use beginning in 2001. Finally, it is clear from these figures that only a very small minority of those using morphine (5%) had accessed this from licit¹⁴ sources in the preceding six months.

8.2.2 Methadone

Eighty-one percent of the IDU sample had reported use of methadone syrup in the past six months, the majority of whom had been on a methadone maintenance program within this time (67%, n=54). Of those that had used methadone syrup, 79% (n=64) had

¹³ Ordine is morphine.hydrochloride in aqueous (water) solution, and contains sugar as a preservative.

¹⁴ During interviewing, 'licit means' was defined as having the drug prescribed directly to the individual, whether appropriate or otherwise. By this definition, doctor shopping would be considered as 'licit means'.

purchased diverted methadone syrup at some stage in the preceding six months (including 69% of those individuals that were receiving methadone maintenance therapy).

Use of the tablet preparation of methadone, Physeptone, was reported in a slightly smaller percentage of the sample (57% of the sample, and 70% of those reporting recent use of methadone) in the preceding six months. Of the 57 individuals who reported use of Physeptone tablets, this was primarily accessed illicitly (by 52 individuals), with only 7 IDU accessing the drug via licit means. This level of recent use of Physeptone, by 57% of the sample is the first reduction in the use of this drug following an increase in its use by IDU since the 2000 IDRS (climbing steadily from 30% in 2000 to 65% in 2003).

When asked to describe the form of methadone they had predominantly used in the preceding six months, 62% (n=52) indicated licit methadone syrup, 24% (n=20) illicit methadone syrup, 8% (n=7) illicit- and 6% (n=5) licit- Physeptone tablets.

8.2.3 Other Pharmaceutical Opioids and Related Substances

Due to recent developments of new opiate-based or strong analgesic pharmaceuticals and the known interest among the Tasmanian illicit drug market for pharmaceutical preferences for drugs, IDU were also asked about use of other pharmaceutical opiates and related substances in the preceding six months. OxyContin (oxycodone) had been used via legitimate prescription by two participants in the preceding six months, and illicitly by 25; four participants reported licit use of Endone (oxycodone), and 15 had accessed it illicitly in the six months prior to interview, and in this time, one participant had used illicitly accessed OxyNorm (oxycodone). A further two participants reported recent use of Proladone (oxycodone). Participants were asked which form and access pathway to oxycodone they had accessed the majority of this drug in/from in the preceding six months, with 23 participants (68% of those recently using oxycodone) reporting predominantly using illicitly accessed OxyContin, six participants (18%) predominantly using illicitly accessed Endone, four (12%) most commonly using licitly prescribed Endone and one participant (3%) licitly prescribed OxyContin.

Eight participants reported being prescribed tramadol in the six months prior to interview, with 19 reporting recent illicit use of this drug. Of these, 15 people (or 71%) reported predominantly using diverted tramadol in the preceding six months, with the remainder: n=6 (or 29%) most commonly using prescribed tramadol in this time. Finally, seven participants reported recent use of Panadeine Forte (codeine phosphate).

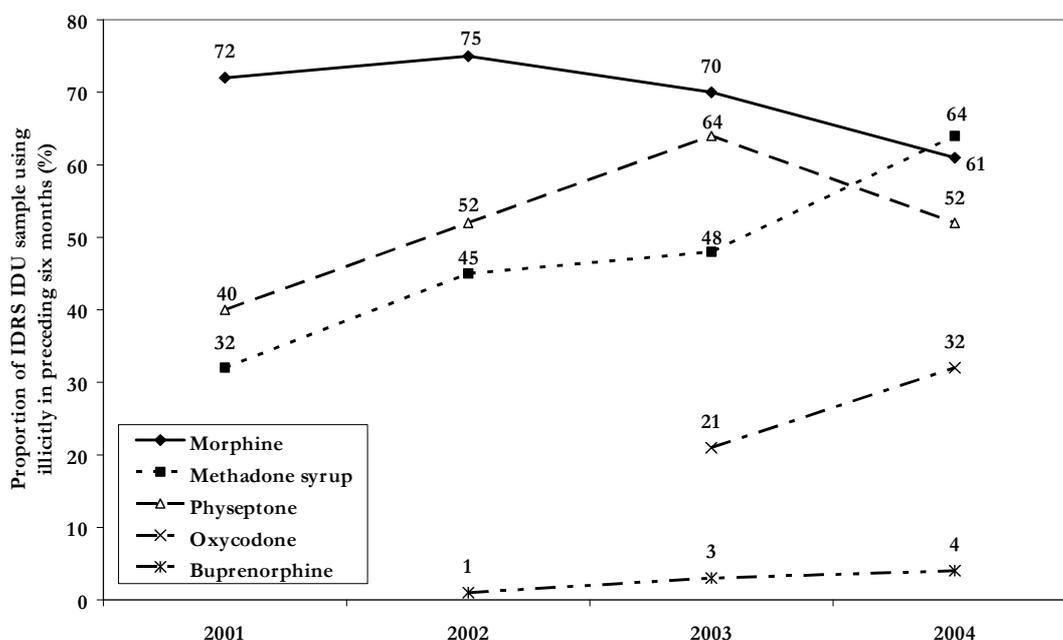
8.2.4 Use of different forms of pharmaceutical opiates across IDRS studies

Use of these different types of pharmaceutical opiates across the IDRS IDU samples is charted in Figure 17 below. It should be noted that these figures report on the proportion of the IDU participants reporting accessing these drugs illicitly (rather than direct from a doctor's prescription for them) in the six months prior to interview, and as such these figures differ somewhat from the total proportion of the IDU samples in each study reporting any use of these products.

Figure 17 indicates that the proportion of the sample reporting recent use of illicit morphine, which was the predominant pharmaceutical opiate used both by IDRS IDU participants and clients of the state's non-pharmacy Needle Availability Program to 2002 (see Figure 19), steadily declining since this time. Diverted methadone (Physeptone)

tablet use had steadily increased from 2000, where 32% of the sample had recently used the drug (either licitly or illicitly), rising to 64% (using diverted tablets) in 2003, with use declining for the first time in the current study (54% using diverted tablets). Across the years of the IDRS study, the proportion reporting recent use of diverted methadone syrup has increased (32% in 2001 to 64% in 2004) however, this was always commonly used amongst those already enrolled in the methadone maintenance program (in 2002, almost half of those sampled that were enrolled in methadone maintenance had also purchased diverted syrup in the six months prior to interview, and existing maintenance patients comprised more than half of all those accessing diverted syrup) and appears to have increased over time: with 45% of those IDRS IDU participants enrolled in methadone maintenance therapy reporting also using diverted methadone in the six months prior to interview in the 2002 study, 50% of such individuals in 2003 and 69% in 2004. Use of diverted buprenorphine has remained low across the three years where the drug has been available for pharmacotherapy. Finally, there has been a notable increase in reported use of diverted oxycodone in the two years this has been explicitly examined in the IDRS study (rising to one third of participants from anecdotal reports of use in 2002).

Figure 17: Proportion of Tasmanian IDRS IDU cohorts reporting use of different types of pharmaceutical opiate or related product in the six months prior to interview, 2001-2004.



Source: IDRS IDU Interviews

8.3 Availability

8.3.1 Morphine

The majority of the IDU sample who commented on trends (n=59) reported that morphine was easy or very easy to for them to obtain (76%: 44% easy, 32% very easy), and that the availability of morphine had remained stable (59%) in the past six months, although a noteworthy minority reported decreasing (17%) or fluctuating (14%)

availability in this time. In line with IDU reports, all key experts thought that morphine was easy or very easy to obtain (63% very easy, n=5/8), and that availability had remained stable (50%, n=3) or become easier to access (50%, n=3) during the past six months. Among this sample, IDU reported usually purchasing morphine in the past six months from a friend (52%, n=30), with smaller proportions reporting usually accessing from a dealer's home (28%, n=16), a mobile dealer (9%, n=5), or a street dealer (10%, n=6). Participants reported it usually taking a median time of 30 minutes to score morphine in the preceding six months (range 0-720 minutes, n=59).

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.

8.3.2 Methadone

Shifting from the level of availability reported in the 2003 study, where participants were evenly split as to the availability of illicit Physeptone tablets (52% easy/very easy, 48% difficult/very difficult), in the current study, IDU participants predominantly reported that it was difficult (42%, n=22) or very difficult (19%, n=10) to access this drug in the preceding six months, with one third reporting that it was 'easy' to access illicit Physeptone (33%, n=17). While 59% (n=30) reported no change in the level of availability of this drug in the preceding six months, 31% reported that it had become more difficult to access diverted Physeptone in this time. Such a reduction in the availability of this drug is consistent with the reduction in the proportion of the IDU sample reporting recent use of this drug (Figure 17). Most IDU reported usually purchasing physeptone through a friend (67%, n=34) or at a dealer's home (22%, n=11) with 10% (n=5) usually purchasing from a mobile dealer and 2% (n=1) purchasing through a street dealer. IDU reported that it usually took them 28 minutes to 'score' Physeptone (mode = 0 minutes, range 0-5760 minutes, n=48) in the past six months.

In regard to illicit methadone syrup, respondents were somewhat split when reporting availability, with half (51%, n=33) suggesting that it was 'easy' to access in the preceding six months, and almost equal minorities reporting it as 'difficult' (25%, n=16) or 'very easy' (23%, n=15) to access in this time. Again, as noted by IDU in previous years, the degree of availability is highly dependant on standing arrangements, with one participant 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'. Again, the majority of those reporting on trends in availability of syrup perceived it as remaining stable in the preceding six months (56%, n=35), although notable minorities reported decreasing (22%, n=14), and, in contrast, increasing (16%, n=10), availability of diverted syrup in this time. IDU that had used illicit methadone syrup reported that they almost exclusively usually purchased the drug from friends (87%, n=55) in the preceding six months, although a small number usually purchased from a street dealer (6%, n=4), with only a few purchasing from other sources (3% from a dealer's home, n=2; and one participant from a mobile dealer). Due to concerns among some key experts in previous years about use of 'spat out' doses of methadone syrup, IDU were asked about the source of their last illicit purchase of methadone syrup, with 99% reporting that the drug had come from

a ‘take-away’¹⁵ dose (one participant did not know the source of their previous methadone syrup). When asked how long it took IDU to ‘score’ illicit methadone syrup, respondents indicated it usually taking a median of 13 minutes to score the drug both usually and the last time they had ‘scored’ in the preceding six months (mode = 5 minutes, range 0-10080 minutes, n=54). This can be interpreted in terms of the ‘pre-arrangements’ noted by the IDU above – in the 2001 IDRS, one key expert, a user group representative, and two IDU, reported a trading system amongst a group of IDU on the methadone program, where, when people picked up two or three ‘takeaway’ doses of methadone, some people would give the doses not required for that day to friends, with the expectation of reciprocation later in the week. This system protects users from ‘bingeing’ and using all their takeaway doses in one day, thus having to find a replacement opioid to hold them until their next methadone dose. Similar ‘in-kind’ and pre-organised systems were described in subsequent IDRS studies. In the current study, two key experts working with younger IDU reported that their clients at times used up their take-away doses within one or two days (rather than the three days they were provided for) and then had to buy or otherwise access some amounts of methadone illicitly to avoid experiencing opiate withdrawal. These patterns may be reflected in the pathways of access to illicit methadone syrup (discussed above and in Table 31), with almost all reporting accessing their last illicit methadone through a friend, while purchases through ‘street dealers’ – most commonly methadone program clients approached outside a pharmacy for their takeaway dose – were substantially less common.

Table 31: Pathways to illicit methadone access, 2004

	Illicit Methadone Syrup (n=64)	Illicit Physeptone Tablets (n=52)
Source of last illicit syrup[#]		
<i>Take-away dose</i>	98% (n=64)	n/a
<i>Didn't know source</i>	2% (n=1)	n/a
Usual source of illicit purchase[#]		
<i>Friend</i>	86% (n=55)	65% (n=34)
<i>Street dealer</i>	6% (n=4)	2% (n=1)
<i>Dealer's home</i>	3% (n=2)	21% (n=11)
<i>Mobile dealer</i>	2% (n=1)	10% (n=5)
<i>Sent from mainland</i>	2% (n=1)	2% (n=1)
<i>Median time to 'score'</i>	12.5 min	28 min
	(range 0-10,080 min)	(range 0-5,760 min)

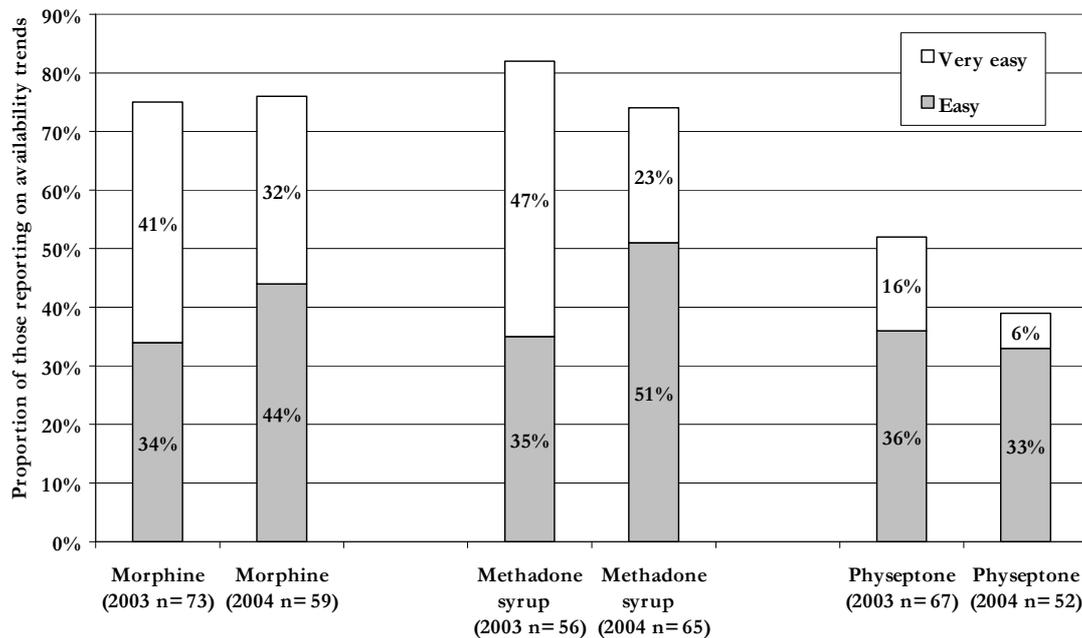
Source: IDRS IDU Interviews *at any time in the preceding six months; #for those reporting source

When IDU reports of the availability of illicit pharmaceutical opiates are compared across the 2003 and 2004 studies (2003 was the first year in which explicit differentiation was made between methadone syrup and Physeptone tablets in regard to availability: Figure 18), several changes are notable: firstly, in regard to morphine availability, there is little change overall in the proportion of IDU regarding availability as ‘easy’ or ‘very easy’, however, there were less people reporting morphine as ‘very easily’ accessed in the 2004 study in comparison to 2003; in regard to methadone syrup, there was a slight reduction

¹⁵ 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 ‘takeaway’ doses, where daily doses can be picked up in advance and consumed as is convenient for the individual.

overall in the proportion reporting diverted syrup as ‘easy’ or ‘very easy’ to access between the 2003 and 2004 studies, and part of this change comes from a notable drop in the proportion reporting that syrup was ‘very easy’ to access; and finally, there was a reduction overall in the proportion of respondents reporting Physeptone tablets as ‘easy’ or ‘very’ easy to access, with the majority of respondents reporting that it was ‘difficult’ or ‘very difficult’ to access this drug in recent months – in particular there was a decrease in the proportion of respondents suggesting that Physeptone was ‘very easy’ to access.

Figure 18: IDU reports of ‘easy’ or ‘very easy’ availability of illicit pharmaceutical opiates 2003-2004.



Source: IDRS IDU Interviews

8.4 Patterns of Opioid Use

Prevalence of opioid use

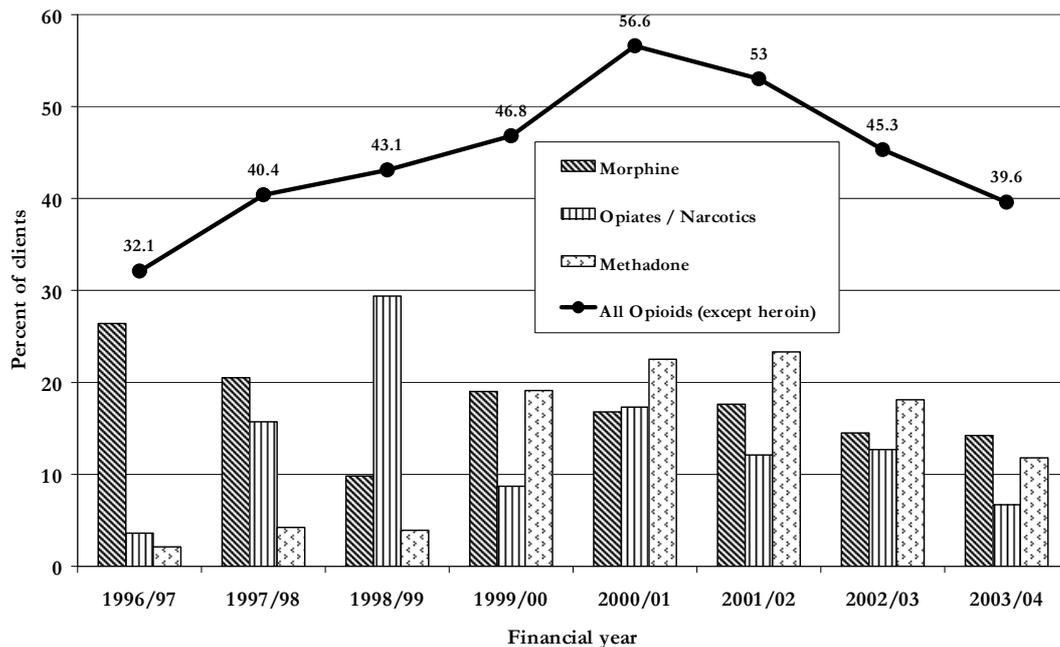
Of the 1031 Tasmanian residents participating in the 1988 National Drug Household Survey (Australian Institute of Health and Welfare, 1999), 0.7% (n=4) reported ever using methadone, with only 0.6% (n=3) of respondents reporting use of this drug in the 12 months prior to interview. Similarly, in the 2001 National Drug Household Survey (n=1,349: Australian Institute of Health and Welfare, 2002), 0.1% (n=1) of respondents reported using methadone for non-maintenance purposes, and 0.7% (n=9) reported using other opiates for non-medical purposes in the year prior to interview. These low numbers of users render it difficult to meaningfully detect trends in use.

Pharmaceutical opioid use among IDU and other groups

Data from clients of non-pharmacy Needle Availability Program outlets reporting an opioid as the drug they most often inject have been highly variable over the past eight years (Figure 19), due primarily to clients nominating the catch-all ‘opiates-narcotics’

category rather than specifying a specific single drug. When this data is collapsed, a trend becomes clearer, with the percentage of clients reporting opioids (excluding heroin) as the drug they most often injected steadily increasing from 32.1% in 1996/97 to 56.6% in 2000/01, then decreasing again to 53.0% in 2001/02 and continuing downward to 39.6% in 2003/04. This is the inverse of the trend noted for methamphetamine use among non-pharmacy NAP clients (Section 4.4). While this appears to represent a substantial change in the market over time, this data should be interpreted with caution: firstly, prior to 2001/02, this drug use data was reported by only around 40% of total non-pharmacy NAP clients, predominantly those larger, inner-city outlets, which are biased toward regular, opiate consumers – in recent years, this figure has risen to 90% of these clients (80% in 2001/02, 88% in 2002/03 and 91% in 2003/04). As such, recent data may be somewhat more representative and the apparent recent increase in proportions of NAP clients reporting methamphetamine use relative to those reporting opiate use in the past three financial years, in contrast to trends over preceding years, may simply reflect this more consistent level of reporting across NAP outlets. Also noteworthy is the indication that, although injection of morphine had consistently been reported as more popular than injection of methadone to 1998/99, the popularity of both drugs was equivalent in 1999/00, and in 2000/01, methadone was more commonly reported substance, a trend continuing into 2002/03 but which reversed again in 2003/04 (in contrast to trends seen in the current IDU cohort). The exact nature of these trends are unclear, as responses in the broad ‘opiates/narcotics’ category are likely to mask the true level of injection of methadone.

Figure 19: Percentages of opioids reported as ‘drug most often injected’ by Tasmanian Needle Availability Program clients, 1996/97-2003/04



Source: Sexual Health, Department of Health and Human Services

The Australian Needle and Syringe Program Survey (Thein, Maher & Dore, 2004: National Centre in HIV Epidemiology and Clinical Research on behalf of the Collaboration of Australian Needle and Syringe Programs) has reported opioids as the

last drug injected of 50% or more of their Tasmanian participants for their 1996-2003 surveys (Table 32). Given that this study prior to 2002 only utilised relatively small sample sizes (18, 23, 51, 25, 27 and 28 clients respectively between 1997 and 2001), it is difficult to infer any trends in use from these figures. However, in the two most recent studies, gathering more substantial sample sizes (n=151 in 2002 and n=118 in 2003), rates of methadone use have remained stable (32% in each study), while the proportion reporting last using morphine had increased slightly (16% in 2002, 24% in 2003).

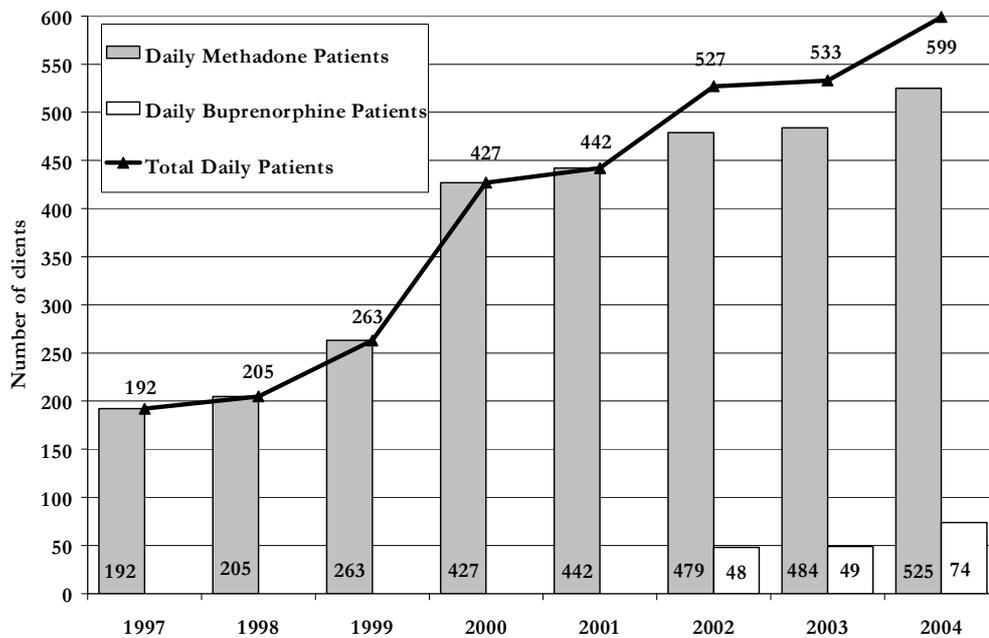
Table 32: Australian Needle and Syringe Program (NSP) Survey: Prevalence of opioids within “last drug injected”, 1996-2003

	1997		1998		1999		2000		2001		2002		2003	
	<i>n</i>	%												
Heroin	0	0	5	10	2*	8	6#	22	3†	11	5	3	1	1
Methadone	10	43	17	33	11	46	9	33	11	39	49	32	38	32
Morphine	4	17	10	20	5	26	8	30	11	39	25	16	28	24
Total Sample Size	23		51		25		27		28		151		118	

Source: Thein, Maher and Dore, 2004. *Note: during the 1999 and 2000 surveys 16% (n=4), 11% (n=3) and 18% (n=5) participants respectively reported using some combination of opioids, and percentages have been adjusted accordingly to reflect this

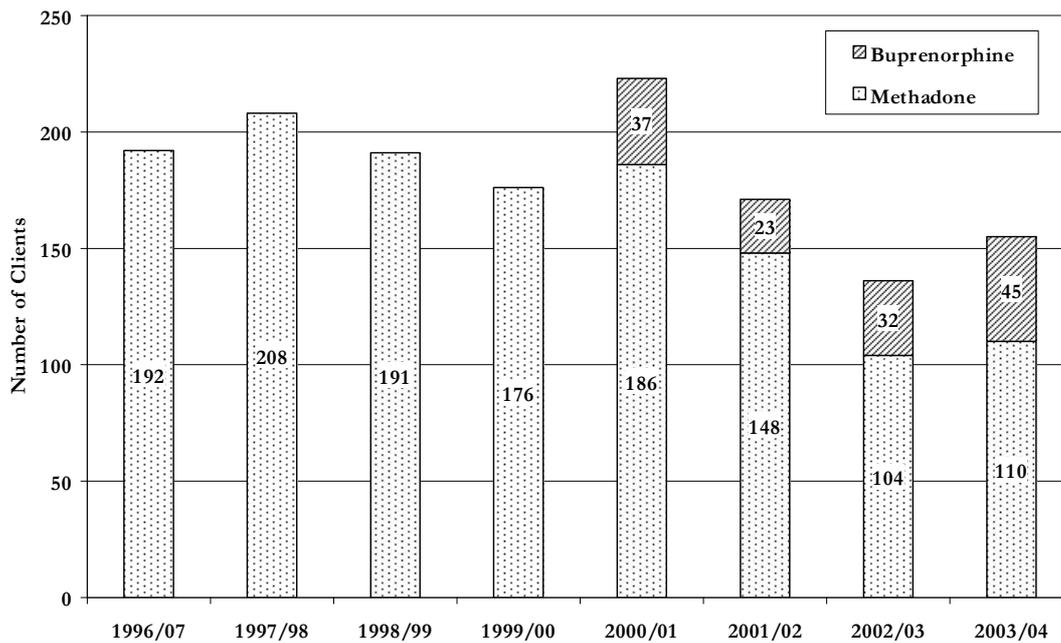
There has been a steady growth in the number of clients on Tasmania’s methadone maintenance program since 1995 (Figure 20). Currently there are over 500 daily recipients of methadone, more than treble the number on the program in 1995. However, this increase in numbers is likely to primarily reflect the long-term nature of methadone maintenance therapy, as the number of new applications for the program had remained consistent between 1997-2001 (approximately 200 new applications per annum), and has been decreasing since this time, to 110 new patients in the 2003/04 financial year (Figure 20). This decline in the numbers of new methadone maintenance patients has been at least partially accounted for by new admissions to buprenorphine maintenance, which was made available as a treatment option for the first time in 2000/01. Following an initial influx of individuals that were previously receiving treatment with methadone switching to buprenorphine in the first year of availability of the drug (n=37 in 2000/01), the number of new admissions to buprenorphine maintenance has steadily increased in the past three financial years (from 23 in 2001/02 to 45 in 2003/04: Figure 21). As such, the number of daily buprenorphine patients has grown from 48 as of July 2002 to 74 in July 2004, bringing the total number of daily pharmacotherapy patients in the state to almost 600 as of July 2004 (Figure 20).

Figure 20: Growth of the Tasmanian pharmacotherapy programs, 1995-2004



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

Figure 21: New admissions to pharmacotherapy treatments in Tasmania, 1995-2004



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

Tasmanian prescription rates for Schedule 8 pharmaceuticals¹⁶ since 1991 were also provided by Pharmaceutical Services (DHHS). During this time, Tasmanian consumption of morphine has been consistently 120% or more of the national average, and increasing over recent years to 141% in 2003, while national use has stabilised (Figure 22). Following this trend of increasing prescription of morphine within the state, the number of applications received by Tasmanian Pharmaceutical Services for approval to prescribe narcotics¹⁷ has steadily increased, almost exponentially, in recent years, from 351 in 1989/90 to 2701 applications in 2002/03¹⁸ (Figure 23).

In contrast, despite the use of methadone syrup amongst a large proportion of the IDU sample in all three Tasmanian IDRS studies, local rates of consumption of methadone syrup had been continuously below that of the national average until 2002 (Figure 24). These proportions are distorted, however, by the high numbers of methadone maintenance patients in New South Wales. Noteworthy also is the sharp decline in consumption of methadone syrup nationally in 2001, largely associated with the wide introduction of buprenorphine maintenance treatment, particularly so in Victoria. With this contrast of declining use nationally and slowly increasing prescription locally, for the first time in 2003, the Tasmanian consumption of methadone syrup passed that of the national average (112%: Figure 24).

In contrast to the trend for use of methadone syrup, Tasmanian consumption of methadone 10 mg tablets has been consistently above 200% that of the national average since 1992 (Figure 25) with a rapid increase in use to 2000. Since a stabilisation of use in 2000 and 2001, there has been a slight decline in usage of 10mg Physeptone tablets both locally and nationally in 2002 and 2003, although the level of Tasmanian consumption of the tablets remains 270% that of the national average. It is worth noting that increasing numbers of IDU surveyed in the Tasmanian IDRS studies have reported recent use of 10mg Physeptone (methadone) tablets to 2003 (30% in 2000, 42% in 2001, 56% in 2002, 65% in 2003) and have fallen in the current study (57%), belatedly following this overall trend in prescriptions. 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% that of the national average (Figure 26).

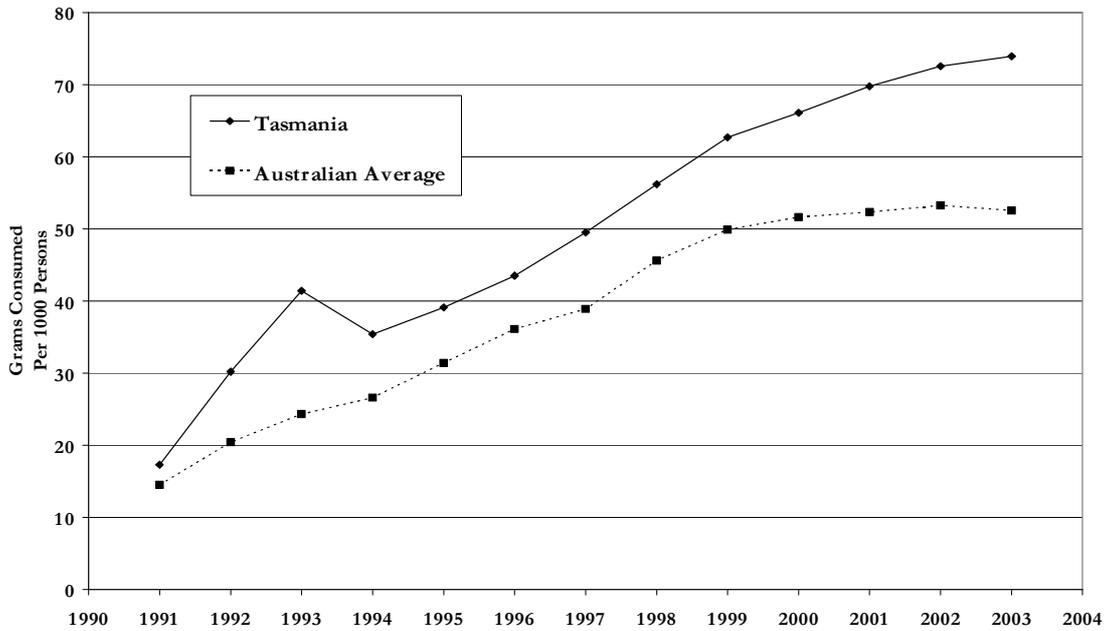
Finally, prescriptions of oxycodone are detailed in Figure 27. Nationally there has been a rapid uptake in the use of this drug since 1999, with uptake in Tasmania being particularly rapid, with prescription rates trebling in the four years between 2000 and 2003. In 2003, local consumption of oxycodone was 132% of the national average.

¹⁶ Pharmaceuticals classed under Schedule 8 are variously classed as narcotic substances or drugs of addiction / dependence in differing jurisdictions.

¹⁷ 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

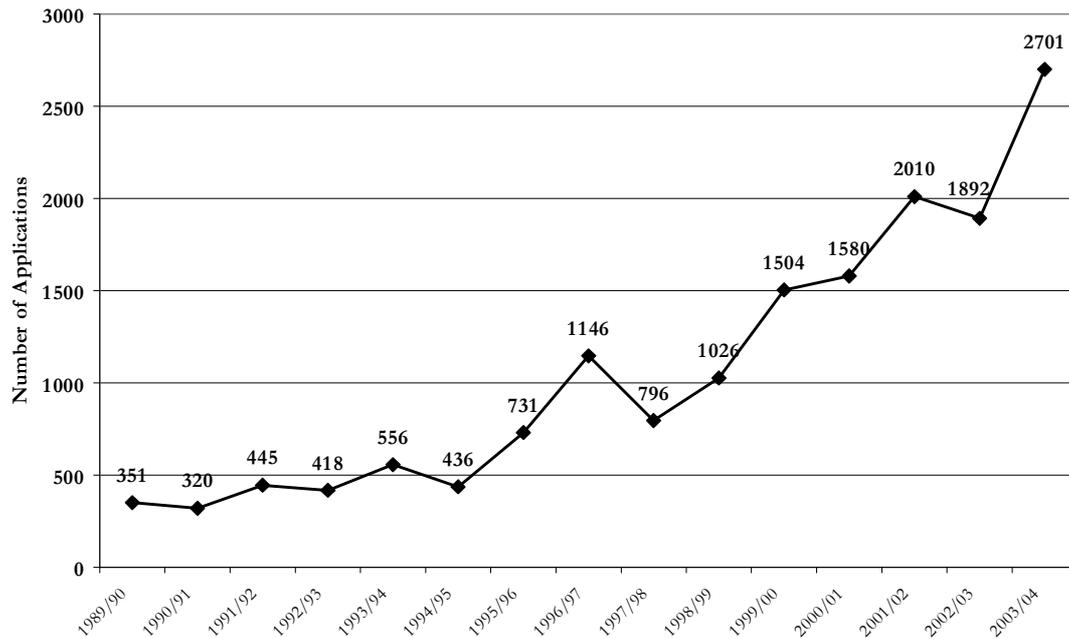
¹⁸ It is worth noting that the level of compliance in regard to submission of applications is significantly dependent on reminders being sent to doctors, and as such these figures are unlikely to reflect the absolute number of cases requiring such a submission.

Figure 22: Consumption of morphine per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

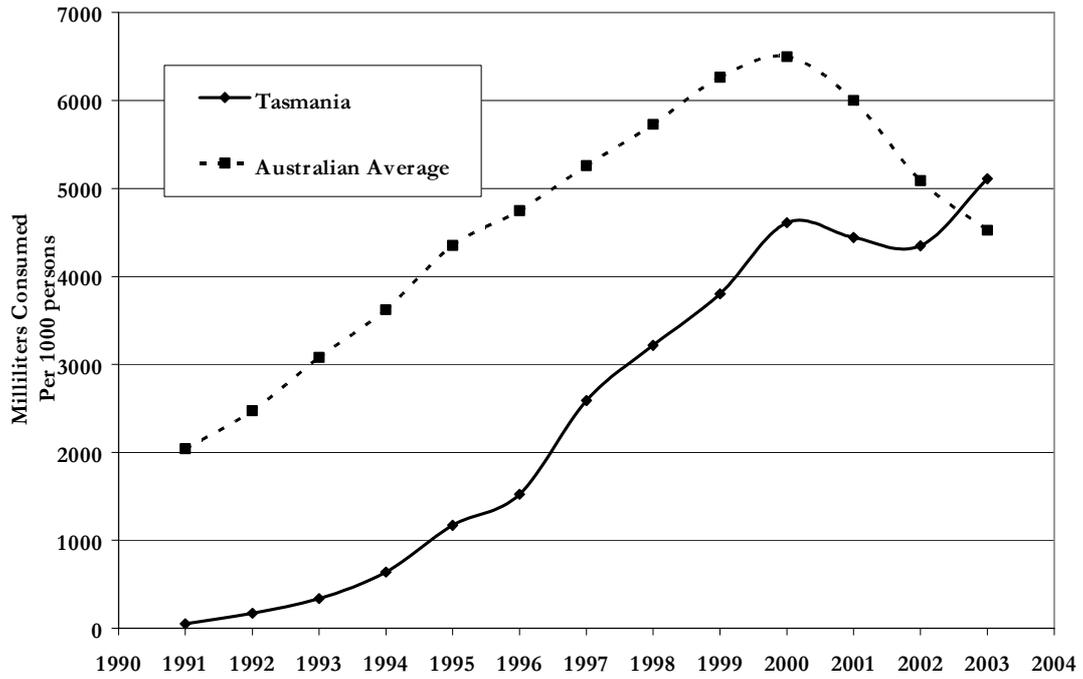
Figure 23: S22 applications received by Pharmaceutical Services, Tasmania: 1989/90-2002/04



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

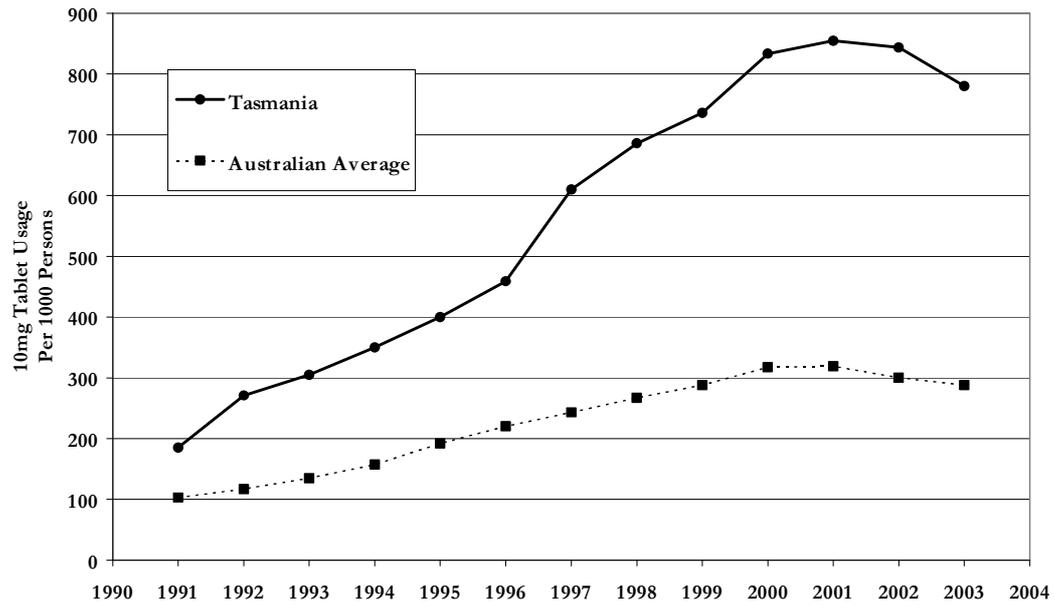
Source: Pharmaceutical Services, Department of Health and Human Services

Figure 24: Consumption of methadone syrup per 1000 persons, 1991-2003



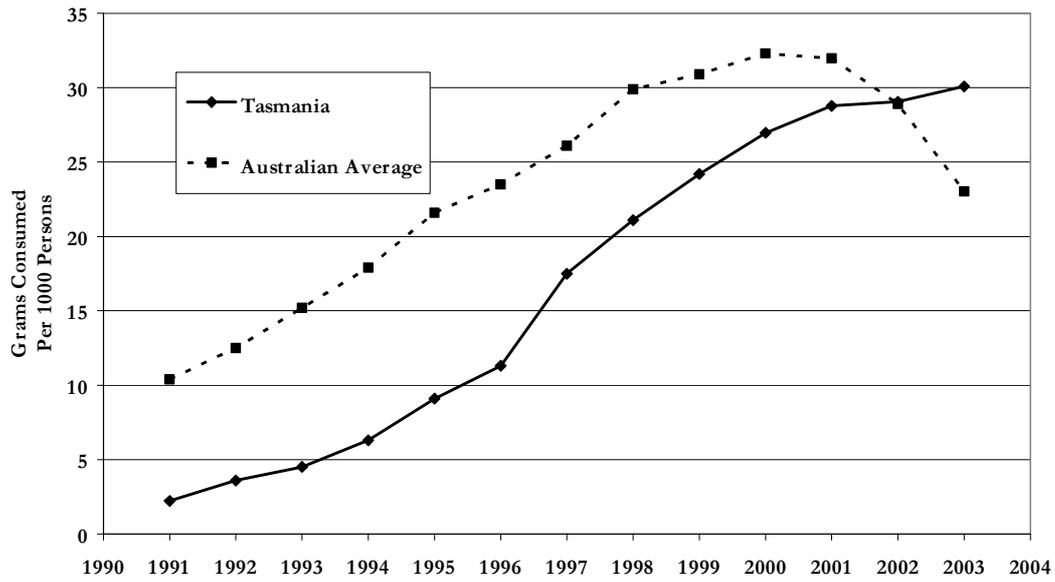
Source: Pharmaceutical Services, Department of Health and Human Services

Figure 25: Consumption of methadone 10mg tablets per 1000 persons, 1991-2003



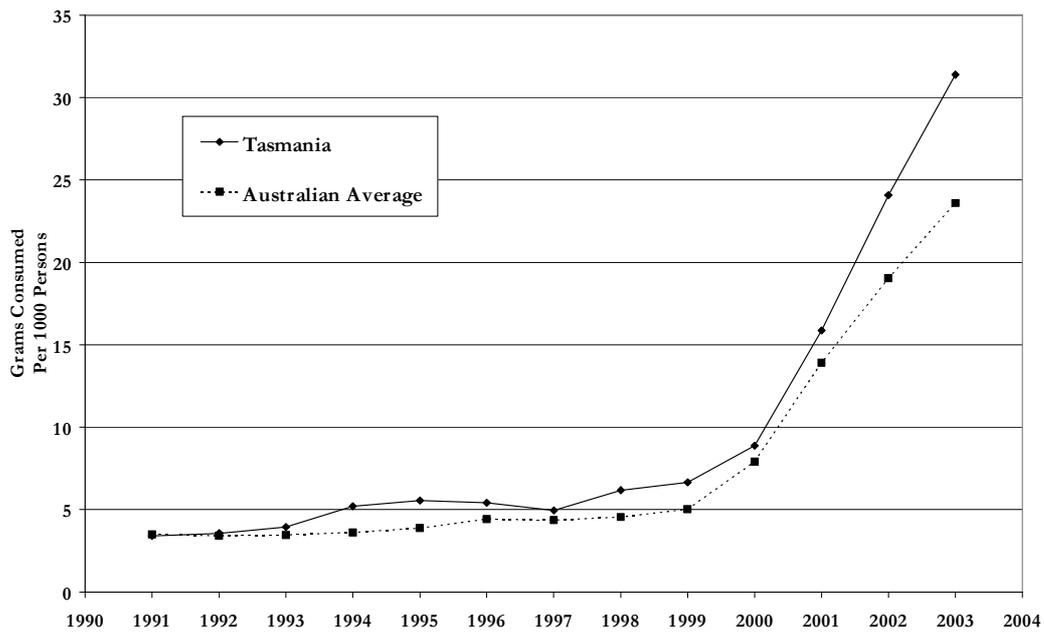
Source: Pharmaceutical Services, Department of Health and Human Services

Figure 26: Consumption of methadone per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

Figure 27: Consumption of oxycodone per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

While a proportion of these differences in consumption rates can be accounted for by prescription practices and the aging nature of the Tasmanian population, it does, however, indicate a certain willingness to prescribe tablet opioids among Tasmanian doctors. This said, these practices do not seem to apply to the injecting drug user population, as a near-negligible proportion of IDU reported accessing opioids via licit means¹⁹ in the six months prior to interview: with the exception of methadone as part of a maintenance program, only 9 of the current IDU cohort reported accessing morphine or methadone tablets via licit means in this time (11 accessing morphine, methadone or oxycodone via licit means: 5 oxycodone, 7 physeptone, 4 morphine).

8.4.1 Current patterns of opioid use

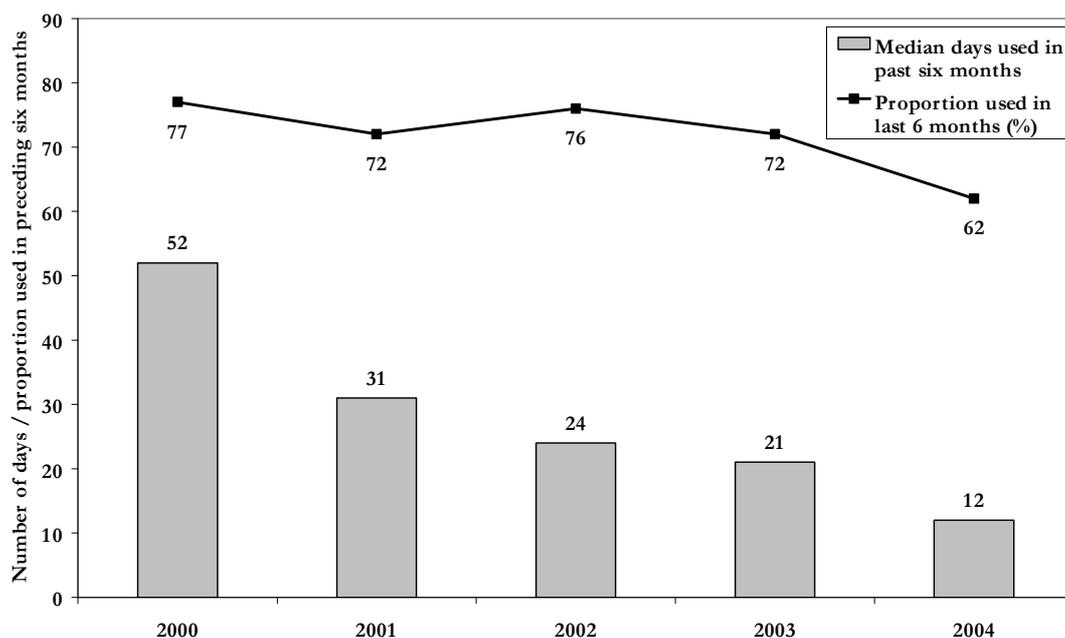
Morphine

Morphine was reported as the drug of choice of 13% of the IDU sample, with 62% of the entire sample reporting some use of morphine in the preceding six months. Of those who had used morphine, the median frequency of use in the past six months was 12 days (range 1-180), which equates to use of the drug approximately every fortnight on average. Morphine was reported as the last drug injected prior to interview for 20% of the IDU sample (although two of these had injected this in combination with benzodiazepines), and as the drug most injected for 20% in the past month.

As shown in Figure 28, these figures represent a continuation of a trend toward of decreasing levels of use of morphine in the IDRS IDU samples over time: to 2003, the proportion of the samples reporting use of morphine in the six months prior to interview had remained relatively stable (72%-77%), however there had been a steadily declining median frequency of use of the drug amongst these participants (falling from 52 days in the preceding six months in the 2000 IDU sample to 21 days in the 2003 sample), and the 2004 figures represent marked declines both in the proportion reporting use of the drug (72% to 62%) and the frequency of this use (21 days in the preceding six months to 12 days). This decline has occurred despite a relatively stable proportion of the samples receiving methadone maintenance therapy (52% in 2001, 50% in 2002, 58% in 2003 and 54% in 2004), and the cohorts remaining predominantly opiate-preferring (with between 61% and 67% of the samples between 2001 and 2004 nominating an opiate as their drug of choice).

¹⁹ During interviewing, 'licit means' was defined as having the drug prescribed directly to the individual. By this definition, doctor shopping would be considered as 'licit means', which suggests that there is a stable illicit source of these drugs to IDU.

Figure 28: Proportion of Tasmanian IDRS IDU cohorts reporting use of morphine, and the median frequency of this use, in the six months prior to interview, 2000-2004.



Source: IDRS IDU Interviews

Methadone

Methadone was reported as the drug of choice of 15% of the IDU sample, with 85% of the entire sample reporting some use of methadone in the preceding six months. In regards to use of methadone syrup, 54% of the sample had been prescribed this drug in the preceding six months, using it at a median frequency of 180 days in this time (range 21-180). This level of use in the IDU sample is very similar to that identified in the 2003 cohort (Figure 23)²⁰. Sixty-four percent of the 2004 IDU sample had used illicit methadone syrup in the preceding six months, at a median frequency of 12 days (range 1-180) in this time. While a greater proportion of the sample in 2004 reported accessing diverted methadone syrup than in 2003 (64% vs. 48%: Figure 23), the median frequency of use of diverted methadone had dropped accordingly (12 days in the preceding six months in the 2004 cohort, 24 days in the preceding six months in the 2003 cohort).

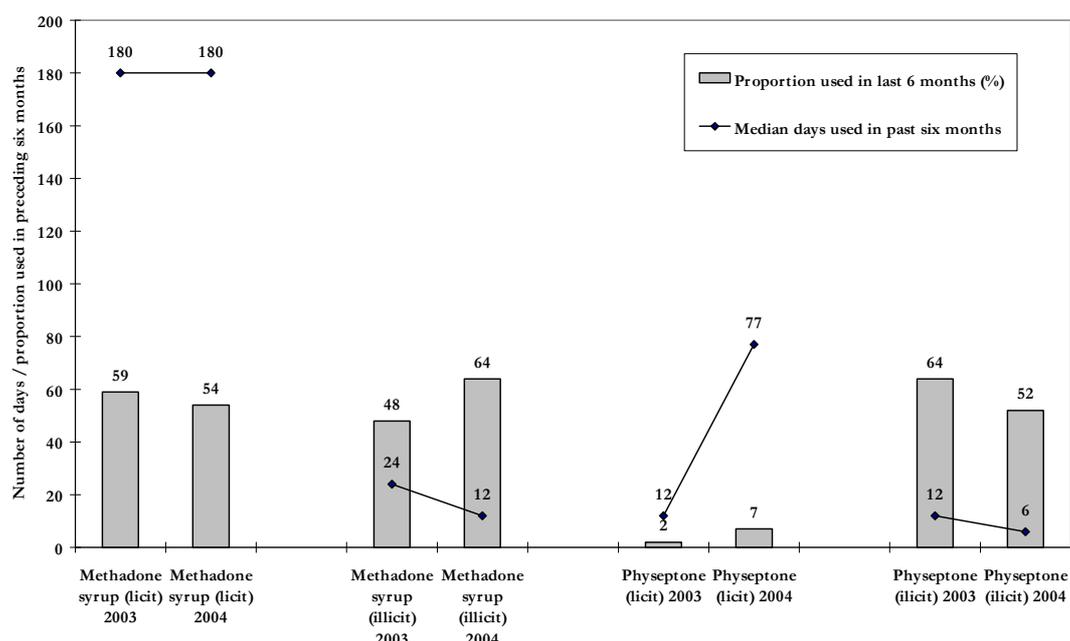
Licit physseptone tablets were only used by 7% of the IDU sample in the preceding six months, at a median frequency of 77 days in this time (range 7-180 days). While the proportion of the cohort reporting licit physseptone use has remained low across the 2003 and 2004 surveys (Figure 29), the median frequency of this use has risen dramatically due to some individuals receiving the drug on a daily basis rather than for short-term courses. Use of illicitly-accessed physseptone tablets was much more common in the sample (52%), however, the median frequency of use was quite low (6 days in the preceding six months, range 1-180 days). This represents a drop in both the proportion of the sample reporting recent illicit physseptone use between the 2003 and 2004 cohorts (falling from

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

64% in 2003 to 52% in 2004: Figure 29) and a drop in the median frequency of use in the preceding six months (12 days in the 2003 cohort, 6 days in the 2004 participants), a finding in keeping with IDU reports of decreased illicit availability of Physeptone in recent months.

Methadone was injected in the preceding six months by all but three of those of those reporting use of the drug in this time (96%: n=82/85).

Figure 29: Proportion of Tasmanian IDRS IDU cohorts reporting use of methadone, and the median frequency of this use, in the six months prior to interview, 2003-2004.



Source: IDRS IDU Interviews

Primary users of opioids described by key experts were commonly poly-drug consumers, with regular use of cannabis, methamphetamine, and benzodiazepines. Those individuals receiving methadone maintenance therapy but continuing to use illicit drugs were reported to use methamphetamine or dexamphetamine for self-medication or recreational purposes by several key experts (n=7). While oral use of benzodiazepines was predominant among these groups, key experts also reported some intravenous use of benzodiazepines, at times in combination with opioids (detailed below), although both use and injection of benzodiazepines were seen as being a declining issue in these groups by two key experts working with large numbers of IDU through NAP outlets.

8.5 Opioid related harms

8.5.1 Law enforcement

In the 2001/02 financial year, 34 arrests (23 consumers, 11 providers) were made by Tasmania Police involving offences relating to opioids (including heroin and other

narcotics²¹), a pattern which appears reasonably stable in comparison to 17 arrests (13 consumers, 4 providers) in 2000/01²², 19 arrests (14 consumers, 5 providers), in 1999/00, 25 arrests (24 consumers, 1 provider) in 1998/99, 16 arrests (15 consumers, 1 provider) in 1997/98 and 28 arrests (24 consumers, 5 providers) in 1996/97. In the 2002/03 financial year, counting rules changed, so the available is not directly comparable to previous years. Smaller numbers were subsequently reported in this category, being 9 arrests (6 consumers, 1 provider, 2 unknown) in 2002/03 and 10 (all consumers) in 2003/04.

Key experts reporting on groups that primarily used opioids generally reported no noteworthy changes in the levels of crimes committed by this group in the preceding six months. Key experts described some levels of property crime amongst some of their primary opioid-using groups (mainly shoplifting, and to a lesser extent, burglary), however, while one key expert noted a general increase in such behaviour in recent months by these groups, four perceived no notable changes in this area. While one key expert noted an increase in dealing of drugs by the primary opioid consuming group they were familiar with, others noted no change. Indeed, law enforcement key experts perceived a decrease in morphine dealing in recent months (and a resulting decline in their seizures of this drug). Fraud was seen as uncommon amongst these groups, and this was uniformly perceived by key experts as not changing amongst the groups they were referring to in recent months. Indeed, two law enforcement key experts noted a decline in prescription fraud in recent years. In terms of violent crime, one key expert noted an increase in violence amongst the primary opiate-using group they were familiar with in recent months, with an increase in verbal aggression toward staff of their treatment service in recent months, including the use of intimidation with the aim of forcing the prescription of alprazolam. Law enforcement key experts noted an increase in the level of hassling or intimidatory behaviour directed toward clients on the methadone program to obtain diverted takeaway doses of the drug in recent months or years. It was clear that police are responding to this issue, with two IDU participants noting an increased police presence or frequency of searching by police around pharmacies dispensing methadone in recent months. These law enforcement key experts also noted a general increase in the level of physical violence directed toward consumers by illicit drug providers when following up on drug debts. Both of these trends are continuations of trends noted over a longer period than the preceding six months.

When asked about recent changes in police activity, all key experts noted no recent changes in relation to opioid users in recent months. However, three IDU participants noted an increase in busts/surveillance on morphine dealers in the preceding six months.

8.5.2 Health

In regard to recent changes in the health of opioid using groups that key experts had contact with, several issues were noted. Two key experts noted an increase in the numbers of morphine users presenting for detoxification in recent months, and also an increase in female opiate users presenting for such treatment over the past two years.

²¹ For recording purposes, Tasmania Police class any Schedule 8 drug as 'Narcotic'. Schedule 8 drugs are "Drugs of Addiction".

²² Arrest data quoted here may differ slightly from figures reported in the ABCI annual 'Australian Illicit Drug Reports', as some opioid-related data may be classified there under 'other drugs'. Data here reflects that provided by Tasmania Police State Intelligence Services.

The recent shift in presentations was attributed to a recent change in procedure at the service, where buprenorphine was now used for withdrawal management. Other key experts working in medical treatment services noted a possible increase in the number of opiate-using clients positive for hepatitis C in recent months, although it is unclear whether such a change could be attributed to a shift to routinely ordering blood-borne virus screening procedures for patients. In terms of methadone maintenance therapy, both key experts involved in the program (n=1) and IDU (n=3) noted an increase in younger people (early twenties) enrolled in the program, with another noting a slow increase in the proportion of female patients on the program (although males were still perceived as the predominant proportion of patients, at an estimated ratio of 60%). One key expert in the health sector noted a decrease in opiate-related overdoses in the preceding six months (see Section 10.2 for overdose trends over time). One health-related expert noted a recent case where one regular IV morphine consumer had to have part of a lung removed, perceived by this key expert as being due to damage arising from injection of the drug (potentially particulate matter lodging and blocking blood vessels in the lung, and anecdotally referred to as “MS Contin lung”).

In terms of injection-related health, two health-related key experts noted a recent decline in vein health amongst their opiate-consuming groups. One noted an increase in abscesses and cellulitis in the group they were familiar with. Another noted particular harms in association with Physeptone, arising from consumers neglecting to filter the drug solution prior to injection (as it gives the appearance of dissolving easily in heated solution). Additionally, this participant had perceived an increase in use of unusual injection sites, such as neck and groin injection, amongst people injecting methadone syrup as these individuals had damaged other injection sites over extended periods of injection of this drug.

IDU participants that had injected opioids in the month prior to interview were asked if they had experienced any health problems associated with this injection (Table 33). Almost two-fifths (39%) had injected morphine in this time, and almost three-quarters (71%) had injected some form of methadone. Of those that had recently injected morphine, just over one-quarter (28%) reported experiencing no harms associated with this injection. The most common problems associated with morphine injection were difficulty finding veins to inject into (31%) suggesting venous damage, prominent scarring or bruising (21%), a ‘dirty hit’ (21%: an injection that made the individual feel physically sick), and, to a lesser extent, self-reported dependence (15%), and swelling of the arm (10%) or hand (8%). Similar to trends for morphine injection, only around one quarter of those injecting methadone in the month prior to interview did not report experiencing any injection-related harms that they attributed to methadone use. The commonest problem reported was dependence (52%). Similar to trends for morphine, indicators of venous damage, such as difficulty finding veins (41%) or prominent scarring or bruising (28%) were also common. One-fifth reported recently experiencing a ‘dirty hit’ associated with methadone injection, an experience which is commonly related to injection of impurities or contaminants. Anecdotal reports from IDU suggest that this may be due to non-sterile water being used to dilute take-away doses of methadone syrup.

Table 33 Injection-related problems experienced by recent morphine and methadone injectors

	Morphine		Methadone	
	%	n	%	n
Percent of sample injecting in the past month	39	39	71	71
Injection-related problem experienced				
<i>No problems</i>	28	11	23	16
<i>Overdose</i>	-	0	0	0
<i>Abscesses/infections</i>	5	2	6	4
<i>'Dirty bit'</i>	21	8	20	14
<i>Prominent scarring/bruising</i>	21	8	28	20
<i>Thrombosis / blood clotting</i>	3	1	2	1
<i>Swelling of arm</i>	10	4	11	8
<i>Swelling of leg</i>	0	0	1	1
<i>Swelling of hand</i>	8	3	6	4
<i>Swelling of feet</i>	0	0	1	1
<i>Hospitalisation</i>	0	0	0	0
<i>Contact with ambulance</i>	0	0	0	0
<i>Contact with police</i>	5	2	1	1
<i>Dependence</i>	15	6	52	37
<i>Difficulty finding veins to inject into</i>	31	12	41	29
<i>Skin ulcers</i>	0	0	3	2
<i>Gangrene</i>	0	0	0	0
<i>Other</i>	8	3	6	4

Source: IDRS IDU Interviews

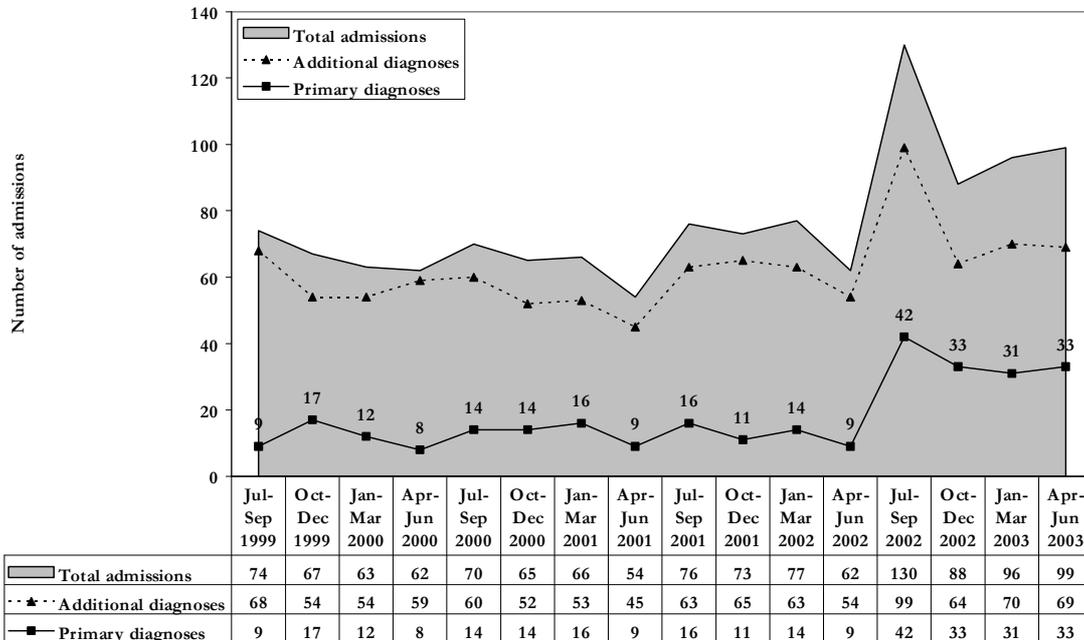
Key experts were asked about recent changes in the mental health of the opioid-using groups that they had been in contact with over the preceding six months. While the majority did not note any changes in mental health in this time (n=4), two key experts noted an increase in the complexity of mental health problems amongst patients presenting to government drug treatment services.

Hospital morbidity data in relation to use of drugs has been provided by the Australian Institute of Health and Welfare for the 1999/00 to 2002/03 financial year periods. This data relates to public hospital admissions where drug use was recorded as related to the admission. There are two categories for such involvement: 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; and secondly, the 'additional diagnosis', being a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care. These were 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 only public specialist detoxification centre is only included in this dataset from June 2002.

Opioid admissions are presented below in Figure 30 below. For the period July 1999 through to June 2002, primary diagnoses relating to opioid use have remained relatively stable, between 8 and 17 admissions per quarter. Since July 2002, where data from the state's public detoxification centre is included in these figures, opioid-related admissions

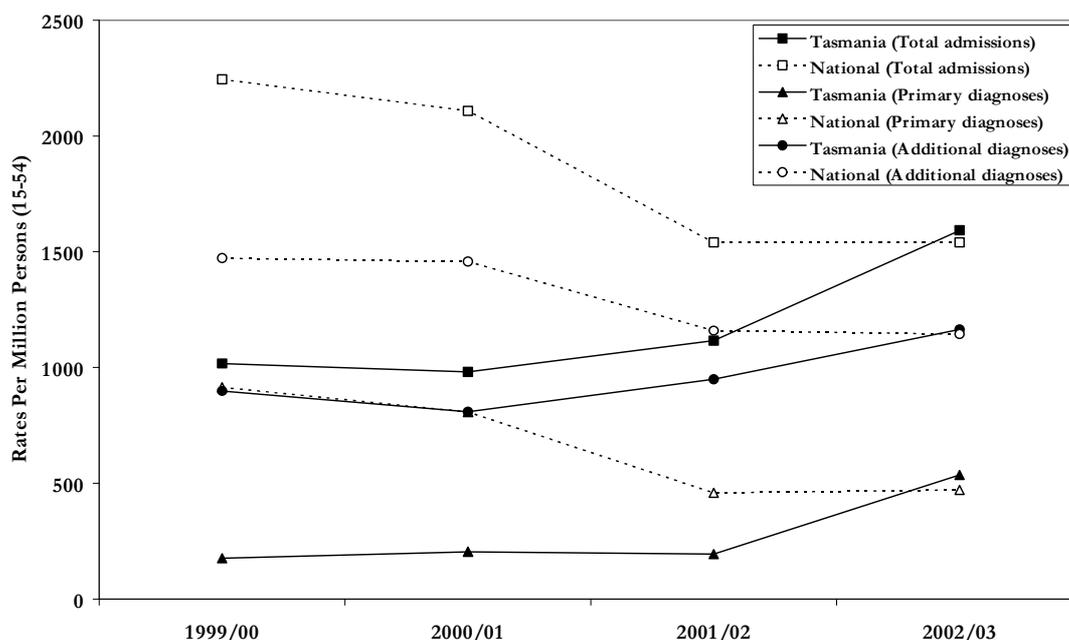
have remained stable at just over 30 admissions per quarter (after a higher number of cases in the first quarter when the service came online). As can be seen in Figure 31 below, when the Tasmanian rate of opiate-related admissions per million population is compared to that of the national Australian level, prior to the inclusion of figures from the public detoxification service being included, local admission rates for such cases were substantially lower than the national rates (around one quarter of the primary diagnoses and one half of the total diagnoses in 1999/00), however, since this data has been included, the Tasmanian rates of such admissions are clearly consistent with the national rates (3% above the national rate in 2002/03 in terms of total opiate-related cases, 2% above in terms of additional opiate-related cases and 14% above the national level in terms of principal opiate related admissions), at around 536 admissions per million population in the 15-54 year age group.

Figure 30: Public hospital admissions where opioids were noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03



Source: Australian Institute of Health and Welfare

Figure 31: Public hospital admissions where opioids were noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

8.6 Trends in patterns of opioid use

Multiple trends in opioid use were noted by both key experts and IDU respondents. Following trends reported in previous IDRS surveys, four IDU noted more of their associates shifting from primary opioid use to primary methamphetamine use, due to the quality and easy availability of methamphetamine, although a further two reported their friends shifting their use in the opposite direction in recent months. Changes in the demographics of opiate consumers were also noted by several IDU, with three IDU noting an increase in ‘older’ (older than 30), ‘straighter’, more ‘middle class’ users of morphine, and one reporting a similar occurrence for methadone. An increase in the number of younger users (late teens and early twenties) in recent months for both drugs was also noted by IDU (6 in regard to morphine, 8 in regard to methadone and two key experts in regard to Ordine), and for young (younger than 25) females using Physeptone, as well as a general increase in the number of consumers (reported by 2 IDU in regard to morphine use, 2 IDU in regard to methadone). Two IDU and one key expert noted an increase in the use of oxycodone by IDU in recent months, with this key expert reporting that this was likely due to the immediate and long-acting ‘high’ following administration of this preparation. Notably, consistent with the shifting patterns of pharmaceutical opiate use seen amongst the local IDRS IDU cohorts, three IDU noted a trend for an increased amount of their associates to shift from predominant morphine use to predominant methadone use because they prefer the psychoactive effect.

In terms of other drug use amongst primary opiate consumers, one key expert noted an increase in dexamphetamine use amongst predominant methadone consumers in recent months, with one IDU noting an increase in stimulant use generally amongst such

groups. While two key experts noted a decrease in both benzodiazepine use and injection amongst the groups that they had contact with in the preceding six months, reports of use of opiates and benzodiazepines simultaneously (in the same syringe, most commonly alprazolam) continued amongst the current cohort. Indeed, four IDU reported such a combination as the drugs they last injected in the current study (two reporting each of methadone and morphine in conjunction with benzodiazepines). This combination of use is of considerable concern, not solely due to the deleterious effects of injection of benzodiazepines (see Fry & Bruno, 2002) but also due to the increased risk of overdose on use of multiple central nervous system depressant drugs. Given anecdotal reports of two recent deaths associated with coincident methadone and alprazolam use, and IDU and KE reports of extremely disinhibited behaviour following such combined use, this type of use merits careful attention in the coming months, particularly from front-line health intervention workers.

8.7 Summary

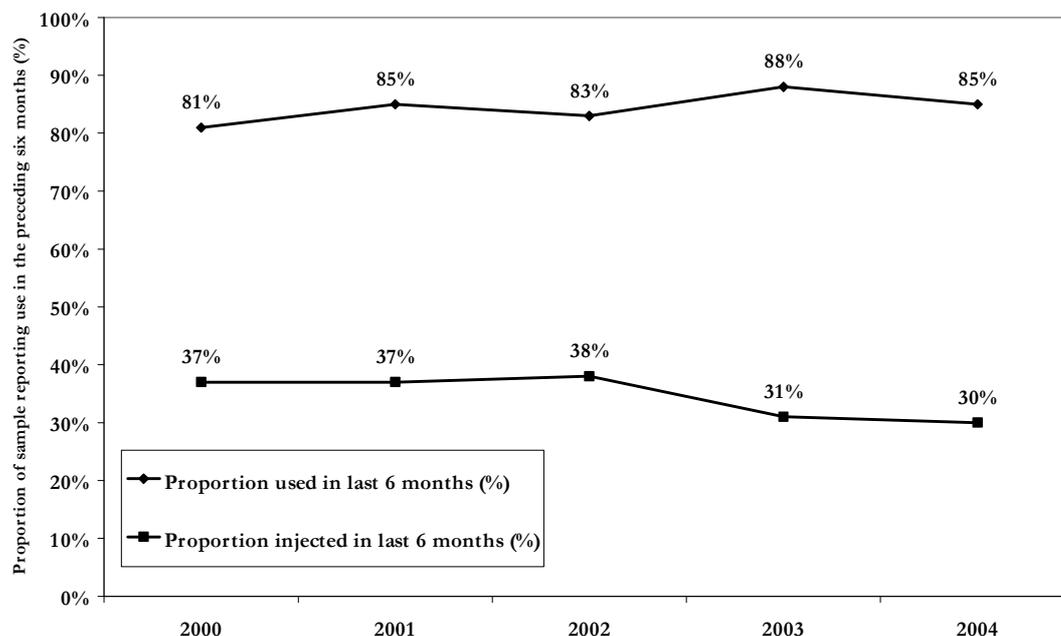
Table 34: Summary of trends in opioid use

	Morphine	Methadone
Price	<ul style="list-style-type: none"> • \$0.7-0.8/mg, stable or decreasing • \$70/100 mg, stable or decreasing 	<ul style="list-style-type: none"> • \$1/mg, stable • \$80/100 mg, stable
Availability	<ul style="list-style-type: none"> • Easy to very easy • Stable to decreasing 	<ul style="list-style-type: none"> • Syrup 'easy' and stable • Syrup only easy if standing arrangement and largely purchased from friends • Physeptone availability 'difficult' and decreasing
Form	<ul style="list-style-type: none"> • MS Contin predominant • Ordine use may be increasing 	<ul style="list-style-type: none"> • Both Physeptone tablets and methadone syrup accessed illicitly • Decreasing use of Physeptone tablets • Diverted syrup often accessed by people already on the program
Use	<ul style="list-style-type: none"> • Illicit oxycodone use increasing (21% in 2003, 32% in 2004) • Decline in use and availability of illicit Physeptone tablets of methadone this year following four years of steadily increasing use • Morphine appears to be losing users to methamphetamine and Physeptone • Anecdotal reports of an increase in younger people using opioids 	
Other trends	<ul style="list-style-type: none"> • Reports of a continuing use of opioids and benzodiazepines (predominantly alprazolam) simultaneously, a practice which carries an increased risk of overdose and disinhibited behaviour • Continuing anecdotal reports suggesting many users changing from being primary users of opioids to being primary users of methamphetamine • Opioids accessed for illicit use by IDU are not coming from direct doctor shopping by IDU themselves 	

9 BENZODIAZEPINES

Almost all (97%) of the IDU sample had used benzodiazepines at some stage in their lives. Similarly, 93% had ever swallowed benzodiazepines, with 82% swallowing a benzodiazepine in the preceding six months. While this indicates a high level of use of these drugs amongst IDU, of particular note is the fact that 64% of the sample had ever injected benzodiazepines, with 30% injecting in the six months prior to interview. As is shown in Figure 32 below, rates of overall use have remained fairly stable (81%-88% across the 2000 to 2004 surveys), while recent injection rates have fallen very slightly from 37% to 38% between the 2000 and 2002 IDU samples, to 31% and 30% in the 2003 and 2004 studies. This reduction in injection rates occurred following a policy change to reduce the availability of gel capsules of temazepam, the benzodiazepine and formulation most preferred for injection by IDU, through the Pharmaceutical Benefits Scheme (PBS) in mid-2002. While this policy change appears to have catalysed a reduction in injection of benzodiazepines locally, the level of local injection remains high in comparison to benzodiazepine injection rates reported in other jurisdictions: the rates of recent injection across the national IDRS IDU samples fell from 21% in 2002 to 14% in 2004 (Stafford et al 2005).

Figure 32: Proportion of IDU reporting benzodiazepine use and injection in the preceding six months 2000-2004



Source: IDRS IDU Interviews

Demographic patterns of those that had used benzodiazepines in the past 6 months were generally similar to those of other IDU (see Section 2.1), in terms of age, sex, cultural background, education, treatment and prison history, employment and treatment status, drug of choice, and age of first injection. However, those that had recently used benzodiazepines were significantly less likely to be daily injectors (of any drug: 23% vs. 47% respectively: $\chi^2(4)=19.6$, $p=0.001$). Those that had injected benzodiazepines in the

preceding six months were also similar to those of other IDU (see Section 2.1), in terms of sex, cultural background, education, treatment and prison history, employment status, drug of choice, and age of first injection. However, recent benzodiazepine injectors were significantly younger (27.1 vs. 30.7 years: Mann-Whitney $U = 785.0$, $p=0.046$), were more likely to report criminal activity as providing their main source of income in the month prior to interview (17% vs. 1%: $\chi^2(2)=10.5$, $p=0.005$), and more likely to be enrolled in methadone maintenance treatment (73% vs. 46%: $\chi^2(1)=6.5$, $p=0.011$) than those that had not injected benzodiazepines in the preceding six months.

Frequency of use of benzodiazepines was a median of 50 days in the past six months among those using the drug (range 1-180), consistent with the rate in the local 2003 IDU cohort (48 days, range 1-180) but slightly increased when compared to the median frequency of use amongst the 2002 IDRS sample (30 days, range 1-180). Among the 30 individuals that had recently injected benzodiazepines, the median frequency of injection was 6 days in the preceding six months (range 1-120 days), again, quite similar to the median frequency of use in the 2003 cohort (5 days).

High levels of oral benzodiazepine use in the last six months were seen among those IDU who had most often injected methadone (90%), morphine (70%) and methamphetamine (73%). Injection of benzodiazepines was more common amongst primary users of opiates than methamphetamine, with approximately one third of those that had most commonly injected methadone (38%) or morphine (30%) recently injecting benzodiazepines in comparison to 17% of predominant methamphetamine injectors (Table 36).

Table 35: Patterns of use of benzodiazepines amongst primary users of other drugs in the IDU sample (n=100)

Drug most injected in the past month	Swallowed benzodiazepines in past 6 months	Injected benzodiazepines in the past 6 months
Methadone (n=48)	90% (n=43)	38% (n=18)
Morphine (n=20)	70% (n=14)	30% (n=6)
Methamphetamine (n=29)	73% (n=23)	17% (n=5)

Source: IDRS IDU Interviews

Key experts reported similar patterns of use among the groups they had most contact with, reporting use among primary users of cannabis (n=1 of 7 key experts), where use of the drug was limited and predominantly oral; and use among primary users of methamphetamine (n=7 of 11 key experts), reporting some intravenous use, but it was again predominantly swallowed, and used in particular for ‘coming down’ from methamphetamine use. Key experts also noted use of benzodiazepines among primary users of opioids (n=8 of 9 key experts), with swallowing most common although, consistent with trends in the IDU sample, some intravenous use was also noted. Two key experts, in contact with a particularly large number of IDU through their role in NAP, noted recent decreases both in terms of injection and overall use of benzodiazepines amongst the individuals that they had recent contact with.

When asked to nominate the main type of benzodiazepine used in the past six months, diazepam (64%: Valium, 56%), and alprazolam (20%: Xanax 16%) were most common,

with lower levels of primary use of temazepam (9%: Temaze 6%), and oxazepam (5%: Serepax 4%), with single individuals reporting predominant use of flunitrazepam (1%, n=1) and nitrazepam (1%, n=1).

Examination of Table 36 clearly indicates that, as per trends in previous IDRS cohorts, Valium (diazepam) is the most commonly used benzodiazepine among those swallowing the drug (used by 83% of those swallowing a benzodiazepine in the preceding six months), with use of Antenex (diazepam) also common (22%, n=18). Oral use of Xanax (alprazolam) in the preceding six months has steadily increased among the IDRS IDU cohorts between 2001 and 2004 (16% of those reporting recent benzodiazepine use in 2001, 45% in the current study), with use of Serepax (oxazepam: 33%) and Temaze (temazepam: 24%) also common but at levels of use comparable to those seen in previous IDRS IDU cohorts. However, as displayed in Table 37, alprazolam tablets and temazepam gel capsules were more commonly used among those injecting benzodiazepines than diazepam. Comparing the injection of the main types of benzodiazepines used for injection across IDRS IDU cohorts over time (Table 38), it is clear that use of gel capsule formulations of temazepam has decreased over time (36% of the sample in 2001, falling to 14% in 2003, with an increased proportion reporting injection in 2004, but the median frequency of injection had decreased from 6 days in 2003 to 3 days in the 2004 participants), injection of Valium has remained relatively stable over time (6%-10% of the cohorts between 2002 and 2004, with a median frequency of injection of 5 days or less in this time), and, importantly, both the proportion reporting recent injection of alprazolam, and the median frequency of such use, has steadily increased over time, particularly since the reduced availability of temazepam gel capsules in 2002. This pattern is consistent with reports from both IDU and key experts that simultaneous injection of alprazolam with opiates had increased in 2003 and had continued in 2004. This combination of use is of considerable concern, not solely due to the deleterious effects of injection of benzodiazepines (see Fry & Bruno, 2002) but also due to the increased risk of overdose on use of multiple central nervous system depressant drugs, and moreover the extremely disinhibited behaviour that can occur following such combined use.

Table 36: Recent oral benzodiazepine use

Benzodiazepine	Proportion using this benzodiazepine/brand orally in the preceding six# months			
	2001 IDRS (n=74)	2002 IDRS (n=80)	2003 IDRS (n=87)	2004 IDRS (n=82)
	%	%	%	%
Kalma (<i>alprazolam</i>)	-	8 (n=6)	1 (n=1)	10 (n=8)
Xanax (<i>alprazolam</i>)	16 (n=12)	14 (n=11)	34 (n=29)	45 (n=37)
Lexotan (<i>bromazepam</i>)	-	3 (n=2)	4 (n=3)	1 (n=1)
Paxam (<i>clonazepam</i>)	-	3 (n=2)	4 (n=3)	1 (n=1)
Rivotril (<i>clonazepam</i>)	8 (n=6)	8 (n=6)	1 (n=1)	1 (n=1)
Antenex (<i>diazepam</i>)	12 (n=9)	19 (n=15)	4 (n=3)	22 (n=18)
Diazemuls (<i>diazepam</i>)	3 (n=2)	-	-	1 (n=1)
Ducene (<i>diazepam</i>)	8 (n=6)	5 (n=4)	5 (n=4)	9 (n=7)
Valium (<i>diazepam</i>)	84 (n=62)	73 (n=58)	81 (n=69)	83 (n=68)
Valium liquid (<i>diazepam</i>)	-	-	1 (n=1)	0 -
Valpam (<i>diazepam</i>)	-	-	1 (n=1)	2 (n=2)
Hypnodorm (<i>flunitrazepam</i>)	5 (n=4)	10 (n=8)	13 (n=11)	12 (n=10)
Rohypnol (<i>flunitrazepam</i>)	24 (n=18)	-	-	0 -
Alodorm (<i>nitrazepam</i>)	1 (n=1)	5 (n=4)	1 (n=1)	7 (n=6)
Mogadon (<i>nitrazepam</i>)	34 (n=25)	20 (n=16)	22 (n=19)	17 (n=14)
Alepam (<i>oxazepam</i>)	1 (n=1)	5 (n=4)	-	4 (n=3)
Murelax (<i>oxazepam</i>)	5 (n=4)	1 (n=1)	2 (n=2)	9 (n=7)
Serepax (<i>oxazepam</i>)	36 (n=27)	31 (n=25)	32 (n=27)	33 (n=27)
Euhypnos* (<i>temazepam</i>)	4 (n=3)	5 (n=4)	5 (n=4)	11 (n=9)
Normison* (<i>temazepam</i>)	45 (n=33)	21 (n=17)	1 (n=1)	21 (n=17)
Temaze* (<i>temazepam</i>)	18 (n=13)	30 (n=24)	8 (n=7)	11 (n=9)
Temaze (tablets)			14 (n=12)	24 (n=20)
Temtabs (<i>temazepam</i>)	-	9 (n=7)	1 (n=1)	9 (n=7)

Source: IDRS IDU Interviews. *signifies those benzodiazepines available in gel capsule formulation; #2002 data is for the five-month period Jan-April, and June, 2002

Table 37: Recent intravenous benzodiazepine use

Benzodiazepine	Proportion using this benzodiazepine/brand intravenously in the preceding six# months					
	2001 IDRS (n=38)	2002 IDRS (n=38)	2003 IDRS (n=31) [†]	2004 IDRS (n=30)		Median number of days injected
	%	%	%			
Alprax (<i>alprazolam</i>)	-	-	4 (n=1)	3	(n=1)	1
Kalma (<i>alprazolam</i>)	-	3 (n=1)	13 (n=3)	13	(n=4)	48 (1-48)
Xanax (<i>alprazolam</i>)	11 (n=4)	8 (n=3)	38 (n=9)	57	(n=17)	24 (1-120)
Paxam (<i>clonazepam</i>)	-	-	13 (n=3)	3	(n=1)	1
Rivotril (<i>clonazepam</i>)	-	-	4 (n=1)	7	(n=2)	3 (2-4)
Antenex (<i>diazepam</i>)	-	5 (n=2)	-	10	(n=3)	1 (1-30)
Valium (<i>diazepam</i>)	8 (n=3)	16 (n=6)	13 (n=3)	10	(n=3)	4 (1-30)
Valium liquid (<i>diazepam</i>)	-	-	13 (n=3)	0	-	0
Hypnodorm (<i>flunitrazepam</i>)	3 (n=1)	5 (n=2)	13 (n=3)	3	(n=1)	3
Rohypnol (<i>flunitrazepam</i>)	5 (n=2)	-	-	0	-	0
Alepam (<i>oxazepam</i>)	-	3 (n=1)	-	0	-	0
Serepax (<i>oxazepam</i>)	3 (n=1)	5 (n=2)	-	7	(n=2)	2 (1-2)
Euhypnos* (<i>temazepam</i>)	8 (n=3)	24 (n=9)	46 (n=11)	33	(n=10)	5(5-10)
Normison* (<i>temazepam</i>)	82 (n=31)	53 (n=20)	8 (n=2)	60	(n=18)	3 (1-12)
Temaze* (<i>temazepam</i>)	24 (n=9)	47 (n=18)	29 (n=7)	43	(n=13)	5 (1-12)
Temtabs (<i>temazepam</i>)	-	5 (n=2)	4 -	7	(n=2)	1

Source: IDRS IDU interviews. *signifies those benzodiazepines available in gel capsule formulation; #2002 data is for the five-month period Jan-April, and June, 2002; †data only collected on 24 of the 31 individuals reporting injecting use of benzodiazepines in the preceding six months: proportions are calculated relative to these 24 participants.

Table 38: Types of benzodiazepines commonly injected by IDU: 2001-2004

	2001	2002#	2003	2004
Temazepam gel capsules				
% injecting in past six months	36%	30%	14%	19%
Median days injected	n/r	10	6	3
Alprazolam				
% injecting in past six months	4%	3%	11%	17%
Median days injected	n/r	7	20	24
Valium (diazepam)				
% injecting in past six months	3%	6%	6%	10%
Median days injected	n/r	3	5	4

Source: IDRS IDU Interviews. #2002 data is for the five-month period Jan-April, and June, 2002

9.1 Availability and Access

Key experts generally 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 diverted medications as a gift from a friend, or others bingeing on a benzodiazepine prescription then having to purchase diverted benzodiazepines to maintain their usual base level of use. When IDU were asked what their usual source of benzodiazepines was in the preceding six months, 44% of those that had used the drug reported predominantly accessing benzodiazepines via licit means (for genuine symptoms), with smaller proportions reporting accessing the majority of the benzodiazepines they had recently used through gifts from friends (26%) or through purchasing from friends (13%). Only two IDU reported usually accessing benzodiazepines through doctor shopping (Table 39). When considering all modes of access to benzodiazepines in the preceding six months (Table 39), the modes of access are relatively similar to those reported by previous IDRS survey participants, with the exception of a larger proportion of recent benzodiazepine-using IDU reporting that they had accessed these drugs through trading of other drugs (31% in 2004 in comparison to 4% in 2001 and 12% in 2002).

Table 39: Methods of obtaining benzodiazepines in the six[#] months prior to interview: 2001-2004 IDRS

Mode of access	2001 IDRS		2002 IDRS		2003 IDRS	2004 IDRS	
	All methods used (n=69) %	Primary method used (n=69) %	All methods used (n=75) %	Primary method used (n=75) %	Primary method used (n=88)* %	All methods used (n=85) %	Primary method used (n=85) %
Doctors (genuine symptoms)	57 (n=39)	45 (n=31)	53 (n=40)	47 (n=35)	48 (n=38)	59 (n=50)	44 (n=37)
Doctors (fake symptoms)	9 (n=6)	9 (n=6)	8 (n=6)	1 (n=1)	1 (n=1)	2 (n=2)	2 (n=2)
Forged prescriptions	0 (n=0)	0 (n=0)	0 (n=0)	0 (n=0)	0 (n=0)	-	-
Altered existing prescriptions	0 (n=0)	0 (n=0)	0 (n=0)	0 (n=0)	0 (n=0)	-	-
Friends (gift or purchase) †	67 (n=46)	42 (n=29)	59 (n=44)	35 (n=26)	27 (n=21)	56 (n=48)	26 (n=22)
Friends (purchase) †	†	†	†	†	20 (n=16)	40 (n=34)	13 (n=11)
Family	3 (n=2)	1 (n=1)	8 (n=6)	3 (n=2)	n/a	n/a	n/a
Dealer / street (purchased)	23 (n=16)	3 (n=2)	28 (n=21)	13 (n=10)	4 (n=3)	22 (n=19)	5 (n=4)
Dealer / street (swap drugs)	4 (n=3)	0 (n=0)	12 (n=9)	1 (n=1)	n/a	31 (n=26)	7 (n=6)
Theft	n/a	n/a	n/a	n/a	n/a	2 (n=2)	-

Source: IDRS IDU interviews. #Note: 2002 data refers to a four-month period of accessing benzodiazepines (January-April 2002), due to the nature of the survey questions. *Data was only collected on 79 participants: proportions are calculated with reference to this number. †In 2003, data were divided according to purchase from friend or gift from friend to clarify trends from previous years.

A substantial proportion of IDU participants that had recently used benzodiazepines reported accessing these through legitimate prescriptions. When asked about ease of access of benzodiazepine tablets from doctors in the six months prior to interview, the majority of IDU commenting believed it easy (35%) or very easy (21%) to access these from a prescriber, although a substantial proportion reported that they found these difficult or very difficult to access from a prescriber (44%). Consistent with this, the majority of respondents perceived that it had become more difficult to access benzodiazepine tablets from a prescriber in recent months (53%), with a smaller proportion perceiving such availability as remaining stable in this time. Illicit access to such tablets appeared somewhat easier, with 70% regarding it as easy (48%) or very easy (22%) to access benzodiazepine tablets illicitly, although again a substantial proportion

reported that availability had decreased in recent months (45%), with 39% reporting no change in availability in this time (Table 40).

Table 40: Ease of access of benzodiazepines in the six months prior to interview

		%	n	%	n
		From a Medical Practitioner		From 'the street'	
Tablets					
Ease of access					
	<i>Very easy</i>	21%	10	22%	15
	<i>Easy</i>	35%	17	48%	32
	<i>Difficult</i>	25%	12	27%	18
	<i>Very difficult</i>	19%	9	3%	2
Access change					
	<i>More difficult</i>	53%	25	45%	31
	<i>Stable</i>	38%	18	39%	27
	<i>Easier</i>	9%	4	10%	7
	<i>Fluctuates</i>	0%	0	6%	4

Source: IDRS IDU interviews

9.2 Price

Perhaps reflecting the multiple paths to access of benzodiazepines by IDU (for example, licit prescription, gifts, trade for other items or drugs, as well as illicit purchase), IDU provided highly varying accounts of the cost of their last purchase of diverted benzodiazepines. Most common prices reported were \$2.50-5 per 2 mg alprazolam (Xanax or Kalma) tablet, \$1 per 5 mg diazepam (Valium) tablet, \$2.50 per 1mg flunitrazepam (Rohypnol) tablet, \$1 per 5 mg nitrazepam (Mogadon) tablet, \$2 per 30 mg oxazepam (Serepax) tablet, \$2-\$5 per 10 mg temazepam (Euhypnos, Normison or Temaze) gelcap, and \$5 per 20 mg temazepam gelcap (Table 41). Given the small sample sizes reporting on prices of these drugs, it is difficult to ascertain whether there have been any substantial changes in price over time, although it is possible that the price of Xanax (alprazolam) may have decreased slightly.

9.3 Use

Prevalence of benzodiazepine use

Of the Tasmanians surveyed in the 1998 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 1999), 7.9% (n=75) indicated that they had ever tried benzodiazepines for non-medical purposes, and 2.9% (n=28) reported use in the year prior to the survey. However, in the 2001 National Drug Household Survey (n=1,349: Australian Institute of Health and Welfare, 2002), only 1.0% (n=13) of respondents reported using benzodiazepines for non-medical purposes in the year prior to interview. While these are low base rates of reported benzodiazepine users, this does

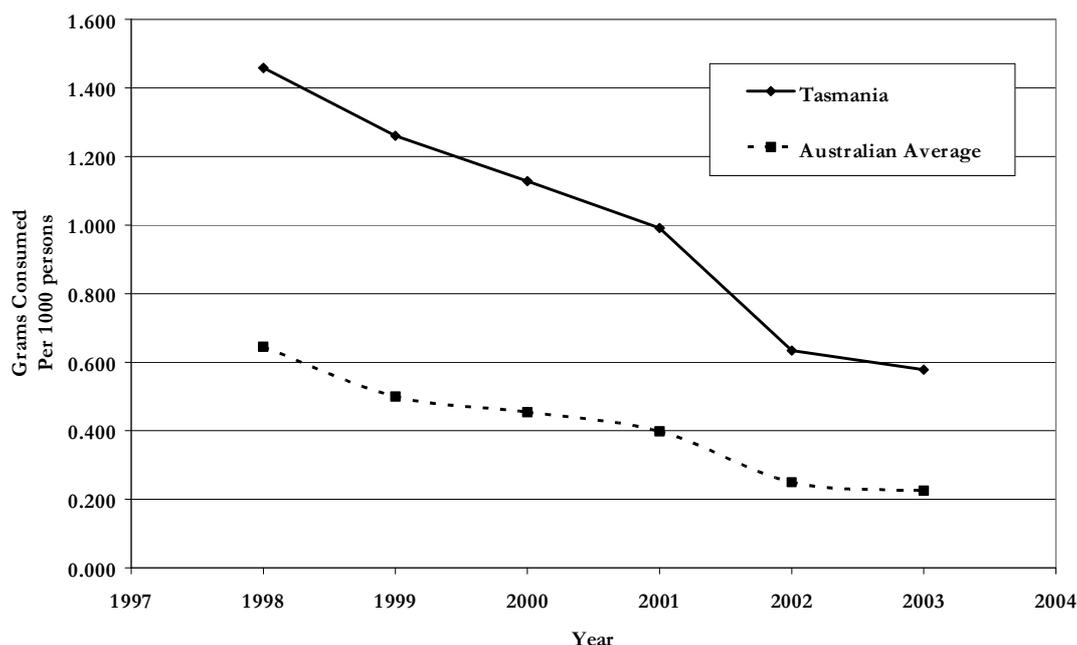
seem to indicate a slight reduction in the prevalence of benzodiazepine (mis)use in this three-year period.

Use of flunitrazepam (Hypnodorm, and previously sold as Rohypnol) is a benzodiazepine that is particularly preferred by IDU due to its potent and quick-acting effect. Despite the prescription of this drug being tightly defined through the Pharmaceutical Benefits Scheme and its classification as a Schedule 8 drug, participants in recent local IDRS and related studies have continued to report some use of diverted Hypnodorm tablets, albeit in small amounts. Prescription rates of flunitrazepam in Tasmania (Figure 33) 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 around 250% that of the national average since 1999.

Use in particular populations

Benzodiazepines have consistently comprised approximately 10-16% of all positive urine screens among Tasmanian prisoners between 1996/97 and 2000/01, despite markedly increasing numbers of positive urine screens during this period. However, in 2001/02, the proportion of positive urine screens indicating use of benzodiazepines had dropped to 7% (n=9), the lowest proportion since 1995/96 (6%). During 2002/03, however, the proportion of positive urine screens testing positive for benzodiazepines returned to 14%, a similar level to that been in the 1996/97-2000/01 period, a trend which continued in 2003/04 (12%).

Figure 33: Consumption of flunitrazepam per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

Table 41: Modal price per tablet of last purchase of diverted benzodiazepines

Benzodiazepine	2001 IDRS			2002 IDRS			2003 IDRS			2004 IDRS		
	N	Modal Price (per tablet)	Price Range (per tablet)	N	Modal Price (per tablet)	Price Range (per tablet)	N	Modal Price (per tablet)	Price Range (per tablet)	N	Modal Price (per tablet)	Price Range (per tablet)
Alprax (<i>alprazolam</i>)												
2 mg	-	-	-	-	-	-	1	\$5	-	1	\$5	-
Kalma (<i>alprazolam</i>)												
2 mg	-	-	-	1	\$2.50	-	1	\$5	-	4	\$5	\$1.50-5
Xanax (<i>alprazolam</i>)												
1 mg	-	-	-	-	-	-	1	\$5	-	6	\$2.50	\$1-2.50
2 mg	7	\$5	\$2-5	2	\$4.25 [#]	\$3.50-5	7	\$5	\$1.50-8			
Rivotril (<i>clonazepam</i>)												
2 mg	5	\$2.50	\$1-5	-	-	-	2	\$1.50 [#]	\$0.50-2.50	2	\$1.50 [#]	\$1-2
Paxam (<i>clonazepam</i>)												
2 mg	-	-	-	-	-	-	1	\$1	-	1	\$1	-
Antenex (<i>diazepam</i>)												
5 mg	-	-	-	1	\$1	-	-	-	-	4	\$1	\$1-5
Diazemuls (<i>diazepam</i>)												
5 mg	1	\$1.25	-	-	-	-	-	-	-	-	-	-
Valium (<i>diazepam</i>)												
5 mg	30	\$1	\$0.5-5	14	\$1	\$0.75-3	17	\$1	\$0.40-3	19	\$1	\$0.20-2
Hypnodorm (<i>flunitrazepam</i>)												
1 mg	-	-	-	1	\$2.50	-	10	\$2.50 [#]	\$1.20-3	6	\$2.50	\$1-2.50
2 mg	2	\$5	-	2	\$4.50 [#]	\$4-5	2	\$5.00	-	-	-	-
Rohypnol (<i>flunitrazepam</i>)												
1 mg	-	-	-	5	\$5	\$1-5	-	-	-	-	-	-
2 mg	22	\$5	\$1.25-5	1	\$2.50	-	-	-	-	-	-	-
Alodorm (<i>nitrazepam</i>)												
5 mg	1	\$1.25	-	-	-	-	-	-	-	2	\$1.50	\$1-2
Mogadon (<i>nitrazepam</i>)												
5 mg	9	\$2	\$1-5	4	\$2	\$1-5	7	\$1.25 [#]	\$0.50-3	5	\$1	\$0.5-2
Murelax (<i>oxazepam</i>)												
15 mg	1	\$1	-	-	-	-	-	-	-	1	\$2	-
Serepax (<i>oxazepam</i>)												
15 mg	3	\$2.50 [#]	\$1-5	-	-	-	-	-	-	1	\$0.50	-
30 mg	11	\$2.25 [#]	\$1-5	4	\$1	\$1-2	4	\$1.85 [#]	\$0.80-2.50	9	\$2	\$1-5
Euhypnos (<i>temazepam</i>)												
*10 mg	-	-	-	1	\$1.50	-	1	\$2.50	-	3	\$2	\$2-3
*20 mg	3	\$4 [#]	\$1.25-10	4	\$4.50 [#]	\$3-10	7	\$4.80 [#]	\$1.50-7	7	\$5	\$2-20
Normison (<i>temazepam</i>)												
10 mg tablet	-	-	-	4	\$3.50 [#]	\$1-5	-	1	-	1	\$1.50	\$1-2
*10 mg capsule	30	\$2	\$0.8-5	1	\$2.50	-	1	\$5	-	3	\$2	\$2-2.50
*20 mg capsule	12	\$4 [#]	\$2-10	12	\$3.50 [#]	\$1-10	1	\$4	-	9	\$5	\$2-8
Temaze (<i>temazepam</i>)												
10 mg tablet	-	-	-	2	\$2.50 [#]	\$1-4	3	\$2.50 [#]	\$1-3	4	\$1	\$1-5
*10 mg capsule	5	\$2	\$1-5	2	\$2.25 [#]	\$1-3.50	2	\$1.15 [#]	\$1-1.25	4	\$4.50	\$2-10
*20 mg capsule	-	-	-	1	\$3	-	2	\$5.50 [#]	\$5-6	3	\$5	\$5-20
Temtabs (<i>temazepam</i>)												
10 mg	-	-	-	1	\$1	-	-	-	-	3	\$1	\$0.5-1

Source: IDRS IDU Interviews. * signifies gel capsule formulation, # signifies cases where multiple modes existed – in these cases, median prices are reported

Benzodiazepine use among IDU

Reported use of benzodiazepines as the main drug injected by non-pharmacy Needle Availability Program outlet clients has undergone massive changes in the past four years: with an increase from 0.3% to 13.5% of clients between 1998/99 and 1999/00, returning to more modest levels (3.5%) in 2000/01. This proportion remained reasonably stable at 3.8% in 2001/02, dropping again in 2002/03 to less than 1% of all client transactions, a level which has continued into 2003/04 (Table 42). While there are limitations with this dataset (see Section 1.4), it would appear that the apparent rapid increase in

benzodiazepine use between 1998/99 and 1999/00 stabilised at a lower level during 2000/01 and 2001/02, and the level of primary benzodiazepine use may have returned to more traditional low levels during 2002/03. While data from the Needle Availability Program is likely to underestimate the true level of injection of benzodiazepines (as the question usually asked is ‘what is the drug you usually inject’), there is some support for these trends, as the proportion of IDRS IDU samples reporting recent injection of benzodiazepines remained stable between 2000 and 2002 (37% in 2000 and 2001, 38% in 2002), dropping slightly in 2003 to 31%, and remaining at 30% in 2004. This turnaround is likely to reflect the combined impacts of the decreased availability (both from the efforts of prescribers and the changes to PBS subsidies) and the education efforts of many of the local needle availability outlet staff.

Table 42: Percentage of benzodiazepines reported as ‘drug most often injected’ by Tasmanian non-pharmacy Needle Availability Program clients, 1996-2004

Year	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Number of clients reporting benzodiazepines	18	24	1294	505	761	52	139*
Percent of total clients reporting benzodiazepines	0.3%	0.3%	13.5%	3.5%	3.8%	0.2%	0.4%

Source: Sexual Health, Department of Health and Human Services

9.4 Benzodiazepine-related Harms

9.4.1 Law enforcement

Trends from Tasmania Police in regard to benzodiazepines appear to have remained relatively stable between 2000/01 and 2001/02, with seizures of 2,511 pills and 78 arrests (72 consumers, 6 providers) associated with Schedule 4 drugs in 2001/02, in comparison to 2,374 pills and 93 arrests (84 consumers, 9 providers) in 2000/01. Counting rules for this data had changed in 2002/03 and as such, subsequent data is not directly comparable. Using these new processes, four consumers were arrested in relation to benzodiazepines in 2002/03 and one in 2003/04.

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 the July-December 2003 period, a total of 264 benzodiazepine tablets were seized by Tasmania Police (12 tablets in the Northern District, 208 in the Southern District, and 26 tablets in the Western District), while in the January-June 2004 period, a somewhat smaller number of tablets were seized, totalling 179 (26 tablets in the Northern district and 153 in the Southern district).

9.4.2 Health

No key experts noted any particular changes in health problems associated with benzodiazepine use or injection amongst the substance-using populations they had recent contact with. IDU that had injected any benzodiazepine in the month prior to

interview were asked if they had experienced any problems that they associated with this use (Table 43). One fifth (21%) of the sample had injected the drug in this time, with 81% of these individuals reporting experiencing some injection-related harm that they attributed to benzodiazepines. The problems most commonly reported were difficulty finding veins to inject into and prominent scarring or bruising (both 38%, n=8 each), both indicators of venous damage. Dependence (33%, n=7) was another commonly reported problem, along with abscesses or infections (19%, n=4) and ‘dirty hits’ (14%, n=3: feeling physically unwell immediately following injection) associated with benzodiazepine injection. Finally, small proportions of recent benzodiazepine injectors also reported experiencing swelling of their arm (24%, n=5), leg (19%, n=4) or hand (10%, n=2), and thrombosis (10%, n=2), possibly indicating clotting or particulate matter forming in the individual’s venous system.

Table 43 Injection-related problems experienced by recent benzodiazepine injectors

	Benzodiazepines	
	%	n
Percent of sample injecting in the past month	21	21
Injection-related problem experienced		
<i>No problems</i>	19	4
<i>Overdose</i>	-	-
<i>Abscesses/infections</i>	19	4
<i>‘Dirty hit’</i>	14	3
<i>Prominent scarring/bruising</i>	38	8
<i>Thrombosis / blood clotting</i>	10	2
<i>Swelling of arm</i>	24	5
<i>Swelling of leg</i>	19	4
<i>Swelling of hand</i>	10	2
<i>Swelling of feet</i>	5	1
<i>Hospitalisation</i>	0	-
<i>Contact with ambulance</i>	0	-
<i>Contact with police</i>	5	1
<i>Dependence</i>	33	7
<i>Difficulty finding veins to inject into</i>	38	8
<i>Skin ulcers</i>	5	1
<i>Gangrene</i>	5	1

Source: IDRS IDU Interviews

9.5 Trends in patterns of benzodiazepine use

Key expert and IDU consumers noted several trends in association with benzodiazepine use amongst IDU groups, with most revolving around use of Xanax (alprazolam). In the 2003 study, it was noted by those interviewed that Xanax was being used in much the same way as temazepam gel capsules were by consumers prior to their removal from the market: with use of alprazolam simultaneously with opiates (most commonly methadone syrup) being reported as continuing (by two key experts) or increasing (by one key expert and 4 IDU participants) in recent months in the current study. While two key experts noted a decrease in both benzodiazepine use and injection amongst the groups that they

had contact with in the preceding six months, four IDU reported a combination of opiates and benzodiazepines as the drugs they last injected in the current study (two reporting each of methadone and morphine in conjunction with benzodiazepines). This combination of use is of considerable concern, not solely due to the deleterious effects of injection of benzodiazepines (see Fry & Bruno, 2002) but also due to the increased risk of overdose on use of multiple central nervous system depressant drugs. Given anecdotal reports of two recent deaths associated with coincident methadone and alprazolam use, and IDU and KE reports of extremely disinhibited behaviour following such combined use, this type of use merits careful attention in the coming months, particularly from front-line health intervention workers.

With the increase in popularity of alprazolam amongst IDU groups locally, some IDU reported that some consumers were sourcing these pills from friends or contacts in other jurisdictions in recent months, and two IDU also noted a recent increased availability of diverted Xanax tablets in the local market. However, a recent study with local IDU groups (Bruno, 2004a, unpublished) noted that theft or intimidation to access alprazolam from other drug users legitimately receiving was increasingly occurring in recent months, and in the current study one prescriber noted two or three recent occasions where standover/intimidation had been applied by some patients with the aim of forcing a prescription of alprazolam.

In other trends, key experts reported continued small pockets of use of temazepam gel capsules and flunitrazepam, despite these drugs being either heavily restricted or removed from the market. One IDU reported that their friends had shifted from use of alprazolam to use of nitrazepam in the preceding six months, and finally another IDU participant noted an increase in the number of 'middle class' people consuming diverted benzodiazepines in recent months.

9.6 Summary

There are clear indications that, following a reduction of the injection of benzodiazepines among IDU between 2002 and 2003, arising from the restriction and eventual removal of the preferred temazepam gel capsules from the market, injection of these drugs has largely stabilised among local IDU consumers, at a level relatively high in comparison to that in other Australian jurisdictions. As noted in the 2003 study, it is also clear that alprazolam (Xanax in particular) appears to have largely replaced the local illicit market for temazepam gel capsules among those IDU particularly interested in benzodiazepine injection, with this drug being used in similar ways to temazepam capsules by consumers, such as in simultaneous combination with methadone syrup or other opioids. Between the 2003 and 2004 studies, both the proportion of the IDU samples reporting recent injection of alprazolam, and the frequency of such use in the preceding six months, had increased (11%, median frequency of 20 days in the preceding six months among the 2003 IDU cohort, to 17% and a median frequency of 24 days in 2004), and there are anecdotal reports both of increased demand for, and increased availability of, alprazolam locally. This is a particular concern given the serious psychological and physical harms associated with benzodiazepine injection. Additionally, the level of use and availability of benzodiazepines generally remains high within local IDU, particularly among primary users of opiates, which is again of concern given the increased risk of overdose when the two substances are combined. As such, patterns of benzodiazepine use and injection in the state continue to warrant very close attention.

10 OTHER DRUGS

10.1 Ecstasy and other related drugs

Key experts reported largely infrequent, oral use of ‘ecstasy’²³ among a small minority of users of other illicit drugs (1-10%), most commonly described amongst groups that were primarily cannabis consumers (noted by 5 of the 9 key experts reporting on primary cannabis consumers), although reporting some use amongst primary methamphetamine consuming groups (with some use noted by 3 key experts and no use noted by one of the 12 key experts reporting on primary methamphetamine consuming groups) and primary opiate using groups (with 3 key experts reporting on such groups noting some use, and no use, respectively, of the 9 such key experts).

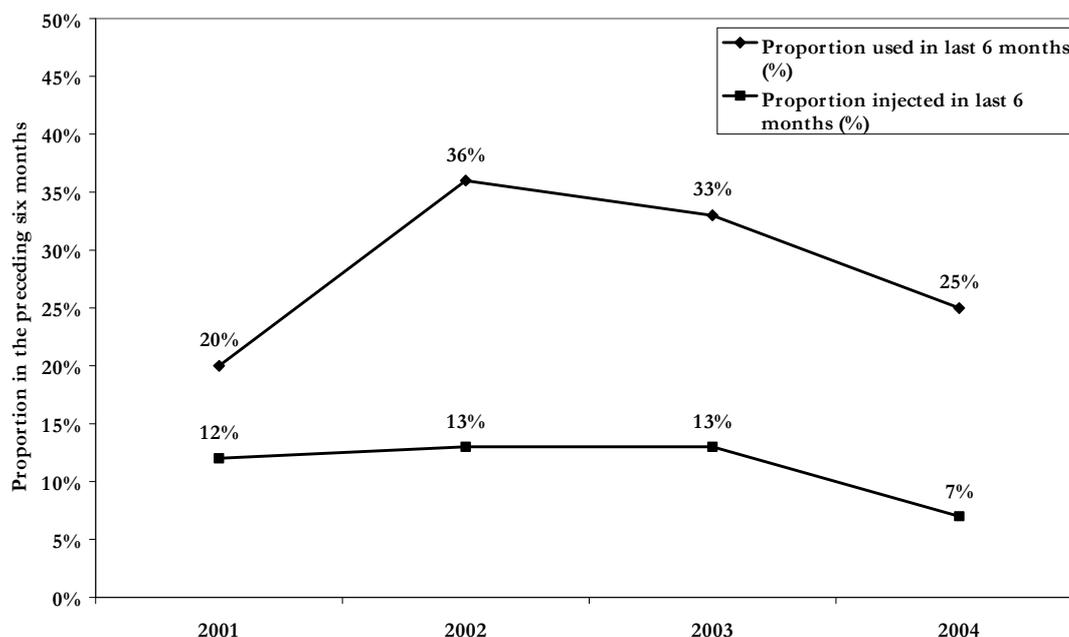
From the 1998 National Drug Strategy Household Survey for Tasmania (Australian Institute of Health and Welfare, 1999), 2.4% of those surveyed reported ever using ecstasy (n=28), while 0.7% (n=8) had used it in the year prior to the survey. A very similar rate (0.8%, n=10) reported use of ecstasy in the year prior to interview in the 2001 National Drug Household Survey (n=1,349: Australian Institute of Health and Welfare, 2002). Such low base rates of use render trends difficult to identify, but the similarity of the figures would suggest a stable prevalence of ecstasy use between these two surveys.

In the IDU sample, 61% had used ecstasy at some stage in their lives. Swallowing of the drug was most common, reported by 57% of the sample at some stage of their lives, and 24% in the preceding six months. Injection of ecstasy was reported by 31% of the sample at some stage in their lives, while 7% had injected the drug in the past six months, at a median frequency of twice in this period. In total, 25% of the sample reported using ecstasy in the past six months, with a median frequency of use of two days (range 1-48 days) in this period. As shown in Figure 34 below, these indications of use represent notable changes in comparison to levels reported in previous local IDU cohorts. In terms of the overall proportion reporting use of ecstasy in the preceding six months, this rose between 2001 and 2002 (from 20% to 36% of the samples), and has been steadily declining since this time. The proportion reporting recent injection of ecstasy had remained relatively stable between 2001 and 2003 (12%-13% of the respective samples), but had declined to 7% of the 2004 sample. Consistent with key expert reports, the median frequency of use of ecstasy amongst IDU samples is low, with this remaining between two and three times in the preceding six months in the 2001 to 2004 IDRS IDU cohorts (3 days in 2003, 2 days in all other surveys).

Surprisingly, the demographics of those that had used ecstasy in the past six months did not differ from those of the larger IDU sample (see Section 2.1), in terms of age, sex, cultural background, education, treatment and prison history, employment status, age of first injection or frequency of injection. Such overall similarities are consistent with reports from key experts that recreational use of ecstasy was common amongst primary users of both stimulant and depressant drugs.

²³ Intelligence reports from police in previous years suggest that much of the tablets sold as ‘ecstasy’ may not necessarily contain 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 34: Proportion of IDU reporting ecstasy use and injection in the preceding six months 2001-2004

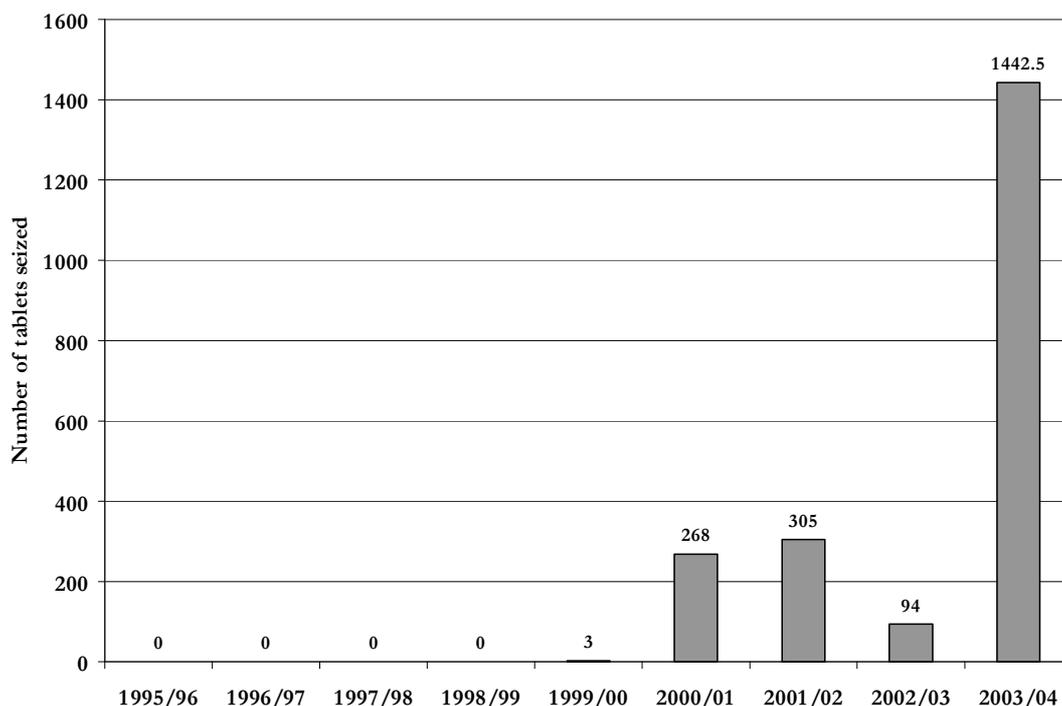


Source: IDRS IDU Interviews

Trends in regard to price, purity and availability of ecstasy are not examined in detail within the IDRS study. However, a study conducted during a similar time-frame and methodology to the current study, using regular ecstasy users as the drug user cohort, has been conducted (Matthews & Bruno, 2005) and examines trends in ecstasy and other 'party drug' use in greater depth. This study suggests that ecstasy is 'very easy' to obtain by consumers in Hobart, and that this level of availability has remained stable or increased during the early months of 2004. Subjective reports from consumers of the drug suggest that the purity of ecstasy available in Hobart during the early months of 2004 was generally variable and fluctuating between 'medium' and 'high', with purity fluctuating to increasing, and that it cost, on average, \$40 per tablet. These figures represent possible increases in terms of availability and purity (and decreases in price) in comparison to the similar study conducted in 2003 (Bruno & McLean, 2004a), and suggest a further expansion and consolidation of the ecstasy market locally, trends that are not apparent when examining a primary injecting-drug consumer cohort.

In support of suggestions of an expanding market in Tasmania, during 2003/04, Tasmania Police seized 1442.5 'ecstasy' tablets, a substantial increase from seizures in previous years (94 in 2002/03, 345 in 2001/02 and 268 in 2000/01: Figure 35). It is noteworthy also that 93% of these seizures in 2003/04 were made in the Southern District. There were three samples of phenethylamines (the class of drugs that ecstasy, or MDMA, and drugs such as MDA, MDEA and mescaline belong to) seized by Tasmania Police analysed for purity in 2003, returning a median purity of 28.5% (range 28.5-28.6%: ACC, 2004). Similar results were returned from seizures analysed in 2003/04 (median purity 26.0%, range 10.4-44.5%, n=33; ACC, 2005).

Figure 35: Seizures of tablets believed to be ‘ecstasy’ by Tasmania Police, 1995/95-2003/04



Source: Tasmania Police State Intelligence Services

Findings of the recent dedicated study into ecstasy use in Hobart (Matthews & Bruno, 2005) clearly indicate that ecstasy is relatively very easily available locally, and used by a broadening demographic group of individuals. This, and the information from Tasmania Police seizures, suggests that the availability of ecstasy has increased in Hobart during recent years, just as it has across the country. With this greater availability of the drug in Tasmania, local IDU samples have shown an increasing exposure to the drug over time. However, the very low median frequency of use, and the relatively small proportion of this regular injecting drug user cohort reporting recent use of ecstasy, suggests that ecstasy use is generally a limited, recreational event among such groups, with regular injecting drug users tending to preferentially use methamphetamines or opioids at substantially greater frequency.

10.2 Prescription Stimulants (dexamphetamine, methylphenidate)

While just two key experts (with these primarily referring to primary methadone using groups) specifically noted use of prescription stimulants such as methylphenidate (Ritalin, Attenta) or dexamphetamine amongst the substance using groups they had recent contact with, half (51%) of the IDU sample had recently used these drugs. Dexamphetamine was the more commonly used of these two drugs, used by 39% of the sample, with 13% using methylphenidate in the preceding six months.

In the IDU sample, 88% had used prescription stimulants at some stage in their lives. Injection of these drugs was most common, reported by 76% of the sample at some stage of their lives, and 43% in the preceding six months, at a median frequency of three

times in this period (range 1-180). Swallowing of prescription stimulants was reported by 62% of the sample at some stage in their lives, while 26% had swallowed these drugs in the past six months. In total, 51% of the sample reported using prescription stimulants in the past six months, with a median frequency of use of four days (range 1-180 days) in this period. While use of these drugs appears common among the IDU cohort, it appears that they are predominantly used as a second-line drug, as just 12% (n=11) of those using stimulant drugs (methamphetamine or prescription stimulants) reported methylphenidate or dexamphetamine as the stimulant they had most commonly used in the preceding six months.

This level of pharmaceutical stimulant use among the IDRS IDU cohort is consistent with that reported in the 2003 IDU cohort, where 50% of the sample reported recent use of pharmaceutical stimulants, at a median frequency of 5 days in the preceding six months. While the frequency of use of these drugs has remained low across all local IDRS IDU samples, the proportion of the cohorts reporting use had increased from 22% in the 2001 study, to 44% in 2002, and levelled out in the two most recent studies (50% and 51% respectively, Figures 5 and 6).

Demographics of those who had used prescription stimulants in the past six months did not differ from those of the larger IDU sample (see Section 3.1), in terms of sex, cultural background, education, treatment and prison history, employment status, drug of choice, age of first injection or frequency of injection. Key experts in previous IDRS studies have suggested that such prescription stimulants are more commonly used by younger (predominantly school-age) people. This was partially supported by the finding that those that had used prescription stimulants in the preceding six months were significantly younger than those that had not (27.1 vs. 32.2 years respectively: Mann-Whitney $U = 789.0$, $p=0.01$).

Reported modal market prices for pharmaceutical stimulants were \$5 per 10mg methylphenidate tablet (Ritalin, Attenta: range \$0-10, n=12) and \$5 per 5mg dexamphetamine tablet (range \$0-15, n=52). These prices are consistent with those reported in previous local IDRS studies (Table 13: remaining stable at modal prices of \$5 per tablet in the 2001, 2003 and current study). The majority of IDU who commented on price of prescription stimulants indicated that these prices had remained stable (68%, n=32) in the preceding six months. However, there was some variation in these reports, with 21% (n=10) reporting increasing prices, and 9% (n=4) fluctuating prices in this time.

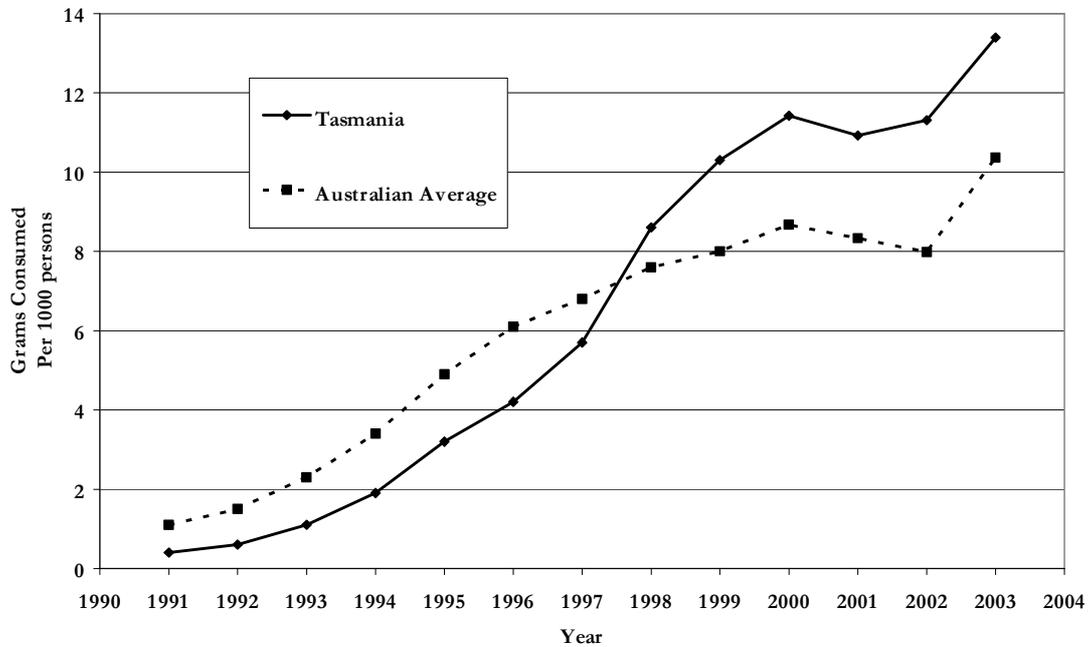
There was some division among IDU reports of ease of access to prescription stimulants such as dexamphetamine or methylphenidate, with the slight majority indicating that these were difficult (53%, n=26) or very difficult (8%, n=4) to access, while almost two-fifths felt that these were easy (31%, n=15) or very easy (8%, n=4) to access in the six months prior to interview. The majority of IDU also reported that the availability of these stimulants had remained stable (52%, n=24) or further decreased (26%, n=12) in this time, although smaller proportions noted fluctuating (13%, n=6) or increasing (9%, n=4) availability in recent months.

When asked the sources of their prescription stimulants, IDU reported that these drugs were almost invariably accessed via illicit means: just a single IDU reported accessing pharmaceutical stimulants from a medical practitioner in the preceding six months.

Tasmanian prescription rates of methylphenidate and dexamphetamine (Figures 36 and 37) provide some context for these reports. Over the past decade, prescriptions of these stimulants have steadily grown nationally, most markedly for dexamphetamine. Tasmanian consumption rates of methylphenidate had been consistently below that of the Australian average until 1998, and rose to 128% that of the national average in 1999. Tasmanian consumption rates of dexamphetamine have also overtaken a steadily increasing national rate of prescription. Tasmanian prescription rates of methylphenidate and dexamphetamine were 129.3% and 121.4% that of the Australian average in 2003.

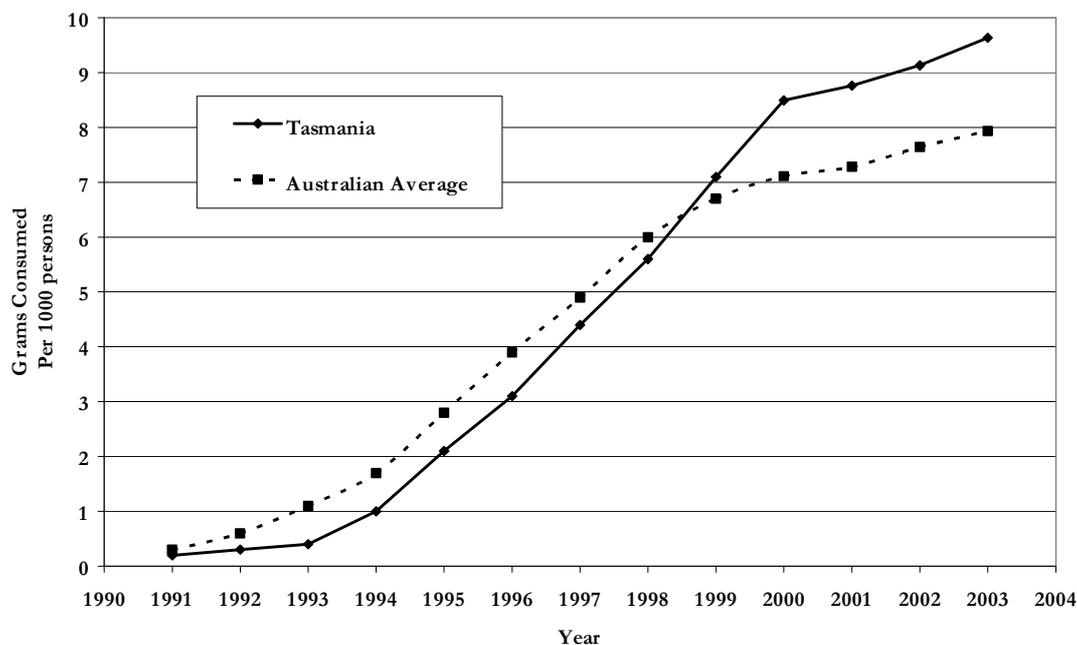
While these generally increasing trends indicate an escalating utilisation of methylphenidate and dexamphetamine by Australian doctors, these increasing prescription rates do not necessarily indicate an increase in abuse of these medications. However, these rates do reflect an increasing amount of these drugs used within the local community, which brings with it an increasing potential for abuse of these drugs.

Figure 36: Consumption of methylphenidate (Ritalin) per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

Figure 37: Consumption of dexamphetamine per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

10.3 Inhalants

While 42% of the IDU respondents reported ever using inhalants, only 8% had used them in the six months prior to interview. Four of those reporting use of inhalants had used nitrous oxide (with these individuals reporting use on one, two, three and six days in the preceding six months respectively), with one participant inhaling aerosol from spray paint on 15 days in the preceding six months, one fumes from nail polish on three days, and one participant had used amyl nitrate on one day in the preceding six months.

Most key experts were not aware of any recent use of inhalants amongst the drug users they had contact with (n=10), with those few that were regarding current use as rare (n=3). The three key experts that reported some use of inhalants suggested that this was primarily among younger (school age) individuals, or were referring to use of amyl nitrate among primary ecstasy consuming groups. One IDU participant noted an increase in young people (18-25) they knew of using inhalants such as butane or nitrous oxide (n=6) in recent months. In contrast, three youth-worker key experts working with 'at risk' groups' noted a recent decrease in inhalant use amongst their client groups in recent months, reporting that inhaling of fumes from paint was previously occurring among these groups. In previous IDRS studies, key experts reported that the substance users they were associated with were extremely negative toward use of inhalants, regarding it as a 'primary school thing'.

10.4 Hallucinogens

Twenty percent of the IDU respondents in the current study reported use of hallucinogens in the six months prior to interview, although three-quarters (77%) had used something from this class of drugs at some stage in their lives. The current frequency of use was rare, with only a median of two days use in the past six months among those whom reported use of the drug (range 1-24 days). The majority of participants had used these drugs only once (n=10) or twice (n=4) in this time. 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 (26% in 2001; 16% in 2002; 21% in 2003; 20% in 2004), and the median frequency of use remaining at just one or two days in the preceding six months across each of these samples.

Key expert reports followed a similar theme, with 3 key experts noting irregular use, most commonly of psychedelic mushrooms, amongst a small proportion of the consumers that they had contact with. Of these key experts, two were referring to primary cannabis using groups, with the other referring to a primary methamphetamine using group. With one exception, the remaining key experts noted no current hallucinogen use (n=7) or were not aware of any such use in the consumer groups they were describing.

Among the IDU sample, 11 individuals reported use of LSD in the preceding six months, and 15 people noted using mushrooms in this time (six individuals had used both). In the 2001 IDRS, two key experts noted that hallucinogen use and availability was primarily seasonal, maximising during the summer months for LSD and winter for mushrooms. One key expert in the current study reporting on a primarily ecstasy and methamphetamine consuming group reported that psychedelic use was more common amongst such demographics, particularly liquid LSD and mushrooms when in season. In support of this, Party Drugs Initiative study, using similar methods to the IDRS but a primary ecstasy-using group as its consumer sample and conducted in Hobart in mid-2004 (Matthews & Bruno, 2005) found higher levels of use relative to the IDRS IDU cohort (albeit also at a low frequency) among regular ecstasy users (41% of the 100 ecstasy users using psychedelic mushrooms in the six months prior to interview, and 32% using LSD). More details about hallucinogen use in such demographic groups can be found in Matthews and Bruno (2005).

Tasmania Police reported prices of LSD tabs as \$20-\$25 during the 2001/02 and 2000/01 financial years, a potential decrease on the \$15-\$30 reported during 1999/00. Price information in regard to LSD is no longer reported by the ACC in their annual reports.

Tasmania Police seized 5 tabs of LSD during 2001/02 (all during December, 2001), and 8 tabs during 2000/01 (all during August 2000), compared to 109 tabs during the 1999/00 financial year, all during the summer October-December 1999 quarter. During 2002/03, Tasmania Police (Western District) seized 488 tabs believed to be LSD (and sold as such by the 'dealer') but forensic tests of the seized tabs indicated negative results for any drug. During 2003/04, 31 tabs of LSD, 10.5 grams of psychedelic mushrooms (psilocybin) and 6 'tablets' defined as hallucinogenic were seized by Tasmania Police. These quantities seized are so variable, and the level of use of hallucinogens among the

IDRS cohort so low, that it is difficult to infer any clear trends in availability for this class of drugs from these figures.

10.5 Alkaloid Poppies

In the IDU sample, 69% reported using some opioid other than morphine, methadone or heroin at some stage in their lives. Use of such opioids in the six months prior to interview was only reported by one third (33%) of the sample. Of these, 13 reported predominant use of some preparation of alkaloid poppies (described by the IDU as opium, opium tar or poppy 'tea'), with the remainder reporting use of oxycodone (n=9), tramadol (n=8), and Panadeine forte (codeine phosphate/paracetamol: n=3), all of which are pharmaceutical analgesics.

This level of recent use of alkaloid poppies (13%) is highly similar to that reported within recent local IDRS IDU samples (13% in 2001, 14% in 2002 and 12% in 2003), and represents a continued, substantial drop from the proportions reporting use of alkaloid poppy presentations in the 2000 survey (34%). Within the 2004 sample, median frequency of use of an alkaloid poppy preparation was three days in the preceding six months (range 1-96 days).

Demographics of those who had used some preparation of alkaloid poppies in the past six months did not differ from those of the larger IDU sample (see Section 2.1), in terms of age, sex, cultural background, education, treatment or prison history, employment status, age of first injection or frequency of injection.

Only a single key expert, a person involved with a large number of regular opiate consumers, specifically noted any recent use of alkaloid poppy preparations amongst the groups they had contact with, perceiving an increase in the number of people using poppy preparations in the preceding six months.

Tasmania Police State Intelligence Services have 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. During 2003/04, Tasmania police reported seizing 601 capsules, 31 poppy plants and 2g of poppy tar/resin. This is comparable with the seizures in recent years: in 2002/03, Tasmania Police seized 7 capsules, 1473.3g of capsules, 84 poppy plants and 2g of poppy tar; in 2001/02, 382 capsules and 9.319 kg of capsules; in 2000/01, 3,522 capsules; and 3, 933 capsules and 50g of poppy tar seized in the 1999/00 financial year (Table 44). However, this mixture of reporting renders it difficult to clearly identify trends in seizure data.

The diversion rate of Tasmanian alkaloid poppy crops, shown in Table 44 below, had been in steady decline between 1996 and 1998. Contrary to this trend, however, 1998/99 and 1999/00 saw a substantial amount of poppies stolen from crops. It should be noted that a small number of particularly large hauls were largely responsible for these rates of diversion (in one case, a single haul of approximately 50,000 capsules were stolen). In concert with trends suggesting a decline in alkaloid poppy use amongst IDU during 2001, there was a major decrease in the numbers of poppies stolen during 2000/01 when compared to the two earlier financial years (7,765 capsules in comparison to over 60,000 in 1998/99 and 1999/00). The 2001/02 financial year saw a doubling of the number of

stolen poppy capsules (15,946) in comparison to the previous year, and thefts have continued to rise since this time (20,223 capsules stolen in 2002/03 and 24,128 in 2003/04). However, while slowly increasing, this level of diversion remains substantially lower than the annual number of capsules stolen between 1996/97 and 1999/00. Tasmania Police key experts in previous IDRS studies report that this decline in diversion is likely to be attributed both to a more pro-active approach by Tasmania Police poppy task forces and the decision by producers not to specifically identify thebaine poppy crops. This is a substantial deterrent to illicit use, as thebaine poppies are physically identical to morphine-producing crops, with the exception that thebaine acts as a central nervous system stimulant (morphine behaves in the opposite way, and is a central nervous system depressant), causing adverse strychnine-like convulsions after high doses. In support of this, in 2001, one key expert, a user group representative, noted negative experiences with thebaine-based diverted poppies amongst the IDU they were familiar with, with the individuals concerned not returning to use of poppy preparations.

Table 44: Tasmanian alkaloid poppy crop diversion rates, 1996-2004

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Number of capsules stolen	42,426	30,424	66,013	62,700	7,765	15,946	20,223	24,128
Cost per hectare of securing poppy crops	\$45	\$39	\$33	\$27	\$28	\$28	\$30	\$47
Number of capsules stolen per hectare sown	3.95	2.44	4.41	2.99	0.39	0.81	1.11	1.97
Number of theft incidents reported	46	38	34	39	20	27	27	39
% of IDU sample reporting use	-	-	-	34	13	14	12	13
Median days used among IDU using	-	-	-	6 (1-151)	6 (1-81)	4 (1-45)	5 (1-48)	3 (1-96)
TASPOL seizures	-	-	-	3,933 capsules *; 50g tar	3,522 capsules *	382 capsules *; plus 9319g of capsules	7 capsules plus 1473.3g capsules; 84 plants; 2g tar	601 capsules; 18g resin; 31 plants; *

Source: Poppy Board, Justice Department of Tasmania, Tasmania Police State Intelligence Services; *May be an overestimate of seizures as Tasmania Police data is an amalgamation of plants, capsules and weight of seizures. Data reported here is the best estimate of seizure quantity

10.6 Other Substances

Homebake

Since the identification of homebake as a re-emergent issue in the 2001 West Australian IDRS (Hargraves & Lenton, 2002), the national IDRS study has included questions on the use of this preparation amongst the IDU participants. 'Homebake' is a term used to describe the end product of an illicit drug manufacturing process, typically conducted within domestic kitchens, using codeine-based pharmaceuticals to make morphine and/or heroin. The manufacturing process involves the initial extraction of codeine from these pharmaceuticals, which is converted to morphine. Subsequent reactions convert morphine to heroin in the form of a dark paste, which requires dilution to be injected. Depending on the skill of the 'cook', the end result is usually a combination of heroin, morphine and codeine, although varying amounts of unwanted chemicals used in the manufacturing process (pyridine hydrochloride, chloroform) may also be present (Hargreaves & Lenton, 2002).

While no key experts noted any use of homebake amongst the groups they had contact with, 20% of the 2004 IDU sample reported they had used homebake at some stage in their lives. Injection of the drug was most common, reported by 19% at some stage in their lives, and 3% in the preceding six months, at a median frequency of six days in this time (range 6-72 days). Lifetime use of homebake by smoking (6%), swallowing (7%), or snorting (2%) was much less common, with only a single participant reporting snorting this drug in the six months prior to interview, and three reporting swallowing homebake in this time. In total, 5% of the IDU sample reported some use of homebake in the past six months, with a median frequency of use of only 6 days (range 1-72 days) in this period.

Antidepressants

Four-fifths (79%) of the IDU sample had used antidepressants at some stage in their lives. Injection of antidepressants was rare, reported by only 8% of the sample at some stage in their lives and none in the preceding six months. All 79 of those who had ever used antidepressants had swallowed the drug at some stage, with 41% of the sample reporting swallowing of antidepressants in the past six months. Of those that had recently used the drug, the majority were receiving antidepressants for legitimate reasons ($n=34$, 83% of those recently reporting antidepressant use), while only eight had accessed these drugs illicitly in this period (one of these individuals had also been receiving prescribed antidepressants).

IDU that reported recent use of antidepressants were significantly more likely to be currently involved in some sort of treatment for their substance use than those that had not recently used the drug (78% vs. 59% respectively: $\chi^2(1, n=100) = 3.83, p=0.05$). Median frequency of use of antidepressants was 180 days in the preceding six months (range 10-180) among those receiving antidepressants for legitimate reasons, and only 6 days in this period (range 1-180 days) among those accessing the drug illicitly. Specific serotonin or norepinephrine reuptake-inhibiting (SSRI/SNRI) drugs were most commonly used (by 56% of those reporting recent use of antidepressants: citalopram, $n=4$; escitalopram, $n=2$; fluoxetine, $n=5$; sertraline, $n=5$), although use of tricyclic antidepressants and related drugs were also common (34%: amitriptyline, $n=7$; dothiepin,

n=1; doxepin, n=1; mirtazapine, n=5). The remainder (n=4) could not recall the antidepressant they had used.

These patterns of use of antidepressants in the IDU cohort represent a noteworthy increase, consistent with the higher levels of reported mental health problems in the current sample in comparison to earlier IDRS IDU cohorts (see Section 10.6). In the 2003 IDRS IDU cohort, lifetime use of antidepressants was 49%, with 22% reporting use in the six months prior to interview (5% illicitly); in 2002, 48% of the IDU participants had ever used antidepressants, with 28% using them in the preceding six months (4% illicitly).

10.6.1 Buprenorphine

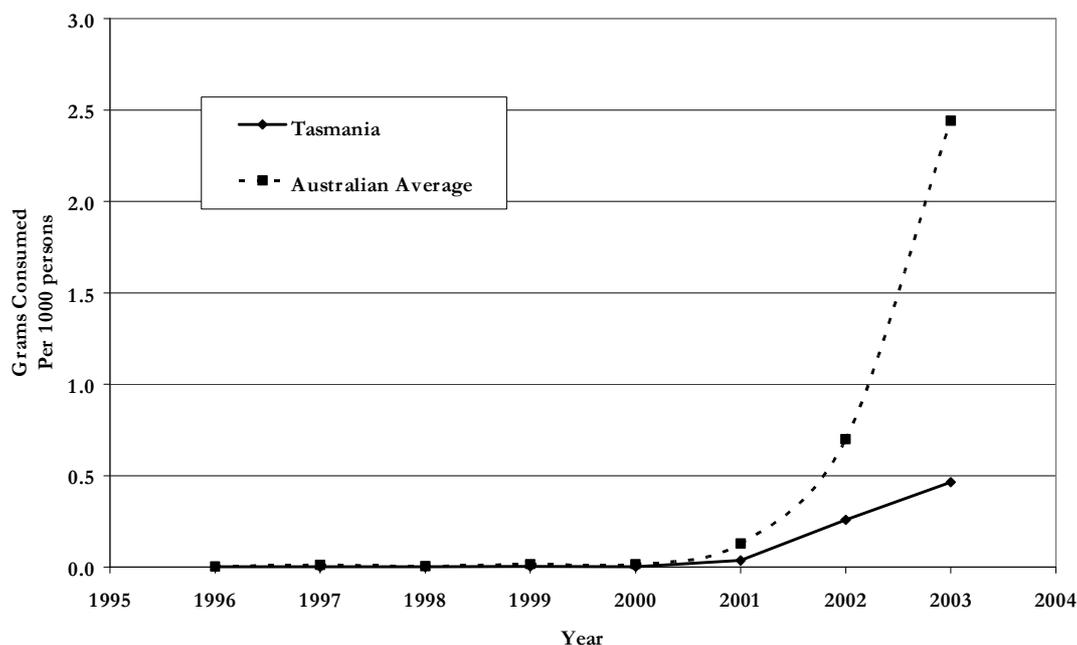
With the advent of buprenorphine as a maintenance treatment option for opioid addiction in the 2000/01 financial year, trends in buprenorphine use among regular IDU groups have been examined since the 2002 IDRS survey. In the current cohort of IDU only 15 reported ever using buprenorphine, with 11 ever receiving the drug licitly, and 7 ever using diverted physseptone. Of those that had ever used diverted buprenorphine, 3 had also received the drug legitimately at some stage. Five of the current IDU participants reported being prescribed buprenorphine in the six months prior to interview, and four individuals had used diverted buprenorphine in that time (one of these individuals was also being prescribed the drug). Among those being prescribed the drug, all but one had used buprenorphine orally in the preceding six months, and two reported daily injection of buprenorphine in this time. The median frequency of licit use was 180 days (range 30-180 days) in the six months prior to interview. Of those that had recently used diverted buprenorphine, one had swallowed the drug on two days in the preceding six months, with the remaining three individuals using the drug intravenously, at a median frequency of just once in this time (two individuals had injected diverted buprenorphine once in the preceding six months, and one reported injecting this on twenty days in this time).

As noted in Section 7.4 above, buprenorphine first became available as a pharmacotherapy in the state in 2000/01. Following an influx of individuals that were previously receiving treatment shifting to buprenorphine in the first year of availability of the drug (n=37 in 2000/01), the number of new admissions to buprenorphine maintenance in Tasmania has steadily increased in the past three financial years (from 23 in 2001/02 to 45 in 2003/04: Figure 21). As such, the number of daily buprenorphine patients has grown from 48 as of July 2002 to 74 in July 2004. Tasmanian prescription rates of buprenorphine are detailed below in Figure 38. Following the trends in buprenorphine maintenance admissions, the rate of prescription of the drug in the state has increased tenfold between 2001 and 2003 from 0.04g to 0.46g per 1000 persons. However, the prescription rates nationally have increased remarkably rapidly since 2001, largely due to the rapid uptake of buprenorphine treatment in Victoria, and the prescription rates of buprenorphine locally are just 19% of the national average (in contrast to that of methadone syrup, which was 113% of the national average in 2003).

While no key experts reported hearing of injection of illicit buprenorphine amongst the substance using individuals they had contact with, given the high use of diverted pharmaceutical opioids among the regular IDU population locally, and the notable rates of diversion of buprenorphine in other jurisdictions (Stafford, et al, 2005), trends in use

of buprenorphine merit close attention as the drug continues to be more widely adopted as a treatment option locally in the coming years.

Figure 38: Consumption of buprenorphine per 1000 persons, 1991-2003



Source: Pharmaceutical Services, Department of Health and Human Services

10.7 Summary of trends for other drugs

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

The main trends identified for these categories of drugs were:

- Rates of use of pharmaceutical stimulants in the 2004 IDRS IDU cohort had stabilised following steady increases between 2001 and 2003. These drugs were used by half the participants in the current study, although they were generally used infrequently, and are rarely the stimulant drug most commonly used by such individuals
- Multiple sources of information suggest that the availability of ecstasy has increased in Hobart during recent years, just as it has across the country. Recent use of ecstasy by the IDRS IDU cohort has declined across recent studies, however, there are clear indications of increasing use of these drugs in other demographic groups (Matthews & Bruno, 2005)
- Continuing low rates of diversion and use of alkaloid poppies
- Limited use of diverted buprenorphine among the 2004 IDRS IDU cohort

11 ASSOCIATED HARMS

11.1 Treatment

Census of Clients of Treatment Service Agencies (COTSA)

In May 2001, all services identified nationally as providing face-to-face specialist treatment for alcohol and other drug problems were surveyed and asked to report the characteristics of the clients they treated during a 24-hour period. In Tasmania, 15 agencies were identified, and all contributed data to the census. Of the 147 clients reported on, 134 were substance users themselves (the remainder were individuals affected by other's substance use), with an average age of 32 years (SD 11.6 years). Thirty percent of substance-using clients were female, and 4.8% of clients identified as Aboriginal or Torres Strait Islanders. In terms of employment, 18% were currently employed, 31% unemployed, 21% pensioners, 7% students and 10% prisoners. Client's main drug problems (as reported by the agency) are summarised in Table 45, with alcohol use (35%), opioid use (30%) and cannabis use (16%) most common. When compared to the patterns of problem drugs from the 1995 COTSA census, there appears to have been a seismic shift in the types of problems treatment agencies are required to address, with the proportion of clients receiving treatment for alcohol-related problems dropping from 63% in 1995 to 35% in 2001, and an increasing prevalence of opioid- and amphetamine- related clients (increases of 10% to 30% and 4% to 9% respectively).

Table 45: Census of Clients of Treatment Service Agencies (Tasmanian and National Data) 1995 and 2001

	Tasmania		National	
	1995 %	2001 %	1995 %	2001 %
Alcohol	63.3	35.1	49.3	35.1
Opioids*	10.1	29.9	33.6	39.1
Amphetamines	3.8	9.0	6.5	8.3
Cannabis	13.9	15.7	6.7	9.3
Benzodiazepines		1.4		2.3
Cocaine		0		0.7
Polydrug including opioids	2.5	2.2	7.4	7.1
Polydrug excluding opioids	0	11.2	3.5	5.1
<i>Injecting drug use</i>		<i>30.6</i>		<i>45.7</i>
<i>Clients</i>		<i>147</i>		<i>5304</i>

Source: Shand and Mattick (2001) . Note: *includes polydrug including opioids.

Tasmanian Alcohol and Other Drug Treatment Minimum Dataset

The National Minimum Data Set for Alcohol and other Drug Treatment Services (NMDS) was developed as a nationally consistent response to data collection for alcohol and other drug treatment services. Data collection began on July 1, 2000, and data from Tasmanian government and non-government agencies across the state is presented in Table 46 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 2002/03 data are generally consistent with the findings of the 2001 COTSA census, with 66% of those receiving services being male and a small proportion (8%) identifying as being Aboriginal or Torres Strait Islanders. Some history of injecting drug use was noted in 27.6% of clients in the 2002/03 dataset, with 17.4% reporting injecting drug use in the three months prior to data collection. Figures for the reported principal drug of concern again reflect the predominance of treatment for alcohol (40.8%), with treatment for cannabis (18.6%), nicotine (18.0%), amphetamine (7.9%) and opiates/analgesics other than heroin, methadone (likely to refer to morphine: 7.6%) also common. However, in stark contrast to the findings of the 2001 COTSA census, only 19.2% of clients in the 2002/03 treatment data had an opiate as their principal drug of concern (both datasets excluded clients receiving methadone maintenance treatment only from their figures).

There are several notable changes in the NMDS figures between the 2000/01 and 2001/02 datasets. Chief amongst these is the steeply increasing number of individuals treated overall, however, in the early stages of collection of this data it is not yet clear whether this reflects real changes or simply an increase in participating agencies and the application of more consistent data recording processes. In the main, the demographics have remained stable and the raw number of cases in reference to each of the main illicit drugs as principal drug of concern appear to have remained similar over time (for example, there were 155 cases where amphetamine was the principal drug of concern in 2000/01, 161 in 2001/02, and 180 in the most recent dataset), however, as the overall number of cases included in the dataset has increased, these proportions appear to be declining (for example, amphetamine, heroin, morphine, and benzodiazepines). It is noteworthy that the number of cases where nicotine is the principal drug of concern have steadily increased across surveys.

Table 46: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set, 2000/01-2002/03

Total Data Set	2000/01	2001/02	2002/03
n	1404	1735	2568
% receiving service for own use	91% (n=1279)	97% (n=1691)	89%
For those receiving service for own use			
Sex (% male)	65% (n=826)	66% (n=1116)	66%
Mean Age (years)	31.8 (SD=11.6)	33.6 (SD=13.3)	n/r
Aboriginal or Torres Strait Islander	8% (n=103)	7% (n=123)	8%
Injecting Drug Use History			
<i>Current (0-3 months prior)</i>	23.8% (n=304)	18.4% (n=311)	17.4% (n=396)
<i>Recent (3-12 months prior)</i>	5.2% (n=66)	5.4% (n=92)	4.0% (n=91)
<i>Historical (>12 months prior)</i>	5.2% (n=66)	5.9% (n=100)	6.2% (n=141)
<i>None</i>	28.4% (n=363)	38.7% (n=654)	34.7% (n=796)
<i>Not Stated</i>	37.5% (n=480)	31.5% (n=534)	37.9% (n=868)
Principal drug of concern			
<i>Alcohol</i>	38.8% (n=496)	36.7% (n=620)	40.8% (n=933)
<i>Nicotine</i>	2.4% (n=31)	16.6% (n=280)	18.0% (n=412)
<i>Cannabis</i>	22.7% (n=290)	24.7% (n=418)	18.6% (n=426)
<i>Amphetamine</i>	12.1% (n=155)	9.5% (n=161)	7.9% (n=180)
<i>Cocaine</i>	0.2% (n=3)	0.0% (n=0)	0% (n=0)
<i>Other Stimulants</i>	0.9% (n=11)	0.6% (n=10)	0% (n=0)
<i>'Ecstasy' and related</i>	0.1% (n=1)	0.3% (n=5)	0% (n=0)
<i>Heroin</i>	2.3% (n=30)	1.1% (n=18)	0.5% (n=12)
<i>Morphine</i>	6.6% (n=84)	7.2% (n=121)	n/r
<i>Methadone</i>	6.0% (n=77)	0.2% (n=3)	3.5% (n=79)
<i>Other Opiates/ Analgesics</i>	4.1% (n=53)	1.1% (n=19)	7.6% (n=173)
<i>Benzodiazepines</i>	2.9% (n=37)	1.7% (n=29)	0.7% (n=16)
<i>Other</i>	0.8% (n=10)	0.4% (n=7)	2.4% (n=55)
Method of use			
<i>Ingest</i>	48.1% (n=615)	40.9% (n=691)	47.8% (n=1093)
<i>Smoke</i>	24.7% (n=316)	40.4% (n=684)	36.3% (n=830)
<i>Inject</i>	21.3% (n=273)	16.6% (n=281)	14.1% (n=323)
<i>Sniff</i>	0.2% (n=3)	0.2% (n=3)	0% (n=0)
<i>Inhale</i>	0.2 (n=2)	0.1% (n=1)	0.3% (n=8)
<i>Other/ Not reported</i>	5.5% (n=70)	1.8% (n=31)	1.4% (n=31)
Other drugs of concern			
<i>Alcohol</i>	9.8% (n=125)	6.8% (n=115)	4.4% (n=101)
<i>Nicotine</i>	4.1% (n=52)	6.9% (n=115)	3.8% (n=87)
<i>Cannabis</i>	18.3% (n=234)	13.9% (n=235)	10.4% (n=237)
<i>Amphetamine</i>	9.3% (n=119)	6.6% (n=111)	3.9% (n=90)
<i>Cocaine</i>	1.2% (n=15)	0.3% (n=5)	0.1% (n=3)
<i>Other Stimulants</i>	0.4% (n=5)	0.6% (n=10)	Nr
<i>'Ecstasy' and related</i>	1.6% (n=21)	0.8% (n=14)	0.1% (n=3)
<i>Heroin</i>	2.7% (n=35)	0.9% (n=15)	0.5% (n=11)
<i>Morphine</i>	4.9% (n=63)	3.4% (n=57)	Nr
<i>Methadone</i>	2.9% (n=37)	1.2% (n=21)	0.9% (n=22)
<i>Other Opiates/ Analgesics</i>	0.7% (n=9)	0.4% (n=7)	2.2% (n=50)
<i>Benzodiazepines</i>	9.3% (n=119)	3.5% (n=60)	2.6% (n=60)
<i>Other</i>	1.6% (n=21)	1.4% (n=24)	0.3% (n=8)

Source: Australian Institute of Health and Welfare. Note: multiple presentations of the same individual excluded.

Alcohol and Drug Information Service Data

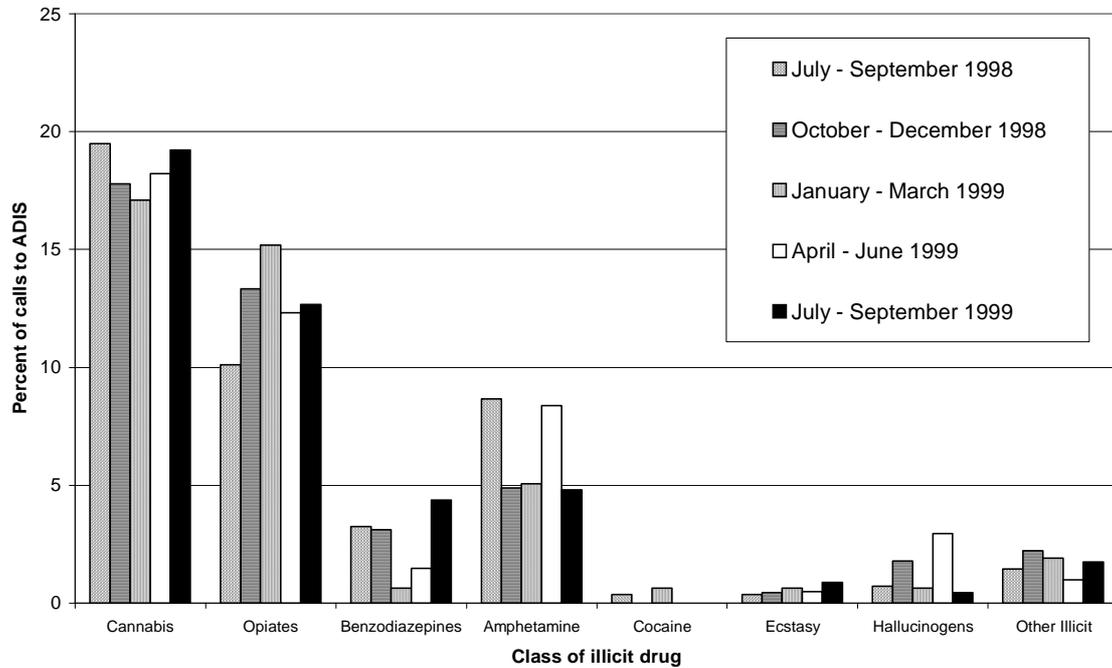
The Tasmanian Alcohol and Drug Information Service (ADIS), previously administered by Department of Health and Human Services staff at Hobart's detoxification service, was transferred to Turning Point Alcohol and Drug Centre in Victoria in mid-May 2000. Turning Point systematically record data for each call received, which was not possible in previous years due to high demands on Department of Health and Human Services staff time. However, during 1998/99, staff were able to record data for 840 calls to ADIS (not all calls to the service were recorded). The primary drug mentioned in the call was noted in the majority of cases (Figure 39). During this period, the majority of calls pertaining to illicit drugs were regarding cannabis (18%), followed by opioids (13%) and methamphetamine (7%). A trend toward a slight increase in opioid-related inquiries was noted during this period. Data from previous years was unavailable, rendering it difficult to make comparisons.

Data from calls made to the Turning Point-administered ADIS has been reported over differing time periods due to the requirements of the Department of Health and Human Services, however, these have averaged at around 2000 calls in each twelve-month period: there were 2422 calls made to the service between May 15, 2000 and June 30, 2001; 2208 and 1827 during the 2000/01 and 2001/02 financial years respectively; 1984 during the period April 2002-March 2003; and finally 1837 calls made during the 2003/04 financial year. For comparative purposes (and since this annual data is the only information available to the author), these slightly differing reporting periods will each be treated as financial year periods.

For calls regarding specific persons using drugs (either from the person themselves or about them from parents, partners, etc) contacting the Turning Point-administered ADIS, information regarding the drug or drugs used is detailed in Figure 40. While these largely follow similar patterns to the 1998/99 ADIS data, due to its more systematic recording and its referral to a specific sub-group of calls, the two data sets are not directly comparable, and as such have been displayed in separate figures.

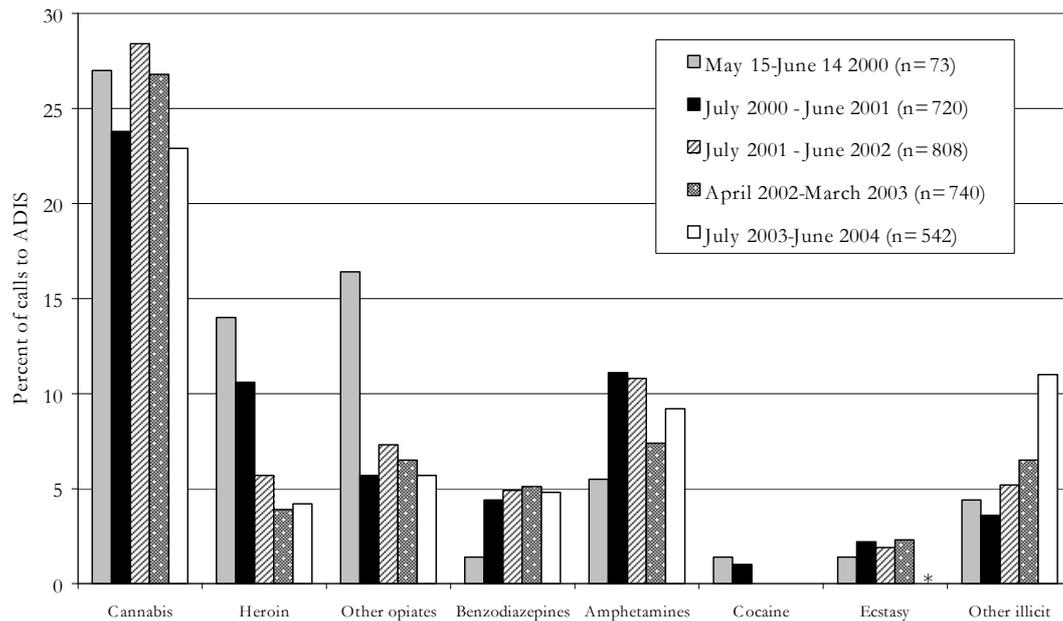
Due to the fact that quarterly data is not available, it is difficult to make clear inferences regarding trends, however, in all sets of ADIS data the bulk of calls pertaining to illicit drugs were in regard to cannabis use, followed by opioids and methamphetamine. The makeup of the calls in regards to people using specific drugs during the past three years have all been very similar, with the only notable changes being a decrease in calls regarding heroin, and a reduction in calls relating to methamphetamine during 2002/03 which returned to levels similar to earlier years in 2003/04. Calls pertaining to ecstasy use appear to have declined during 2003/04 in Figure 40, however, this drug was not specified in the 2003/04 reporting, and this information (along with cocaine and hallucinogens) may have been collapsed into the apparently increased 'other illicit' category.

Figure 39: Percentage of calls to ADIS by drug type (1998/99)



Source: Alcohol and Drug Services, Department of Health and Human Services

Figure 40: Percentage of calls to ADIS referring to persons using specific drugs, May 14, 2000 – June 2004



Source: ADIS Tasmania Reports, Turning Point Alcohol and Drug Centre (*note that calls referring to ecstasy were not specified in the 2004 reporting, and may have been collapsed into the 'other' column)

Trends in the demographic characteristics of the drug users identified in calls to ADIS over time are again 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%). During 2001/02, there appeared to be a slight upward shift in the age of identified consumers, as, while the majority were again aged between 22 and 40 years (56.4%), calls in relation to people in the 16 to 18 year age group had decreased by 5% (to 10.2%), while calls relating to people more than 40 years of age increased 6% (to 19% of calls). Age characteristics of the drug consumers described in 2002/03 ADIS calls were almost identical to the previous year (10.7% aged 16 to 18 years; 57% aged between 22 and 40 years; 19.2% more than 40 years of age). While in a slightly differing age grouping, there is again some suggestion of an increased age of the drug users discussed in the 2003/04 data, where 9.5% between 15 and 19; 62.3% aged between 20 and 40 years; and 26.7% were more than 40 years of age, an increase of 7.5% from the previous year's report.

Among the calls relating to people using drugs in the 2000/01 year, 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 60% 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 (62% male in 2002/03 and 61% in 2003/04).

Turning Point also provide a specialist alcohol and drug telephone service targeted specifically to health professionals to assist with clinical management of drug and alcohol problems: the Drug and Alcohol Clinical Advisory Service (DACAS). Of the 63 calls to the service in the 2000/01 financial year, the majority were from medical practitioners (69.4%) although there was also a sizeable level of utilisation of the service by nurses (12.2%), general drug and alcohol staff (10.2%) and youth/welfare workers (6.1%). In line with the patterns of problem drug use identified within the COTSA study (Table 40), the majority of calls were regarding opioids (50%: prescription opioids 25%, methadone 15.4%, heroin 9.6%), with a substantial proportion of consultations regarding psychostimulants (such as methamphetamine: 15.4%), benzodiazepines (9.6%) and cannabis (9.6%).

Very similar patterns were seen among the 59 calls made to DACAS in the 2001/02 financial year. Again, the majority of calls were made by medical practitioners (68.8%), with some utilisation by pharmacists (8.3%), nurses (6.3%), social workers (2.1%), and general drug and alcohol staff (2.1%). The majority of calls again related to opioids (40.7%: methadone 22.0%, prescription opioids 6.8%, heroin 6.8%, buprenorphine 2.1%), with a lower proportion of calls relating to psychostimulants (11.8%), benzodiazepines (11.9%), and cannabis (6.8%).

In the April 2002-March 2003 period, the annual number of calls to DACAS had again fallen from previous years, with 48 calls in total made to the service (although approximately 10 were of an administrative rather than information-related nature). In keeping with previous trends, the majority of calls were made by medical practitioners (47.8%), with some utilisation by nurses (13.0%), general alcohol and drug workers (13.0%), youth workers (4.3%), psychologists (4.3%) and other medical practitioners (4.3%). The majority of calls related to methadone (22.2%), alcohol (18.5%) and cannabis

(18.5%), with smaller numbers relating to benzodiazepines (11.1%), and inhalants (7.4%). This represents an increase in the proportion of calls in relation to alcohol and cannabis in relation to the other drugs.

During 2003/04, 44 calls were made to DACAS (although a substantial number of health professionals had used the ADIS line during this time), a similar call rate to that of the 2002/03 reporting period. Calls again were predominantly made by medical practitioners (36.2%), but also made by nurses (21.3%), alcohol and drug workers (10.6%), pharmacists or social workers (5.3% respectively). While not explicitly detailed, the majority of calls identified issues pertaining to the management of alcohol problems (53%), cannabis (40%) or benzodiazepines (20%). This is a clear continuation of the trend for a greater proportion of DACAS calls to relate to alcohol and cannabis-related issues.

11.2 Overdose

While all but two participants included in the IDU sample reported that they had ever used some form of opioid, almost half of these (n=46, 47%) had ever experienced an opioid overdose (35 of these 46 individuals experiencing an overdose associated with heroin use, and 18 experiencing an overdose due to morphine), with 11% having overdosed in the previous year (on either drug: Table 47). Of those who had ever overdosed on either drug, the median number of times they had overdosed was 2.5 times (range 1-15 for heroin overdose, range 1-6 for morphine). Among those that had ever experienced an overdose, the median time since their last overdose was five years prior to interview among those that had overdosed on heroin, and two years prior to interview among those that had overdosed on morphine.

It is notable that these overdose rates are comparable with those reported in other jurisdictions. While 6% of the local 2004 IDU sample reporting experiencing a heroin-related overdose in the year prior to interview, in comparison to 12% of the national 2004 IDRS IDU sample (of the total sample of 948: Stafford, et al 2005), this difference may be largely accounted for by the lower level of heroin use in the local cohort (19% of the Tasmanian 2004 IDRS IDU sample had used heroin in the six months prior to interview, compared to 69% in the 2004 national sample). In the 2004 IDRS, 49% of the national study sample (total sample size n=948) had ever experienced an opiate overdose, with 13% experiencing at least one overdose in the year prior to interview (12% on heroin, 2% on morphine). These figures are comparable to those figures reported in the 2004 Tasmanian IDRS study (47% ever overdosed, 11% in the previous 12 months). In previous years, the level of reported recent experience of non-fatal opioid overdose has remained lower than that experienced in the national sample (for example, in the 2003 Tasmanian IDRS 5% had experienced an overdose in the preceding year), possibly reflecting the different patterns of opiate use locally, where, for example, in 2004, heroin had been used by 19% of the IDU participants, but use of pharmaceutical preparations of opioids was much more common (recently used by 92% of the sample), and this predominance of use of pharmaceutical opioids where the dose of the drug is known has the potential to reduce the likelihood of accidental overdose. However, it may be that the high level of use of benzodiazepines, and in particular the simultaneous use of multiple CNS depressant drugs, that has underpinned these relatively high overdose levels in the local cohort: as noted in Section 2.2 above, of the 69 IDRS IDU participants that reported using an opioid on the day prior to interview, 57% reported using an opioid in

conjunction with either benzodiazepines (44%), alcohol (14%) or both (9%) on this day. Both the proportion of the sample reporting having ever overdosed (34% in 2003, 46% in 2004) and the proportion that reported experiencing an overdose in the preceding year (5% in 2003, 11% in 2004) represent increases from the previous Tasmanian IDRS studies.

Table 47: Reported experience of opioid overdose among the IDU sample (n=100)

	% of IDU in past month				
	2000 IDRS	2001 IDRS	2002 IDRS	2003 IDRS	2004 IDRS
Overdosed (ever)	31%	25%*	33%	34%:	46%: <i>35% heroin; 18% morphine</i>
Median times ever overdosed	twice	once	once	twice	thrice (<i>heroin</i>); once (<i>morphine</i>)
Overdosed (in last 12 months)	10%	8%	7%	5%	11%
Administered naloxone (ever)	14%	13%	21%	19%	26% (24% <i>heroin</i>)
Administered naloxone (<i>last 12 months</i>)	7%	3%	3%	3%	7%
Witnessed an overdose (ever)	50%	54%	61%	65%	65%
Median times ever witnessed overdose	twice	twice	twice	twice	thrice
Witnessed an overdose (<i>last 12 months</i>)	24%	51%	26%	34%	20%

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

Of note is that only slightly more than half of those who indicated they had ever had an opioid overdose had ever been administered Narcan (56%). Narcan (naloxone) is a fast-acting opioid antagonist given to reverse the effects of opioids in the event of an overdose. However, 8 of the 11 IDU that reported an opioid overdose in the preceding 12 months had been administered Narcan in this period. Overall, those who had been administered Narcan reported a median period of 44 months since they were last administered the drug (range 0-180 months), somewhat lower than the figures for reports of experience of opioid overdose generally (median = 60 months since last overdose).

Sixty-five percent of the IDU respondents reported ever witnessing one or more overdoses (median = three times, range once to thirty times). Those respondents that had ever witnessed an overdose reported a median period of 24 months since they last experienced such an event (range 0-216 months). One-fifth (20%) of the current IDU participants reported witnessing an overdose in the 12 months prior to interview. While the proportion of the sample reported ever witnessing an opiate overdose was similar to that amongst the 2003 IDRS IDU cohort (which had steadily been increasing across earlier samples, from 50% in 2000 to 65% in 2003: Table 47), there was a reduction in the proportion of IDU respondents that reported witnessing an overdose in the preceding year (20% in 2004; 34% in 2003).

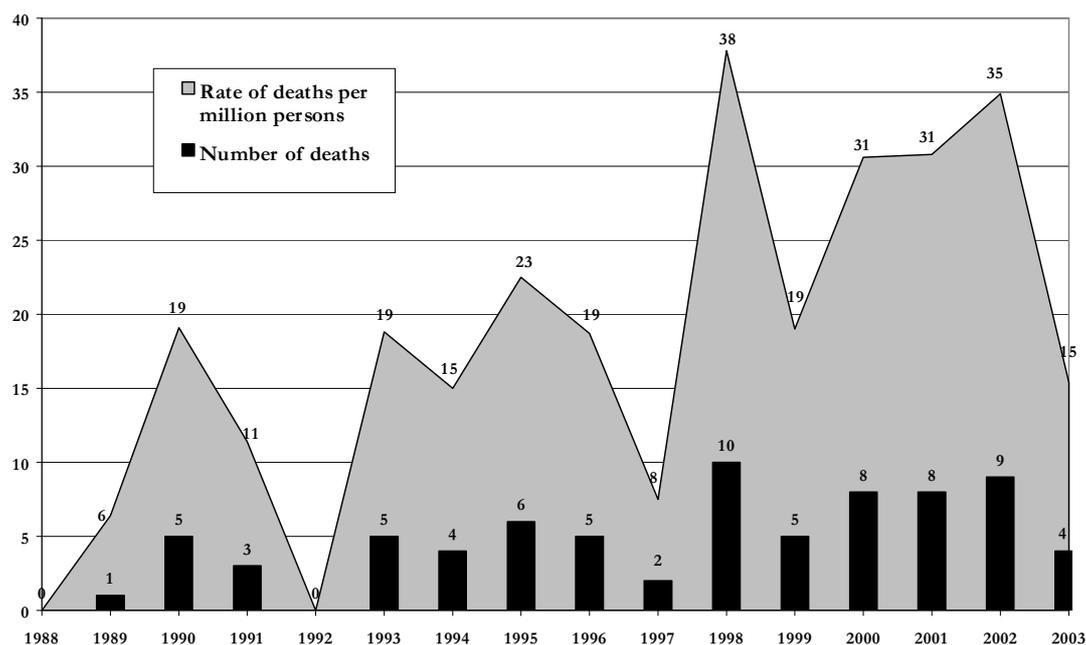
The number of opioid related fatalities²⁴ among those aged 15-44 years noted by the State Coroners office has remained quite small during the period 1988-2003 (Figure 41),

²⁴ These figures are derived from the underlying cause of death according to Australian Bureau of Statistics coding practices. They relate to the following codes from the International Classification of Diseases, 10th edition of F11; F19 with F11; X42, X44 or F19 with T40.0-40.4, T40.6, namely accidental deaths due to opioid use disorder, multiple drug use disorder or poisoning where opioid use disorder or poisoning was included. Please refer to Degenhardt, Roxburgh and Black (2004) for further details.

these minimal figures rendering clear analysis of trends difficult. However, when the rate of deaths per million population are considered, it becomes clearer that there has been an increase in rates of overdose over time in Tasmania, from less than 10 deaths per million population prior to 1990 to over 30 deaths per million population in recent years (1998, 2000-2002). Reported opioid-related fatalities in 2003, in contrast to the aforementioned trend, were less than half that seen in the previous year. While this is an extremely positive piece of data, it should be noted that there can be quite an extended delay in the presentation of the final coronial ruling in each case, and it is possible that more cases may be added to this published aggregate figure for 2003. Additionally, it is not possible to determine whether this represents an early trend towards a reduced rate of overdose or an unusual year against the general trend towards an increasing population rate of such overdoses (such as was the case in 1997 and 1999). It should be noted that the number of opiate-related deaths nationally declined sharply in 2001 and have remained relatively stable since this time (Degenhardt, Roxburgh & Black, 2004).

To 1999, there was approximately an even sex distribution among these victims of opioid-related fatalities, although in 2000 the five fatalities related to four males and a single female, and in 2001 the figures reflect the death of two males and three females. The seven accidental deaths due to opioids in 2002 related to seven males and two females. During 2003, the four accidental deaths due to opioids related to two females and two males. With the exception of a single fatal overdose clearly associated with heroin use, the cases to 1999 largely relate to methadone or morphine. Benzodiazepines were also present in many of these cases²⁵.

Figure 41: Number of opioid overdose deaths among those aged 15-44 years, 1988-2003



Source: Degenhardt, Roxburgh and Black (2004)

²⁵ Toxicological and demographic detail for cases in 2000 and 2001 was not provided to the authors.

11.3 Blood borne viruses

Blood borne viruses, and in particular HIV/AIDS and hepatitis B and C 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 and hepatitis B and C in Tasmania, and, where possible, records the relevant risk factors for infection the person may have been exposed to. Table 48 indicates the number of cases of blood-borne virus infection recorded in the state between 1991 and 2004. In regards to the markedly increased incident (new) cases of hepatitis C infection between 1997 and 1998, this is likely to simply reflect improvement in the surveillance system. Following this period, incident reports of hepatitis C increased to 2000, but have been in steady decline since this time, falling from the 32 incident cases in 2000 to 4 reported in 2004. In contrast, with the exception of a small number of reports in 2003, unspecified (not new infections) have varied around 300 cases per annum between 1995 and 2004. Similarly, with the exception of an unusually small number of cases in 2003, reported incident cases of Hepatitis B have remained relatively stable between 17 and 20 cases per annum between 2001 and 2004, with unspecified hepatitis B reports varying around 40 cases (28-64) per annum between 1995 and 2004, showing no clear trend in any direction.

All incident cases of hepatitis C between 1996 and 2000 had injecting drug use as a recent risk factor for infection²⁶.

Table 48: Rates of notifiable blood-borne viruses in Tasmania 1991-2004

Year	Blood-Borne Virus			
	Hepatitis C (incident)	Hepatitis C (Unspecified)	Hepatitis B (Incident) [#]	Hepatitis B (Unspecified)
1991	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0
1992	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0
1993	<i>n/a</i>	<i>n/a</i>	0	0
1994	<i>n/a</i>	<i>n/a</i>	0	0
1995	2	274	8	64
1996	4	291	7	42
1997	2	234	1	30
1998	18	275	6 (5)	33
1999	18	307	5 (5)	33
2000	32	331	18 (5)	46
2001	18	370	20	28
2002	15	386	19	40
2003	6	134	1	36
2004	4	308	17	53

Source: Communicable Diseases Network - Australia New Zealand - National Notifiable Diseases Surveillance System, and Public Health, Department of Health and Human Services [#]Number of incident cases of hepatitis B infection where illicit drug use was present as a risk factor for acquiring the infection are presented in parentheses. 'n/a' refers to cases where either no data is available or where recorded data was not specifically broken into incident and unspecified cases.

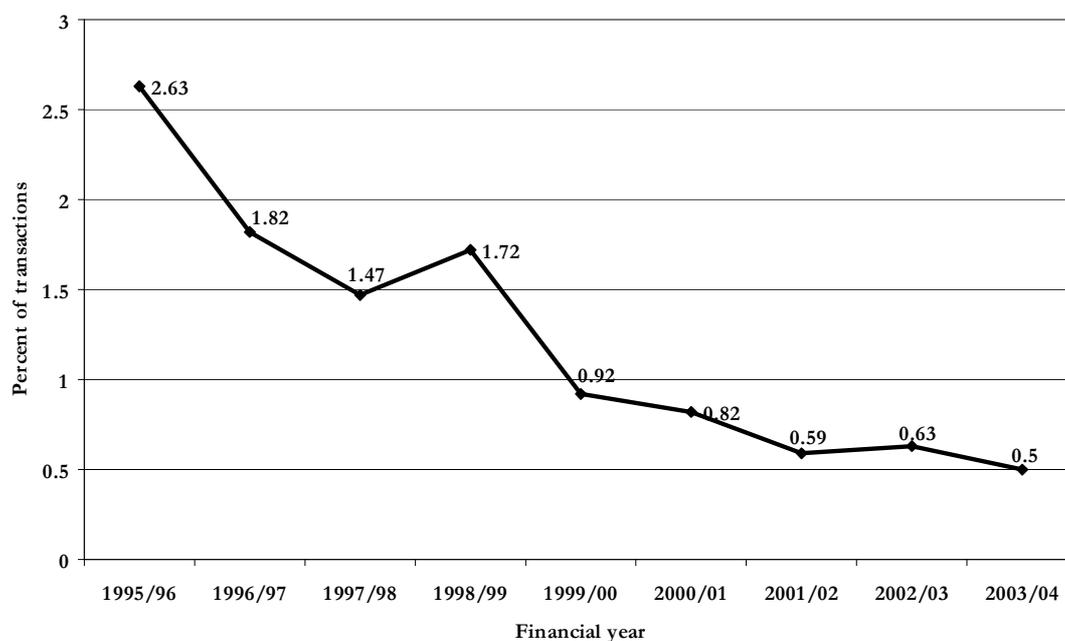
²⁶ Such detailed information was not available to the authors for cases identified since 2001.

11.4 Sharing of injecting equipment among IDU

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 viruses such as HIV and hepatitis B and C. Clients of non-pharmacy Needle Availability Program outlets are routinely asked whether they have shared needles and syringes or other injection equipment since their last visit to the service.

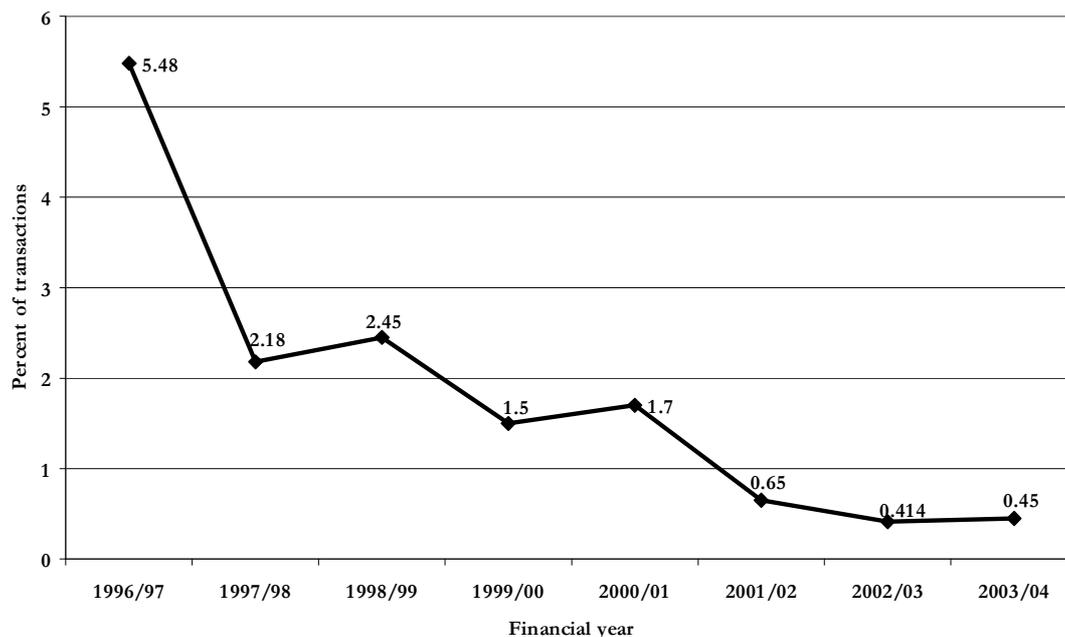
Reported sharing of needles/syringes by clients of non-pharmacy Needle Availability Program outlets overall in Tasmania have shown a reasonably steady decline since 1995/96 (Figure 42). While data on recent sharing has not necessarily been uniformly recorded for every client transaction in these services, among those where information was collected, the reported proportion of clients recently sharing needles/syringes has declined from 2.6% of recorded transactions state-wide in 1995/96 to just 0.5% in 2003/04. Following a similar overall trend to that of sharing of needles and syringes, reported rates of sharing of other injection equipment (such as spoons, mixing containers or tourniquets) has steadily declined from 5.48% of all recorded client transactions state-wide in 1996/97 to 0.42% in 2002/03, and plateau-ed around this figure in 2003/04 (0.45%: Figure 43).

Figure 42: Reported sharing of needles and syringes by non-pharmacy Needle Availability Program clients 1995/96-2003/04



Source: Sexual Health, Department of Health and Human Services

Figure 43: Reported sharing of other injection equipment by non-pharmacy Needle Availability Program clients 1995/96-2003/04



Source: Sexual Health, Department of Health and Human Services

Among the 2004 IDRS IDU sample, twelve participants reported lending a used needle/syringe to others in the month prior to interview, a clear increase from the extremely low rates reported in the previous two local studies (1% in 2002 and 3% in 2003) and a return to levels similar to those seen in the 2000 survey (12%: Table 49). These participants predominantly reported providing their used equipment to others only on one (n=5) or two (n=5) occasions in the preceding month, although two individuals reported doing so on 3-5 occasions and 6-10 occasions respectively.

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 had remained stable at 10% of the 2000-2002 samples, dropping to 6% of the 2003 cohort and returning to 8% in 2004 (Table 49). It is noteworthy that this level of recent sharing of needles among a regular injecting cohort is substantially greater than that seen in the NAP client data. All of those in the 2004 cohort who had injected with a used needle/syringe in the month prior to interview reported that only one other person had used the syringe prior to them. People who had used the syringe previously were reported to be a regular sexual partner (n=4), close friends (n=2), an acquaintance, or a stranger (n=1 respectively). Again, the majority reported only having injected with another person's used equipment on one (n=3) or two (n=3) occasions in the preceding month, although two individuals reported doing so on 3-5 occasions and more than 10 occasions respectively in this period. It is notable that, of these participants that had recently used another person's syringe in the preceding month, most (n=6 of 8) had also reported lending one of their used syringes to another person in this time. As such, it appears that much of this level of poor injection health practices is concentrated to a small number of individuals.

More than half of the IDU sample (54%) reported not sharing any other types of injecting equipment in the month prior to interview. Tourniquets were shared in this time by 21%, spoons or mixing containers by 30%, water by 22% and filters by 15% of the IDU cohort in the month prior to interview. These figures all appear high in comparison to those identified in the 2001 through to 2003 Tasmanian IDRS cohorts (Table 49), however, this reflects the application of a stricter definition of ‘sharing’ in the current study: during 2001-2003, behaviour was considered as sharing only if a person had clearly used a piece of injecting equipment previously used by another person, while if two people had used the same water, filter or mixing container at the same time, both using sterile injecting equipment, then this was not counted as sharing. If this same rule was applied to the 2004 cohort, then the percentage figures would reduce to 8% sharing a mixing container; 8% sharing filters; 11% water and 21% tourniquets. Consistent with the increased reported rates of sharing and lending of injection equipment among the current cohort in comparison to the 2003 sample, even these more lenient figures represent increases in sharing of these types of equipment in comparison to the earlier study. However, these figures remain lower than the comparative figures for sharing of injection equipment identified in the 2000 study (where the same strict rules were applied²⁷).

These indices of sharing of injection equipment require careful monitoring, as sharing of any equipment during the injection process puts IDU at risk of exposure to blood-borne viruses, and the possible upwards trend in these figures suggests that some users may be adopting unsafe practices or relaxing their vigilance around such issues.

Table 49: Proportion of the IDU sample (n=100) reporting sharing of injection equipment in the month prior to interview

Injection equipment sharing	% of IDU in past month				
	2000	2001	2002	2003	2004
	IDRS	IDRS	IDRS	IDRS	IDRS
	%	%	%	%	%
Borrowed used needles	10	10	10	6	8
Lent used needle to others	12	6	1	3	12
Shared spoons/mixing container	53	5	1	1	30*
Shared water	35	7	1	2	22*
Shared filters	32	3	1	1	15*
Shared tourniquets	29	10	14	11	21*

Source: IDRS IDU Interviews. *These figures appear high relative to the 2001, 2002, 2003 studies due to a more strict definition of sharing being applied: during 2001-2003, behaviour was considered as sharing only if a person had clearly used a piece of injecting equipment previously used by another person, while if two people had used the same water, filter or mixing container at the same time, both using sterile injecting equipment, then this was not counted as sharing. If this same rule was applied to the 2004 cohort, then the percentage figures would reduce to 8% sharing a mixing container; 8% sharing filters; 11% water and 21% tourniquets

In the current study, some aspects of injection practices were examined in more detail. Despite the current IDU cohort being regular injecting drug users, only two-thirds reported that they always injected themselves. Four participants ‘never’ self-injected, 5%

²⁷ In the 2000 IDRS survey, interviewers recorded practices such as individuals using the same mixing container but drawing from it using individual sterile syringes as ‘sharing’ as such behaviour is not recommended as part of safest injection practice. In 2001, interviewers only recorded sharing if there was clear risk of exposure to blood-borne viruses – for example, the aforementioned scenario would not be classified as sharing, but double-dipping in a shared injection mix or using another person’s uncleaned tourniquet or spoon would be classified as sharing.

injected themselves 'sometimes', 9% 'about half the time' and 6% 'usually' injected themselves in the preceding month. Those participants that did not always self-inject were significantly younger (25.2 years vs. 31.0 years: Mann-Whitney $U = 460.0$, $p < 0.001$), were more likely to be female (70.8% vs. 23.7%: $\chi^2(1, n=100) = 17.8$, $p < 0.001$), had been injecting for a significantly shorter period of time (7.0 years vs. 12.1 years: Mann-Whitney $U = 480.0$, $p < 0.001$), were less likely to have completed any education courses following school (such as TAFE or university: 16.7% vs. 48.7%: $\chi^2(2, n=100) = 8.3$, $p < 0.016$), and were significantly more likely to report 'home duties' as their current employment (25.0% vs. 2.6%: $\chi^2(4, n=100) = 14.5$, $p < 0.006$, although the majority of both groups were unemployed), than those that did always inject themselves. Interestingly, there were no significant differences between those that did always self-inject and those that did not in terms of drug treatment, prison history, cultural status, frequency of injection, drug of choice or drug most often injected, and importantly in terms of sharing or lending of needles or other injection equipment, with the exception that those that did not always self-inject were significantly more likely to have shared mixing containers (50.0% vs. 23.7%: $\chi^2(1, n=100) = 6.1$, $p < 0.014$) in the preceding month.

A second series of questions examined whether the IDU participants had injected any person other than themselves in the month prior to interview. Surprisingly, almost two-thirds (62%) of the IDU cohorts had done so in the preceding month, with the majority injecting only one (25% of the sample) or two (22%) people in this time, although 9% reported injecting 3-5 people, one respondent injected 6-10 people and five participants had injected more than ten people in the preceding month. Those people being injected were most commonly described as close friends ($n=38$, 61%), regular sex partners ($n=24$, 39%), or acquaintances ($n=13$, 21%), with single individuals reporting injecting a casual sex partner, customers, family members, or strangers in this period. This administration of drugs to others was predominantly during social drug using sessions, with almost all people injecting themselves either prior to ($n=33$, 53%) or after ($n=26$, 42%) administering the drugs to the other individual on the most recent occasion which this situation arose (3 people, 5% had just injected the other person and not themselves). It is important to note that almost half (44%, $n=26$) of these individuals did not wash their hands in-between such administrations. There were no particular relationships between the individuals that were more likely occasions for hand-washing to occur in. This level of injection of others by this regular IDU group is very high and the importance of maintaining 'blood awareness' between each injection is an important target for intervention among these consumer groups to help avoid infection with blood-borne viruses.

11.5 Injection related health problems

There was a substantial rate of injection-related problems reported by the IDU surveyed, with 72% reporting at least one such problem in the preceding month (Table 50). This rate of experience of injection-related health problems is commensurate with those identified across the national sample of IDU in the 2003 IDRS (68%, sample $n=970$), despite the lower frequency of injection of the Tasmanian IDU sample in comparison to these states (only 27% of the Tasmanian IDU sample reported injecting once a day or more frequently, in comparison to 47% of IDU in the 2003 national sample). This is likely to reflect the increased harms associated with the injection of pharmaceutical products by Tasmanian IDU, relative to drugs such as heroin, which are more freely available, and commonly injected, in these other jurisdictions. Pharmaceutical products

such as morphine tablets are often covered with a waxy film that cannot be completely removed in the preparation of the drug for injection, such waxy build-ups potentially damaging injection sites, and other pharmaceuticals such as Normison (temazepam) have been specifically designed to not be amenable for injection. Accordingly, the most commonly reported problems among the Tasmanian IDU were scarring/bruising of injection sites and difficulty injecting, indicating vascular damage. Noteworthy in this data is that reported rates of thrombosis (coagulation of blood in a blood vessel) which have been reported as greater amongst Tasmanian IDU samples than the national sample in 2000 and 2001, have now returned to levels commensurate with the National IDRS IDU samples (8% respectively in each of the 2004 Tasmanian IDRS and 2003 and 2004 National IDRS studies), following the removal from the market of gel capsule formulations of temazepam, which were particularly problematic in the formation of venous blockages when injected.

Despite the recent increases in experience of opioid-related overdose amongst the current Tasmanian IDRS IDU cohort (see Section 10.2), reported experience of overdose in the month prior to interview has remained low across the past 5 local IDRS studies (0-1%: Table 50), and slightly lower than that seen in National IDRS samples (10% in 2000, 3% in 2004). This is perhaps a relative benefit of the Tasmanian culture of injection of pharmaceutical products due to the fact that users can be more confident about the purity and quantities of opioids they are using, and hence can tailor their use according to their level of tolerance. However, the use of these drugs in conjunction with mixtures of other CNS depressant drugs, particularly in the case of benzodiazepines with markedly varying half-lives, means that there remain clear overdose risks in the illicit use of these drugs.

Table 50: Injection-related health problems reported by participants in the IDU survey in the month prior to interview (n=100)

Injection-related health problems	% experiencing the problem in the last month				
	2000 %	2001 %	2002 %	2003 %	2004 %
Scarring/bruising	59	42	53	49	42
Difficulty injecting	50	48	48	51	49
Thrombosis	18	21	5	10	8
“Dirty Hit”	15	31	18	31#	24~
Infections/abscesses	9	9	8	8	11
Overdose	0	0	0	0	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*)
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
% injecting daily	31	29	29	17	27

Source: IDRS IDU Interviews. *for those noting injection-related problems; #83% of these were due to methadone injection; 10% to morphine and 7% attributed to methamphetamine.; ~58% of these were attributed to methadone injection; 25% from morphine; 17% to methamphetamine

Comparing rates of recent injection-related problems for the 2003 and 2004 Tasmanian IDU samples, most levels appear to have remained relatively stable (Table 50). Reported rates of scarring/bruising, and difficulty finding veins, both indicative of vascular

damage, had remained stable or slightly decreased between 2003 and 2004. Rates of experience of thrombosis had remained stable across these samples, however, reported experience of 'dirty hits' had declined since the previous study. Experience of a 'dirty hit' - feeling physically unwell soon after injection - is commonly due to the injection of contaminants or impurities. In the 2002 cohort, this experience was not closely associated with the injection of any particular substance (such as reflecting the use of a particular cutting agent): of the 18 IDU reporting recent experience of 'dirty hits', 44% reported this to have been associated with the injection of methadone, 33% with morphine, and 22% with methamphetamine. In the 2002 cohort, this was clearly associated with the injection of methadone, with 83% of these cases attributed by IDU as relating to methadone injection, 10% to injection of morphine and 7% to methamphetamine. Commonly, IDU suggested that this was due to non-sterile water being used for the dilution of methadone syrup. In keeping with this suggestion, in the 2002 study, one key expert, a methadone prescriber with a large client base, noted an increasing number of people feeling 'sick' from injection of methadone syrup, which they suggested as possibly due to the increased dilution of these doses in 2001. In the current participant sample, the experience of a 'dirty hit' was less strongly associated with injection of methadone syrup, with 58% of those reporting experiencing a 'dirty hit' attributing this to methadone injection, 25% to morphine injection and 17% to methamphetamine.

The majority of key experts noted no substantial changes in the experience of injection-related problems amongst the substance-using groups they had contact with in the preceding six months. However, two key experts, both medical specialists in Alcohol and Drug work seeing a large number of individuals, noted recent declines in general vein health amongst the individuals they were seeing, with difficulty finding veins (and hence individuals presenting with more punctures around injection sites) and increases in the number of cases of abscesses and cellulitis in recent months. In contrast, one other health related key expert noted a decrease in the number of cases of abscesses amongst the individuals they were working with in this time.

11.6 Mental health problems

As there exists a substantial body of work identifying increased rates of mental health issues among those who use illicit drugs, IDU participants were asked if they had attended a health professional for a mental health problem (other than drug dependence) in the six months prior to interview (Table 51).

While attendance to a health professional for such issues is likely to underestimate the real prevalence of mental health problems in this group (as it is common for many people not to seek help for these issues), a high proportion of IDU reported recently presenting to services for mental health concerns. More than two-fifths (44%) of IDU participants in the current study reported recently attending some professional for a mental health issue. The majority of these individuals had presented to a general practitioner for assistance (36%; Table 51) rather than a dedicated mental health professional (22%). While there was a slight increase in the proportion of IDU respondents reporting recently attending a health professional for mental health problems between the 2002 and 2003 local IDU cohorts (25% in 2002 and 28% in 2003), the rates in the current study represent a substantial increase from these levels. Consistent with this increase, rates of prescribed antidepressant use in the current cohort (34%) were much higher than earlier IDRS studies (17% in 2003, 24% in 2002).

The most common, self-reported, reason for seeking support among IDU was depression (43% of respondents), followed by anxiety and anxiety-related issues (e.g. panic attacks: 26%). These have remained the predominant issues in each of the IDRS cohorts, just as they are in the general population (American Psychiatric Association, 1994). When examining the self-reported mental health problems experienced in relation to the number of cases where the participant had presented to a health professional (Table 51), it is clear that the main difference in this data between the 2003 and 2004 IDU cohorts derives from a markedly increased proportion reporting experiencing depression (98%, n=43 in 2004; 64%, n=18 in 2003). The other notable change is consistent with the continuing high levels of use of methamphetamine amongst the current cohort, with the proportions self-reporting experiencing anxiety steadily increasing over time (16%, n=4 in 2002; 43%, n=12 in 2003 and 50%, n=22 in 2004). Reported rates of presentations for most other issues had remained relatively stable across the 2003 and 2004 cohorts. While the proportion presenting for psychosis and related problems (psychotic episodes, schizophrenia, drug induced psychosis) was substantially lower than that for mood disorders, this proportion (4% of each of the 2002 and 2003 samples and 9% in 2004) is clearly greater than that experienced among the general population (1%: American Psychiatric Association, 1994).

Table 51: Proportion of IDU participants attending a health professional for a mental health problem other than addiction in the six months prior to interview.

	2002 IDRS		2003 IDRS		2004 IDRS	
	%		%		%	
<i>% attending a health professional for a mental health problem in past six months</i>	25		28		44	
<i>% attending GP</i>	16		20		36	
<i>% attending mental health professional</i>	12		14		22	
<i>Specific mental health problems experienced (% of those reporting attending a health professional)</i>						
	n	%	n	%	n	%
<i>Depression</i>	15	60	18	64	43	98
<i>Bipolar</i>	2	8	4	14	4	9
<i>Anxiety</i>	4	16	12	43	22	50
<i>Panic</i>	3	12	2	7	4	9
<i>Paranoia</i>	1	4	4	14	6	14
<i>Schizophrenia / psychosis</i>	4	16	4	14	9	20
<i>Obsessive-compulsive disorder</i>	1	4	-	-	2	5
<i>Attention deficit hyperactivity disorder</i>	2	8	2	7	0	-
<i>Anger management</i>	2	8	1	4	0	-
<i>Personality disorder</i>	3	12	-	-	2	5

Source: IDRS IDU Interviews

11.7 Substance related aggression

For the first time in the 2004 IDRS study, participants were asked if they had experienced physical (shoving, hitting, fighting) or verbal (threatening, shouting, abuse) aggression either on their own part or experienced another's such behaviour following use of alcohol or any other drug, in the six months prior to interview.

In terms of verbal aggression (Table 52), four-fifths of the current IDU cohort reported that they themselves had become verbally aggressive due to substance use in the preceding six months, however almost three-quarters (72%) of those interviewed had experienced another person displaying such behaviour in this time. The drugs most commonly reported in conjunction with verbal aggression were benzodiazepines (involved in 36% of cases where other people had become verbally aggressive and 40% of cases where participants themselves became verbally aggressive), methadone (31% of other, 40% of self verbal aggression), alcohol (40% other, 28% self), methamphetamine powder (25% other, 18% self), morphine (15% of other, 13% of self), base/paste methamphetamine (15% other, 5% self), and crystal methamphetamine (11% of other, 8% of self).

Table 52: Proportion of IDU participants either becoming aggressive themselves or experiencing others' aggression following substance use in the six months prior to interview

	Verbal aggression				Physical aggression			
	Participant		Others		Participant		Others	
<i>Proportion experiencing aggression associated following drug use in the preceding six months</i>								
	40		72		21		59	
<i>Drugs involved in aggression</i>								
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
<i>Alcohol</i>	28%	11	40%	29	48%	10	54%	32
<i>Benzodiazepines</i>	40%	16	36%	26	48%	10	44%	26
<i>Methadone</i>	40%	16	31%	22	24%	5	20%	12
<i>Morphine</i>	13%	5	15%	11	10%	2	12%	7
<i>Heroin</i>	0%	0	1%	1	0%	0	2%	1
<i>Other opiates</i>	3%	1	7%	5	0%	0	2%	1
<i>Speed</i>	18%	7	25%	18	14%	3	22%	13
<i>Crystal</i>	8%	3	11%	8	0%	0	8%	5
<i>Base</i>	5%	2	15%	11	10%	2	17%	10
<i>Cocaine</i>	0%	0	0%	0	0%	0	2%	1
<i>LSD</i>	3%	1	3%	2	0%	0	2%	1
<i>Ecstasy</i>	0%	0	1%	1	0%	0	0%	0
<i>Cannabis</i>	10%	4	8%	6	14%	3	2%	1
<i>Inhalants</i>	0%	0	0%	0	0%	0	0%	0
<i>Other</i>	0%	0	0%	0	5%	1	2%	1
<i>Can't specify</i>	0%	0	4%	3	0%	0	2%	1

Source: IDRS IDU Interviews

Somewhat smaller proportions of the sample reported that they had become physically aggressive in the preceding six months following drug use (21%), although almost three-

fifths of the sample reported that they had experienced another person becoming physically aggressive following substance use in this time. As would be expected, alcohol was the drug most strongly reported to be associated with physical aggression (reported in more than half the cases where another person had become physically aggressive: 54%; and in a similar proportion of cases where the individual themselves reported becoming physically aggressive: 48%), although benzodiazepines were also strongly associated with such behaviour (44% of other and 48% of self physical aggression). Smaller proportions reported the involvement of methadone (20% of others, 24% of self), methamphetamine powder (22% of other, 14% of self), base/paste methamphetamine (17% other, 10% self), and morphine (12% other, 10% self) in such behaviour.

It is noteworthy that the potent crystal methamphetamine, which has been associated with aggression by key experts, was relatively uncommonly reported to have contributed to verbal or physical aggression amongst this cohort.

One issue that is unclear in this data set is whether the aggression displayed is due to the acute effects of the drug (i.e. behaviour under the influence) or during the withdrawal from the drug. Additionally, it is unclear whether the behaviours in question were associated with use of substance types or particular combinations of drugs. These issues will be more carefully addressed in subsequent IDRS studies.

11.8 Criminal and police activity

Almost two-thirds (63%) of the IDU respondents reported involvement in some type of criminal activity in the preceding month (Table 53), a level that is somewhat greater than that reported in the 2004 National IDRS sample (48%, total sample size 948: Stafford et al, 2005). The most commonly reported crimes in the local cohort were dealing of drugs (43%) and property crime (34%), with relatively few respondents reporting involvement in violent crime (5%) or fraud (7%). Most IDU reporting involvement in criminal activity in the month prior to interview indicated that they had engaged in such activities less than once per week. However, substantial proportions reported more frequent recent involvement in dealing (5% daily, 19% more than once per week, 6% weekly, 13% less than weekly) and property crimes such as stealing or shoplifting (6% more than once per week, 3% once per week, 25% less than once per week). Half (51%) of the IDU respondents had been arrested in the previous twelve months. The most common grounds for arrest were property crime (29%) with smaller proportions being arrested for possession (9%), violent crime (9%), driving offences (6%), or miscellaneous charges (14%: such as failure to appear, n=5, or unpaid fines, n=3). Only a very small proportion of respondents had been arrested in the past year for alcohol and driving (1%), or drugs and driving (2%). Despite the high level of reported recent involvement in dealing, only a single individual reported being arrested for dealing in the year prior to interview.

On examination of rates of reported criminal activity in the 2003 and 2004 Tasmanian IDRS samples (Table 53), there was an increased proportion of the current cohort reporting any recent involvement in crime, (52% in 2003; 63% in 2004), with much of this change associated with a comparative increase in the number of individuals reporting recent involvement in dealing (32% in 2003, 43% in 2004), although this practice has returned to levels seen in earlier years of the local IDRS study (49% in 2000 and 41% in 2001) following declines in the 2002 and 2003 studies. The other notable change has

been an increase in the proportion of the sample reporting involvement in property crime in the month prior to interview (22% in 2003, 34% in 2004), continuing a generally increasing trend of such involvement across the local samples (rising from 18% in 2000, 28% in 2002 and 34% in the current study). In concert with such an increase, there have also been steadily increasing proportions of the IDRS IDU samples reporting being arrested for property crimes over time: from 16% in 2000 to 29% in 2004. Reported rates of involvement in, and arrest for, fraud and violent crimes appears to have remained stable and low across the past four local IDRS samples (Table 53).

Among the key experts interviewed, most considered rates of property crime to have remained stable among the substance-using groups that they were associated with in the preceding six months (n=11), with these individuals noting some involvement of the groups they were referring to in petty crime, such as opportunistic shoplifting or thefts from cars, and less commonly burglaries or car theft. Four key experts noted an increase in shoplifting amongst the client group they were working with in recent months. Two law enforcement key experts noted no major changes in property crime rates amongst drug consumers in recent months, but did note that methamphetamine providers were increasingly less willing to accept goods in trade for drugs, with the exception of particular items that may be requested (such as laptop computers or data projectors). In terms of dealing of drugs, most key experts were not able to comment on such activities amongst the groups of consumers that they were familiar with, and those that did predominantly reported no change in the preceding six months in this area (n=7). One participant reported that they had perceived an increase in dealing/diversion of methadone syrup, but was unsure as to whether this was a real change or due to them becoming more aware of such a practice. Similarly, most key experts were unaware of any fraud committed by the groups they were familiar with, with a single key expert reporting a one-off recent case of a person accessing methamphetamine through credit card fraud (reported in the local media). Two law enforcement key experts noted that there had been a decrease in prescription fraud over the past few years. In terms of violent crimes, seven key experts noted no changes in the level of these crimes amongst the groups they were familiar with in recent months. However, four key experts noted recent increases in violence and aggression: with two law enforcement key experts and one NSP worker reporting a continuation of the trend noted in earlier studies of an increase in the level of violence from providers toward consumers when following up on drug debts. One key expert noted an increase in aggressive behaviour amongst their client group in recent months, with two or three examples of patients attempting to intimidate a prescriber with the intention of forcing a prescription of alprazolam. In contrast, two key experts noted a decrease in the level of physical violence that their client groups were exposed to in recent months.

Table 53. Reported criminal activity among IDU (n=100)

Activity	2000 IDRS %	2001 IDRS %	2002 IDRS %	2003 IDRS %	2004 IDRS %
<i>Crime (% in last month)</i>					
Dealing	49	41	34	32	43
Property crime	18	23	28	22	34
Violent crime	10	4	6	5	5
Fraud	5	4	2	6	7
<i>Any crime</i>	<i>64</i>	<i>56</i>	<i>50</i>	<i>52</i>	<i>63</i>
<i>Arrested last 12 months (%)</i>					
Arrested for property crime	16	13	25	21	29
Arrested for use/possession	9	1	9	2	9
Arrested for violent crime	6	9	14	5	9
Arrested for fraud	2	0	0	3	2
Arrested for dealing/trafficking	1	2	1	0	1
Arrested for driving offence	*	4	5	2	6
Arrested for alcohol and driving	*	2	2	1	1
Arrested for drugs and driving	*	0	3	3	2
Arrested for other reason	10	17	8	16	14

Source: IDRS IDU Interviews. *Note: Comparable data for these cells was not gathered in the 2000 IDRS study

11.9 Perceptions of police activity

Respondents were asked a number of questions regarding their perceptions of changes in police activity in the past six months and the impact of these changes (Table 54). Among those IDU that felt confident in providing a response, 47% (n=37) believed that police activity had remained stable, and 50% (n=39) reported an increase in police activity in this time. However, most had not experienced any reduction in their ability to purchase drugs by any recent changes in local police activity (79%, n=78). The major changes noted by IDU were primarily an increased visibility of police presence (n=21), commonly noted in the central business district, pharmacies dispensing methadone, clubs and at night; an increase in personal searches (in particular around methadone-prescribing pharmacies: n=5); and an increased number of raids or busts of providers noted (n=8: of cannabis providers, n=1; methamphetamine providers, n=2; morphine providers, n=2; and ecstasy providers, n=1).

Key experts reported similar perceptions of police activity, with a substantial proportion of those that could confidently comment (87%, n=15) reporting no recent changes in police activity toward the users they came into contact with. The only key experts noting any recent changes were law enforcement professionals, noting that there had been an increasing focus toward supply reduction of methamphetamine and ecstasy, and the application of new approaches toward these ends.

Table 54: Perceptions of police activity among IDU

Question	%
<i>Have there been changes in police activity in the last six months?</i>	
More activity	39
Stable	37
Less activity	2
Don't know	22
<i>Has police activity made it more difficult to buy drugs recently?</i>	
Yes	21
No	78
Don't know	1

Source: IDRS IDU Interviews

Two key experts working in the treatment and NAP sectors noted good relationships with police, consistent with trends noted in previous surveys, where key experts noted an increase in a 'community policing'-based approach to substance users, with police preferring to educate or counsel users through the diversion program (discussed below) than involve them further in the criminal justice system. Indeed, one IDU participant noted that police were 'a bit mellow: they heavy the dealers rather than the users'.

Such an approach by police is likely to reflect their investment in early intervention to help deflect first time offenders away from the criminal justice system. In July 1998, Tasmania Police introduced a Cannabis Cautioning Program, which gave police officers the discretion to caution first-time minor cannabis offenders. Following a successful trial of the program, the eligibility criteria for cautioning were expanded to include consideration of non-first time offenders (ABCI, 2001). In March 2000, under a series of initiatives funded by the Council of Australian Governments, the program was further adapted within the Tasmanian Early Intervention and Diversion Framework. This current diversion model now extends to cover 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 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). This initiative is clearly well supported by police, with approximately 1000 diversions made per annum in each of the past three financial years (Table 55). Notably, the number of second- and third- level diversions appear to have declined slightly over the past three six-monthly periods (Table 55) from 148 in January-June 2003 falling to 85 during the same period in 2004.

Table 55: Drug diversions or cautions issued by Tasmania Police 1999-2004

	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
Number of cautions / diversions state-wide	308	456	480	498	515	475	977	
% diversions in Southern district	46	49	39	40	39	39	n/r	
Number diverted to health intervention state-wide#	50	101	n/a	n/a	115 (58)	148 (73)	94 (2)	85(4)
% health intervention diversions in South	38	48	n/a	n/a	31	55	45	45

Source: Tasmania Police State Intelligence Services State-wide Illicit Drug Reports; 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. *This data refers to the period March-June 2000. 'n/a' refers to cases where the relevant data was not provided to the authors; #Data in parentheses represent the number of individuals diverted to health interventions that complied with the request

Data pertaining to drug-related arrests in Tasmania in between 1995/96 and 2002/03 are shown below in Table 56. This data illustrates a marked increase in arrests for methamphetamine-related offences for 2000/01 and 2001/02 in comparison to previous years, with arrests steadily declining since this time. Cannabis-related arrests appear to have been steadily increasing since 1999/00 (from 736 in 1999/00 to 1830 in 2002/03). As this increasing trend coincides with the implementation of the Cannabis Cautioning Program, and subsequently the Illicit Drug Diversion Initiative, it is likely that much of this increase may simply reflect the increase in utilisation of 'official' cautions and diversions by Tasmania police (which are included in these statistics) over 'unofficial' warnings, which would not be recorded in these statistics in preceding years. However, in contrast to the stable number of diversions in the past two financial years (Table 55), cannabis-related arrests/diversions declined in 2003/04, in contrast to the generally increasing trend of the preceding five financial years.

Table 56: Number of arrests (including cautions and diversions) for cannabis, methamphetamine, opioid and cocaine related offences in Tasmania, 1995/96-2003/04

Type of offence	1996/ 97	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04
Cannabis	1079	1196	736	799	1050	1540	1830	1638
Methamphetamine	20	15	7	28	70	89	66	39
Opioids	28	16	25	9	9	34	9	10
Cocaine	0	0	0	0	4	1	0	0

Source: Australian Illicit Drug Reports 1995/96-2000/01, Australian Bureau of Criminal Intelligence (now the Australian Crime Commission), and Tasmania Police State Intelligence Services State-wide Illicit Drug Reports. Note: 2001/02 data is provisional and is based on data provided to State Intelligence Services, which may differ from official statistics and counting rules used by the Australian Crime Commission (formerly ABCI)

Table 57 below indicates the proportion of arrests for offences relating to the possession or use of illicit drugs (consumer offences) as opposed to supply-type (provider) offences.

Between 2001/02 and 2002/03, there appears to have been an increase in the proportion of consumer of arrests for both cannabis and opioids, with these proportions remaining stable in 2003/04 for cannabis and continuing upwards for opioids (Table 57). However, this change largely seems to represent an aberrant year during 2001/02, with the more recent data being reflective of the pattern of arrests seen during the two financial years prior to the implementation of the diversion program (Table 57). Arrests for methamphetamine have varied over time but have tended to be less heavily weighted towards consumer arrests relative to the pattern for cannabis and opioids since 1997/98, which is more reflective of Tasmania Police’s focus toward suppliers.

Table 57: Consumer arrests (including cautions and diversions) for cannabis, methamphetamine and opioid-related offences as a proportion of all drug-related arrests in Tasmania 1996/97-2003/04

Drug Type	% consumers							
	1996/ 97	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04
Cannabis	49	76	93	88	96	72	90	92
Methamphetamine	90	100	86	71	86	79	63	79
Opioids	86	94	96	78	89	68	88	100

Source: Australian Illicit Drug Reports 1995/96-2000/01, Australian Bureau of Criminal Intelligence (now the Australian Crime Commission), and Tasmania Police State Intelligence Services State-wide Illicit Drug Reports. Note: 2001/02 data is provisional and is based on data provided to State Intelligence Services, which may differ from official statistics and counting rules used by the Australian Crime Commission (formerly ABCI)

As shown in Table 58, the number of individuals before the Supreme Court for selling or trafficking in drugs has remained relatively stable over the past eight years. However, and in contrast to Tasmania Police arrests trends, the number of cases before the Magistrates court for dealing and trafficking in drugs has increased markedly in the past two financial years in comparison to trends in previous years. The number of cases relating to importing and/or exporting of drugs heard by the Magistrates has remained low and stable in this time. The number of cases before the Magistrates Court for manufacturing or growing of drugs has fluctuated across years. It is noteworthy that the number of cases in relation to possession or use declined in 1999/00 in comparison to previous years, possibly reflecting the impact of the Cannabis Cautioning trial, however, these cases have steadily increased since this time, and in the 2002/03 and 2003/04 financial years these cases had returned to a level similar to that prior to the implementation of the diversion programs.

Table 58: Number of individuals before Tasmanian courts or imprisoned on drug charges, 1996-2004

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
SUPREME COURT OF TASMANIA								
Number of individuals convicted of selling or trafficking in dangerous drugs	22	18	22	27	14	15	30	20 [^]
HOBART MAGISTRATES COURT								
<i>Number of individuals before the court for:</i>								
dealing and trafficking in drugs	<i>n/p</i>	30 (40)	28 (33)	23 (28)	42 (47)	39 (48)	159 (180)	120 (138)
importing /exporting of drugs	<i>n/p</i>	4 (5)	7 (8)	5 (8)	2 (2)	0 (0)	1 (1)	1 (1)
manufacturing/growing of drugs	<i>n/p</i>	201 (260)	164 (189)	101(124)	144 (163)	142 (194)	186 (202)	102 (105)
possession and/or use of drugs	<i>n/p</i>	469 (928)	342 (654)	195(428)	263(544)	277 (542)	438 (896)	414 (829)
other drug offences (alleged number of offences in parentheses)	<i>n/p</i>	229 (284)	178 (251)	105(169)	113(155)	102 (104)	34 (38)	4 (6)
HOBART PRISON*								
Number of individuals incarcerated	21	42	26	29	<i>n/p</i>	16	35	<i>n/p</i>
Number of offences among those incarcerated	33	77	50	44	25	27	78	<i>n/p</i>
Offence breakdown								
Grow prohibited plant / substance	3	6	3	4	0	2	6	<i>n/p</i>
Possession / use	16	30	20	22	13	18	44	<i>n/p</i>
Prescription offences	3	7	6	0	0	0	4	<i>n/p</i>
Sell / supply narcotic substance	1	1	1	2	0	1	5	<i>n/p</i>
Sell / supply prohibited substance	1	6	4	0	6	4	5	<i>n/p</i>
Traffic in narcotic substance	1	1	1	6	1	1	3	<i>n/p</i>
Traffic prohibited substance	4	7	2	4	1	1	7	<i>n/p</i>
Traffic prohibited plant	0	5	4	2	1	0	3	<i>n/p</i>
Other	4	14	9	5	3	0	0	<i>n/p</i>

Sources: Department of Public Prosecutions (Supreme Court data); Magistrates Court (Magistrates Court Data); Corrective Services (Prison data), Department of Justice and Industrial Relations. *Note that numbers of incarcerations refer to cases presented before both the Supreme and Magistrates courts; 'n/p' refers to cases where data was not provided to the authors. ^note: this includes the following offences: cultivating a controlled plant for sale (3); possess a thing intended for the use in manufacturing drugs for sale (1); selling a narcotic substance (1); trafficking in a controlled substance (16)

Pharmacy Burglaries

Tasmania Police provided information in relation to burglaries of Tasmanian pharmacies between 1998/99 and 2003/04. The data suggests that, following a steady decline between 1998/99 and 2000/01, the number of pharmacy burglaries has slightly increased in recent years, from just two during 2000/01 to 10 during 2002/03 and 6 in 2003/04 (Table 59). Although the products stolen were not explicitly detailed in all cases, benzodiazepines were the most commonly stolen pharmaceutical (among those of interest in the context of illicit drug use or production), featuring in at least 12 of the 17 incidents in 1998/99, 8 of the 10 1999/00 burglaries, 2 of the 10 2002/03 burglaries and 1 each of the incidents in 2001/02 and 2003/04. Part of the reason for this is that opioid-based products are commonly stored in more secure areas (such as floor safes), and hence these higher-illicit value products are rarely stolen. Amongst the 10 burglaries in 2002/03, five accessed prescription drugs of interest (3 accessed benzodiazepines, 3 dexamphetamine, 3 oxycodone, 2 pseudoephedrine, 1 morphine and 1 methadone respectively, although the drugs stolen were not specified in three of the burglaries), and it is noteworthy that at least one of the burglaries in 2002/03 netted a wide array of products including morphine, methadone, Physeptone, benzodiazepines and a number of other opiates, and (unlike the majority of the other burglaries) appeared quite organised and targeted in the products accessed. During 2003/04, three of the six burglaries accessed pharmaceuticals of interest (2 accessed methadone, 1 benzodiazepines, and 1 pseudoephedrine, although the products stolen were not specified in some cases). None of the pharmacy burglaries during 2003/04 accessed a large number of products or appeared to target any particular products. As such, it is clear that pharmacy burglary is clearly not a major pathway to access of the pharmaceutical products used by the IDU within Tasmania.

Table 59: Pharmacy burglaries in Tasmania 1998/99-2003/04

	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Number of pharmacy burglaries	17	10	2	4	10	6
Number of burglaries accessing*:						
<i>Benzodiazepines</i>	12	8	-	1	2	1
<i>Pharmaceutical opiates</i>	-	-	-	-	3	2

Source: Tasmania Police *Note: Details of products stolen is not available in all cases

11.10 Summary of Drug-Related Issues

Overdoses

- In 2004, there was a comparable rate of recent experience of non-fatal opioid overdose in the Tasmanian IDU sample in comparison with the National IDRS IDU cohort, despite the predominant local use of pharmaceutical opioids where the dosage is known (which may protect against accidental administration of too large a dose). The increase in rate of experience of non-fatal opioid overdose in the local sample from 2003 may reflect the common use of multiple CNS depressants simultaneously amongst these participants.
- The number of opioid overdose deaths among those aged 14-54 years noted by the State Coroners office appears to have declined in 2003 against a backdrop of a steadily increasing population rate of overdose in Tasmania in recent years.

Blood Borne Viruses

- Reported incident cases of hepatitis C infection in the state appear to have been steadily declining since 2000, falling to less than 10 cases per annum in the past two calendar years.
- Reported unspecified (not new infections) cases of hepatitis C appear to have remained relatively stable between 1995 and 2004 at around 300 cases per annum.

Sharing of Injection Equipment

- Self-reported rates of sharing of needles or syringes among non-pharmacy Needle Availability Program clients state-wide have declined from 2.6% of all transactions in 1995/96 to 0.5% in 2003/04.
- However, all IDRS studies in Hobart have suggested that 5-10% of these cohorts share used needles or syringes at least once in a month.
- Self-reported rates of sharing of other injection equipment among non-pharmacy Needle Availability Program clients state-wide have declined from 5.5% of all transactions in 1996/97 to 0.5% in 2003/04. There are possible indications that some IDRS IDU participants may be relaxing their vigilance around blood awareness in regard to sharing of injecting equipment other than syringes.
- Despite being regular injecting drug users, only two thirds of the 2004 local IDRS cohort always self injected in recent months, with those that did not always self inject being significantly younger, more likely to be female and less likely to have completed any further education outside of school.
- Two-thirds of the IDU participants had injected others in the month prior to interview, most commonly on occasions where they were also injecting themselves, although in only half of these cases did participants report washing their hands between injections – a clear education target for reducing exposure risk to blood borne viruses amongst this demographic.

Injection Related Problems

- A substantial proportion of IDU surveyed experienced injection-related health problems, at a relative rate greater than those seen amongst IDU in other jurisdictions, possibly due to the increased harms associated with the injection of pharmaceuticals.

- Scarring, difficulties finding veins to inject into (indicative of vascular damage) and experience of ‘dirty hits’ (feeling physically unwell soon after injection, often associated with the injection of contaminants or impurities) were the commonest injection related problems experienced by the current IDRS IDU cohort.

Mental Health Comorbidity

- More than two-fifths of the IDRS IDU participants reported presenting to a health professional for a mental health issue in the preceding six months. This rate of presentations is substantially greater than that seen in the general population.
- In comparison to reports in earlier local IDRS IDU surveys, there has been a sharp increase in the number of IDU participants reporting presenting to a practitioner for depression (and using antidepressants) since trends in earlier years, and a steadily increasing rate of individuals presenting for anxiety-related issues (consistent with an increasing use of methamphetamine in these cohorts over time).

Crime

- Almost two-thirds of the IDRS IDU self-reported involvement in some form of criminal activity in the month prior to interview, a level slightly higher to that seen in IDRS IDU samples in other jurisdictions. Crimes most commonly reported were drug dealing, and, to a lesser extent, property crime (such as shoplifting or burglaries), although such involvement was generally reported to be infrequent. Self-reported involvement in, and reports of being arrested for, property crime has steadily increased across local IDRS IDU samples in recent years.
- Substantial proportions of participants had experienced verbal or physical aggression from others following substance use in recent months, with the drugs most commonly involved in such behaviour being alcohol and/or benzodiazepines.

12 SUMMARY

With the exception of notable shifts in the availability of the different presentations/forms of methamphetamine locally, the patterns of drug use identified in the 2004 Tasmanian IDRS report generally reflected continuations or stabilisations of those identified in the 2003 report (Bruno & McLean, 2004). Summaries of major trends for each drug class are reported below by drug type.

12.1 Heroin

While the availability of heroin in the state appeared to have been slowly increasing during 1999 and 2000, data from local IDRS studies since this time have suggested that the drug has become steadily more difficult to access locally. Recent use of heroin was seen in just 19% of the IDRS IDU sample, despite the fact that 38% regarded it as their drug of choice. Use of heroin among clients of the state's Needle Availability Program remained below 2% of all non-pharmacy client transactions in 2003/04.

The small number of participants that could report prices for heroin indicated that the drug was purchased for \$50 per 'packet' (approximately 0.1g) and \$350 per gram, similar prices to those reported in previous IDRS studies, although while consumers reported these prices as fluctuating in the preceding six months, so few respondents had recently purchased heroin that it was difficult to ascertain any trends in the purchase price of the drug locally. Both 'rock' and powder heroin were used, with 'rock' form that most commonly accessed. There were mixed opinions regarding the purity of heroin, with many IDU wary of purity of the drug purchased locally.

As further evidence of a low availability of the drug locally, the majority of individuals that had recently used the drug reported it as 'difficult' or 'very difficult' to access and Tasmania police have not made any seizures of heroin in the past two financial years.

The majority of indicators, and findings such as the low median rate of use of heroin (4 days in the last six months amongst the 19% of the sample that had used the drug), and that of the 38% of the IDU sample that reported heroin as their drug of choice, only around one third (34%) had recently used heroin, indicate that the traditional low availability of heroin in Tasmania has continued, and possibly further declined, in 2004.

12.2 Methamphetamine

Over the past four years of the IDRS in Hobart, higher-purity forms of methamphetamine have generally increased in availability in the state. This easy availability of high-potency forms of the drug may have made use of methamphetamine particularly attractive among IDU, with almost all of those surveyed in the current study using some 'form' of the drug in the six months prior to interview (91%), despite the participant sample predominantly preferring opioids (70%). Moreover, the proportion of clients of the state's Needle Availability Program reporting predominant use of methamphetamine has steadily increased from 31% of recorded transactions (almost 3,000 cases) in 2000 to 52% in 2004 (almost 20,000 transactions).

In terms of the 'forms' of methamphetamine used among the IDU cohort, the traditional low-purity powder form, which reports from Tasmania police suggest remains the most common form of the drug available in the Tasmanian market, was used by approximately

three-fifths (60%) of the IDU participants in the current study in the six months prior to interview. This is a clear increase from the 51% of the IDU participants reporting recent use of this preparation in the 2003 study, although methamphetamine powder remains uncommon as the form of methamphetamine predominantly used by this demographic. However, in a reversal of the trends seen in the previous IDRS study, the major change seen this year was in the level of availability, and hence use, of the higher potency forms of the drug. Among the 2003 IDRS IDU participants, the 'form' of methamphetamine most commonly used was the high purity crystalline methamphetamine ('crystal meth' or 'ice'), used by 68% of the 2003 cohort in the six months prior to interview. In the current study, this form was used by just over half the participants (52%), and was rarely reported as the form of methamphetamine that participants had predominantly used in the preceding six months. Instead, use of the waxy, sticky, gel-like 'base/paste' presentation of the drug had substantially increased from 51% of the IDU participants in 2003 to 72% in 2004, and was the form of methamphetamine most commonly used recently by almost half of those sampled (43% of those that had recently used stimulants). This is a return to the patterns of use of methamphetamine seen in the 2002 IDRS IDU cohort, prior to the rapid increase in availability of crystal methamphetamine in 2003.

As would be expected, reported patterns of availability of each of these different 'forms' of methamphetamine were consistent with the patterns of recent use: IDU consumers regarded powder and base as very easy to access, with ice predominantly regarded as being 'easy' to access. Distinct trends in availability were also seen for each of the presentations of the drug: with the availability of methamphetamine powder predominantly seen as remaining stable over the preceding six months; the availability of base seen as remaining stable or increasing somewhat over this time; and, in contrast, the availability of ice remaining stable or declining locally.

The price for all three forms of methamphetamine (powder, base/paste and crystal) remained stable in 2004, with the price most commonly paid being \$50 for a point or packet (approximately 0.1g). However, gram prices were more variable. While prices for grams of base/paste remained stable at \$300 per gram, prices for crystal methamphetamine increased from \$350 to \$400 between the 2003 and 2004 surveys. Median purchase prices for methamphetamine powder increased from the 2003 survey (from \$215 to \$290 in 2004), however as this is sold in highly varying purity, purchase prices are widely variable, and hence it is difficult to determine the reliability of such a change.

IDU reported that the purity of methamphetamine powder was low to medium, with this quality perceived as fluctuating in recent months. Base/paste was regarded by consumers as currently being medium to high purity, with the quality remaining stable or increasing in the past six months. Similarly, the purity of crystal methamphetamine purchased locally was perceived as medium to high with the quality largely reported as remaining stable, although there were some indications of a possible decline in purity. The median purity of methamphetamine seizures analysed in 2003/04 was 17%, a slight increase from that in the previous year (12%). However, the number of analysed seizures was very small (23 in 2003/04 and 43 in 2002/03) and the purity range had remained consistent in this time (2-79% in 2002/03, 2-81% in 2003/04).

The signs of decreased availability of crystal methamphetamine locally may be attributed to the impact of arrests made by Tasmania Police of high level suppliers of this form of

the drug, disrupting the supply chain for this form of the drug into the state. However, as per previous years, there continue to be anecdotal reports of increased local production of methamphetamine powder, and possibly base.

There continue to be IDU and key expert reports of an increasing number of users, and an increase in younger (late teen) users and female consumers of methamphetamine locally. Also, consumers reported the rise of a different 'type' of methamphetamine consumers, described as the "crystal meth set": groups more likely to be regularly employed and have more disposable income. IDU also reported the continuation of a trend noted since 2001, with increasing numbers of IDU shifting from being predominant users of opioids to becoming predominant users of methamphetamine. While the level of use and availability of crystalline methamphetamine had declined in the window of time tapped by the 2004 IDRS study in comparison to the 2003 sample, there are anecdotal reports of increasing availability of this form in the late months of 2003. As this form had proved particularly attractive both to regular IDU and other demographic groups, careful monitoring of both the methamphetamine market and the impacts on the physical and mental health of users is warranted in the coming years.

12.3 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. This low availability of the drug locally is supported by similar low levels of use reported in a recent sample of 100 regular ecstasy users in Hobart (Matthews & Bruno, 2005). Only a very small proportion of the IDRS IDU sample reported recent use of the drug (4%), which was exclusively in powder form. By the few IDUs who could comment on trends in availability, cocaine was considered difficult to access, a situation that was considered stable in the preceding six-month period. The cocaine that is used by Tasmanian IDU appears generally to be directly imported by consumers from dealers in mainland states or require an extended wait to access. Tasmania Police made no seizures of cocaine in 2002/03 or 2003/04, following single seizures in the preceding two financial years. These patterns of low levels of availability and use seem to have remained reasonably stable over the past few years, with possible indications of further declining availability in recent months. However, it is noteworthy that around half of the Tasmanian IDU sample over the past three years have reported lifetime use of cocaine, an increase from patterns seen in the 2000 and 2001 surveys, and there are indications of some use among different populations of drug consumers locally (Bruno & McLean, 2004; Matthews & Bruno, 2005).

12.4 Cannabis

Most aspects of the cannabis market and patterns of use appear to be relatively stable. Among the IDU surveyed, cannabis use continued to be almost ubiquitous, with 84% using the drug in the preceding six months, and the majority of these individuals using the drug daily.

The price of bush and hydroponic cannabis has remained stable since the 2000 survey at \$25 per gram. Bush/outdoor cultivated cannabis was generally cheaper at median prices of \$180 an ounce (28g), compared to hydroponic/indoor cultivated cannabis at \$280 an ounce (modal purchase prices were less diverse, at \$200 per ounce of outdoor- and \$250 per ounce of indoor/hydroponic- cultivated cannabis). Both key experts and IDU consumers reported that these prices had remained reasonably stable in the preceding six months, however modal purchase prices of outdoor cannabis had increased, and prices

of indoor cannabis decreased in comparison to the 2003 survey (\$150 for outdoor and \$300 for indoor respectively). IDU consumers described the potency of outdoor-cultivated cannabis as medium to low, with this level of potency variable or generally stable in the preceding six months. Indoor/hydroponic cultivated cannabis was regarded as medium to high in potency by consumers, with this level of potency regarded as stable or increasing in recent months.

Hydroponically-cultivated cannabis head remains the form most commonly smoked by IDU, (69% of those who used cannabis), although substantial proportions also reported using both hydroponically-grown (84%) and outdoor cannabis (80%) in the preceding six months. Both indoor- and outdoor- cultivated cannabis was reported as 'easy' to 'very easy' to obtain by consumers and key experts, with this availability regarded as remaining stable in recent months. However, there are indications that the availability of cannabis has possibly reduced in comparison to the situation identified in the 2003 survey, following large seizures by Tasmania police in late 2003 and early 2004. Intelligence reports from Tasmania police in recent years have indicated an increasing trend toward hydroponic or indoor cultivation of the drug, and smaller sizes of those crops grown outdoors.

IDU most commonly purchased cannabis through friends in the preceding six months. In alignment with this, when asked about the cultivator of their purchases, the majority (59%) believed it to have been grown by small-time 'backyard' user/growers, rather than cultivated by larger scale suppliers (for example, a 'crime syndicate': 35%).

Cannabis remains the most widely used illicit drug both in the IDU sample and the state, however there is an indication of decreasing prevalence of use of cannabis in recent years in the State from two large studies (the National Drug Strategy Household Survey and the Australian School Students' Alcohol and Drugs Survey), along with a slowly decreasing prevalence in the local IDRS IDU samples (90% in 2000, 84% in 2004).

12.5 Other opioids

Morphine was reported to cost \$70 per 100 mg, and the price was described as stable. Morphine was considered 'easy' to 'very easy' to obtain and the availability in the six months preceding interview as stable to becoming more difficult to obtain. Nearly two thirds (62%) of the sample had used morphine in the past six months, with all but two injecting the drug in this time. MS Contin remains the predominant preparation used by this group, used by 48% of the sample as a whole and the form used predominantly by two thirds of those reporting recent morphine use, with Kapanol (used by 42% of the sample), Ordine (35%), and Anamorph (29%) used to a lesser extent. The median frequency of use of morphine amongst local IDU cohorts, and in recent years, the proportion of cohorts reporting recent use, has steadily declined over time. There are continuing reports both from consumers and key experts that morphine is losing users to methamphetamine and other types of pharmaceutical opiates.

Diverted methadone syrup was reported to cost \$1 per mg of the drug, a price that was considered stable by participants. This was considered as 'easy' to access, and this reported as remaining stable in recent months. However, both IDU consumers and key experts note that the drug is really only available where there is a standing arrangement with a person on the program, and is almost uniformly reported as being accessed from friends (86%). Moreover, much of the use of diverted methadone syrup comes from individuals that are themselves receiving methadone maintenance, with key experts

noting some such clients purchasing small amounts of the drug illicitly to avoid physical withdrawal if they had precipitously used their takeaway doses, or traded it due to, or to avoid, 'standover' threats and aggression from others.

Diverted Physeptone tablets of methadone were reported as costing \$10 per 10mg tablet, a price that was considered stable by IDU. These were predominantly considered 'difficult' to access, with this level of availability regarded as remaining stable to decreasing in recent months. Consistent with this, both the proportion of the IDRS IDU sample and the frequency of this use had declined for the first time in the 2004 survey following steady increases since 2000: from 32% of the IDU sample reporting use in 2000, rising to 64% in 2003, and 52% in the current study.

The level of use of oxycodone use amongst the IDU sample has risen steadily in the two years that such use has been examined, rising from 21% in 2003 to 32% of the cohort using such drugs in the six months prior to interview in 2004, following anecdotal reports of use in 2002.

There are also continuing reports of continuing reports of opioids and benzodiazepines (predominantly alprazolam) being used simultaneously. This method of use is of considerable concern, not solely due to the deleterious effects of injection of benzodiazepines but also due to the increased risk of overdose on use of multiple central nervous system depressant drugs, as well as the extremely disinhibited behaviour that arises from such intoxication. Given such potential for harm from this practice, this pattern of use merits continued attention in the coming months, particularly from front-line health intervention workers.

Continuing the trend seen in the past two years of the IDRS, both use of preparations of alkaloid poppies and the number of poppy crop thefts remained low in 2004. Rates of both were around one-third that of the rates seen in the 2000 study: in 2004, only 13% of the IDU surveyed reported using some preparation of alkaloid poppies, with 24,128 poppy capsules stolen, in comparison to the 34% reporting use and 62,500 capsules stolen in 2000.

Buprenorphine, recently adopted as a maintenance treatment option for opioid addiction in the state, appears to have made little impact on the illicit opioid market, with only four individuals participating in the 2004 survey reporting illicit use of the drug (all but one injecting the drug). However, given that substantial levels of diversion have occurred in jurisdictions where buprenorphine maintenance treatment is more common, careful monitoring of this issue is clearly warranted as Tasmania's buprenorphine program expands, particularly given the existing culture of use of pharmaceutical products among local IDU.

It is important to note also that the opioids used by this group are not coming from direct doctor shopping by IDU, as the vast majority report obtaining them 'illicitly', i.e. not on a prescription in their name. Similarly, thefts from doctor's surgeries or pharmacies remain extremely low.

12.6 Benzodiazepines

There are clear indications that, following a reduction of the injection of benzodiazepines among IDU between 2002 and 2003, arising from the restriction and eventual removal of

temazepam gel capsules from the market (the benzodiazepine and form most preferred for injection by IDU), injection of these drugs has largely stabilised among local IDU consumers, at a level relatively high in comparison to that in other Australian jurisdictions. As noted in the 2003 study, it is also clear that alprazolam (Xanax in particular) appears to have largely replaced the local illicit market for temazepam gel capsules among those IDU particularly interested in benzodiazepine injection, with this drug being used in similar ways to temazepam capsules by consumers, such as in simultaneous combination with methadone syrup or other opioids. Between the 2003 and 2004 studies, both the proportion of the IDU samples reporting recent injection of alprazolam, and the frequency of such use in the preceding six months, had increased (11%, median frequency of 20 days in the preceding six months among the 2003 IDU cohort, to 17% and a median frequency of 24 days in 2004), and there are anecdotal reports both of increased demand for, and increased availability of, alprazolam locally. This is a particular concern given the serious psychological and physical harms associated with benzodiazepine injection. Additionally, the level of use and availability of benzodiazepines generally remains high within local IDU (used by 85% of the 2004 IDU sample, and 88% of the 2003 cohort), 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.

12.7 Associated harms

Self-reported rates of sharing of needles or syringes among clients of non-pharmacy Needle Availability Program outlets have steadily declined over time from 2.6% of all transactions in 1995/96 to 0.5% in 200/04. However, all IDRS studies in Hobart have suggested that 5-10% of these cohorts share used needles or syringes at least once in a month. Similar to the improving trends for sharing of needles and syringes, self-reported rates of sharing of other injection equipment (such as water, tourniquets and mixing containers) has steadily decreased among clients of non-pharmacy Needle Availability Program outlets (5.5% in 1996/97 to 0.5% in 2003/04). However, the more stringent definitions applied in the IDRS research suggests that there is still the potential for blood born virus transmission in the injection practices adopted by approximately half of the IDU cohort, with many sharing mixing containers (30%), water (22%) or tourniquets (21%) in the preceding month (albeit, in most cases, in situations where both people were using sterile injection equipment). Moreover, there are possible indications that some IDRS IDU participants may be relaxing their vigilance around blood awareness in regard to sharing of injecting equipment other than syringes, with rates of sharing of these items somewhat higher than comparative rates in previous studies.

In more targeted examination of injection practices in the current IDRS study, two notable points for health education interventions were identified. Firstly, in the current cohort, despite being regular injecting drug users, only two thirds of the 2004 local IDRS cohort always self injected in recent months, with those that did not always self inject being significantly younger, more likely to be female and less likely to have completed any further education outside of school. Secondly, two-thirds of the IDU participants had injected others in the month prior to interview, most commonly on occasions where they were also injecting themselves, although in only half of these cases did participants report washing their hands between injections – clearly a behaviour that increases the exposure risk to blood borne viruses.

Blood borne viruses, such as HIV/AIDS and hepatitis B and C are a major health risk for individuals who inject drugs. Surveillance data on the number of hepatitis C cases reported to the Public Health department indicate that reported incident cases of hepatitis C infection in the state appear to have been steadily declining since 2000, falling to less than 10 cases per annum in the past two calendar years. Reported unspecified (not new infections) cases of hepatitis C, however, appear to have remained relatively stable between 1995 and 2004 at around 300 cases per annum

A substantial proportion of IDU surveyed experienced injection-related health problems, at a relative rate greater than those seen amongst IDU in other jurisdictions, possibly due to the increased harms associated with the injection of pharmaceuticals, which is less common in other jurisdictions. Scarring, difficulties finding veins to inject into (indicative of vascular damage) and experience of 'dirty hits' (feeling physically unwell soon after injection, often associated with the injection of contaminants or impurities, and particularly with the injection of methadone syrup) were the commonest injection related problems experienced by the current IDRS IDU cohort

In 2004, there was a comparable rate of recent experience of non-fatal opioid overdose in the Tasmanian IDU sample in comparison with the National IDRS IDU cohort, despite the predominant local use of pharmaceutical opioids where the dosage is known (which may protect against accidental administration of too large a dose). The increase in rate of experience of non-fatal opioid overdose in the local sample from 2003 may reflect the common use of multiple CNS depressants simultaneously amongst these participants. In contrast, however, the number of opioid overdose deaths among those aged 14-54 years noted by the State Coroners office appears to have declined in 2003, against a backdrop of a steadily increasing population rate of overdose in Tasmania in recent years.

More than two-fifths of the IDRS IDU participants reported presenting to a health professional for a mental health issue in the preceding six months. This rate of presentations is substantially greater than that seen in the general population. In comparison to reports in earlier local IDRS IDU surveys, there has been a sharp increase in the number of IDU participants reporting presenting to a practitioner for depression (and using antidepressants) since trends in earlier years, and a steadily increasing rates of individuals presenting for anxiety-related issues (consistent with an increasing use of methamphetamine in these cohorts over time).

12.8 Methodological Considerations

The aim of the IDRS is to gather evidence of emerging drug trends in illicit drug use and related problems within the community. The IDRS methodology is heavily dependant on the perceptions of individuals involved in, and exposed to, the illicit drug use 'scene' (both individuals who inject drugs and professionals working with these groups). While these subjective impressions are combined with other, more objective, indicator data where possible to support and substantiate these reports, given the inherently covert nature of illicit drug use, available indicator data is limited and often insensitive to the trends of interest in this study.

The focus of the IDRS on surveying professionals in drug and alcohol-related fields, and often those people accessing their services, has meant that the study over-represents low educational and socio-economic groups, given that the charter of the majority of the agencies involved is to provide services to these populations. As such, the methodology

leaves the major group of illicit drug users – those who use substances occasionally and non-problematically – largely untapped. Due to this gap, it would be inappropriate to regard the IDRS as providing a representative overview of illicit drug use or the demographics of those who use illicit drugs. Importantly, this methodology in its current form does not adequately tap accurate information about drugs that are more commonly used recreationally (for example, ecstasy) and more focal research within different demographic groups is required to provide better information in these areas.

It is important to note that the purpose of the IDRS is simply to detect trends that warrant further investigation, not to explore and verify such trends. As such, the concurrent use of the three data sets included in this study, each with their own inherent strengths and limitations, affords an efficient and appropriate approach to achieving the aims of the study. In subsequent years, the validity of the IDRS will be further enhanced by the development of more systematic data sets (e.g. for drug and alcohol counselling services, ambulance and coroner data), and the incorporation of the results of several projects currently underway in the state (e.g. those funded by the National Illicit Drug Strategy).

13 IMPLICATIONS

The findings of the Tasmanian 2004 IDRS suggest the following areas for further investigation and possible consideration in policy:

- As Tasmanian illicit drug use culture has been consistently shown to substantially differ from other jurisdictions (with regard to, for example, 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 minimisation information campaigns need to be tailored to the particular needs and types of substances used within the state.
- Extension of a regular drug trend monitoring framework into other regions within the state (such as Launceston and the North-West coast) as there has been little specific research examining patterns of drug use within these areas, and due to their access to air and sea ports, and establishment of organised motor cycle group headquarters, availability and use of illicit substances may differ substantially in these regions from patterns seen in Hobart. As such, it may not be appropriate to infer similarity between drug trends and emergent issues identified in Hobart-based studies to these regions.
- Continued emphasis on, and support for, targeted strategies to further reduce the rates of sharing of needles/syringes and other injection equipment (such as tourniquets, filters and mixing containers) among IDU, as well as to minimise the harms associated with poor injecting practice through improving awareness and adoption of safe injection techniques and vein care among IDU. It was identified in the current study that there are a substantial proportion of regular injecting drug users that do not always self-inject, and similarly, large proportions of consumers that inject others but do not always maintain a vigilant cleanliness routine when doing so, and both these groups would be appropriate targets for a focused health education campaign from front line NAP workers, or indeed peer groups, in order to maintain downward pressure on exposure to blood borne viruses among IDU.
- Investigation into the factors associated with the experience of ‘dirty hits’ among local IDU and development of strategies to reduce this occurrence.
- Continuing monitoring of the expanding methamphetamine market and patterns of methamphetamine use.
- As use and availability of the higher potency forms of methamphetamine appear to be substantially increasing, clear and practical harm-reduction information for use of these forms of the drug should be accessed and distributed to consumers and health intervention workers. It is important to note also that there are indications that these drugs are increasingly being used by populations other than regular injecting drug users, such as primary ecstasy-using groups, that may not be accessing traditional health/health information services (Matthews & Bruno, 2005). Additionally, since increased levels of use of such high-potency methamphetamine may increase the level of experience of the negative effects of excessive methamphetamine use, development and implementation of practical strategies and training for dealing with

such affected individuals should be considered for front line health intervention workers and emergency services workers. Moreover, investigation of the requirement for specialist treatment programs and/or services for primary consumers of these drugs is warranted.

- With the firm establishment of a culture of injection of methadone syrup locally (although this remains predominantly within 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 use of butterflies and biological filters; and/or at the policy level, requiring use of sterile water for dilution of methadone doses or switching to Biodone syrup, as this preparation does not contain the agent sorbitol, which can cause irritation and harm to the venous system. Given the level of recent experience of ‘dirty hits’, primarily associated with methadone syrup injection, among the current IDU cohort, these issues merit renewed attention.
- Use of liquid preparations of morphine (Ordine) has continued to rise over the past four years of the IDRS. This is of some concern as the drug is typically sold ‘preloaded’ in syringe barrels, and it is often unclear to the user if the injection equipment or the solution is free from infection or contamination. Approaches to reducing the potential harms of this situation, such as increasing the awareness of the risk of this situation among users, or varying prescription practices to reduce the availability of larger containers of the drug, merit consideration as use expands.
- Use of diverted oxycodone among IDU populations has quickly increased across the past three local IDRS studies. Given the rapidly increasing prescription rates for these drugs, and the experience in other countries where diverted oxycodone has been used problematically by demographic groups outside of the regular IDU demographic, continued monitoring of the illicit use of these drugs is particularly important, both locally and nationally.
- Given that injection of buprenorphine carries with it a substantial degree of risk for the development of abscesses, careful monitoring of the diversion of the drug is warranted as Tasmania’s buprenorphine program expands. If, as has been seen in other jurisdictions with larger buprenorphine maintenance programs, injection of the drug becomes an issue locally, IDU should be made aware of harm-reducing injection techniques for the drug through front-line harm reduction workers.
- Research into factors that would reduce the harms associated with the intravenous administration of the pharmaceutical preparations of morphine, methadone and benzodiazepines commonly used within the local IDU population, and dissemination of this information to users through continued training of Needle Availability Program staff and peer groups.
- Continued monitoring of the intravenous use of benzodiazepines, particularly in terms of the combined injection of alprazolam and methadone syrup, as this is a practice that substantially increases the risk of overdose.
- Characterisation and potency testing of cannabis cultivars to investigate continuing reports of high or increasing potency of cannabis.

- While self-reported rates of experience of mental health issues are likely to under-represent the true extent of these issues, more than two-fifths of the IDU sample reported recently attending a health professional for mental health concerns, a level substantially greater than seen in the general population. As such, the increasing systemic focus in the state toward development and implementation of interventions for such co-morbid populations is clearly warranted and continued enhancement of partnerships between the mental health and alcohol and other drug sectors is crucial to meet the needs of this group.
- Research examining the extent of use, and demographic profiles of (mis)users of drugs such as anabolic steroids, inhalants, and pharmaceutical stimulants in the state, as these populations are not well accessed within the methodology of the IDRS.

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