S.A. Kinner and B. Lloyd

QLD DRUG TRENDS 2006
Findings from the Illicit Drug Reporting System (IDRS)

NDARC Technical Report No. 272

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2006

Findings from the Illicit Drug Reporting System (IDRS)

Stuart A. Kinner and **Belinda Lloyd**

Queensland Alcohol and Drug Research and Education Centre

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ABCI	Australian Bureau of Criminal Intelligence
ACC	Australian Crime Commission
ACS	Australian Customs Service
AFP	Australian Federal Police
ADIS	Alcohol and Drug Information Service
AIHW	Australian Institute of Health and Welfare
AOD	alcohol and other drug
ATS	Amphetamine-type stimulant
ATSI	Aborigine or Torres Strait Islander
ATODS	Alcohol, Tobacco and Other Drugs Services (Queensland Health)
BBV	Blood-borne virus
CMC	Crime and Misconduct Commission
DDU	Drugs of Dependence Unit (Queensland Health)
DUMA	Drug Use Monitoring in Australia
EDRS	Ecstasy and Related Drugs Reporting System
HBV	Hepatitis B virus
HCV	Hepatitis C virus
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug User
KE	Key expert
MDMA	3,4-methylenedioxymethylamphetamine ('Ecstasy')
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NNDSS	National Notifiable Diseases Surveillance System
NSP	Needle and Syringe Program
OMCG	Outlaw Motorcycle Gang
QADREC	Queensland Alcohol and Drug Research and Education Centre
QAS	Queensland Ambulance Service
QPS	Queensland Police Service

EXECUTIVE SUMMARY

Demographic characteristics of injecting drug user (IDU) participants

In 2006, one hundred and twelve IDU were interviewed in Queensland for the IDRS. Approximately two thirds of the sample were male, about two thirds were unemployed, fewer than one in five had a grade 12 education or higher, 45% had a prison history, and a significant minority (13%) identified as Indigenous. More than a third of the sample were currently in some form of drug treatment, typically methadone or buprenorphine substitution treatment.

The average age of the IDU sample interviewed for the IDRS has been increasing in recent years, reflecting an ageing cohort of injecting drug users accessing Needle and Syringe Programs (NSP) in Queensland. Although those nominating heroin as their drug of choice are typically older than those nominating methamphetamine, this was not the case in 2006.

Patterns of drug use among the IDU sample

On average, IDU in 2006 reported first injecting at about 19 years of age – which is consistent with previous years. Also consistent with previous years, there was a positive correlation between age and age at first injection, indicating that more recent recruits into injecting may be starting to inject at a younger age. Over half of the sample reported first injecting methamphetamine, and these IDU were significantly younger than those reporting heroin as their first injected substance.

Heroin

The impact of the 2001 heroin shortage continues to be evident in the Queensland heroin market, with evidence of on-going, and perhaps increased, suppression of supply, and unstable purity. There has been relatively little change in the price of heroin over time, indicating that at the retail level, price may be a relatively insensitive indicator of market dynamics. Perhaps indicative of this on-going suppression of the heroin market, there was evidence of a continued decline in heroin use among IDU in 2006. The average age of IDU attending NSP continues to increase, and those injecting heroin are typically older than those injecting methamphetamine. To an increasing extent heroin may be, as some key experts (KE) have described it, "a drug of a previous generation".

The continued decline of the heroin market in Queensland is also reflected in indicator data, with declines in the number of arrests for possession, the number of calls to telephone help-lines, the rate of self-reported overdose, and the number of pharmacotherapy registrations. The number of hospital admissions for opioids has been low and stable, however, this figure may also reflect the increasing number of IDU turning to alternative opioids (see Section 11.5) in response to a suppressed heroin market. Despite this, the number and weight of heroin importations intercepted at the Australian border increased in the first two quarters of 2006.

In contrast to most other Australia jurisdictions, the vast majority of opioid pharmacotherapy clients in Queensland are registered with a public prescriber. Despite high rates of injecting drug use and opiate dependence among new prison receptions, only 1% of client registrations in Queensland (versus 6.4% nationally) were in correctional facilities.

Methamphetamine

The IDRS monitors trends in three forms of methamphetamine: powder, 'base' and crystal ('ice/crystal'). While the former two are mostly locally produced, crystal methamphetamine or 'ice/crystal' is mostly imported. As in previous years, in 2006 patterns of use and trends associated with powder and base differed substantially from those for ice/crystal.

Changes in illicit drug markets are not always reflected in the price of street-level quantities of the drug, and as in previous years, the price of a point of all forms of methamphetamine remained stable at $50. According to some KE, a point is loosely synonymous with "fifty dollars worth". In 2006 there was some evidence of a decrease in the price of powder and base methamphetamine, with the price of larger quantities falling slightly. Conversely, the median price of larger quantities of ice/crystal increased, although IDU continue to report widely varying prices for larger quantities of the drug.

While the majority of IDU once again rated all forms of methamphetamine as 'easy' or 'very easy' to obtain, ice/crystal was considered less readily available than the other forms, with availability less stable over time. The perceived availability of all forms of methamphetamine fell in 2006. IDU consistently (and accurately) rate ice/crystal as higher in purity than powder and base, and there was little change in the perceived purity of each form from 2005. As seizure data do not distinguish among forms of methamphetamine, these data are limited in their ability to detect changes in purity over time.

The proportion of IDU reporting recent methamphetamine use dropped again in 2006, with only a small minority reporting daily use in the last six months. In 2005 there was evidence of a shift away from ice/crystal to less pure forms of methamphetamine. In 2006 however, the reverse occurred, with a larger minority of IDU identifying ice/crystal as the form most recently used. These divergent trends in methamphetamine use by form underscore the importance of distinguishing between powder, base and ice/crystal in monitoring methamphetamine trends.

Indicator data continue to suggest high levels of health and legal problems among regular methamphetamine injectors. Telephone help line and hospital admission data provided no evidence of a *further* increase in health-related problems among methamphetamine users, however, given that many methamphetamine users do not access treatment for their drug use, the actual incidence of acute health-related problems among this group is difficult to determine.

The number of arrests for use/possession of 'amphetamine-type stimulants' (ATS) in Queensland rose again in 2006, however, because KE reports suggest that ATS continue to be a priority for law enforcement, the observed increase in arrests may reflect increased law enforcement efforts in the ATS market, rather than increased market activity. Furthermore, the inclusive ATS category encompasses not only amphetamine and methamphetamine, but also 3,4-methylenedioxymethamphetamine (MDMA), or ecstasy, which is now the second most commonly used illicit drug in Queensland and Australia after cannabis (AIHW, 2005). Until it is possible to disaggregate MDMA and methamphetamine related events in Queensland arrest data, these data will be of limited use in monitoring the methamphetamine market.

The number of clandestine laboratories detected in Queensland has fallen dramatically in the last two years, however this does not necessarily indicate a decline in domestic methamphetamine production. In light of recent increases in precursor control and legislative changes to facilitate prosecution of methamphetamine 'cooks', this reduction in the number of labs detected may reflect increasing organisation of methamphetamine production in Queensland, with fewer 'backyard' producers willing, or able to, manufacture the drug. In the absence of more detailed information about the nature or production capacity of lab detections, this drop in lab detections is difficult to interpret.

Cocaine

Cocaine use has traditionally been rare, sporadic and opportunistic among IDU in Queensland, and this continued to be the case in 2006. Among the small proportion who indicated recent use, the frequency of use was very low and roughly equal numbers reported using intranasally ('snorting') and injecting. The small number of IDU who reported on cocaine renders reports of price, purity and availability less reliable. Indeed, reports among IDU were widely variable,

suggesting that supply channels for this group are not well established. There was little evidence of change in the price of cocaine in 2006, with the price continuing to vary between $200 and $300 per gram. IDU disagreed regarding the purity and the availability of cocaine in 2006, however, some KE reported an increase in the availability of high-purity cocaine in south-east Queensland.

Although there seems to be relatively little contact between cocaine users and either health or law enforcement agencies in Queensland, arrest data provide some evidence of an increase in the size of the cocaine market. Indeed, the number of arrests for cocaine use/possession in Queensland increased substantially from 1999/00 to 2005/06, however, the total number still remains very low. The number of hospital admissions and telephone help- line calls related to cocaine has been low and variable in recent years. Anecdotal reports from users and KE suggest that there may be a sizeable and growing niche market for cocaine among non-injectors in Queensland, however, at present there is little reason to suspect that use of this drug will increase substantially among IDU.

Cannabis

The cannabis market in Queensland has traditionally been distinguished by its relative stability over time, although trends emerging over the last few years indicate that the market is not entirely static. As is the case with methamphetamine, in order to better understand the cannabis market it is important to distinguish between two forms of the drug: hydroponic cannabis ('hydro') and so-called 'bush' cannabis. Although these terms reflect the common understanding that 'hydro' is typically grown in small, indoor hydroponic plantations, while 'bush' is grown in large, outdoor crops in remote locations, there is surprisingly little evidence to confirm this view. Given our present level of knowledge, it would be prudent to simply consider 'hydro' synonymous with 'higher potency' and 'bush' with 'lower potency' cannabis.

As in previous years, in 2006 IDU typically rated hydro as 'high' potency and bush cannabis as 'medium' potency, although again, without objective purity data against which these perceptions can be compared, it is difficult to know how informative these reports are. Consistent with their ratings of potency, IDU reported that the price of hydro was about one- third higher than that for bush, however, there was evidence of an increase in the price of both forms in 2006. Hydro was reported to be 'easy' or 'very easy' to obtain, with bush perceived to be slightly less readily available; the perceived availability of both forms decreased slightly in 2006. Again consistent with previous years, in 2006 most IDU reported obtaining their cannabis from a friend or a dealer's home.

The number of arrests for cannabis use/possession rose markedly from 2000/01 to 2004/05, before falling in 2005/06. This arrest figure includes both arrests and instances of diversion, however, and renders findings difficult to interpret. Clearly, there is a need for further research into the dynamics of the cannabis market in Queensland.

The vast majority of IDU reported recent cannabis use, with the proportion reporting use in the last six months increasing from 76% in 2005 to 85% in 2006. The average frequency of use among users was stable at an average of about 4 days out of 7 – considerably lower than the national average of daily use among IDU interviewed for the IDRS.

KE reported a growing recognition among users and the general community that regular, heavy cannabis use can lead to significant health problems. Consistent with this notion, the number of inpatient hospital admissions for cannabis, and the number of calls to telephone help- lines in relation to cannabis, have increased. To what extent this increase reflects an increase in problems, and/or an increase in treatment-seeking behaviour among problematic users, is a matter for continued investigation.

Use of illicit opioids

Trends in illicit opioid use among IDU are, to an extent, the mirror image of those for heroin. In the context of a sustained suppression of the heroin market in Queensland, IDU appear to be increasingly sourcing and injecting a range of alternative opiates including morphine, methadone, buprenorphine and oxycodone. Compared to heroin, these alternative, pharmaceutical opioid preparations are of consistent purity, and relatively consistent price and availability. However, because they are not designed to be injected, they carry the potential for significant injection-related harm.

Illicit Methadone

Following trends in opioid pharmacotherapy treatment, the proportion of IDU reporting recent use and injection of illicit methadone has decreased since 2004, while the proportion reporting use and injection of illicit buprenorphine increased. In 2006 fifteen percent of IDU reported recent use of illicit methadone, with almost all of these reporting recent injection of illicit methadone.

Illicit Buprenorphine

Use and injection of illicit buprenorphine have increased consistently since 2003, with one in four reporting recent injection in 2006. There continues to be extensive diversion of buprenorphine among IDU, with half of those who reported recent use indicating that they had mostly used illicit buprenorphine in the last six months. At least one dispensing service in south-east Queensland has implemented a policy precluding buprenorphine take-away doses, in an effort to reverse this trend.

Morphine

Use and injection of illicit morphine continues to be endemic among IDU in Queensland. In 2006 more than half of those interviewed reported recent use and injection of illicit morphine, and almost one in ten identified morphine as their drug of choice. Among those reporting recent morphine use, MS Contin100mg tablets continue to be the favoured brand for injection.

Oxycodone

In recent years there has been a trend among IDU in Queensland towards use and injection of illicit oxycodone. Prior to 2005, IDU interviewed for the IDRS were not asked specifically about oxycodone, however, in 2005 sixteen percent reported recent use, and 14% specified recent injection. In 2006 these proportions increased to 21% and 18% respectively. Just as the majority of IDU report that they mainly use illicit (versus licit) morphine, 70% of those reporting recent use of oxycodone in 2006 reported mainly using illicit oxycodone. The preferred brand for injection appears to be Oxycontin.

Benzodiazepines

Following increased restrictions on the availability of 10mg temazepam gel capsules in May 2002, rates of benzodiazepine injection among IDU dropped markedly in 2003, and this reduction has been sustained through 2006. By contrast, in 2006 more than two- thirds of IDU reported recent benzodiazepine use, with most using orally. The proportion of IDU reporting daily benzodiazepine use increased from 3% in 2001 to 15% in 2005, and remained high (14%) in 2006, perhaps reflecting shifting prescribing practices rather than diversionary activity. Roughly equal proportions reported mostly using licit and illicit benzodiazepines recently, indicating that benzodiazepine diversion and injection is still a health concern for this population. As in previous years, in 2005 the vast majority of IDU reported mostly using Valium.

Other drugs

Consistent with KE reports, a significant proportion of IDU continue to report experiencing mental health problems, most commonly depression. Consistent with this, a substantial proportion of IDU each year report recent use of antidepressants. In 2006 roughly one-in-four IDU reported using antidepressants in the last six months, with most of these reporting licit use (i.e. as prescribed). As in previous years, no IDU in 2006 reported injection of antidepressants.

Only a small proportion of IDU in Queensland report recent use of hallucinogens each year, however, this proportion more than doubled in 2006, to 12%. Furthermore, and consistent with KE reports of an increase in LSD availability and use, the median frequency of hallucinogen use among recent users doubled in 2006, to 5 days in the last 6 months. Hallucinogen use remains at a relatively low level among IDU, however, use increased noticeably in 2006.

Ecstasy (MDMA) is usually associated with 'recreational' drug users rather than injecting drug users, however, given its high level of availability, it is not surprising that a proportion of IDU will report recent use. In 2006 just over one in four IDU (28%) reported recent ecstasy use, with the majority of these using orally rather than injecting. Among recent users the typical frequency of use was 4 days in the last 6 months, indicating sporadic and/or opportunistic (versus regular) use.

In 2006 roughly one in four IDU reported lifetime use of inhalants, however only 3% reported recent use: one using amyl nitrate, one using nitrous oxide ('bulbs') and one failing to identify the inhalant used. These findings are consistent with KE reports that inhalant use is primarily a concern among youth, younger than those recruited for the IDRS. A number of KE from a correctional setting expressed concern regarding the health effects of inhalant use on younger prisoners, particularly young Indigenous prisoners.

Although IDU are typically thought of as illicit drug users, many also use licit drugs. Among IDU interviewed in 2006 almost two- thirds reported recent alcohol use, although only 13% reported daily alcohol use. Consistent with KE reports of increasing heavy drinking among young women, there was no significant difference in rates of daily drinking between males (13%) and females (15%). Whereas only a minority of IDU are daily drinkers, the vast majority smoke tobacco on a daily basis; in 2006 ninety six percent reported recent tobacco use, typically on a daily basis.

Associated harms

The number of syringes being dispensed to IDU in Queensland has continued to climb, with almost five and a half million syringes dispensed throughout the State in the 2005/06 financial year. At the same time, despite on-going harm reduction efforts targeting safe injecting, the proportion of IDU reporting recent sharing of injecting equipment increased from 21% in 2005 to 32% in 2006. A number of KE noted that while many IDU are aware of the risks of sharing needles, many have limited knowledge of the risks associated with sharing other injecting equipment.

The rate of Hepatitis C notification in Queensland fell from a peak of 3,330 notifications in 2000 to 1,901 notifications in 2005, before rising again to 3,053 notifications in 2006. The prevalence of Hepatitis C infection among IDU remains high, and this is reflected in the rate of Hepatitis C infection among prisoners in Australia, which in 2004 was estimated at 34% of new receptions (56% of those with a history of injecting drug use) (Butler, Boonwaat, & Hailstone, 2005). At present, important harm reduction measures such as needle exchanges are not extended to IDU incarcerated in Queensland, or any other state or territory of Australia (Black, Dolan, & Wodak, 2004).

As in previous years, the majority of IDU in 2006 reported usually injecting in a private home, however, almost one third (33%) reported usually injecting in riskier locations such as a car, the street, or a public toilet. The number of injection-related problems reported by IDU increased noticeably between 2005 and 2006, perhaps driven by a combination of the continued ageing of the IDU samples attending NSP, and the continued increase in injection of pharmaceutical opioid preparations. The most commonly reported injection-related problems were scarring or bruising, and difficulty injecting.

Although two- thirds of IDU reported usually injecting in a private home, almost half reported driving under the influence of drugs at least once in the last six months. The drugs mostly commonly used prior to driving were those used by the largest proportion of IDU: methamphetamine, cannabis and heroin. Given the significant risks associated with this behaviour, there is a clear need to further examine when, where and why IDU choose to drive under the influence of drugs, and what level of risk they perceive to be associated with this activity.

More than a third of IDU in 2006 reported having become verbally aggressive after substance use recently, with 41% reporting becoming verbally aggressive during withdrawal. Smaller, although not insignificant, proportions reported becoming physically aggressive under the influence of (14%), or withdrawing from (14%), a drug in recent times. The drugs most commonly associated with verbal aggression during intoxication were alcohol, methamphetamine and heroin, while the drugs most commonly associated with verbal aggression during withdrawal were methamphetamine (particularly powder methamphetamine), heroin and cannabis. In contrast to anecdotal reports of a strong link between crystal methamphetamine use and aggression, only 2% of IDU reported physical aggression associated with ice/crystal use recently. By contrast, given the relatively limited use of alcohol in this group, the proportion reporting aggression associated with alcohol use is significant.

There was little change in rates of self-reported criminal activity between 2005 and 2006, with more than a third reporting drug dealing recently, and one in five reporting property crime recently. Few IDU reported engaging in violent crime or fraud recently, however, more than half reported having been arrested in the last 12 months. Given the significant health and psychosocial problems faced by this group, contact with law enforcement agencies may provide an additional opportunity for referral into treatment, and/or for the provision of harm reduction messages.

Mental health problems – particularly anxiety and depression - continue to be common among IDU, with one in four reporting recently seeing a mental health professional in 2006. The proportion reporting experiencing mental health problems is considerably larger, indicating a degree of unmet healthcare need in this group.

Implications

Illicit drug markets in Queensland, as in other jurisdictions, continue to fluctuate and to interact. Accordingly, these markets should be monitored on a regular basis, and should not be interpreted in isolation from one another. The 2006 Queensland IDRS documented a number of new trends, and provided further evidence of interdependence among illicit drug markets in Queensland. In particular, it seems clear that changes in the availability of heroin have been associated with changes in the use of methamphetamine, and changes in the use of other opiates including morphine, methadone, buprenorphine and oxycodone. It is also clear that the cannabis market in Queensland is dynamic, and that further research is required to understand patterns of use and other market dynamics.

To the extent that illicit drug markets are interdependent, supply reduction, demand reduction and harm reduction policies should adopt a holistic view, recognising that targeting the use of one drug may impact on the availability and use of other drugs. In order to minimise drug-related harm, the realities of endemic polydrug use and interdependent illicit drug markets must be recognised. The data presented here further underscore the importance of this recognition.

1. INTRODUCTION

The Illicit Drug Reporting System (IDRS) is an on-going research project that serves as a strategic early-warning system for emerging trends and patterns in illicit drug use and associated harms. Since 1999 the IDRS has been conducted annually in every state and territory of Australia, and it is currently funded by the Australian Government Department of Health and Ageing. The IDRS focuses primarily on four main illicits; heroin, amphetamines, cocaine and cannabis, but also monitors trends in other drugs and in drug-related harms.

An important feature of the IDRS is that it aims to disseminate its findings in a timely fashion, highlighting current issues that require further attention rather than providing a more protracted, in-depth analysis of available data. Each year key findings are presented at the National Drug Trends Conference in November, and the final report is published by the National Drug and Alcohol Research Centre (NDARC) early the following year. In addition, NDARC produces an annual national report and quarterly Drug Trends Bulletins highlighting issues of particular relevance. Selected findings from the IDRS are also published in peer-reviewed journals.

Data for the IDRS come from three complementary sources: (a) a survey of injecting drug users (IDU) who are considered a 'sentinel' group in the community, (b) structured interviews with key experts (KE) working in the drug and alcohol field, and (c) existing data sets. By triangulating information from these three sources the IDRS is able to assess, with some confidence, the reliability and validity of its findings.

The IDU survey component of the IDRS has been conducted in Queensland since 2000, and with each passing year the value of the data set grows. Apparent trends from one year to the next can increasingly be interpreted within a broader historical context, and longer-term trends in drug use and associated harms can be identified. Along with other, complementary monitoring systems such as the national Ecstasy and Related Drug Reporting System (EDRS) and the crime-focussed Drug Use Monitoring in Australia (DUMA) study, the IDRS helps to paint a contextualised picture of drug use and drug-related issues in Australia.

1.1 Study Aims

As in previous years, the aims of the 2006 Queensland IDRS were to:

- document the price, purity, and availability of heroin, amphetamines, cocaine, cannabis and other drugs in Queensland; and
- identify, assess, and report on emerging trends in illicit drug use and associated harms.

2. METHOD

The IDRS maximises the reliability of its reported findings by triangulating information from three complementary sources: structured IDU surveys, semi-structured KE surveys, and contemporary indicator data. Comparability across years and jurisdictions is ensured by continued and nationwide use of the same survey instruments and data sets; minor improvements are made to the methodology each year to keep pace with developments in illicit drug markets and trends.

2.1 Survey of injecting drug users (IDU)

IDU are defined as individuals who have injected an illicit drug at least monthly for the six months prior to interview, and who have lived in the region where the interview takes place for at least the past 12 months. Given the ubiquity of polydrug use among IDU (Shane Darke & Hall, 1995; S. Darke & Ross, 1997), IDU are considered a 'sentinel' group in the community, well placed to provide first-hand and current information about a range of illicit drugs. The IDU sample is not considered representative of all illicit drug users, or even of all injecting drug users.

The IDU survey is a structured interview administered by research staff in a convenient community location (e.g., NSP, drug treatment agency). Subjects are assured that the information they provide will remain anonymous and confidential, and informed consent is obtained prior to the interview. The survey typically takes around 50 minutes to complete and subjects are reimbursed $20 for their time and expenses incurred in participation. Whereas the key expert (KE) survey gathers largely qualitative data, the information obtained from the IDU survey is mostly quantitative in nature. The survey includes sections on:

- demographics
- drug use history
- price, purity and availability of illicit drugs
- criminal activity
- risk-taking behaviour
- general health status
- general trends

2.2 Survey of key experts (KE)

Key experts are individuals whose work brings them into regular contact with illicit drug users, and who are thus well positioned to provide information on trends and patterns in illicit drug use and associated harms. Criteria for participation in the IDRS as a KE are:

- at least weekly contact with illicit drug users in the six months preceding the interview; or
- contact with at least 10 illicit drug users within the same time frame.

These criteria are relaxed somewhat for law enforcement KE, who may not have direct contact with illicit drug users but may nevertheless be able to provide valuable information about drug dealing, manufacture and importation, or about drug-related crime.

KE interviews may be conducted either over the telephone or in person. Interviews begin with the researcher explaining the nature and purpose of the IDRS, and screening the potential KE for eligibility. KE are asked to nominate one illicit drug to be the focus of discussion. Most interviews take between 30 and 45 minutes to complete, and include a range of open-ended questions followed by check boxes to help focus the interview.

The KE survey instrument includes sections on:

- demographic characteristics of illicit drug users
- drug use patterns and trends

- health issues
- price, purity and availability of drugs
- criminal activity.

KE come from a range of backgrounds and professions including (but not limited to) paramedics, GPs, NSP workers, counsellors, staff of drug treatment agencies, researchers, psychiatrists, law enforcement and intelligence officers, and youth service personnel. Many KE have participated in the IDRS in previous years, however, a snowballing recruitment strategy is used each year to identify additional potential participants.

Data from the KE survey are qualitative in nature and are used primarily to complement and give context to the quantitative data obtained through the IDU survey and indicator data.

2.3 Other indicators

Data for the IDRS are also obtained from a range of external health, research and law enforcement sources. These indicator data cover a wide range of issues relevant to illicit drug use and serve to further validate and contextualise the findings of the IDU and KE surveys. For inclusion in the IDRS, indicator data should meet the following criteria:

- available at least annually
- include 50 or more cases
- provide details relating to illicit drug use
- be collected in the main study site
- include details on the four main illicit drugs under investigation.

Not all indicator data meet all of these criteria, however, they do serve as a guide to ensure that indicator data are both relevant and contemporary. In 2006 the following data were obtained for the IDRS:

- Alcohol and Drug Information Service (ADIS) - telephone counselling statistics
- National Notifiable Diseases Surveillance System (NNDSS) – blood-borne virus (BBV) notifications by year
- Queensland Police Service (QPS) – clandestine laboratory seizures, drug-related arrests
- Australian Customs Service (ACS) – number and weight of drug seizures
- Australian Institute of Health and Welfare (AIHW)– pharmacotherapy client registrations
- Queensland Health Alcohol, Tobacco and Other Drugs Services (ATODS)- syringes dispensed
- Queensland Health Drugs of Dependence Unit (DDU) – S8 prescription data

3. RESULTS

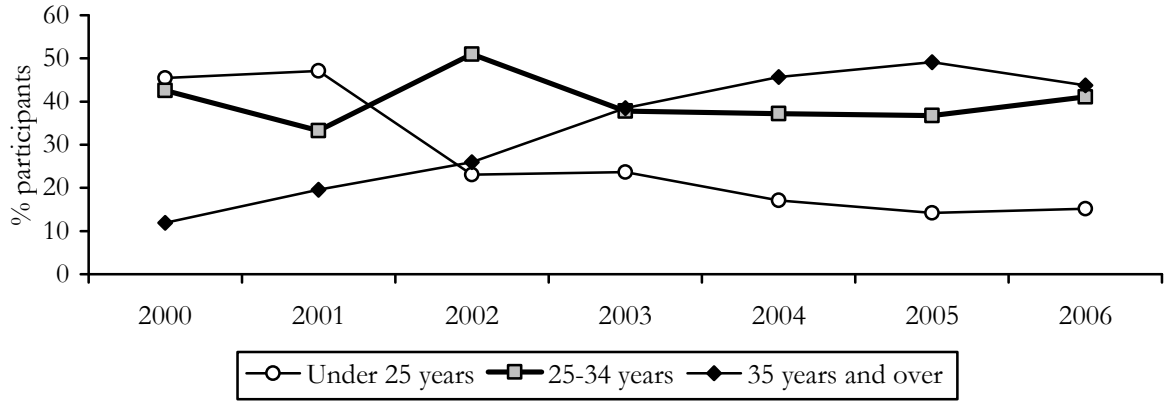
3.1 Overview of the IDU sample

In 2006 one hundred and twelve IDU were interviewed in south-east Queensland. As in previous years, approximately two- thirds of the sample were male, and the mean age of the sample was 34 years (see Table 1). Between 2000 and 2005, the mean age of the Queensland IDU sample increased from 26.4 years to 34.0 years. In 2006 there was little change in the age distribution of IDU interviewed for the IDRS in Queensland, with only 15% of the sample aged less than 25 years, and roughly equal numbers aged 25-24 years and 35 years or older (Figure 1). KE continue to comment on the ageing of IDU accessing NSP, although it is likely that the IDRS is less successful in recruiting younger IDU, who are more likely to inject methamphetamine than heroin (Day, Degenhardt, & Hall, 2006). A number of KE also commented on the increasing number of chronic, physical health complaints among this ageing cohort of injectors.

In 2005, IDU nominating methamphetamine as their drug of choice were on average 3.9 years younger than those nominating heroin as their drug of choice. In 2006 there was little difference in the age of those nominating heroin (34.6 years), powder methamphetamine (35.2 years), or base methamphetamine (36.8 years), however those nominating crystal methamphetamine as their drug of choice were substantially younger (29.4 years). This is partially consistent with KE reports that methamphetamine injectors are typically younger than those injecting heroin, although based on these data, it appears that in 2006 this age difference is being driven by younger crystal methamphetamine injectors.

In most other respects, the 2006 IDU sample was very similar to that recruited in previous years. The majority of IDU in 2006 were unemployed (66%) and a minority (16%) had a grade 12 education. In 2006 over half of the sample (58%) reported having some form of trade or technical qualification, although only a minority of these reported full trade qualifications (e.g. mechanic). A significant minority (13%) identified as Aboriginal and/or Torres Strait Islander. Just over one- third (37%) reported currently receiving some form of drug treatment – typically methadone (14%) or buprenorphine (11%) maintenance, and almost half (45%) reported a history of incarceration. As in previous years, and consistent with KE reports, the 2006 IDU sample constituted a distinctly disadvantaged group of individuals.

Figure 1: Age distribution of IDU in the QLD (Brisbane) IDRS samples, 2000-2006



Source: IDRS IDU interviews

Table 1: Demographic characteristics of the IDU sample, 2005-2006

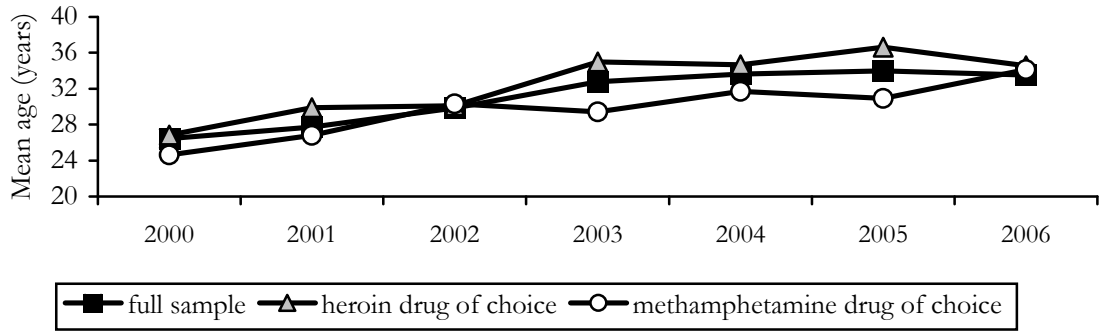
Characteristic	2005 N=106	2006 N=112
Age (mean years, range)	34 18-53	34 18-57
Sex (% male)	62	68
Employment (%):		
Not employed / on a pension	64	66
Full time	12	12
Part time/casual	13	14
Home duties	9	7
Student	2	1
Received income from sex work last month	0	4
Aboriginal and/or Torres Strait Islander (%)	16	13
Heterosexual (%)	82	88
Bisexual (%)	9	9
Gay or lesbian (%)	8	2
Other (%)	1	1
School education (mean no. years)	10	10
Tertiary education (%):		
None	56	33
Trade/technical	31	58
University/college	13	9
Currently in drug treatment^ (%)	32	37
Prison history (%)	44	45

Source: IDRS IDU Interviews

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

Figure 2 shows the mean age of IDU nominating heroin and some form of methamphetamine as their drug of choice, and of the full IDU sample. Since 2000, those nominating heroin as their drug of choice have typically been older than those nominating methamphetamine. The two exceptions to this pattern were in 2002 (the year following the onset of the heroin shortage) and 2006, when those nominating heroin as their drug of choice were on average 34.6 years old, and those nominating methamphetamine 34.1 years old. The reasons for this lack of an age difference remain unclear, however, one possible explanation is provided by KE, some of whom suggested that even among older IDU, who are more likely to use heroin or other opiates, the continued poor quality of heroin (see Chapter 4) has prompted some to move from regular heroin injection to regular methamphetamine injection.

Figure 2: Mean age of full IDU sample, and of those nominating heroin and methamphetamine as drug of choice, 2000 – 2006

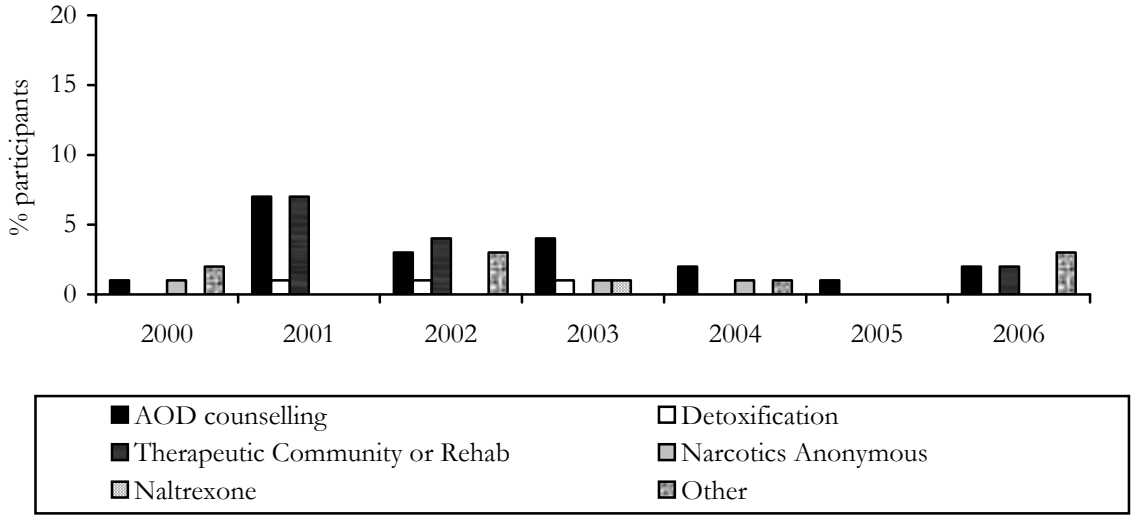


Source: IDRS IDU Interviews

3.1.3 Current and previous drug treatment

In 2006 37% of the IDU sample reported currently being in some for of drug treatment, typically methadone (14%), buprenorphine (11%) or suboxone (5%) maintenance. Among those currently in treatment, the median duration of treatment at the time of interview was 17 months. As in previous years, relatively few IDU reported receiving any other form of treatment (see Figure 3).

Figure 3: Proportion of participants reporting treatments other than opioid replacement pharmacotherapy in past six months, 2000-2006



Source: IDRS IDU interviews
Note: Multiple responses could be selected

3.2 Drug use history and current drug use

Table 2 presents a summary of the injection history, drug use preferences and polydrug use of the 2006 IDU sample. The mean age of first injection among IDU interviewed in 2006 was 19.3 years, which is consistent with that reported in previous years. As in previous years, however, there was a moderate positive correlation between age and age at first injection (r = .39, p<.001), indicating that more recent recruits into injecting may also be initiating into injecting at a younger age. Although males typically reported initiating into injecting at a younger age than females (19.0 versus 20.4 years, p = .04), this difference was not statistically significant (p>.05).

As in 2005, in 2006 over half of the sample (55%) reported that the drug they first injected was methamphetamine, with most of the remainder (33%) reporting first injecting heroin. Consistent with other research (Day, Degenhardt, & Hall, 2006) and with key expert reports, those reporting first injecting heroin were significantly older (mean = 35.5 years) than those who first injected methamphetamines (mean = 31.5 years), $t(97)=2.20$, p=.03.

In 2006 just under half (49%) of IDU nominated heroin as their drug of choice. However, the proportion nominating heroin as the drug most often injected in the last month fell from 42% in 2005 to 32% in 2006. By contrast, between 2005 and 2006 the proportion of IDU nominating methamphetamine as their drug of choice fell from 37% to 28%, with the proportion nominating methamphetamine as the drug most often injected consistently above this: 46% in 2005 and 40% in 2006. Most of these reported mostly injecting powder methamphetamine (26%), although smaller proportions reported mostly injecting base (9%) and crystal methamphetamine (5%).

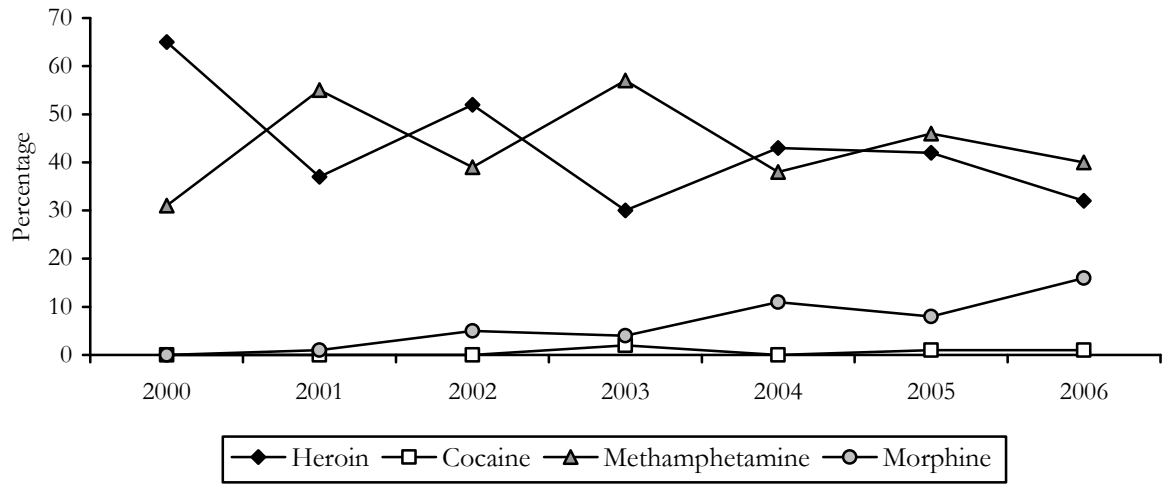
As in previous years, the proportion of IDU in 2006 reporting heroin as the drug most injected exceeded the proportion nominating it as their drug of choice, while for methamphetamine, the converse was true. For those who identified heroin as the drug most injected, but reported most injecting some other drug (n=24), the main reasons given were that they were in drug treatment (33%), the price of heroin (21%), the purity of heroin (17%) and the availability of heroin (13%). As shown in Figure 4, between 2005 and 2006 there was also a marked increase in the proportion of IDU reporting morphine as the drug most injected in the last month (from 8% to 16%) and as the last drug injected (from 6% to 15%), (see Table 2).

Table 2: Injection history, drug preferences and polydrug use of IDU participants, 2005-2006

Variable	2005 N=106	2006 N=112
Age first injection (years)	19	19
First drug injected (%)		
Heroin	35	33
Amphetamines	59	55
Cocaine	4	4
Morphine	0	3
Drug of choice (%)		
Heroin	45	49
Cocaine	2	1
Methamphetamine (any form)	37	28
Speed	29	17
Base	6	5
Crystal Methamphetamine (ice)	1	6
Benzodiazepines	0	0
Cannabis	7	7
Drug injected most often in last month (%)		
Heroin	42	32
Cocaine	1	1
Methamphetamine (any form)	46	40
Speed	40	26
Base	4	9
Crystal Methamphetamine (ice)	2	5
Benzodiazepines	0	1
Morphine	8	16
Not injected in last month	4	0
Most recent drug injected (%)		
Heroin	39	32
Cocaine	1	2
Methamphetamine (any form)	50	39
Speed	41	27
Base	6	8
Crystal (ice)	3	4
Benzodiazepines	0	2
Morphine	6	15
Frequency of injecting in last month (%)		
Not injected in last month	0	0
Weekly or less	24	28
More than weekly, but less than daily	31	30
Once per day	18	16
2-3 times a day	20	15
>3 times a day	7	11

Source: IDRS IDU interviews

Figure 4: Drug injected most last month, 2000-2006



Source: IDRS IDU interviews

Table 3 details the polydrug use history of IDU participants, as a function of route of administration. More than half of the sample reported recent (last 6 months) use of tobacco (96%), cannabis (85%), methamphetamine (77%), alcohol (71%), benzodiazepines (69%), heroin (63%) and morphine (52%). The majority of IDU also reported recent injection of methamphetamine (75%), heroin (63%) and morphine (51%).

Among those who reported recent use, the drugs used most frequently were prescribed methadone and tobacco (median=180 days, daily). Prescribed buprenorphine was used on average every second day (i.e., 90 days out of 180). Recent cannabis users reported use on 105 days in the preceding six months (average of approximately four days per week) and alcohol use was reported as occurring on average about once a week in the previous six months. Among recent methamphetamine users, use typically occurred just over once a week (29 days/180) whereas heron was typically used about twice a week (52 days/180) and benzodiazepines about once a week (25 days/180) (see Table 3).

Table 3: Polydrug use history of the IDU sample, 2006

Drug Class	Ever used %	Ever Injected %	Injected last 6 mths %	Days injected in last 6 mths*	Ever Smoked %	Smoked last 6 mths %	Ever snorted %	Snorted last 6 mths %	Ever Swallowed %	Swallowed last 6 mths+ %	Used^ last 6 mths %	Days in treatment* last 6 mths	Days used^ in last 6 mths*
Heroin	89	89	63	40	41	4	13	0	17	1	63		52
Homebake heroin	35	34	5	10	4	1	0	0	1	0	5		11
Any heroin (inc. homebake)	89	89	63		41	5	13	0	17	1	63		
Methadone (prescribed)	47	29	10	24					47	19	20	180	180
Methadone (not prescribed)	46	36	13	3					28	4	15		3
Physeptone (prescribed)	13	10	0	0	0	0	0	0	11	0	0	0	0
Physeptone (not prescribed)	31	24	5	2.5	0	0	0	0	15	2	6		2
Any methadone (inc. Physeptone)	*69*	*52*	*22*	*3*					*61*	*21*	*32*		*53*
Buprenorphine (prescribed)	40	31	20	60	1	0	0	0	37	21	24	140	90
Buprenorphine (not prescribed)	55	44	25	7	1	0	0	0	21	11	30		5
Any buprenorphine (exc. buprenorphine-naloxone)	68	56	38	20	2	0	0	0	47	27	44	140	31
Buprenorphine-naloxone (prescribed)	12	5	5	50	0	0	0	0	11	11	12	40	40
Buprenorphine-naloxone (not prescribed)	7	5	5	10	0	0	0	0	4	4	7		2
Any buprenorphine-naloxone	18	9	9	20	0	0	0	0	14	14	18		31
Morphine (prescribed)	26	23	9	11	1	1	1	1	10	4	11		15
Morphine (not prescribed)	72	71	50	10	1	0	0	0	20	6	51		12
Any Morphine	78	76	51	12	2	1	1	1	23	7	52		12
Oxycodone (prescribed)	13	10	7	33	0	0	0	0	8	5	8		6
Oxycodone (not prescribed)	37	31	18	9	0	0	0	0	11	5	21		5
Any oxycodone	42	35	23	6	0	0	0	0	16	8	27		5
Other opioids (not elsewhere classified)	21	11	4	86.5	3	2	1	0	15	8	11		84

Source: IDRS IDU interviews

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

+ Refers to/includes sublingual administration of buprenorphine

* Among those who had used/injected.

Table 3: Polydrug use history of the IDU sample, 2006 (continued)

Drug Class	Ever used %	Ever Injected %	Injected last 6 mths %	Days injected in last 6 mths*	Ever Smoked %	Smoked last 6 mths %	Ever snorted %	Snorted last 6 mths %	Ever Swallowed %	Swallowed last 6 mths+ %	Used^ last 6 mths %	Days in treatment* last 6 mths	Days used^ in last 6 mths*
Speed powder	91	89	53	20	13	1	38	3	40	10	54		20.5
Base/point/wax	73	72	51	13	5	1	3	0	14	5	53		13
Ice/shabu/crystal	79	75	52	8	27	13	5	1	9	6	55		6
Amphetamine liquid	37	37	13	6	0	0	0	0	7	3	15		5
Any form methamphetamine#	96	96	75	28	13	1	39	3	46	13	77		29
Pharmaceutical stimulants (prescribed)	7	4	1		0	0	0	0	5	1	2		21
Pharmaceutical stimulants (not prescribed)	27	14	5		1	0	0	0	21	4	7		3
Any form pharmaceutical stimulants	32	16	6	2	1	0	0	0	24	4	9		4
Cocaine	59	48	7	2	12	2	33	6	6	2	9		3
Hallucinogens	66	17	3	14	4	1	2	1	65	11	12		5
Ecstasy	63	32	11	2.5	0	0	7	5	59	25	28		4
Benzodiazepines	81	20	10	5	5	4	1	1	79	67	69		25
Alcohol	96	6	0	0					96	71	71		23
Cannabis	98										85		105
Antidepressants	52	0	0	0					52	24	24		140
Inhalants	26										3		4
Tobacco	98										96		180

Source: IDRS IDU interviews

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

+ Refers to/includes sublingual administration of buprenorphine

* Among those who had used/injected.

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

4. HEROIN

In this section the price, purity and availability of heroin are considered, and patterns of use among IDU are discussed. The heroin shortage documented throughout Australia in 2001 had a significant impact on the market for heroin and other illicit drugs. As the following section will show, the impact of this shortage continues to be evident in Queensland drug markets.

4.1 Price

In Section 3 it was noted that use of heroin among IDU appears to have continued to decline in 2006. Despite this, there has been no change in the reported price of heroin among IDU interviewed for the IDRS. Consistent with this trend, 70% of those who responded in 2006 indicated that the price of heroin had been stable recently. Indeed, with the exception of the heroin shortage in 2001, the average price of heroin reported by IDU for the IDRS has been reasonably consistent since 2000 (Figure 5).

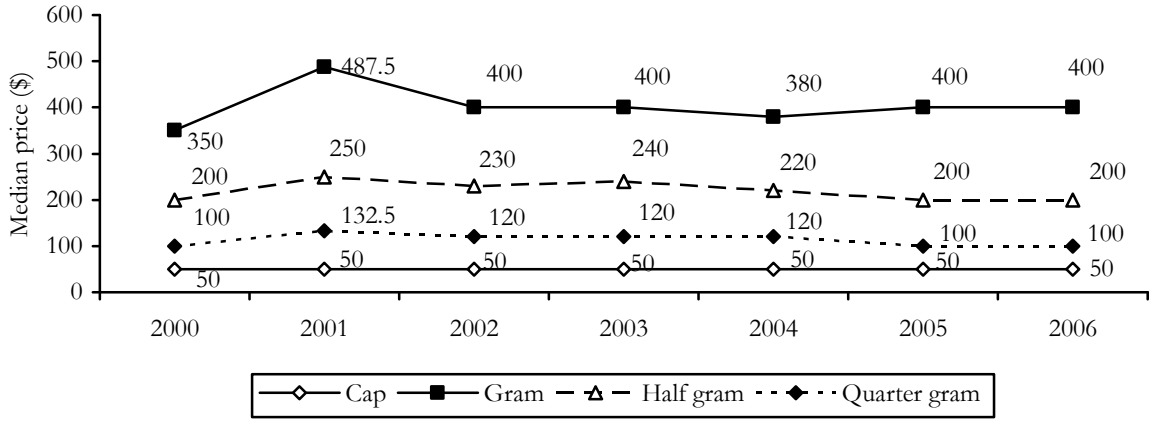
As in 2005, in 2006 the median prices reported for heroin were $50 for a 'cap', $100 for a quarter gram, $200 for a half gram, and $400 for a gram (Table 4). According to some IDU and key experts, a 'cap' can be roughly equated with '$50 worth' of heroin, and as such it may be a poor indicator of price fluctuations. Although there was no evidence of a change in the price of heroin, market shifts may also be reflected in changes to perceived availability (Section 4.2) and purity (Section 4.3).

Table 4: Price of most recent heroin purchases by IDU participants, 2005-2006

Amount	Median price* $	Range $	Number of purchasers*
Cap	50(50)	50-250	18(24)
Quarter gram	100(100)	100-350	43(36)
Half gram (Half weight)	200(200)	175-350	23(26)
Gram	400(400)	300-800	14(14)

Source: IDRS IDU interviews
* 2005 data are presented in brackets

Figure 5: Median prices of heroin estimated from IDU purchases, 2000-2006



Source: IDRS IDU interviews

4.2 Availability

IDU reports in 2006 suggest that the availability of heroin in south-east Queensland has declined recently. Of those who responded in 2006, only 25% reported availability as 'very easy' (versus 34% in 2005), while 19% described current availability as 'difficult' (versus 7% in 2005). Similarly, of those who responded in 2006, 33% reported that heroin had become harder to get in recent times (versus 13% in 2005) (Table 5).

Following a significant heroin shortage in 2001, in 2005 there was some evidence of a continued return of heroin to the Queensland market (Figure 6), however, data from 2006 suggest that this trend has not continued. Although 25% of those responding in 2006 reported that heroin was 'very easy' to get, this proportion is lower than in any other year in which the IDRS has been conducted in Queensland. Similarly, the proportion of IDU who perceive heroin availability in 2006 as 'difficult' (19%) is higher than in any previous year, including at the peak of the heroin shortage in 2001 (13%) and 2002 (15%).

Table 5: Participants' reports of heroin availability in the past six months, 2005-2006

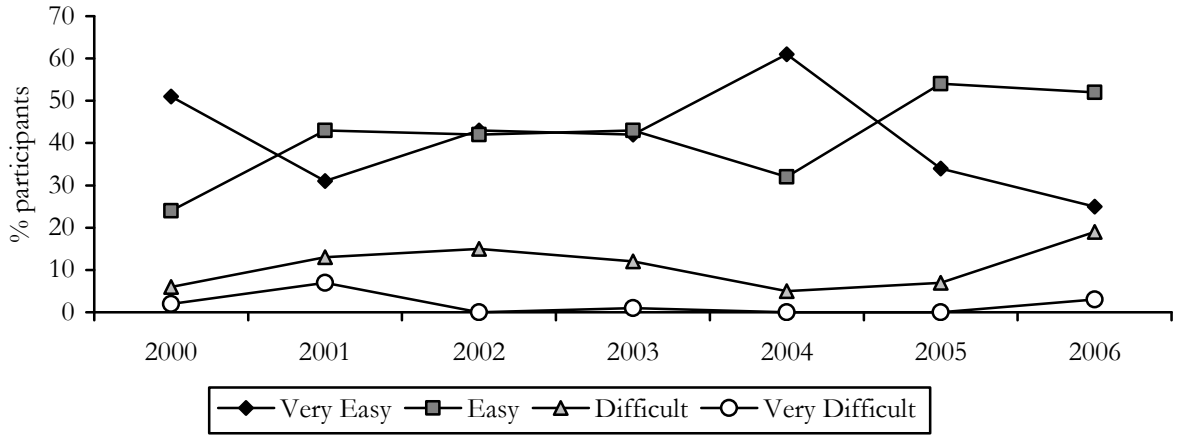
	2005 (N=106)	2006 (N=112)
Current availability		
Did not respond* (%)	42	35
Did respond (%)	58	65
Of those who responded:		
Very Easy (%)	34	25
Easy (%)	54	52
Difficult (%)	7	19
Very Difficult (%)	0	3
Don't know^	5	1
Availability change over the last six months		
Did not respond* (%)	42	35
Did respond (%)	58	65
Of those who responded:		
More difficult (%)	13	33
Stable (%)	57	51
Easier (%)	16	12
Fluctuates (%)	7	0
Don't know^ (%)	7	4

Source: IDRS IDU interviews

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

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

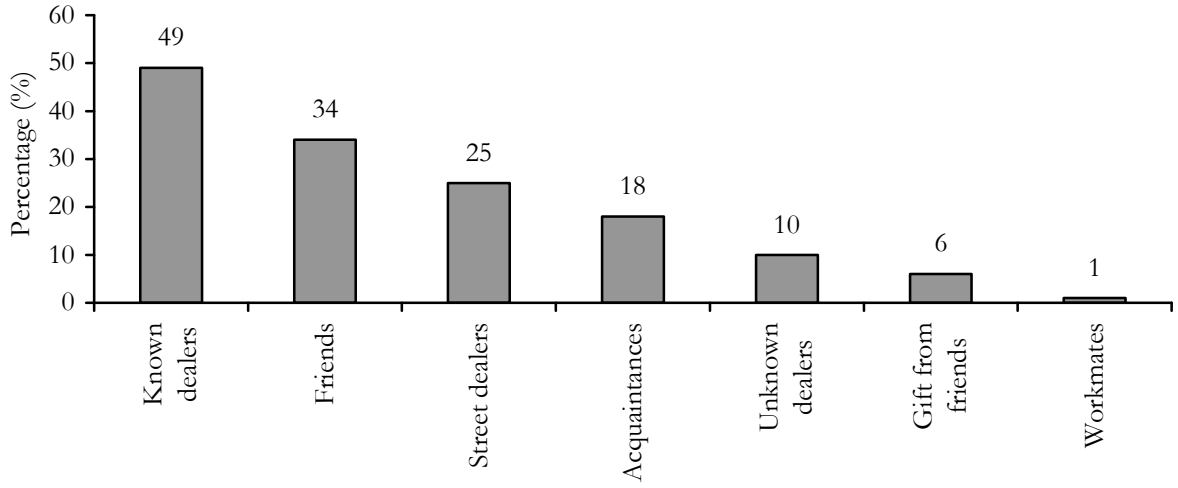
Figure 6: Participants' reports of current heroin availability, 2000-2006



Source: IDRS IDU interviews

Figure 7 demonstrates the types of people that IDU reported obtaining heroin from in 2006. The most common sources of heroin in 2006 were known dealers (49%) and friends (34%), however one in four (25%) reported obtaining heroin from a street dealer recently, and a minority reported recently obtaining heroin from an acquaintance (18%) or unknown dealer (10%).

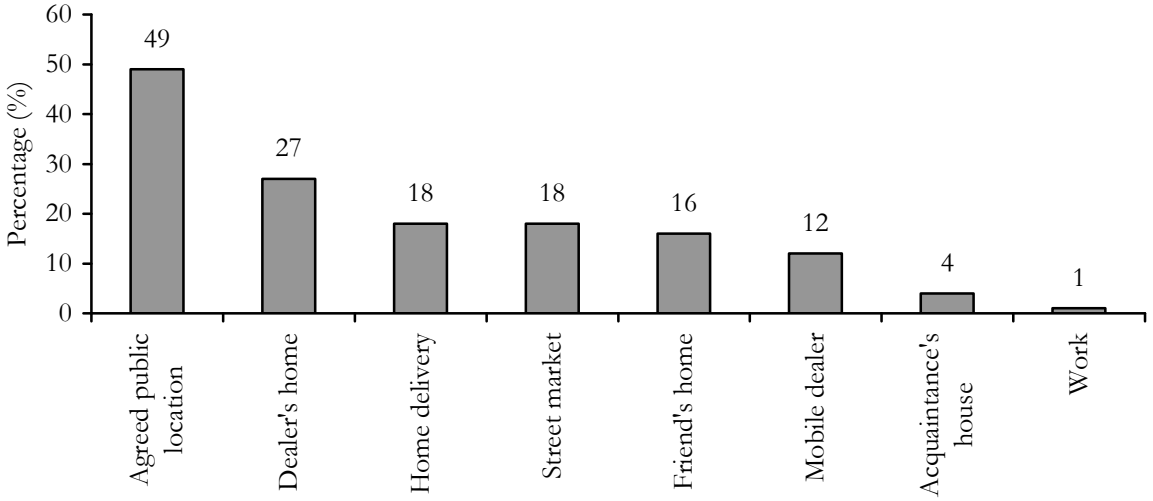
Figure 7: People from whom heroin was purchased in the preceding six months, 2006



Source: IDRS IDU interviews

Figure 8 illustrates the locations in which heroin was obtained in the previous six months, in 2006. The most commonly cited location for obtaining heroin was an 'agreed public location' (49%), with smaller proportions of IDU reporting recently obtaining heroin from a dealer's home (27%), in a street market (18%), or via home delivery (18%).

Figure 8: Locations where heroin was obtained in the preceding six months, 2006



Source: IDRS IDU interviews

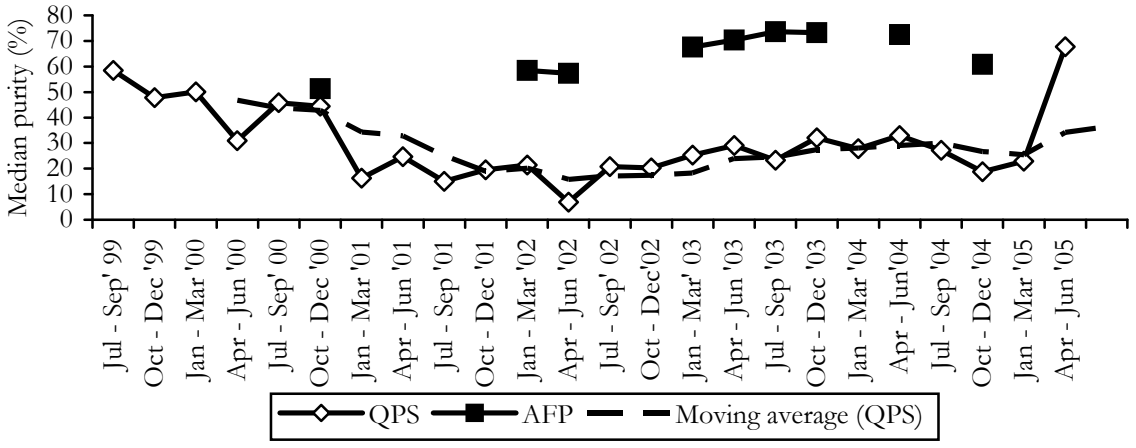
4.3 Purity

The median purity and number of heroin seizures made by QPS and AFP in Queensland, from 1999/00 to 2004/05 are illustrated in Figures 9 and 10 respectively. The median purity of QPS seizures dropped markedly from the fourth quarter of 2000 (44%) to the first quarter of 2001 (16%), in the context of the heroin shortage, however, the lowest median purity was recorded during the second quarter of 2002. The median purity of QPS seizures has risen since this time, and over the 2004/05 financial year the median purity of analysed QPS seizures was 23.4%. The median purity rose dramatically in the last quarter of 2004/05 to 67.7%, however, as this figure is based on only 16 seizures, it would be premature to conclude that the average purity of heroin in the market has risen. Nevertheless, Figure 9 also shows the moving average of QPS seizures, averaged across 4 quarters – this trend line clearly shows the decline in purity during the heroin shortage, and also suggests an upward trend in heroin purity since mid 2002. According to some law enforcement KE, the purity of heroin in Queensland continues to be distinctly variable.

Whereas QPS is likely to make a relatively large number of seizures within the Queensland border, AFP seizures are likely to reflect border interdiction efforts. Consequently, AFP seizures tend to be smaller in number, but higher in purity. The median purity of AFP seizures in Queensland rose between 2002 and 2004, from 57% in the second quarter of 2002 to 73% in the second quarter of 2004, however, in 2004/05 only 3 seizures were made in Queensland, with a median purity of 60.8% (see Figure 9).

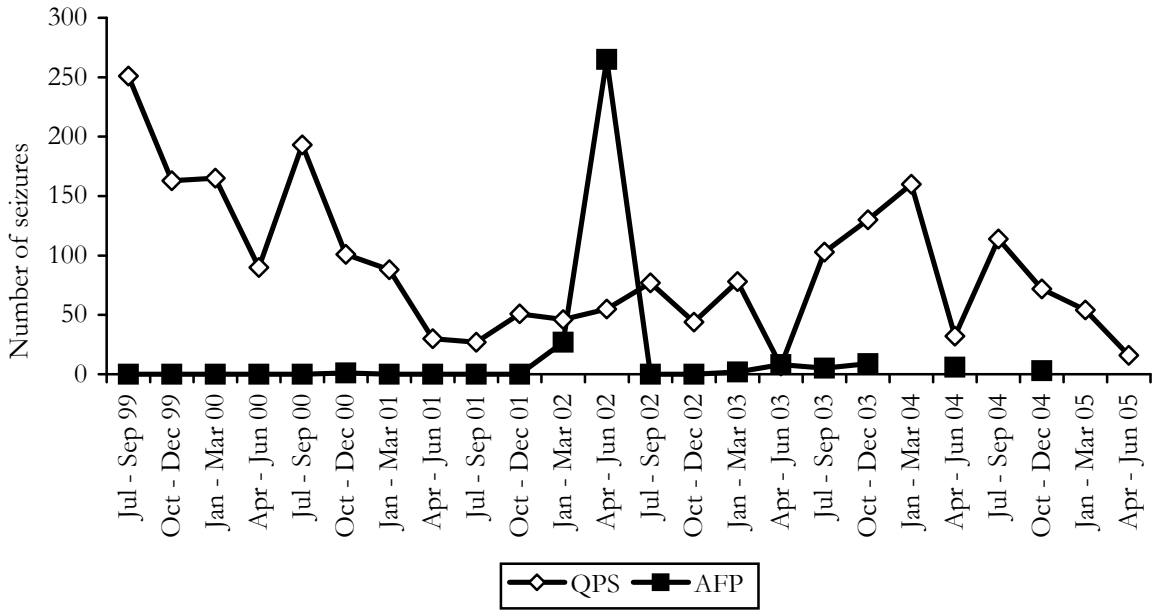
The number of AFP heroin seizures in Queensland is typically small. The one exception to pattern occurred in the second quarter of 2002, when AFP made 265 heroin seizures in Queensland. Perhaps significantly, this is also the quarter in which the median purity of QPS heroin seizures was at its lowest (see Figure 9). These findings provide some indirect evidence for an impact of law enforcement activity on the purity of heroin in the market. The number of heroin seizures made by QPS fell throughout most of the 2004/05 financial year, with only 16 seizures made in the April-June 2005 quarter and a total of 256 for the year, compared with 425 in 2003/04.

Figure 9: Purity of heroin seizures analysed in QLD, by quarter, 1999/00 – 2004/05



Source: ABCI 2001, 2002; ACC, 2003, 2004, 2005

Figure 10: Number of heroin seizures analysed in QLD, by quarter, 1999/00 – 2004/05



Source: ABCI 2001, 2002; ACC, 2003, 2004, 2005

Table 6 shows IDU perceptions of heroin purity, and changes in purity over the previous six months, in 2005 and 2006. Consistent with KE reports that the purity of heroin is 'variable' and 'poor', IDU reports suggest that the purity of heroin in south-east Queensland dropped substantially between 2005 and 2006. The proportion reporting purity as high dropped from 13% to 4%, and the proportion reporting purity as 'medium' dropped from 39% to 18%. At the same time, the proportion reporting purity as 'low' more than tripled from 23% to 73%. Consistent with this, more than half of IDU who responded in 2006 (56%) reported that the purity of heroin had decreased recently, with only three IDU reporting that purity had increased (Table 6)

Table 6: Participants' perceptions of heroin purity in the past six months, 2005-2006

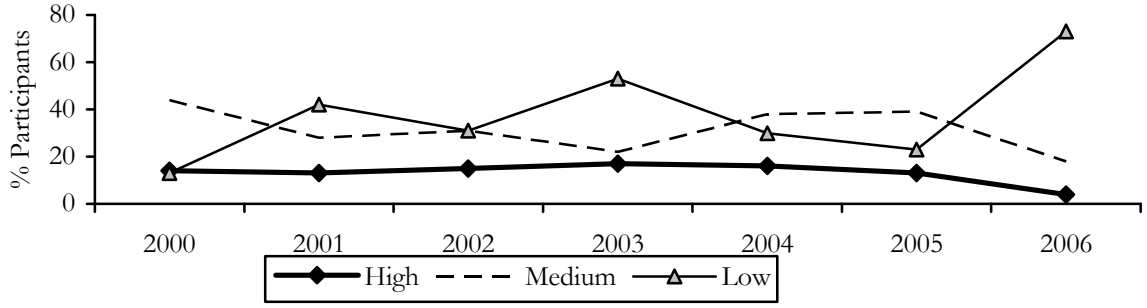
	2005 (N=106)	2006 (N=112)
Current purity		
Did not respond* (%)	43	35
Did respond (%)	57	65
Of those who responded:		
High (%)	13	4
Medium (%)	39	18
Low (%)	23	73
Fluctuates (%)	15	5
Don't know^ (%)	10	0
Purity change over the last six months		
Did not respond* (%)	43	35
Did respond (%)	57	65
Of those who responded:		
Increasing (%)	13	4
Stable (%)	28	29
Decreasing (%)	33	56
Fluctuating (%)	20	10
Don't know^ (%)	7	1

Source: IDRS IDU interviews

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

Figure 11 shows the proportion of IDU in Queensland reporting the purity of heroin as low, medium and high from 2000 to 2006. The impact of the heroin shortage in 2001 is reflected in the marked increase in the proportion reporting purity as low (from 13% in 2000 to 42% in 2001). This proportion reached a peak in 2003 (53%) before falling to 23% in 2005. In 2006, almost three quarters of those responding (73%) described the current purity of heroin as low.

Figure 11: Proportion of IDU participants reporting current heroin purity as high, medium or low, 2000-2006



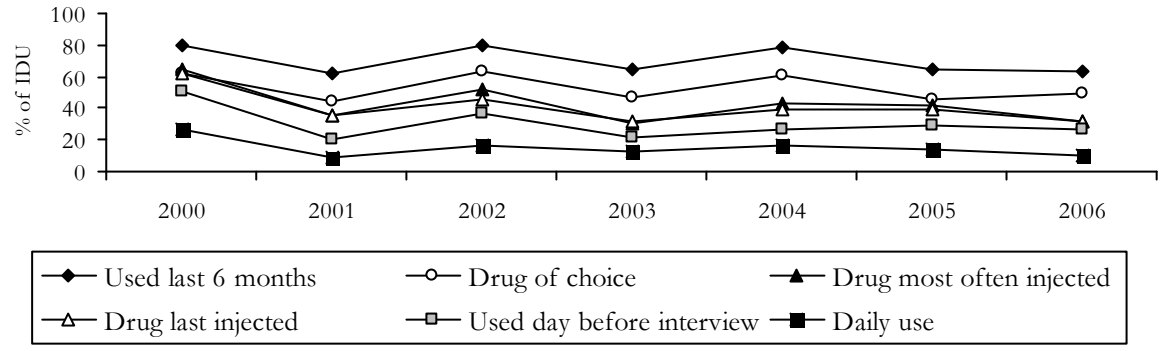
Source: IDRS IDU interviews

4.4 Use

4.4.1 Heroin use among IDU participants

Use of heroin among IDU in Queensland declined from 2004 to 2005, and despite little change in the proportion reporting recent use in 2006, there is evidence that this trend has continued. Between 2005 and 2006 there was a decline in the proportion of IDU identifying heroin as the drug most often injected in the last month (from 42% to 32%), in the proportion nominating heroin as the last drug injected (from 39% to 32%) and in the proportion reporting daily heroin use in the last six months (from 14% to 10%). Heroin use among IDU has fluctuated each year since 2000, with a large drop in use evident in 2001 (Figure 12). Consistent with KE reports, IDU data from 2006 suggest that this instability in the heroin market has continued. Although all respondents reporting recent heroin use reported recent injection of heroin, a small minority also reported smoking (6%) or swallowing (1%) heroin recently.

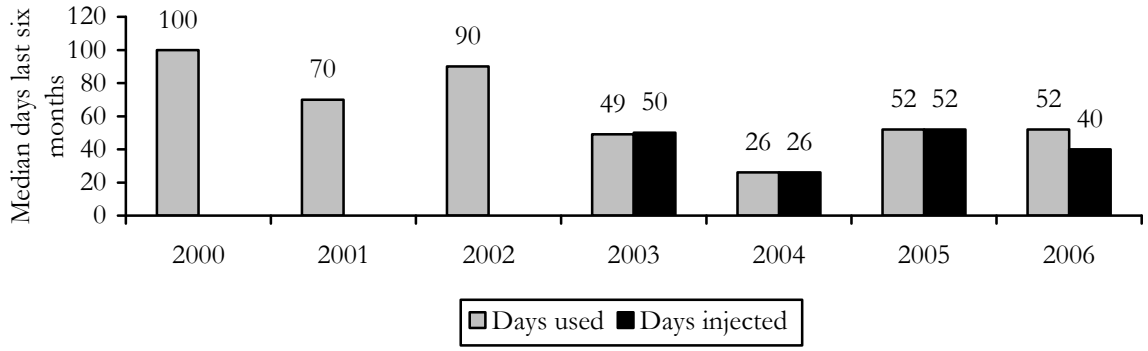
Figure 12: Prevalence and frequency of heroin use in preceding six months, 2000 - 2006



Source: IDRS IDU Interviews

For IDU who reported recent heroin use, Figure 13 illustrates the median number of days used and injected in the last six months. Since 2003, the frequency of heroin use among IDU has been relatively suppressed, reaching a low of 26 days (out of 180, approximately once per week) in 2004. In 2006, those IDU who reported recent heroin use reported typically doing so twice a week, although the frequency of recent injection was somewhat lower.

Figure 13: Median days of use and injection of heroin in last six months among IDU, 2000 – 2006

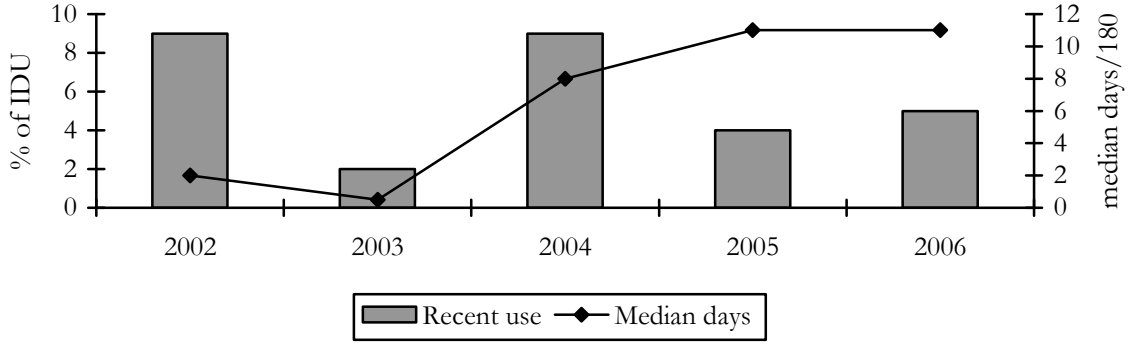


Source: IDRS IDU Interviews
Note*:* Prior to 2003 IDU were not asked separately about frequency of injection

Homebake

Figure 14 shows the proportion of IDU reporting recent use of homebake heroin and, among recent users, the median number of days of use in the last six months. In each year fewer than 10% of IDU have reported recent use of homebake, and in 2006 although 35% of IDU reported lifetime use of homebake, only 5% reported recent use. All recent users in 2006 also reported injecting homebake heroin recently. Among recent users, the median frequency of use has increased markedly in recent years, from 0.5 days (i.e. once a year) in 2003 to 11 days in the last six months (i.e. almost once a fortnight) in 2006.

Figure 14: Proportion of IDU reporting recent use of homebake heroin, and median days used, 2002-2006



Source: IDRS IDU interviews

4.5 Heroin related harms

4.5.1 Law enforcement

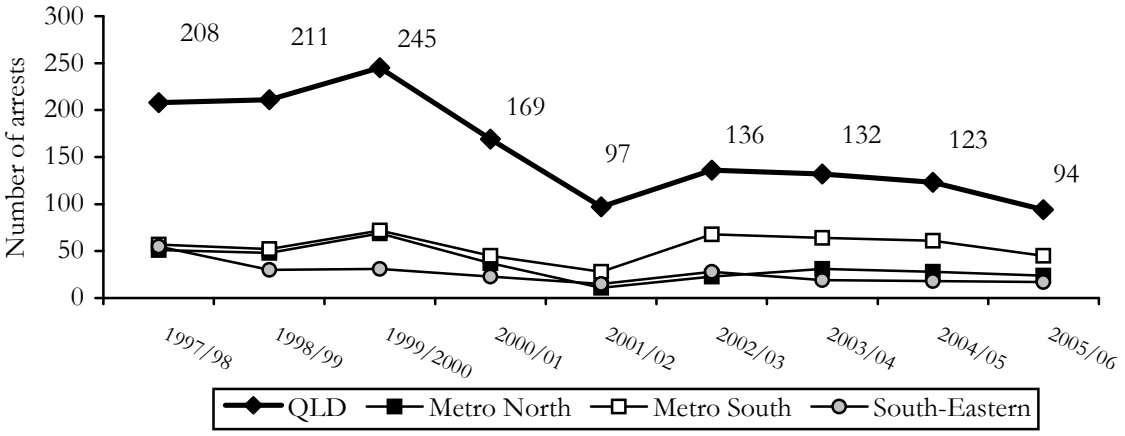
Figure 15 presents the number of heroin possession/use arrests made by Queensland Police Service (QPS) during each financial year from 1997/98 to 2005/06. In addition to a total figure

for the State, Figure 15 shows the number of arrests made in each of the three regions from which IDU are sampled for the IDRS. The total number of arrests rose to a peak of 245 during the 1999/00 financial year, before dropping sharply to only 97 arrests in 2001/02, during the heroin shortage. The total number of heroin use/possession arrests in Queensland during 2003/04 was 132, decreasing to 123 in 2004/05 and 94 arrests in 2005/06. Nearly all (91%) of the heroin use/possession arrests that occurred in QLD during 2005/06 occurred in south-east Queensland, with almost half (48%) occurring in the Metro South region.

Figure 16 shows the number and total weight in grams of all heroin seizures by Australian Customs Service (ACS), from 2003/04 to 2005/06. Consistent with KE reports, both the number and size of heroin seizures has been variable over this period, with a peak seizure weight of over 113kg in the first quarter of 2005, and the overall number of seizures peaking at 213 in the second quarter of 2006 (Figure 16).

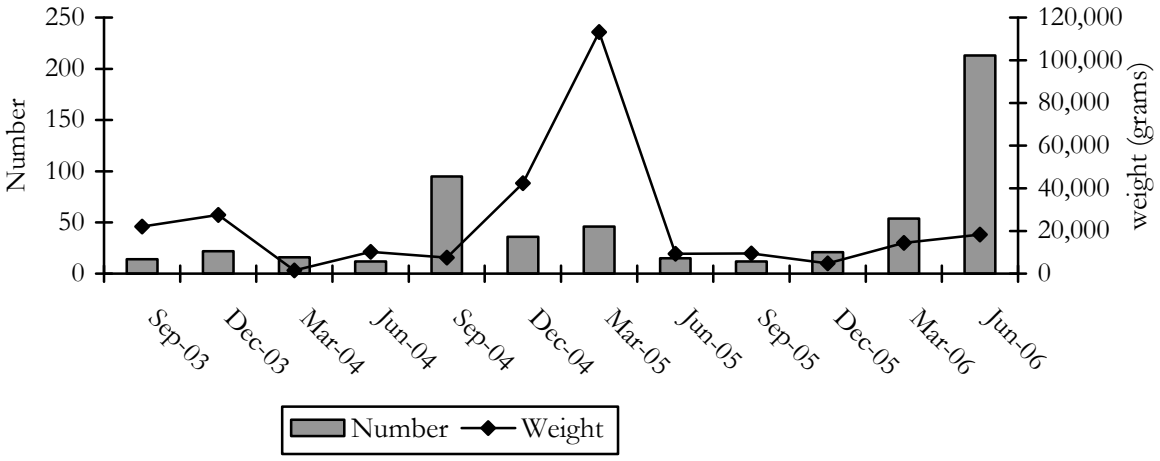
According to KE, the heroin market continues to exhibit instability, however, some KE speculated that heroin availability may in fact increase in 2007. Although most of the heroin seized in Queensland is white (Grade 1) Asian heroin, some KE also noted the presence of some lower-grade, brown heroin from western Asia, and reported some injection-related problems among IDU injecting this lower-grade heroin.

Figure 15: Number of heroin possession/use arrests by geographic area 1997/98 – 2005/06



Source: Queensland Police Service
Note: Changes in the number of arrests may be indicative of changes in police activity, an increase in possession/use, or a combination of both

Figure 16: Number and weight of heroin seizures by Australian Customs Service, 2003/04 – 2005/06



Source: Australian Customs Service

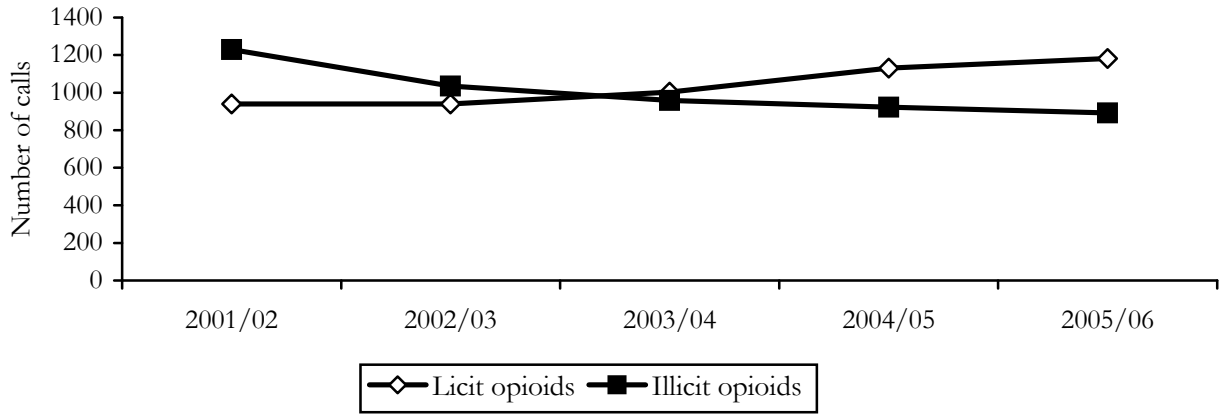
4.5.2 Health

In Chapter 3 it was noted that IDU attending NSP may be an 'ageing cohort', with older users more likely to inject heroin, and younger users more likely to inject methamphetamine. Some KE from the health sector expressed concern regarding this ageing cohort of heroin injectors, noting high rates of hepatitis C, and both hepatic and cardiovascular dysfunction.

Calls to telephone help-lines

Figure 17 demonstrates the number of calls made to the Queensland Alcohol and Drug Information Service (ADIS) in relation to licit and illicit opioids, from 2001/02 to 2005/06. ADIS records do not distinguish between heroin and other illicit opioids, however, the vast majority of calls in relation to illicit opioids relate to heroin. By contrast, the licit opioid category includes calls in relation to licit opioids such as morphine, methadone, buprenorphine and oxycodone, whether used as prescribed or not. Since 2001/02, the number of calls in relation to illicit opioids has dropped consistently, to a low of 892 calls in 2005/06, while the number of calls in relation to licit opioids has risen -- from 940 calls in 2001/02 to 1,181 calls in 2005/06. This finding is consistent with KE reports of less frequent heroin use and correspondingly greater use of other opiates by IDU, including diverted morphine, methadone, buprenorphine and oxycodone.

Figure 17: Number of enquiries to ADIS regarding licit and illicit opioids, 2001/02-2005/06

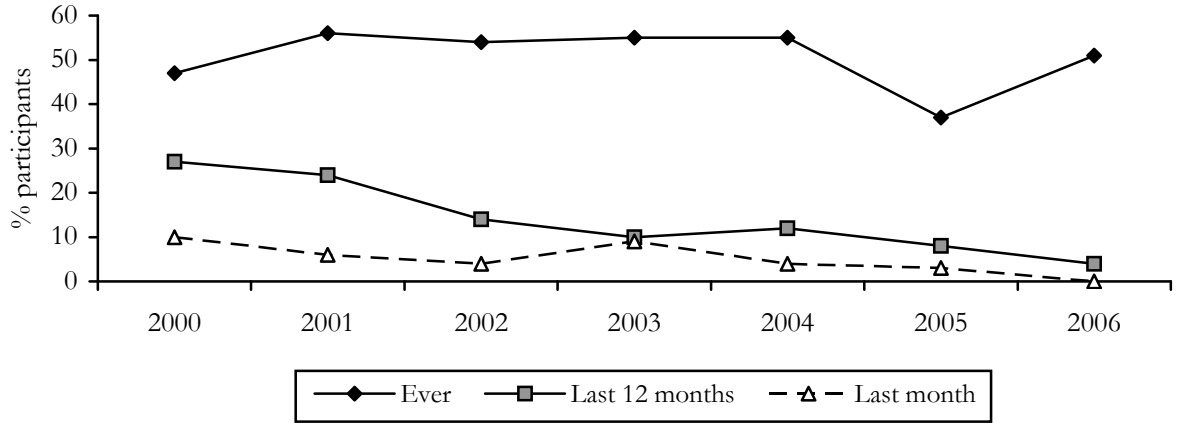


Source: ADIS

Overdose

Figure 18 shows the proportion of IDU reporting having overdosed ever, in the last year and in the last month. Consistent with KE reports, the proportion reporting an overdose in the last year has declined sharply in recent years, from 27% in 2000 to 4% in 2006. KE from the correctional sector observed that this trend to reduced overdose was also evident among prisoners.

Figure 18: Proportion of IDU participants who had ever overdosed, overdosed in the past 12 months, and the past month, 2000-2006

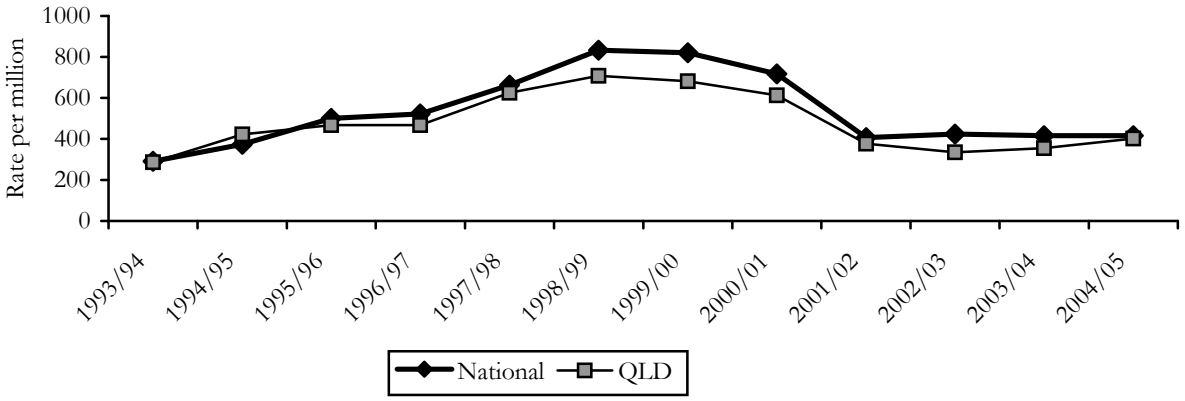


Source: IDRS IDU interviews

Hospital Admissions

The rate per million of hospital admissions in Queensland, where opioids were the principal diagnosis, peaked in 1998/99 at a rate of 708 per million persons aged 15-54, before falling rapidly over the next four years to a rate of 335 per million in 2002/03. Closely mirroring national trends, the rate of admission in 2004/05 was 401 per million (see Figure 19).

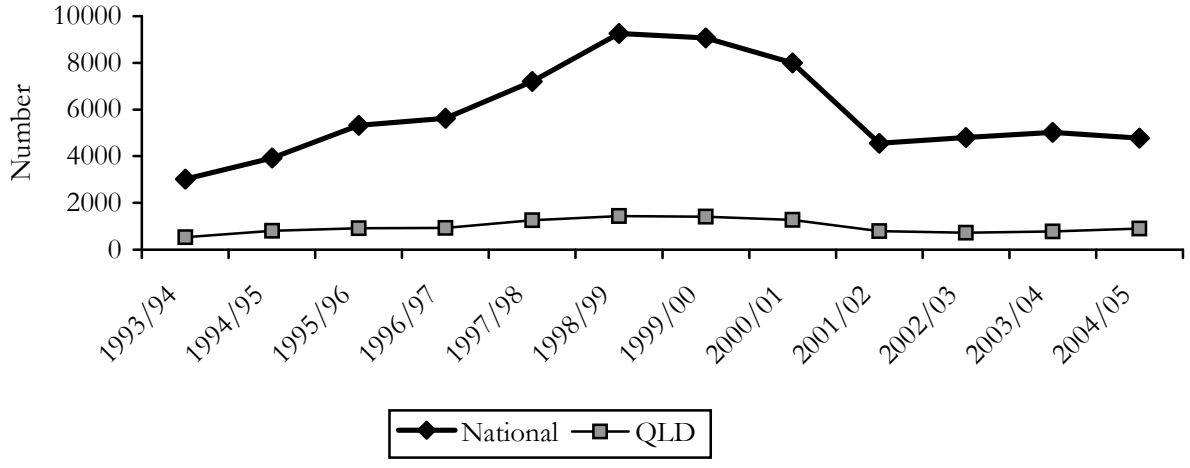
Figure 19: Rate per million of inpatient hospital admissions where opioids were the principal diagnosis per million people aged 15-54 years, QLD and nationally, 1996/97-2004/05



Source: National Hospital Morbidity Database; (Roxburgh & Degenhardt, 2006)

The same pattern is reflected in the number of hospital admissions with opioids as the primary diagnosis (see Figure 20). The number of admissions peaked in 1998/99 at 1,444 in Queensland and 9,117 across Australia, before falling to 725 admissions in Queensland during 2002/03. In 2004/05 there were 901 hospital admissions where opioids were the principal diagnosis.

Figure 20: Number of inpatient hospital admissions where opioids were the principal diagnosis per million people aged 15-54 years, QLD and nationally, 1996/97-2004/05



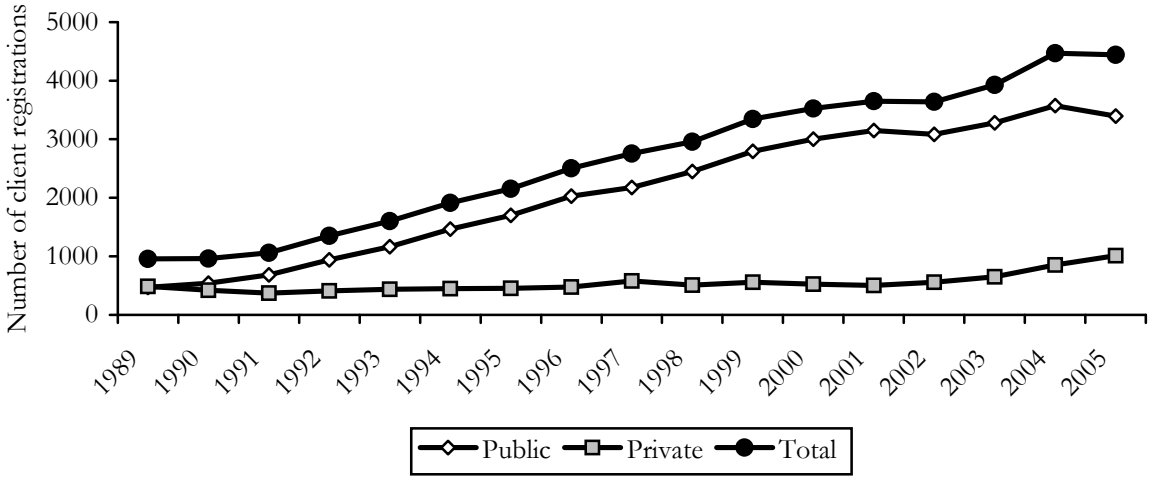
Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

Treatment

The number of registrations for opioid pharmacotherapy increased reasonably consistently in Queensland between 1990 (n=961) and 2001 (n=3,653), but dropped slightly in 2002 (n=3,639)

before rising to 4,470 registrations as at 30 June 2004. As at 30 June 2005, there were 4,440 opioid registrations in Queensland (Figure 21), with 2,940 methadone registrations and 1,500 buprenorphine registrations. Throughout this time the majority of registrations have been with public prescribers, however this proportion decreased slightly from 80% in 2004 to 76% in 2005. Between 2001 and 2005, the number of public prescriber registrations increased by 22% (from 3,653 to 4,440) while the number of private prescriber registrations increased by 100% (from 505 to 1,013).

Figure 21: Number of registrations for opioid pharmacotherapy, QLD 1989–2005



Source: AIHW analysis of 2005 NOPSAD collection
Note: Total also includes 34 clients in correctional facilities

As illustrated in Table 7, Queensland is unusual in that most opioid pharmacotherapy clients are registered with a public prescriber. Nationally, only 24% of clients in 2005 were registered with a public prescriber, compared with 76% of clients in Queensland. As at 30 June 2005, there were 125 registered prescribers in Queensland, with the vast majority of these (n=114) prescribing both methadone and buprenorphine.

Queensland is also distinguished by its low rate of opioid pharmacotherapy in prisons – the lowest rate in Australia- with less than 1% of registrations among clients in correctional facilities, compared with 6.6% nationally and more than 10% in NSW. Given that the vast majority of both male and female prisoners have a history of illicit drug use (Butler & Milner, 2003; Johnson, 2004; Makkai & Payne, 2003), it is evident that demand for opioid pharmacotherapy treatment in these settings in Queensland is not currently being met.

Table 7: Proportion of pharmacotherapy clients in Queensland and Australia by prescriber, 2005

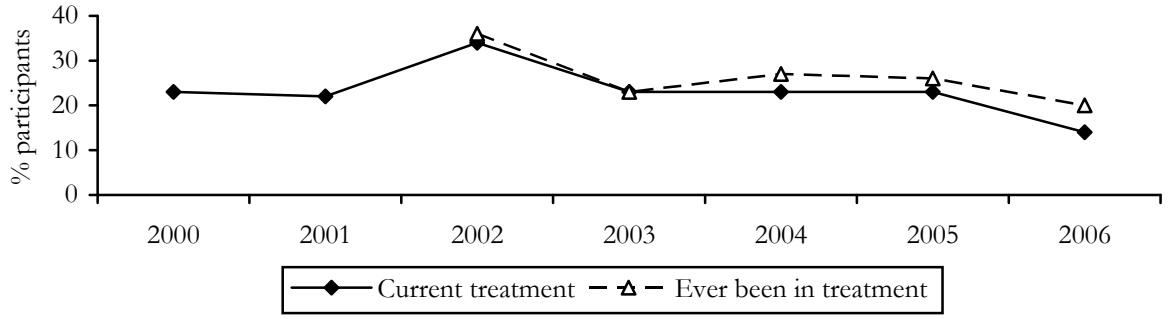
	QLD	Australia
Public prescriber (%)	76.4	23.5
Private prescriber (%)	22.8	69.8
Public/private prescriber (%)	0.0	0.1
Correctional facilities (%)	0.8	6.6

Source: AIHW analysis of 2005 NOPSAD collection.

Methadone and buprenorphine treatment

Figures 22 and 23 indicate the proportion of IDU from 2000 to 2006 who were receiving methadone and buprenorphine treatment at the time of interview. The proportion in methadone treatment rose markedly in 2002 (34%) – possibly in response to the heroin shortage – but declined thereafter, with 14% of IDU in 2006 currently in methadone treatment (Figure 22).

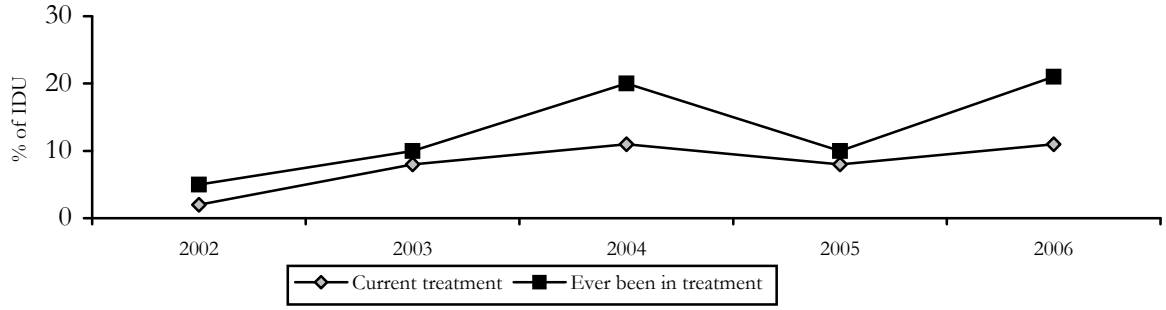
Figure 22: Proportion of participants reporting methadone treatment, 2000-2006



Source: IDRS IDU interviews

Buprenorphine treatment was introduced in Queensland in 2002, and the proportion of IDU reporting current buprenorphine treatment has risen reasonably consistently since this time, from 2% in 2002 to 11% in 2006 (see Figure 23).

Figure 23: Proportion of participants reporting current buprenorphine treatment, 2002-2006



Source: IDRS IDU interviews

According to KE, many IDU (particularly younger IDU) are disenchanted with methadone maintenance, with some perceiving a high degree of stigma associated with the treatment. By contrast, KE suggested that IDU do not perceive the same degree of stigma associated with buprenorphine or suboxone. However, despite an increasing demand for these treatments, KE reported that the often long waiting time to get onto the program is a significant deterrent.

4.6 Summary of heroin trends

- The **price** of heroin continues to be stable at $50 for a cap and $400 a gram, but at the retail level price may be a poor indicator of market changes.
- The perceived **availability** of heroin further declined in 2006, and is the lowest it has been since the IDRS was first conducted in Queensland, in 2000.
- Objective heroin **purity** data to June 2005 suggest that the purity of heroin remains variable in Queensland.
- IDU describe the **purity** of heroin as variable and poor; IDU reports of purity are the lowest they have been since the IDRS was first conducted in Queensland, in 2000.
- Heroin is usually **obtained** from known dealers or friends, in agreed public locations or less often, a dealer's home.
- Consistent with evidence of an ageing cohort of heroin-dependent IDU accessing NSP, a number of KE described heroin as 'a drug of a previous generation'.
- There was evidence of a continued decline in the incidence and frequency of heroin **use** among IDU interviewed for the IDRS.
- Consistent with a contracting heroin market, there was a continued decline in the number of heroin use/possession **arrests** in Queensland. At the same time, however, both the number and weight of heroin **seizures** by ACS increased in the second quarter of 2006.
- The number of calls to **telephone help lines** in relation to heroin continued to decline in 2006, while the number of calls for licit opioids (e.g. morphine, oxycontin) continued to increase.
- The rate of **hospital admission** where opioids were the principal diagnosis has been relatively low and stable since 2001/02, and the rate of self-reported heroin overdose among IDU has continued to decline.
- The number of opioid **pharmacotherapy registrations** in Queensland increased at a stable rate between 1990 and 2001, and again from 2002 to 2004, however, in 2005 this number declined slightly. Most clients in Queensland are registered with a public prescriber.
- Among IDU interviewed for the IDRS, fewer are reporting current methadone maintenance treatment, while more are reporting current buprenorphine maintenance treatment.
- Despite high rates of heroin dependence among **prison receptions**, Queensland is distinguished by an extremely low number of opioid pharmacotherapy registrations in prison.

5. METHAMPHETAMINE

As in previous years, the heroin and methamphetamine markets in south-east Queensland seem to be operating in a reciprocal fashion, with an increase in the use of one substance paralleled by a decrease in use of the other. This reciprocal relationship is reflected in the main indicators of market activity- price, purity and availability – although the relationship is complicated by the presence of multiple forms of methamphetamine, and an increasing array of alternative opiates (e.g. morphine, oxycodone, methadone, buprenorphine) on the market. The IDRS distinguishes among powder, base, and crystal methamphetamine ('ice/crystal'), with the former two mostly produced locally in small clandestine laboratories ('box labs'), and the latter mostly imported from south-east Asia (ACC, 2004; CMC, 2003). As the following section will illustrate, this distinction is important to understanding the dynamics of the methamphetamine market in Queensland.

5.1 Price

The reported price of methamphetamine powder and base changed little from 2005 to 2006, although for both forms the median price of an 'eightball' (3.5 grams, 1/8 oz.) dropped somewhat from 2005 to 2006 (see Table 8). IDU in 2006 reported that powder and base cost $200 per gram, $100 for a half gram and $50 for a 'point', and the amount most commonly purchased in 2006 was a half gram.

By contrast, there was some evidence of an increase in the price of crystal methamphetamine ('ice/crystal'), with IDU reporting a median price of $200 per gram in 2005 and $275 for a gram in 2006. The price of a point of ice/crystal remained stable at $50, while the few IDU able to report on the price of an eightball of ice/crystal reported prices ranging from $350 to $1,200. In 2006, as in previous years, trends in the market for ice/crystal were quite distinct from those for other forms of methamphetamine (Table 8).

Table 8: Price of most recent methamphetamine purchases by IDU participants, 2005-2006

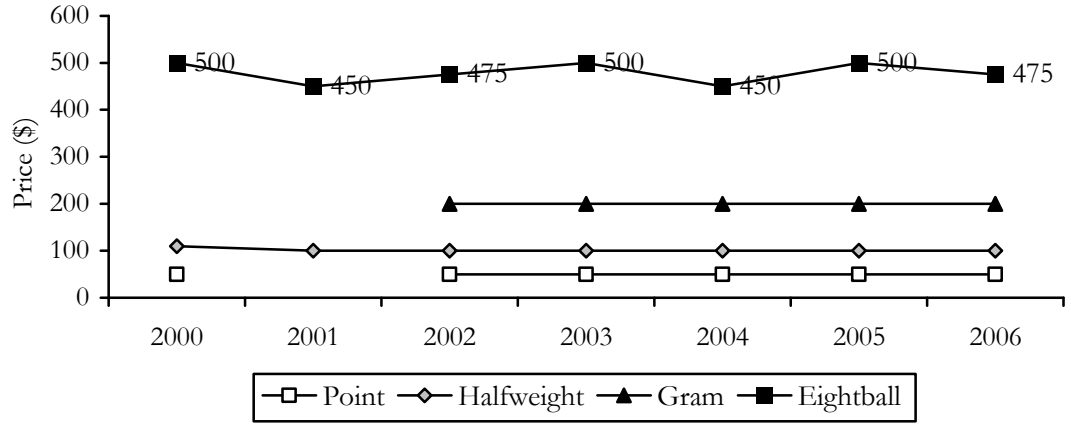
Amount	Median price* $	Range $	Number of purchasers*
Speed powder			
Point (0.1 gram)	50(50)	20-75	14 (26)
'Halfweight' (0.5 grams)	100(100)	50-100	32 (24)
Gram	200(200)	50-250	17 (20)
'Eightball' (3.5 grams)	475 (500)	330-550	10 (21)
Base			
Point (0.1 gram)	50 (50)	25-50	11 (8)
'Halfweight' (0.5 grams)	100 (100)	80-250	20 (13)
Gram	200 (200)	100-400	16 (6)
'Eightball' (3.5 grams)	450 (500)	350-1100	11 (7)
Ice/crystal			
Point (0.1 gram)	50 (50)	20-100	16 (9)
'Halfweight' (0.5 grams)	200 (100)	100-250	17 (9)
Gram	275 (200)	180-450	10 (3)
'Eightball' (3.5 grams)	950 ^ (435)	350-1,200 ^	6 (6)

Source: IDRS IDU interviews

* 2005 data are presented in brackets ^ small numbers reporting

Trends in the price of methamphetamine are more likely to be reflected in larger rather than smaller quantities of the drug. Indeed, according to some KE, a 'point' of methamphetamine is in fact best thought of as '$50 worth'. Consistent with this, there has been no change in the median reported price of a point ($50) or a gram ($200) of powder methamphetamine since IDU began reporting (see Figure 24). By contrast, the price of an 'eightball' (3.5 grams, 1/8 oz.) has fluctuated somewhat over this time, from a high of $500 in 2000, 2003 and 2005, to a low of $450 in 2001 and 2004. In 2006, the median price of an eightball of powder methamphetamine, as reported by IDU, was $475.

Figure 24: Median prices of speed powder estimated from IDU purchases, 2000-2006

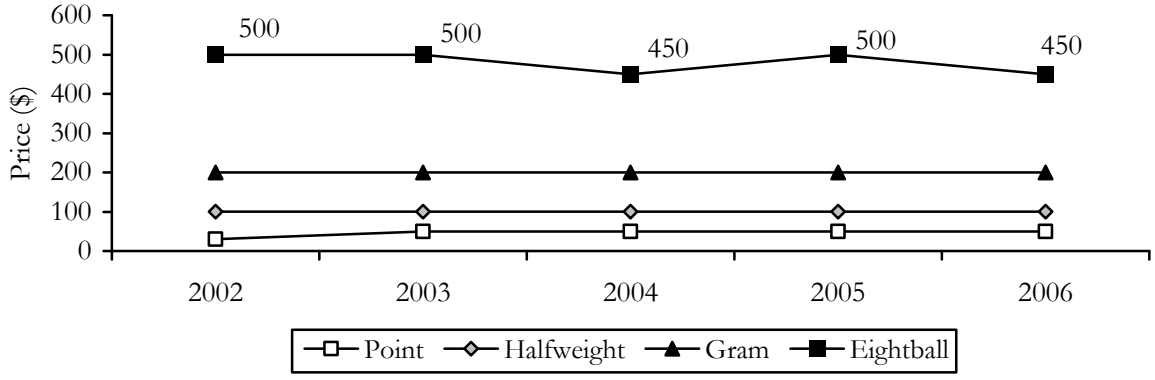


Source: IDRS IDU interviews

5.1.1 Base

There continues to be little difference in the reported price of powder and base methamphetamine. Figure 25 shows the median reported price of a point, 'halfweight' (1/2 gram), gram and eightball of base methamphetamine, from 2002 to 2006. As with powder methamphetamine, the price of a point ($50), halfweight ($100) and gram ($200) of base has not changed in recent years, while the price of an eightball has fluctuated between $500 and $450. In 2006, the median reported price of an eightball of base methamphetamine was $450.

Figure 25: Median prices of base estimated from IDU purchases, 2002-2006

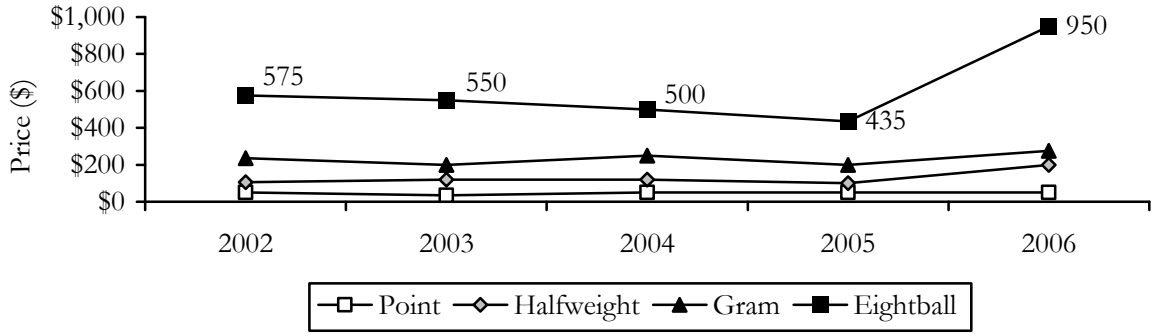


Source: IDRS IDU interviews

Ice/crystal

Compared with powder and base methamphetamine, IDU reports suggest that over the period 2002 to 2006, the price of crystal methamphetamine or 'ice/crystal' has been more volatile, with some evidence of an increase in price during 2006. Between 2002 and 2005 the median price of a halfweight varied between $100 and $120, however, in 2006 the median reported price was $200. Similarly, between 2002 and 2006 the median reported price of a gram of ice/crystal varied between $200 and $250, however, in 2006 the median price was $275. It was noted earlier that a point of methamphetamine is often considered to be '$50 worth'; except for 2003 (when the median reported price of ice/crystal was $35), the reported price of a point of ice/crystal has consistently been $50 (see Figure 26).

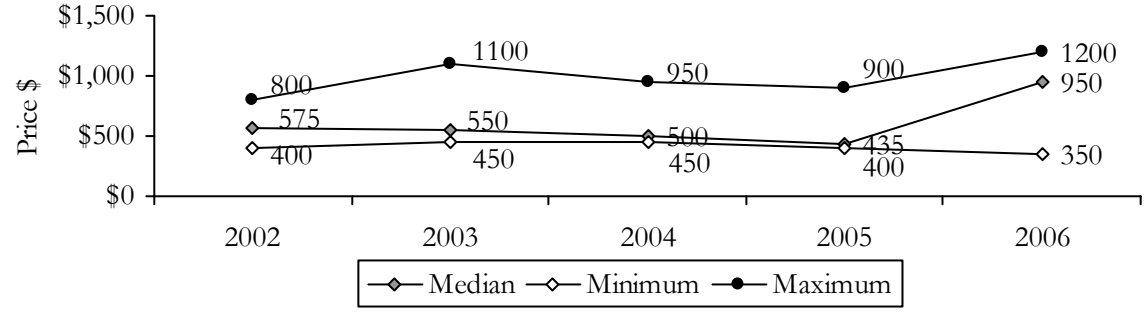
Figure 26: Median prices of ice/crystal estimated from IDU purchases, 2002-2006



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

It was also noted above that changes in the methamphetamine market may be more readily observed in the price of larger quantities of the drug. Between 2002 and 2005 the median reported price of an eightball of ice/crystal fell from $575 to $435, however in 2006 the median reported price was $950. This median price is based on the reports of only six IDU, and as such can be considered suggestive only. As in previous years, the prices that IDU reported for an eightball of ice/crystal in 2006 varied greatly, from as low as $350 to as high as $1200 (see Figure 27).

Figure 27: Median, minimum and maximum price of an eightball of ice/crystal, estimated from IDU purchases, 2002-2006



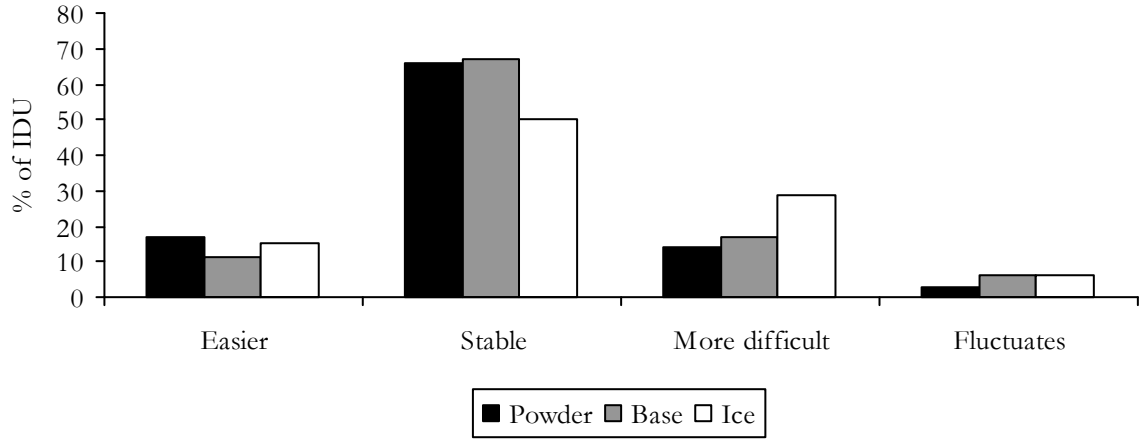
Source: IDRS IDU interviews

5.2 Availability

As in previous years, the majority of IDU reported that all forms of methamphetamine were either 'easy' or 'very easy' to obtain, however again ice/crystal was reported to be less readily available than other forms. The availability of powder and base was rated as 'easy' or 'very easy' by 85% and 82% of IDU respectively, compared with only 64% of IDU who rated ice/crystal as 'easy' or 'very easy' to get. There was some evidence of a reduction in the availability of all forms of methamphetamine, with fewer IDU reporting the availability as 'very easy' and more reporting the availability as 'easy'. As in 2005, in 2006 the majority of those responding reported that the availability of powder and base methamphetamine was 'stable'; the proportion describing the availability of ice/crystal as stable increased from 35% in 2005 to 48% in 2006 (see Table 9).

Ice/crystal is distinguished from powder and base in terms of price trends, and as Figure 28 shows, it is also distinguished by trends in availability. The majority of IDU in 2006 rated the availability of powder (64%) and base (65%) as stable, compared with only 48% rating the availability of ice/crystal as stable. Compared to other forms of methamphetamine, there was more 'disagreement' among IDU with respect to changes in the availability of ice/crystal, with 14% reporting that ice/crystal had become easier to get, 28% reporting that it had become more difficult to get, and 6% reporting that availability had fluctuated recently (see Figure 28).

Figure 28: IDU reports of recent changes in the availability of methamphetamine powder, base and ice/crystal, 2006



Source: IDRS IDU Interviews
Note: In the interests of comparability, 'don't know' responses have been excluded. Valid percentages are shown.

KE reported that all forms of methamphetamine were relatively easy to obtain, although a large number of KE from both the health and law enforcement sectors suggested that availability and use of ice/crystal were increasing.

Table 9: Participants' reports of methamphetamine availability in the past six months, 2005-2006

	Powder		Base		Ice/crystal	
	2005 (N=106)	2006 (N=112)	2005 (N=106)	2006 (N=112)	2005 (N=106)	2006 (N=112)
Current availability						
Did not respond* (%)	55	59	33	49	25	45
Did respond (%)	45	41	67	51	75	55
Of those who responded:						
Very Easy (%)	57	44	43	26	15	22
Easy (%)	21	41	34	56	46	42
Difficult (%)	14	12	23	16	27	28
Very Difficult (%)	2	2	0	0	4	6
Don't know^ (%)	7	2	0	2	8	2
Availability change over the last six months						
Did not respond* (%)	54	59	33	49	25	45
Did respond (%)	46	41	67	51	75	55
Of those who responded:						
More difficult (%)	16	14	14	16	27	28
Stable (%)	60	65	71	64	35	48
Easier (%)	12	17	11	11	19	14
Fluctuates (%)	7	3	0	6	4	6
Don't know^ (%)	5	2	3	4	15	4

Source: IDRS IDU interviews

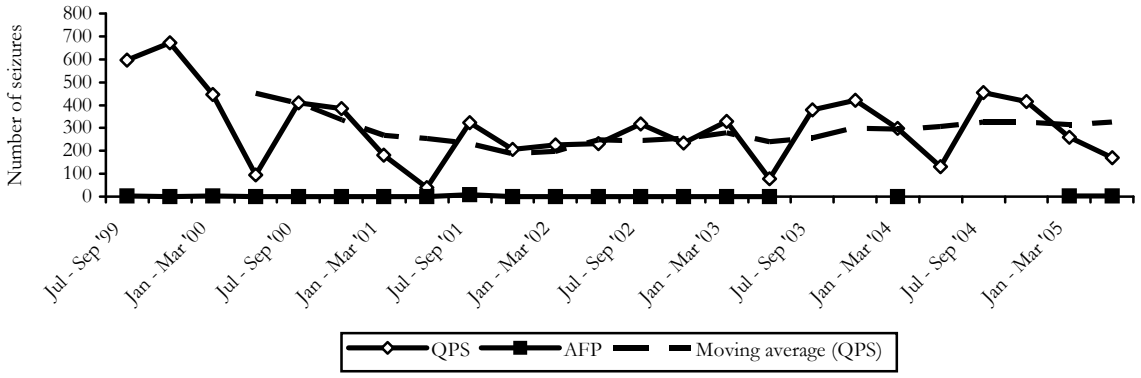
* 'Did not respond' refers to participants who did not feel confident enough in their knowledge of the market to respond to survey items

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

5.3 Purity

Figures 29 and 30 show the number and median purity of methamphetamine seizures made in Queensland by QPS and AFP, from 1999/00 to 2004/05. The vast majority of methamphetamine seizures in Queensland have been made by QPS, with AFP typically only making one or two seizures per quarter. The number of QPS seizures has varied considerably over this time, and is typically lower in the last quarter of each financial year. However, when averaged across quarters, the number of seizures has increased slightly over the past few years (see Figure 29).

Figure 29: Number of methamphetamine seizures analysed in QLD, by quarter, 1999/00–2004/05

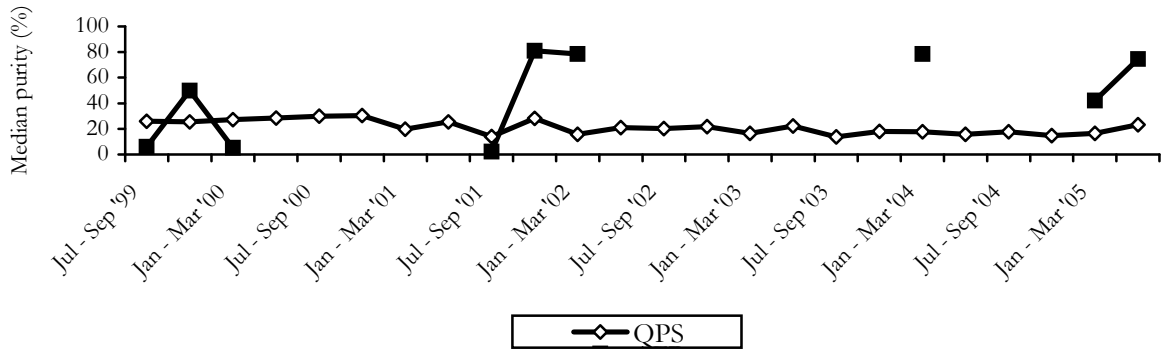


Source: QPS; AFP

Whereas the number of seizures has fluctuated over time, the median purity of methamphetamine seizures in Queensland by QPS has been more consistent, despite a decline in purity in 2003/04. In 2004/05 the median purity of QPS seizures was 17.3%, compared with 20% in both 2002/03 and 2001/02 (see Figure 30). During the last quarter of 2004/05 the median purity of QPS seizures was 23.3%. Unfortunately, seizure data do not distinguish between ice/crystal and other forms of (domestically produced) methamphetamine, so these fluctuations in purity are difficult to interpret.

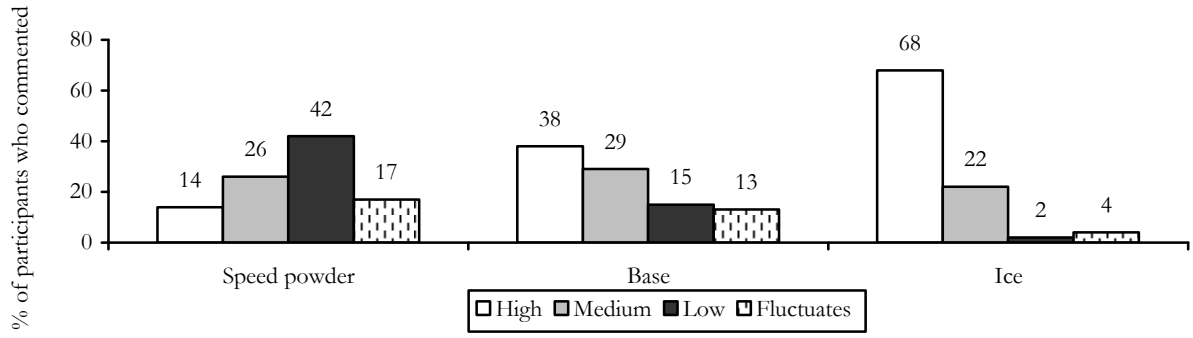
The perceived purity of methamphetamine powder, base and ice/crystal as reported by IDU, is shown in Figure 31. As in previous years, ice/crystal was rated as the most pure form of methamphetamine, with the proportion of IDU rating the purity as 'high' reasonably consistent from 2005 (65%) to 2006 (68%). There was also little change in the perceived purity of base or powder methamphetamine, with base rated as 'high' purity by 38% of IDU (versus 40% in 2005) and powder rated as 'high' purity by only 14% (versus 11% in 2005). IDU in 2006 most commonly described the purity of powder methamphetamine as 'low' (42%).

Figure 30: Purity of methamphetamine seizures analysed in QLD, by quarter, 1999/00–2004/05



Source: QPS; AFP

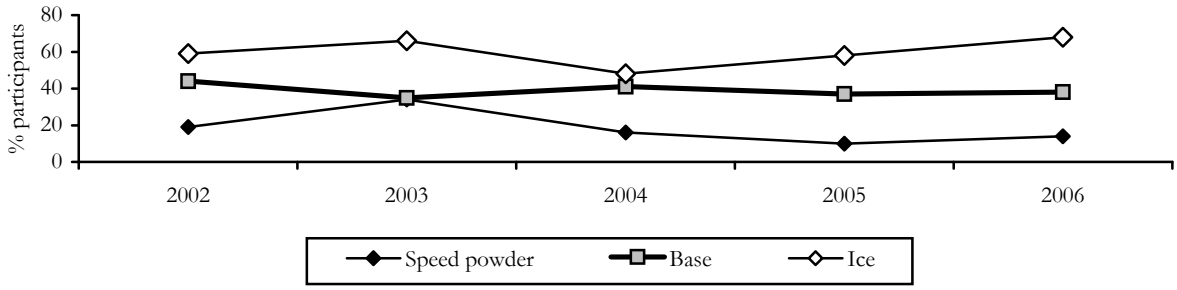
Figure 31: Participant perceptions of methamphetamine purity (speed powder, base and ice/crystal), among those who commented, 2006



Source: IDRS IDU interviews

Figure 32 shows the proportion of IDU reporting the purity of methamphetamine powder, base, and ice/crystal as 'high' from 2002 to 2006. Although the perceived purity of each form has varied from year to year, IDU have consistently and accurately perceived that ice/crystal is the most pure form of methamphetamine, with base of moderate purity and powder of lower purity. A small number of KE reported that some dealers were 'cutting' ice/crystal with other substances, reducing its purity, however, there was no evidence of a drop in purity based on IDU reports.

Figure 32: Proportion of participants reporting speed powder, base and ice/crystal purity as 'high', 2002-2006



Source: IDRS IDU interviews

Note: Data on all three forms commenced in 2002.

5.4 Use

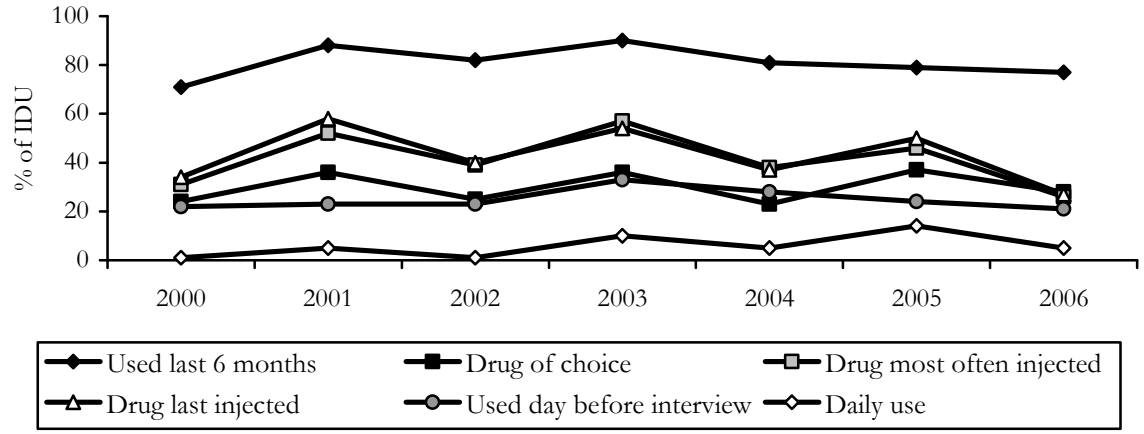
5.4.1 Methamphetamine use among IDU participants

Patterns of methamphetamine use among IDU from 2000 to 2006 are shown in Figure 33. Continuing the trend from 2003 onwards, the proportion of IDU reporting recent methamphetamine use decreased slightly from 2005 (79%) to 2006 (77%). Similarly, since 2003 the proportion of IDU reporting use of methamphetamine the day before interview has fallen, from 33% in 2003 to 21% in 2006. Other indicators of recent methamphetamine use also suggested a decline in use among IDU interviewed in 2006: Between 2005 and 2006 there were sharp declines in the proportion identifying methamphetamine as the drug most injected in the last month (from 46% to 26%), or the last drug injected (from 50% to 27%); in 2006 28% of IDU nominated some form of methamphetamine as their drug of choice (versus 37% in 2005).

Most IDU who use methamphetamine do not do so on a daily basis, however, the minority who do report 'daily' use increased from 2000 (1%) to 2005 (14%); in 2006 only 5% of IDU reported daily use of methamphetamine, providing further evidence of a decline in methamphetamine use among this group (Figure 33).

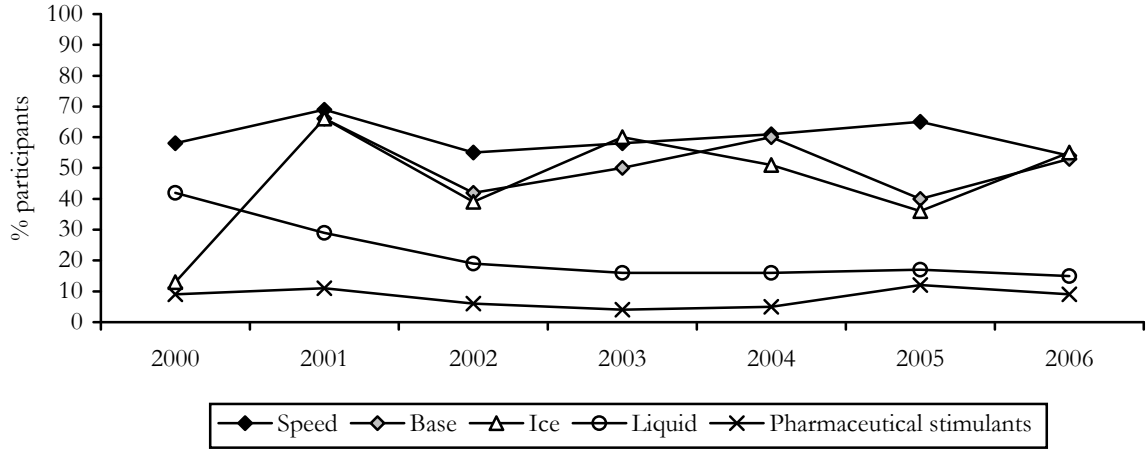
Figure 34 shows the proportion of IDU reporting recent use of powder, base, and crystal methamphetamine, as well as liquid methamphetamine and pharmaceutical stimulants. In 2006 roughly equal proportions reported recent use of powder (54%), base (53%) and crystal (55%) methamphetamine, with smaller proportions reporting recent use of liquid methamphetamine (15%) and pharmaceutical stimulants (9%). The proportion of IDU reporting recent use of base and crystal methamphetamine increased from 2005 to 2006, while the proportion reporting recent powder methamphetamine use decreased. Recent use of liquid methamphetamine has declined considerably from 42% in 2000 to only 15% in 2006. The proportion reporting recent pharmaceutical stimulant use has been relatively low and variable, ranging from 4% (2003) to 12% (2005); in 2006 9% of IDU reported recent pharmaceutical stimulant use (Figure 34).

Figure 33: Proportion of IDU reporting methamphetamine use in the past six months, 2000–2006



Source: IDRS IDU Interviews

Figure 34: Proportion of IDU reporting methamphetamine and pharmaceutical stimulant use in the past six months, 2000-2006



Source: IDRS IDU interviews
Note: Pharmaceutical stimulants include licit use of prescription amphetamines.

5.4.2 Current patterns of methamphetamine use

Table 10 illustrates the proportion of IDU in 2006 reporting recent use of powder, base and crystal methamphetamine, and shows the frequency of use among those had used recently. Just over half of the sample had used each form of methamphetamine in 2006, with 82% reporting recent use of at least one form. Among this group, just over half reported using weekly or more often, however, only 5% reported daily methamphetamine use.

Table 10: Patterns of methamphetamine use in the last six months, by type, 2006

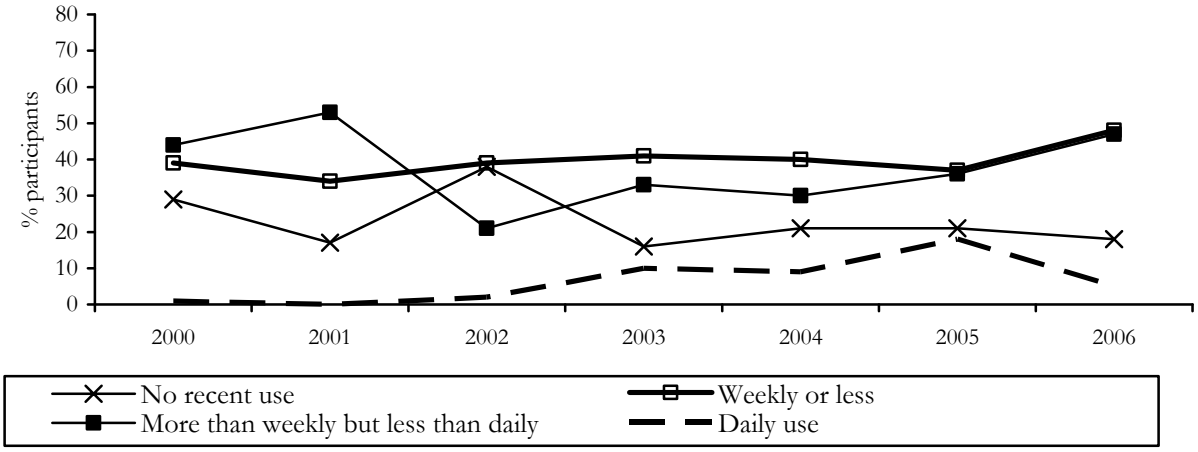
Form used	Among the entire sample		Among those who had used		
	% who had not used	% who had used	% used weekly or less^	% used more than weekly, but less than daily	% used daily
Speed powder	46	54	29	71	2
Base	47	53	34	64	2
Ice/crystal	46	54	40	59	1
Any form methamphetamine *	18	82	48	47	5

Source: IDRS IDU interviews
* Also includes liquid methamphetamine

^ Excludes those who had not used

The proportion of IDU reporting daily methamphetamine use increased from 2000 (1%) to 2005 (18%), before falling markedly in 2006 (5%). Paralleling this trend, a larger proportion of IDU in 2006 reported using methamphetamine weekly or less often (from 37% in 2005 to 48% in 2006) or more than weekly but less than daily (from 36% in 2005 to 47% in 2006). There has been little change in recent years in the proportion of IDU reporting any methamphetamine use in the last six months (Figure 35).

Figure 35: Patterns of methamphetamine use (any form) by IDU participants, 2000-2006

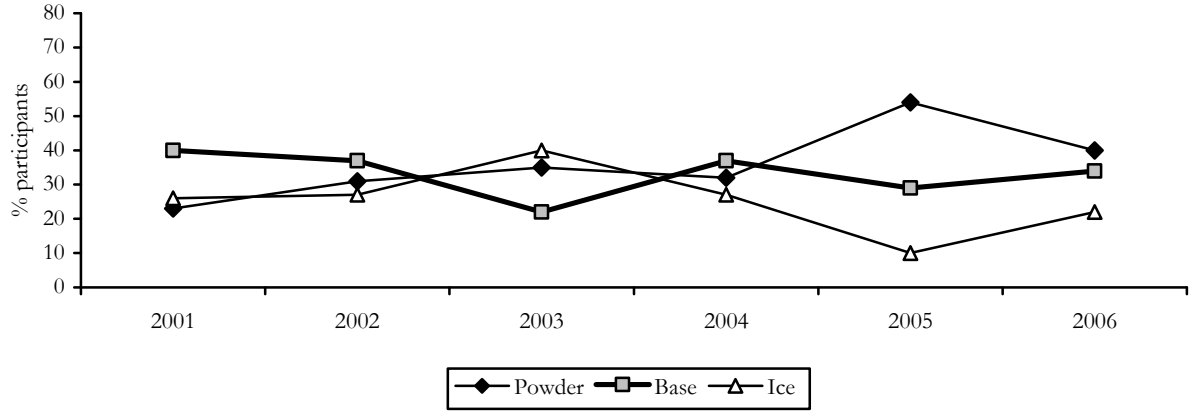


Source: IDRS IDU interviews
Note: data prior to 2005 also include prescription stimulants

Although there has been little change in the proportion of IDU reporting some recent methamphetamine use, there has been considerable variation over time in the forms of methamphetamine used recently (Figure 36). In 2006 the form of methamphetamine most

commonly used was powder, and as in previous years, despite KE reports of increasing ice/crystal use, the form least commonly used was crystal.

Figure 36: Methamphetamine form most used in the preceding six months, among recent methamphetamine users, 2001-2006



Source: IDRS IDU interviews
NB: Data collection on the form most used commenced in 2001.

5.5 Methamphetamine related harms

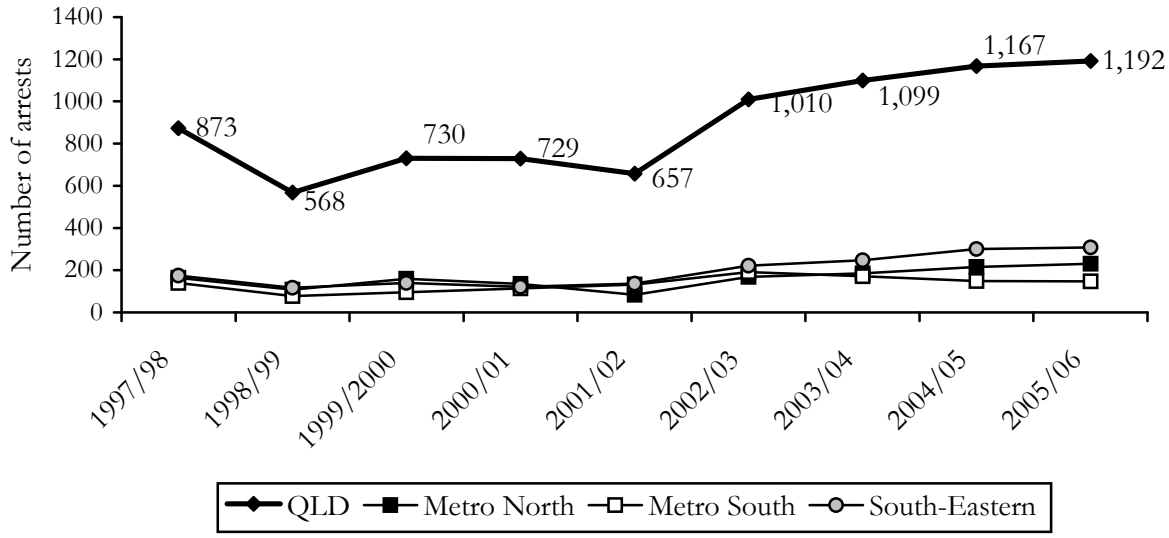
5.5.1 Law enforcement

Figure 37 shows the number of amphetamine-type stimulant (ATS) arrests made by QPS from 1997/98 to 2005/06 in Queensland, and in the three south-east Queensland regions from which IDU are sampled for the IDRS. Overall, the number of arrests increased sharply from 2001/02 (657) to 2005/06 (1,192), although this trend is only partially reflected in the figures for south-east Queensland regions. The apparent rise in ATS arrests in Queensland is difficult to interpret for two reasons: (a) the ATS category includes amphetamine, methamphetamine and MDMA (ecstasy), and (b) an increase in arrests may indicate increased production, distribution and use of the drug class, and/or it may indicate increased operational activity around that drug class. Indeed, as in 2005, in 2006 KE from the law enforcement sector reported an increased focus by QPS on the ATS market.

The number of clandestine drug laboratories detected in QLD each year is considerably larger than that reported in other states, however this difference must be interpreted with caution: According to law enforcement KEs, methamphetamine production in QLD has traditionally been characterised by a large number of (typically) small, low-yield labs, whereas most other Australian jurisdictions report fewer lab detections, but with each lab producing a larger quantity of methamphetamine.

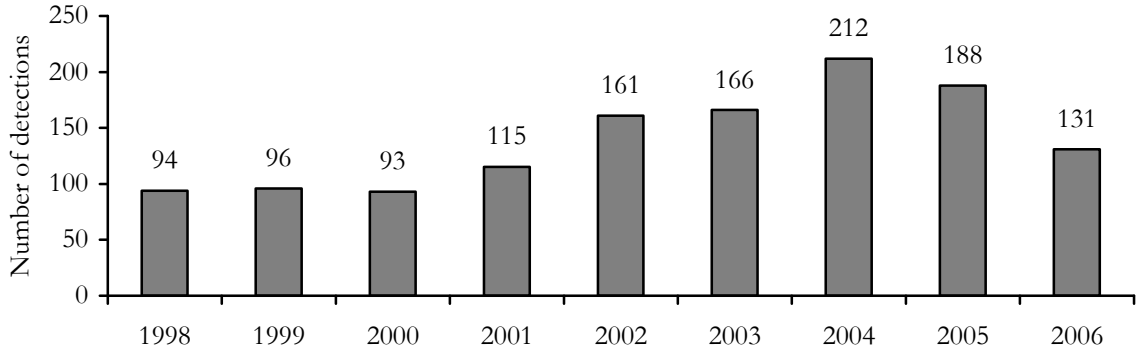
Figure 38 shows the number of clandestine laboratories detected by QPS from 1998 to 2006. Between 1998 and 2004 the number of labs detected more than doubled, reaching a peak of 212 labs in 2004. Since then the number of labs detected each year has decreased rapidly, to 131 labs in 2006. Of all labs detected in Queensland in 2005 and 2006, 63% were producing amphetamines, 1% were dedicated 'pseudo extraction' labs, and 29% were yet to be identified (QPS, unpublished data).

Figure 37: Number of amphetamine-type stimulant (ATS) possession/use arrests by geographic area, 1997/98– 2005/06



Source: Queensland Police Service (QPS)
Note: ATS includes amphetamine, methamphetamine and phenethylamines (e.g. MDMA)

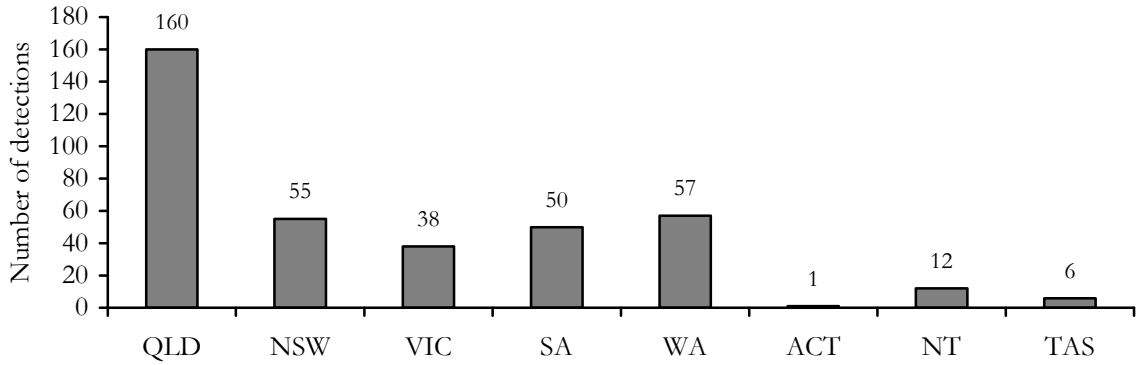
Figure38: Number of clandestine laboratories detected by QLD Police 1998-2006



Source: Queensland Police Service (QPS)

A number of KE from the law enforcement sector reported a decline in lab seizures, however, one noted that this decline may reflect shifting operational priorities, as well as or rather than a decline in the number of active labs. Nevertheless, a number of KE suggested that changes in legislation to further restrict domestic access to precursor materials and facilitate prosecution of methamphetamine producers were creating a significant disincentive to 'backyard cooks'. Some KE suggested that as a consequence of these legislative changes, methamphetamine production in Queensland would start to more closely resemble that seen in other states, with a relatively small number of well-organised labs producing relatively large quantities of the drug (Figure 39).

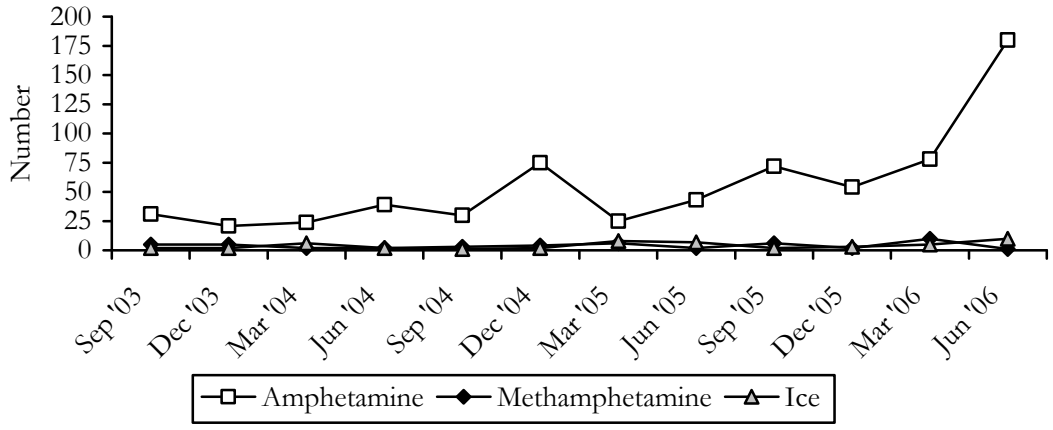
Figure 39: Number of clandestine detected in QLD and other states, 2005/06



Source: Queensland Police Service(QPS)

Figures 40 and 41 show the number and total weight of amphetamine, methamphetamine and crystal methamphetamine ('ice/crystal') seizures in Australia from 2003/04 to 2005/06. In each year the vast majority of seizures have been of amphetamine rather than methamphetamine or crystal methamphetamine, and the number of amphetamine seizures has increased substantially from 54 in the December 2005 quarter to 180 in the June 2006 quarter; over the same timeframe the number of ice/crystal seizures increased from 3 to 10 (Figure 40).

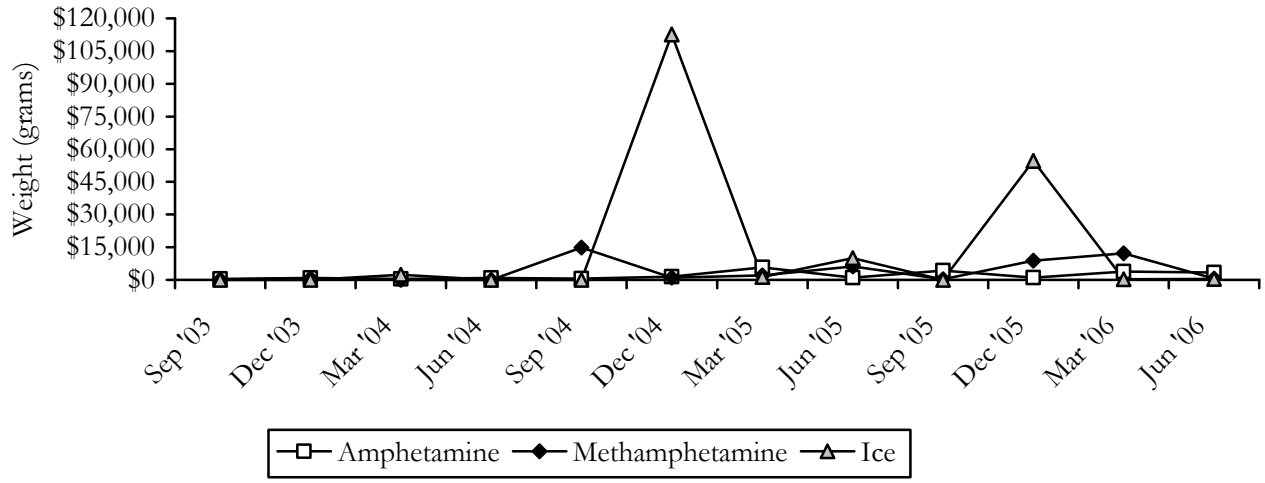
Figure 40: Number of amphetamine, methamphetamine and 'ice/crystal' seizures by Australian Customs Service, 2003/04 – 2005/06



Source: Australian Customs Service (ACS)

Whereas amphetamine accounts for the largest number of seizures, the largest seizures by weight are of ice/crystal, or crystal methamphetamine (Figure 41). During the three year period from July 2003 to June 2006 ACS seized 23.8kg of amphetamine, 47.0kg of methamphetamine and 181.8kg of crystal methamphetamine. During the December 2004 quarter alone, ACS seized over 112 kg of ice/crystal at the Australian border. These data are consistent with KE reports of significant ice/crystal importation, however, some KE also reported increasing domestic ice/crystal production.

Figure 41: Weight of amphetamine, methamphetamine and 'ice/crystal' seizures by Australian Customs Service, 2003/04 – 2005/06

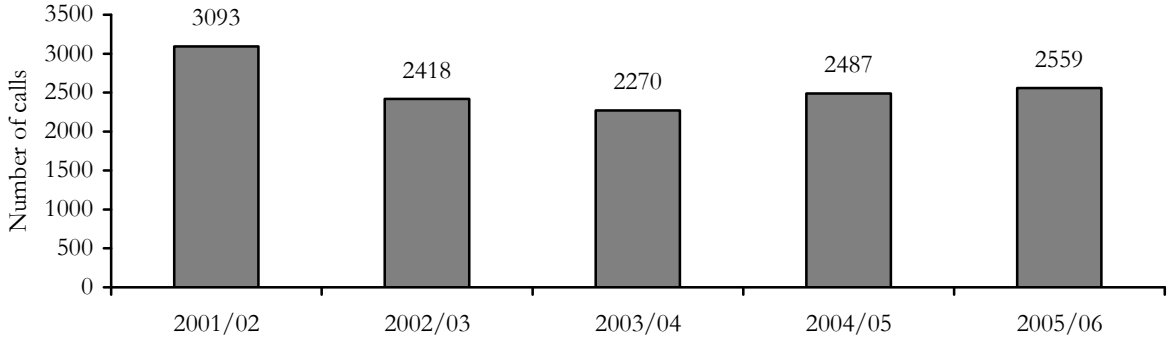


Source: Australian Customs Service (ACS)

5.5.2 Health

Figure 42 illustrates the number of telephone calls made to the Queensland Alcohol and Drug Information Service (ADIS) regarding amphetamines from 2001/02 to 2005/06. Consistent with key expert reports of increasing concern regarding methamphetamine-related harms, ADIS data show a continued increase in amphetamine-related inquiries from 2,270 in 2003/04, to 2,487 in 2004/05 and 2,559 in 2005/06.

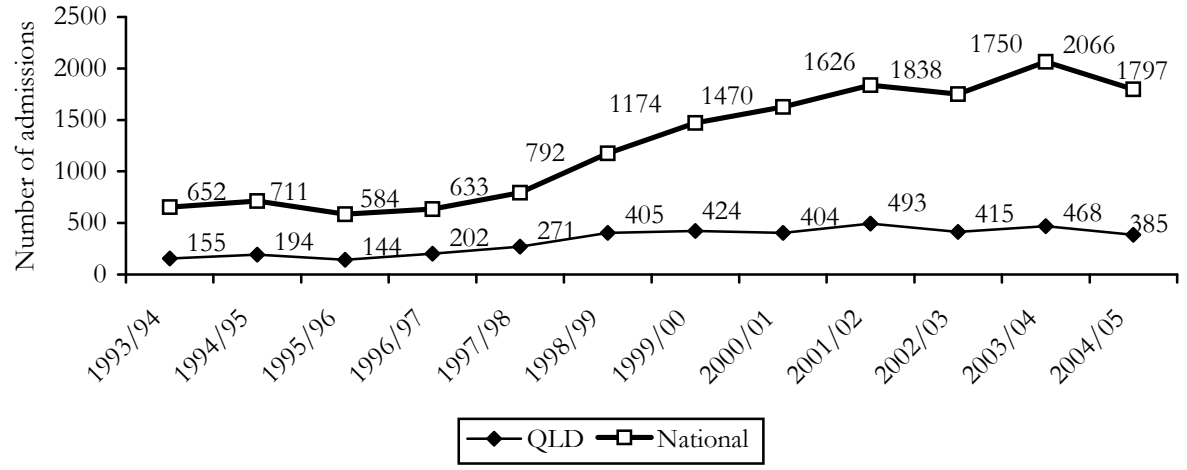
Figure 42: Number of enquiries to ADIS regarding amphetamines, including 'ice/crystal', 1996–2006



Source: Queensland Alcohol and Drug Information Service (ADIS)

Figure 43 shows the rate per million of amphetamine-related hospital admissions in Queensland from 1993/94 to 2004/05. Nationally, the rate has risen more than three-fold, from 652 in 1993/94 to 2,066 in 2003/04, before falling to 1,797 admissions in 2004/05. In Queensland the rate rose from 155 in 1993/94 to 468 in 2003/04, before falling to 385 admissions in 2004/05.

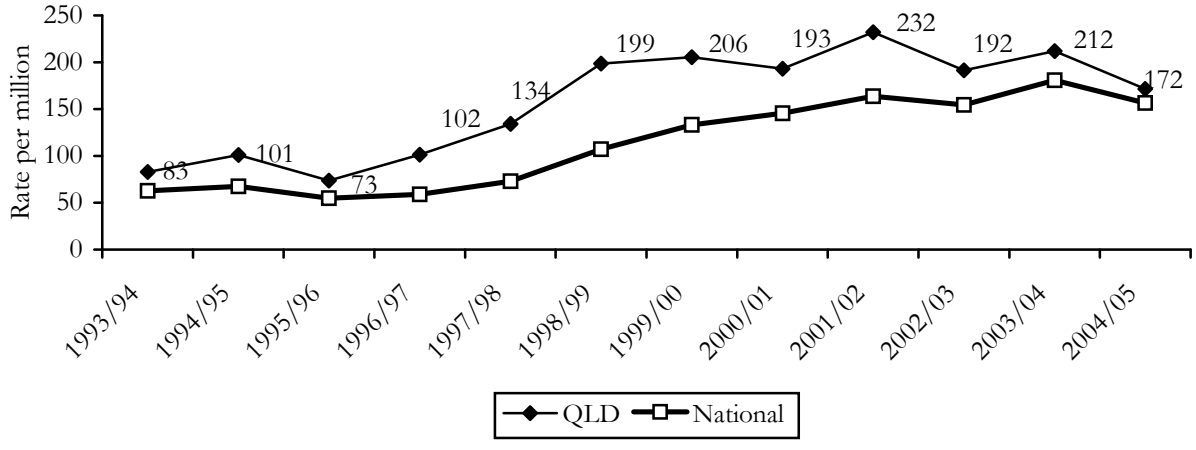
Figure 43: Number of inpatient hospital admissions for persons aged 15-54 where amphetamines were the principal diagnosis, QLD and nationally, 1993/94-2004/05



Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

The same pattern is reflected in the rate of hospital admissions where amphetamines were the principal diagnosis (Figure 44). Nationally, the rate of admission peaked at 232 per million persons aged 15-54 in 2001/02, before falling to 172 in 2004/05. In Queensland the rate peaked at 181 per million in 2003/04, before falling to 156 per million in 2004/05.

Figure 44: Rate of inpatient hospital admissions where amphetamines were the principal diagnosis per million people aged 15-54 years, QLD and nationally, 1993/94-2004/05



Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

A large number of KE commented on health problems among methamphetamine users, particularly users of ice/crystal. Commonly reported problems included malnutrition, poor dental health and oral hygiene, and impaired general health. Many also identified a link between ice/crystal use and mental health problems, including anxiety, paranoia and drug-induced psychosis. One KE from the treatment sector observed that treatment data may be a poor 'litmus test' for methamphetamine-related problems, given that many users fail to recognise the

difficulties they are experiencing with their methamphetamine use until an acute crisis, when they are more likely to present to an emergency department or mental health facility. Consistent with this, one KE from an emergency department noted a marked increase in methamphetamine-related presentations.

5.6 Trends in methamphetamine use

A number of KE in 2006 commented on the ageing cohort of IDU accessing NSP, and the age difference between heroin and methamphetamine users, with methamphetamine users being typically younger. One KE suggested that "*Australia is seeing a generational shift from opiates to stimulants*", with younger IDU more likely to initiate into injecting with methamphetamine, and continue to inject methamphetamine. Despite this, KE from the treatment sector observed that even among those whose drug of choice is heroin, many also inject methamphetamine. Indeed, one KE asserted that a significant number of IDU shifted from heroin to methamphetamine injection in response to the heroin shortage, and that many of these are now regular injectors of both drugs.

5.7 Summary of methamphetamine trends

- Trends for ice/crystal continue to be distinct from those for other forms of methamphetamine, reflecting the fact that **ice/crystal** is still largely an imported drug, whereas powder and base are mostly domestically manufactured.
- There was some evidence of a decrease in the **price** of powder and base, and an increase in the price of ice/crystal. These changes were evident in larger quantities of the drug, with the median price of a point of all forms remaining stable at $50. IDU continue to report widely varying prices for larger quantities of ice/crystal.
- All forms of methamphetamine are reported to be easy or very easy for IDU to obtain, however, there was some evidence of a decline in the **availability** of all forms of methamphetamine in 2006. Ice/crystal continues to be perceived as less readily available than other forms of the drug.
- Seizure data to June 2005 suggest reasonably consistent **purity** of methamphetamine in Queensland, consistent with IDU reports. IDU agree that ice/crystal is the most pure form of methamphetamine available, with base and powder progressively less pure. Because seizure data do not distinguish among forms of methamphetamine, trends in the purity of methamphetamine seizures are difficult to interpret.
- The incidence and frequency of methamphetamine **use** among IDU interviewed for the IDRS has declined in recent years, and this trend continued into 2006. Only 5% of IDU reported daily methamphetamine use in the last six months.
- Use of liquid methamphetamine and pharmaceutical stimulants among IDU remains low and relatively stable.
- The number of ATS use/possession **arrests** in Queensland continues to increase, however, this trend is difficult to interpret because (a) the ATS category includes powder, base and crystal methamphetamine, ecstasy and other similar drugs, and (b) changes in arrests may reflect shifting law enforcement priorities, as well as or instead of changes in market activity.
- Between 1998 and 2004 the number of **clandestine laboratories** detected in Queensland increased by 225%, however, from 2004 to 2006 this number fell by almost 40%. In the context of increased law enforcement activity in the ATS market, increased controls on precursor materials and changes to legislation to facilitate prosecution of methamphetamine 'cooks', Queensland may be converging with other states, which are characterised by a smaller number of higher-volume, well organised methamphetamine labs.
- Many key experts commented on **health problems** associated with methamphetamine use, including poor nutrition, dental health, and general health; many expressed concern regarding the mental health impacts of regular methamphetamine use, particularly ice/crystal use. Despite this, there was little change in the number of calls to telephone help- lines regarding methamphetamine, and both the number and rate of hospital admission for methamphetamine problems declined in 2004/05.

6. COCAINE

Despite some relatively small fluctuations each year, IDU reports suggest that cocaine use continues to be relatively uncommon among IDU in Queensland. Because the number of IDU reporting on price, purity and availability is small, the price, purity and availability data presented in the following section can be considered indicative only. In each table, the number of IDU reporting is indicated.

6.1 Price

There has been considerable fluctuation in the reported price of cocaine in Queensland between 2000 and 2006, with the price for a gram ranging from $200 to $300 and a similar degree of variation in the price of other quantities (see Table 11). The cocaine market in Queensland seems to be quite small, with relatively few IDU reporting recent use or even knowledge of the market. Levels of cocaine use among other groups may be higher. Given that the prices reported here are based on small numbers, they can be considered indicative only. Overall, the price of cocaine in south-east Queensland continues to fluctuate between $200 and $300 for a gram, with the price of a half gram ranging from $100 to $200.

Table 11: Median price of a gram and cap of cocaine estimated from IDU participant purchases, 2000-2006

Amount	2000	2001	2002	2003	2004	2005	2006
Gram	250	200	220	300	200	300	-/-
(n)	*(5)*	*(11)*	*(5)*	*(8)*	*(1)*	*(4)*	*(0)*
Cap	50	80	-/-	-/-	150	-/-	50
(n)	*(3)*	*(3)*	*(0)*	*(0)*	*(1)*	*(0)*	*(1)*
Half gram	150	135	-/-	100	200	120	180
(n)	*(5)*	*(5)*	*(0)*	*(1)*	*(2)*	*(1)*	*(1)*

Source: IDRS IDU interviews

6.2 Availability

In 2006 eight IDU reported on the current availability of cocaine, with half of these stating that it was either 'very easy' or 'easy' to obtain. Another four respondents reported that cocaine was difficult (n=1) or very difficult (n=2) to obtain, or that they didn't know (n=1). Five IDU reported that the availability of cocaine had been stable over the past six months, with no respondents reporting that cocaine had become more difficult to obtain. Although these reports are based on small numbers, there is some evidence of increasing stability in the availability of cocaine among IDU in south-east Queensland (see Table 12). One KE from the law enforcement sector reported that the cocaine market in south-east Queensland was very cyclical, with use fluctuating as a function of (variable) availability. Another two key experts reported increased availability of cocaine in 2006, although most cocaine use in Queensland appears to be among 'recreational' drug users, rather than injecting drug users.

Table 12: Participants' reports of cocaine availability in the past six months, 2005-2006

	2005 (N=106)	2006 (N=112)
Current availability		
Did not respond* (%)	91	93
Did respond (%)	9	7
Of those who responded:		
Very Easy (%)	10	25
Easy (%)	40	25
Difficult (%)	20	13
Very Difficult (%)	20	25
Don't know^ (%)	10	13
Availability change over the last six months		
Did not respond* (%)	91	93
Did respond (%)	9	7
Of those who responded:		
More difficult (%)	0	0
Stable (%)	60	63
Easier (%)	20	25
Fluctuates (%)	10	0
Don't know^ (%)	10	13

Source: IDRS IDU interviews

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

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

Table 13 shows IDU reports of the current availability of cocaine, from 2000 to 2006. Due to the small number of IDU reporting on cocaine availability, the table shows the actual number of IDU reporting, rather than percentages. As in previous years, in 2006 there was little agreement among respondents with respect to the current availability of cocaine, reflecting the limited and variable access that IDU in Queensland have to cocaine.

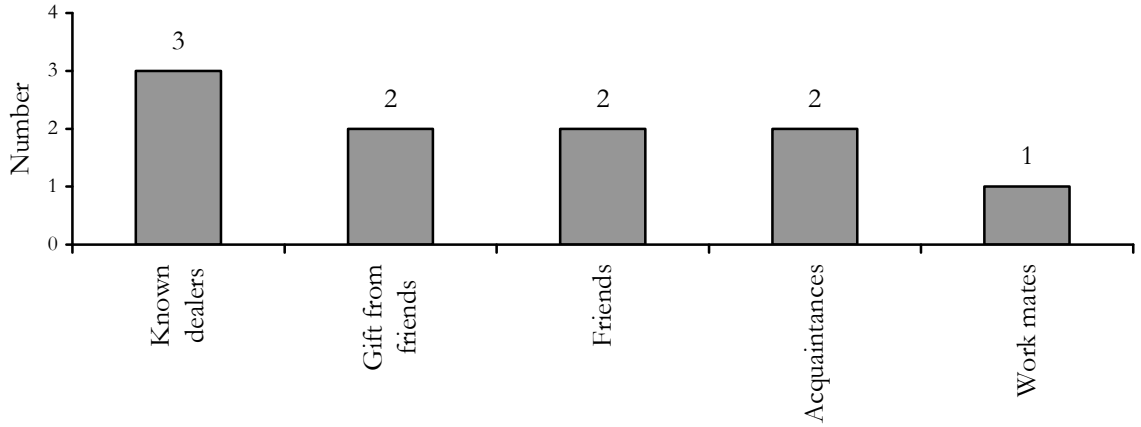
Table 13: Participants' reports of current cocaine availability, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Very easy	0	4	2	1	0	1	2
Easy	2	4	2	2	1	4	2
Difficult	7	12	2	6	3	2	1
Very difficult	3	0	0	1	3	2	2

Source: IDRS IDU interviews

Figure 45 shows the type of person from whom IDU reported obtaining cocaine recently; again, due to the small number reporting, the figure shows raw values rather than percentages. Among those able to report, the sources of cocaine identified included known dealers (n=3), friends and acquaintances (n=2) or workmates (n=1).

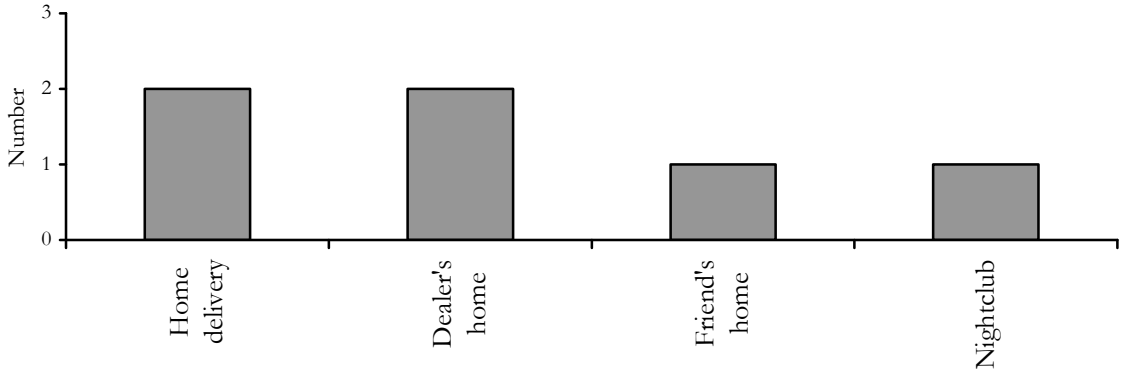
Figure 45: People from whom cocaine was purchased in the preceding six months, 2006



Source: IDRS IDU interviews

Figure 46 shows the locations in which IDU reported obtaining cocaine recently in 2006. Locations for obtaining cocaine recently included home (via home delivery, n=2), a dealer's home (n=2), a friend's home (n=1) and a nightclub (n=1).

Figure 46: Locations where cocaine was scored in the preceding six months, 2006



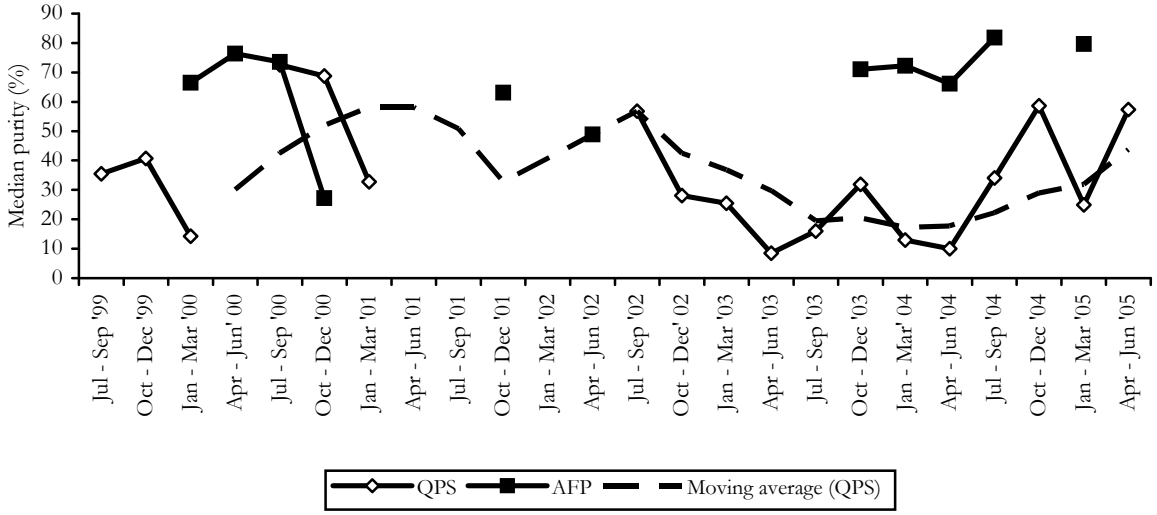
Source: IDRS IDU interviews

6.3 Purity

Figures 47 and 48 illustrate the median purity and number of cocaine seizures in Queensland by QPS and AFP, from 1999/00 to 2004/05. The purity of cocaine seizures in Queensland has fluctuated considerably over the past five years, but rose in 2004/05. In 2004/05 the median purity of analysed QPS seizures was 35.2%, compared with a median of 17.7% in 2003/04 and 29.7% in 2002/03; no QPS seizures were analysed in 2001/02. AFP seizures have consistently

been higher in purity than those made by QPS, reflecting the fact that cocaine is usually cut with other substances after arriving in Queensland, but before being distributed at a retail level. In 2004/05, the median purity of analysed AFP cocaine seizures in Queensland was 79.9%.

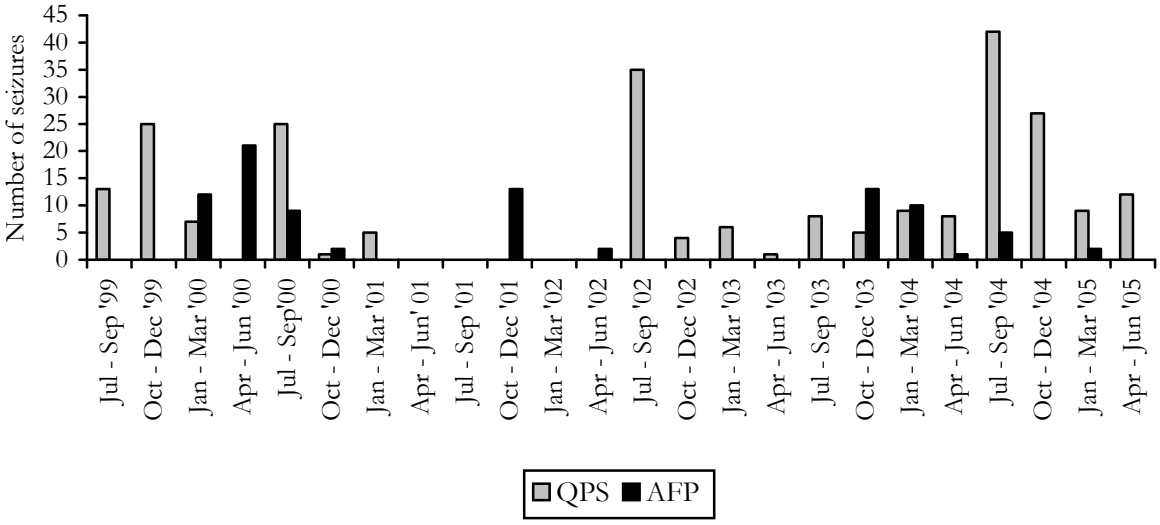
Figure 47: Purity of cocaine seizures analysed in QLD, by quarter, 1999–2005



Source: Queensland Police Service (QPS); Australian Federal Police (AFP)

Compared to heroin, methamphetamine, and cannabis, the total number of cocaine seizures in Queensland is small, with only 90 seizures by QPS and 7 seizures by AFP in 2004/05. The number of seizures per quarter has fluctuated over time, with no clear pattern apparent.

Figure 48: Number of cocaine seizures analysed in QLD, by quarter, 1999–2005



Source: Queensland Police Service (QPS); Australian Federal Police (AFP)

IDU perceptions of the purity of cocaine in 2006 are shown in Table 14. In 2006 only 7% of IDU felt able to comment on cocaine purity, and there was little agreement among these, with equal numbers reporting current purity as high, medium and low. Of those able to comment on changes in cocaine purity (7%), half reported that purity had been stable recently, however the

remainder were equally likely to report that purity was increasing, decreasing, or fluctuating (Table 14). Given the low rates of cocaine use among IDU in Queensland, IDU are not currently able to provide a great deal of information about the price, purity or availability of cocaine in this jurisdiction.

Table 14: Participants' perceptions of cocaine purity in the past six months, 2005-2006

Current purity	2005 (N=106)	2006 (N=112)
Did not respond* (%)	81	93
Did respond (%)	19	7
Of those who responded:		
High (%)	80	25
Medium (%)	0	25
Low (%)	0	25
Fluctuates (%)	0	13
Don't know^ (%)	20	13
Purity change over the last six months		
Did not respond* (%)	81	93
Did respond (%)	19	7
Of those who responded:		
Increasing (%)	30	13
Stable (%)	30	50
Decreasing (%)	0	13
Fluctuating (%)	0	13
Don't know^ (%)	40	13

Source: IDRS IDU interviews

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

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

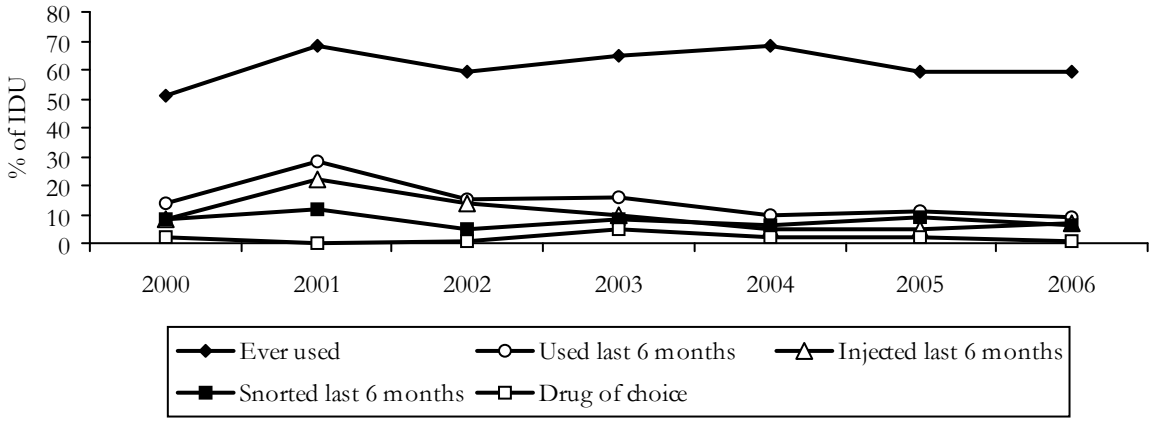
6.4 Use

6.4.1 Cocaine use among IDU participants

In 2006 nearly 60% of IDU reported having ever used cocaine, although only 9% reported recent use (within the last six months). Of these, 7% reported injecting cocaine in the preceding six months, and 6% reported snorting cocaine in the preceding six months.

Trends in cocaine use among IDU from 2000 to 2006 are shown in Figure 49. The proportion of IDU reporting recent cocaine use and injection increased in 2001 during the heroin shortage, but decreased in 2002 and has remained low since this time. Overall, rates of cocaine use among IDU in 2006 seem to be stable and low.

Figure 49: Patterns of cocaine use, 2000-2006



Source: IDRS IDU Interviews

Despite relatively low rates of cocaine use among IDU in Queensland, a number of KE reported increased rates of cocaine use among other groups. Although cocaine use in Queensland has typically been associated with wealthier, higher-status groups, a number of KE in 2006 reported a broadening of the demographic using cocaine. KE agreed that due to the relatively high price and low availability, most users of cocaine do so only sporadically. However, one law enforcement KE noted an increase in demand for cocaine, while another noted an increase in detection of glass pipes carrying traces of cocaine.

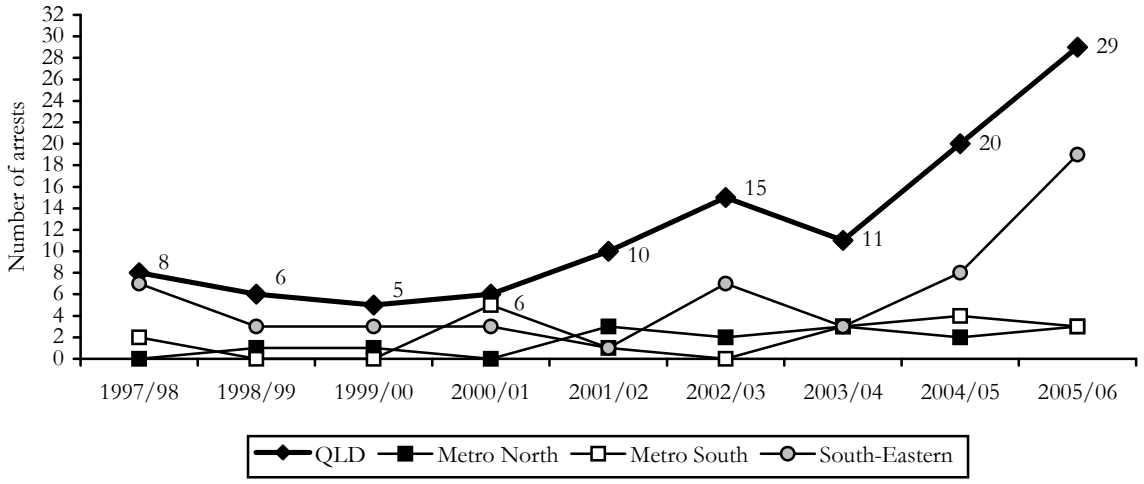
6.5 Cocaine related harms

6.5.1 Law enforcement

Despite a consistently low rate of recent cocaine use among IDU in recent years, the number of arrests for cocaine use/possession in QLD has increased substantially in the last six years, from 5 arrests during the 1999-00 financial year to 29 during the 2005/06 financial year (see Figure 50). Although this number is still comparatively small (e.g. in 2005/06 there were 1,192 arrests for ATS use/possession in QLD) it represents an almost six-fold increase during this time. According to key experts, cocaine use is uncommon among IDU but considerably more common among other groups of drug users, including 'party drug' users and some higher-income earners in large centres such as Brisbane, the Gold Coast, and Cairns. The increase in cocaine-related arrests may reflect increased activity in a cocaine market that overlaps only slightly with the injecting drug use market in Queensland; it may also reflect an increase in law enforcement activity unrelated to actual market activity.

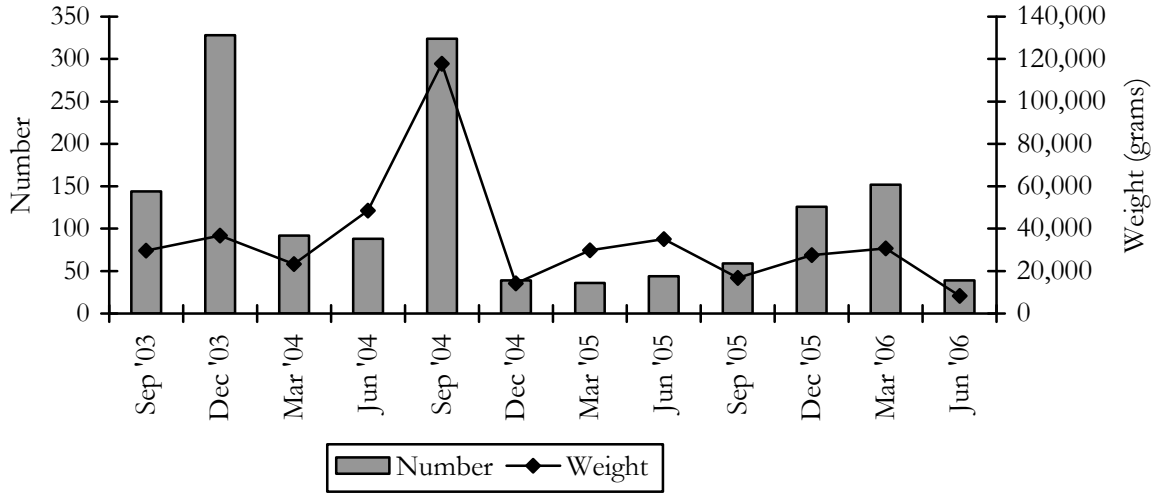
Figure 51 shows the number and weight of cocaine seizures by Australian Customs Service from 2003/04 to 2005/06. The number of seizures in each quarter has varied considerably, from as high as 328 seizures in the December 2003 quarter, to as low as 36 in the March 2005 quarter. The total weight of seizures has also varied considerably over this period, from a high of 118kg in the September 2004 quarter to a low of just over 8kg in the June 2006 quarter.

Figure 50: Number of cocaine possession/use arrests by geographic area, 1997/98 – 2005/06



Source: Queensland Police Service (QPS)

Figure 51: Number and weight of cocaine seizures by Australian Customs Service, 2003/04 – 2005/06



Source: Australian Customs Service

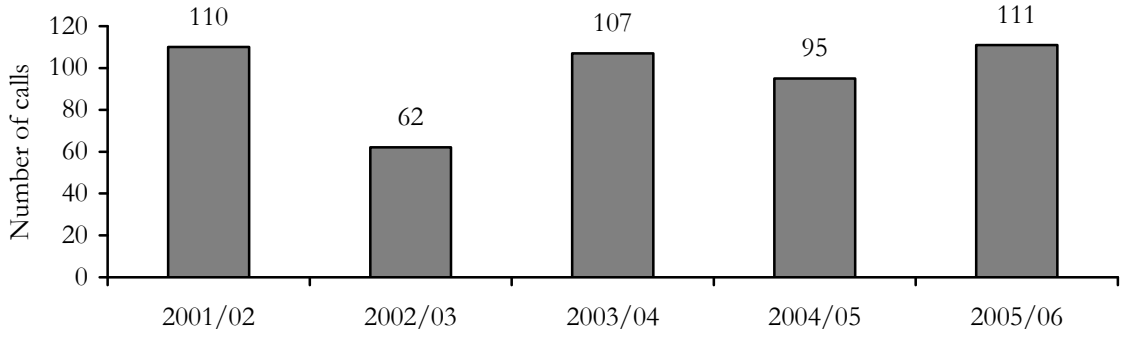
KE from the law enforcement sector reported increased availability of high-purity cocaine in Queensland, although it is still considered a 'niche drug'. One KE noted an increase in cocaine seizures in south-east Asia, and suggested that, given the established trafficking routes from this region to Australia, it would not be unreasonable to expect an increase in cocaine importations in coming years.

6.5.2 Health

Calls to telephone help-lines

Figure 52 shows the number of telephone calls made to the Alcohol and Drug Information Service (ADIS) help-line in Queensland from 2001/02 to 2005/06. The number of calls has fluctuated from year to year, with 111 calls made in the 2005/06 financial year. However, in each year calls regarding cocaine have constituted approximately one percent or less of all calls to ADIS.

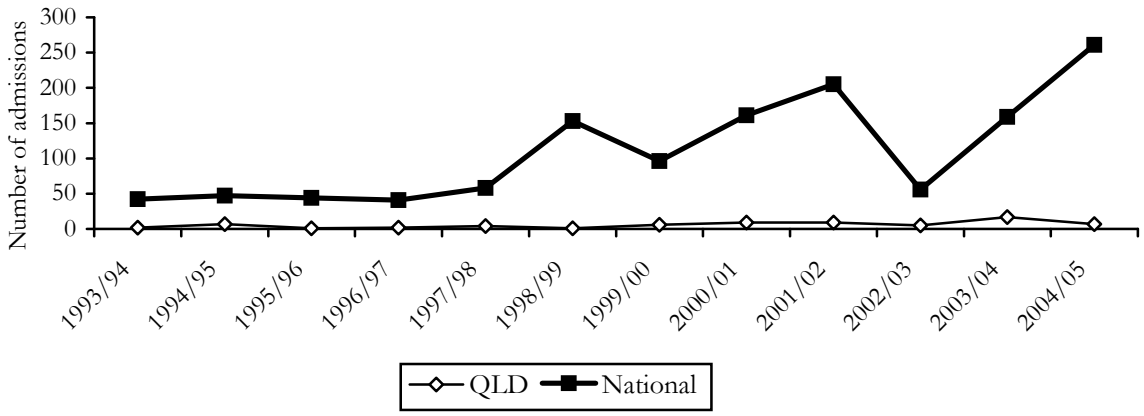
Figure 52: Number of enquiries to ADIS regarding cocaine, 2001/02–2005/06



Source: ADIS

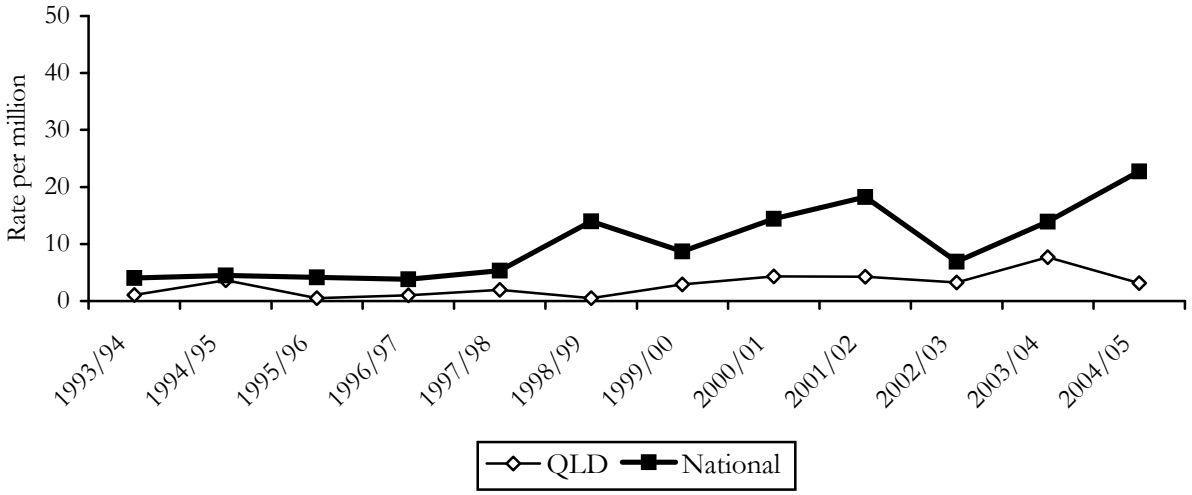
Figures 53 and 54 illustrate the total number and rate of hospital admissions per million persons aged 15-54 years in Queensland and nationally, where cocaine was the primary diagnosis, from 1993/94 to 2004/05. Nationally, the rate of admission was stable until 1996/97 but has fluctuated considerably since, rising to a rate of 22.7 per million in 2004/05. In Queensland, the rate of admission has been low per year, however, in 2003/04 the rate rose to a high of 7.7 per million, before falling to 3.1 per million persons in 2004/05. One KE from a hospital emergency department reported an increase in the number of presentations with acute problems related to cocaine. Monitoring of emergency department presentations may be a useful way of monitoring acute drug-related problems among non-treatment samples of users (Kinner et al., 2005).

Figure 53: Total number of inpatient hospital admissions for persons aged 15-54 where cocaine was the principal diagnosis, QLD and nationally, 1993/94-2004/05



Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

Figure 54: Rate of inpatient hospital admissions where cocaine was the principal diagnosis per million people aged 15-54 years, QLD and nationally, 1993/94-2004/05



Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

6.6 Summary of cocaine trends

- Among IDU in Queensland, cocaine **use** remains relatively uncommon and low in frequency. Key experts suggest that the cocaine market in Queensland is a **niche market** with considerable demand, but limited supply, and use is confined mostly to more affluent groups and subcultures.
- As in previous years, few IDU in 2006 were able to comment regarding the price, purity or availability of cocaine. The reports presented here must, therefore, be considered suggestive only.
- The **price** of cocaine continues to fluctuate between about $200 and $300 a gram, and between $100 and $200 for half a gram.
- Most IDU are unable to comment on the **availability** of cocaine, and among those able to comment, there is little agreement. For IDU, supply channels for cocaine are not well established. According to KE, the availability of cocaine in south-east Queensland increased noticeably in 2006.
- The number of cocaine seizures in Queensland each year is small, and **purity** data are therefore highly variable. According to KE, however, there was a noticeable increase in the amount of high-purity cocaine available in south-east Queensland in 2006.
- Despite a continued low level of cocaine use among IDU, the number of **arrests** for cocaine use/possession in Queensland increased in 2006, albeit from a very low base. In 2005/06 there were 29 cocaine use/possession arrests in Queensland. The number of calls to **telephone help-lines'** in relation to cocaine remains low and stable; the number of inpatient **hospital admissions'** for cocaine remains relatively low, but variable.

7. CANNABIS

Compared to other illicit drug markets in Queensland, the cannabis market is distinguished by its relative stability over time. Consistently, the majority of IDU report recent use of cannabis, and a substantial minority report daily use in the last six months. Nevertheless, the cannabis market is not entirely static, and in 2006 some potentially significant changes have been identified.

7.1 Price

In 2006 there was some evidence of an increase in the price of cannabis, although as in previous years, hydroponic cannabis was reported to be considerably more expensive than bush cannabis.

7.1.1 Hydro

Between 2004 and 2005 there was no change in the median price of a gram ($25) or quarter ounce ($90) of hydroponic cannabis. The median price of a half ounce increased from $150 in 2005 to $165 in 2006, while the price of an ounce dropped slightly from $300 in 2005 to $290 in 2006 (see Table 15).

7.1.2 Bush

Relatively few IDU reported purchasing bush cannabis in the last six months (Table 15), however, there was some evidence of an increase in the price of bush. Between 2005 and 2006 there was an increase in the median reported price of a quarter ounce (from $70 to $80), a half ounce (from $110 to $150) and an ounce (from $230 to $250). The price of a gram of bush cannabis continues to vary between $20 and $25, and in 2006 the median reported price was $20. In 2006 there was considerable variation in the prices paid for bush cannabis, perhaps reflecting a relatively small, inconsistent market for this form of the drug.

Although more than two thirds (68%) of IDU in 2006 reported recent bush cannabis use, only 41% were able to comment on price changes. Of those who did comment on recent price changes, the majority indicated that the price of both bush (61%) and hydro (71%) cannabis had been stable in recent times.

Figure 55 demonstrates the median price of various quantities of bush and hydroponic cannabis, as reported by IDU, from 2000 to 2006. There has been relatively little variation in the price of small quantities of cannabis over this time: Between 2000 and 2002 the median price of cannabis (all forms) was between $22.50 and $25; from 2002 to 2006 the price of a gram of hydro was stable at $25, while the price of a gram of bush has varied between $15 (in 2003) and $25 (in 2005).

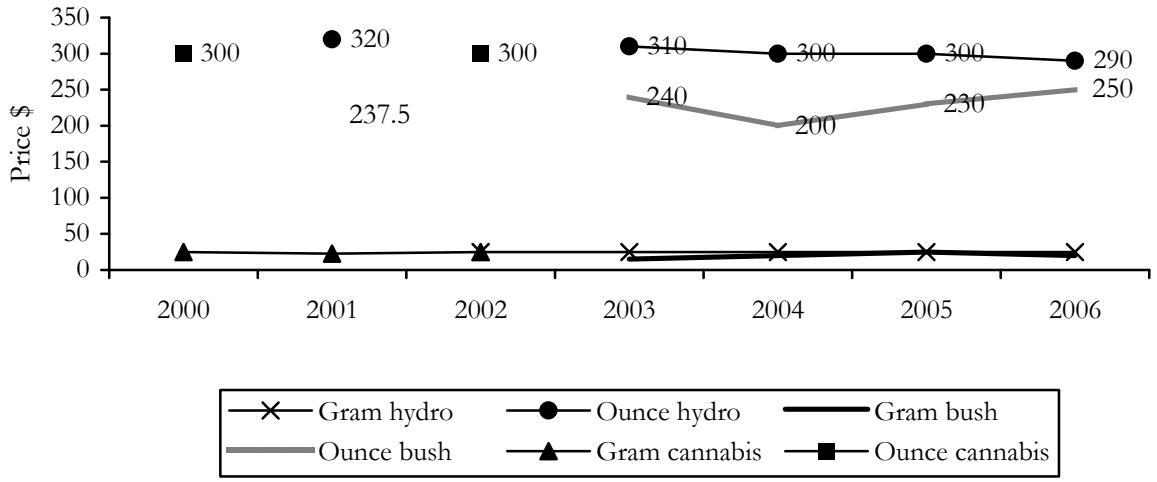
The price of an ounce of hydro has also been relatively stable over time, ranging from a high of $320 in 2001 to a low of $290 in 2006. There has been more variation in the price of an ounce of bush, which has ranged from as low as $200 (in 2004) to as high as $250 (in 2006).

Table 15: Price of most recent cannabis purchases by IDU participants, 2006

Amount	Median price* $	Range $	Number of purchasers*
Hydro			
Gram	25 (25)	10-25	18
Quarter Ounce	90 (90)	70-150	39
Half Ounce	165 (150)	50-250	16
Ounce	290 (300)	240-400	25
Bush			
Gram	20 (25)	20-25	4
Quarter Ounce	80 (70)	50-100	11
Half Ounce	150 (110)	60-170	3
Ounce	250 (230)	100-300	9

Source: IDRS IDU interviews
*2005 median prices are in brackets

Figure 55: Median prices of cannabis estimated from IDU participant purchases, 2000-2006



Source: IDRS IDU interviews

7.1.3 Hash and Hash Oil

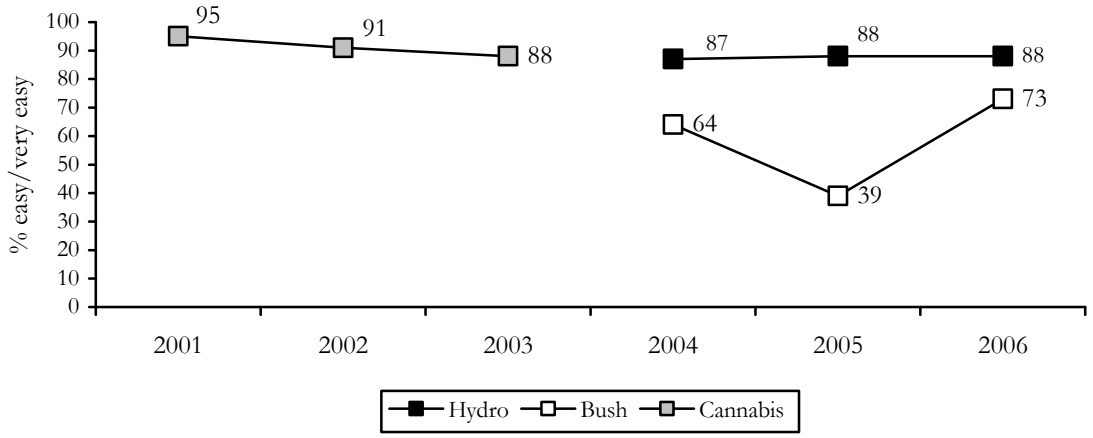
In 2006 30% of IDU reported recent hash use and 23% reported recent use of hash oil, however, only five IDU reported buying a gram of hash recently, with prices ranging from $25 to $200. Similarly, only five IDU reported purchasing hash oil recently, with prices ranging from $25 to $80 for a cap.

7.2 Availability

Figure 56 shows the proportion of IDU stating that cannabis was easy or very easy to obtain from 2001 to 2006. From 2001 to 2003 there was a gradual decline in the proportion of IDU reporting that cannabis was 'easy' or 'very easy' to get, with this proportion dropping from 95%

in 2001 to 88% in 2003. In 2004, for the first time, IDU were asked separately about the availability of hydro and bush cannabis: 87% reported that hydro was easy or very easy to get, compared with 64% for bush. While hydro has remained readily available since this time, the reported availability of bush has varied markedly, suggesting that the market for bush cannabis is more volatile in Queensland. Consistent with reports from KE, it appears that bush cannabis continues to be more difficult to obtain, while the hydroponic form of cannabis is more readily available to IDU.

Figure 56: Proportion of IDU reporting current availability of cannabis as 'easy/very easy', 2001- 2006



Source: IDRS IDU Interviews
Note: Valid percentages are shown.
Note: From 2001 to 2003 IDU were asked about availability of cannabis generally – since 2004 IDU have been asked separately about hydro and bush

Table 16 compares in detail the reported availability and changes in availability of hydroponic and bush cannabis, in 2005 and 2006. Between 2005 and 2006 there was little change in the reported availability of hydroponic cannabis, with the vast majority of those responding indicating that hydro was either 'easy' or 'very easy' to get. Nevertheless, the proportion describing hydro availability as 'difficult' or 'very difficult' increased from 7% in 2005 to 12% in 2006. In both years, the vast majority of those responding indicated that the availability of hydro had been stable recently.

In 2005 the majority of IDU (70%) responded to questions regarding the availability of bush cannabis, however, almost half of these stated that they 'didn't know' about the availability of bush. In 2006, 44% of IDU commented on availability of bush cannabis. Excluding 'don't know' responses, there was a noticeable difference in the proportion of IDU describing the availability of bush cannabis as 'easy' or 'very easy' from 2005 (40%) to 2006 (73%). Again excluding 'don't know' responses, there was some evidence of a perceived decrease in the availability of bush from 2005 to 2006. In both years the majority of those responding stated that availability was stable (38% in 2005, 69% in 2006), however, the proportion reporting that bush had become 'more difficult' to obtain increased from 4% in 2005 to 20% in 2006 (Table 16).

Figure 57 shows the people from whom IDU reported obtaining cannabis in the last six months, in 2006. The most common reported source of both hydro and bush cannabis was 'friends', nominated by the majority of those responding. Over a third of respondents reported

obtaining hydro cannabis from a known dealer, with roughly one in five reported obtaining hydro cannabis from an acquaintance or street dealer. Fewer IDU reporting obtaining bush cannabis from a known dealer, acquaintance or street dealer. Only 5% of respondents reported obtaining cannabis (hydro) from an 'unknown dealer'.

Table 16: Participants' reports of cannabis availability in the past six months, 2005-2006

Current availability	Hydro		Bush	
	2005 (N=106)	2006 (N=112)	2005 (N=106)	2006 (N=112)
Did not respond* (%)	28	23	30	56
Did respond (%)	72	77	70	44
Of those who responded:				
Very Easy (%)	49	42	22	22
Easy (%)	40	44	18	51
Difficult (%)	7	11	12	25
Very Difficult (%)	0	1	1	2
Don't know^	5	2	47	0
Availability change over the last six months				
Did not respond* (%)	28	23	30	56
Did respond (%)	72	77	70	44
Of those who responded:				
More difficult (%)	8	12	4	20
Stable (%)	74	72	38	69
Easier (%)	9	8	5	6
Fluctuates (%)	1	4	3	4
Don't know^ (%)	8	4	50	0

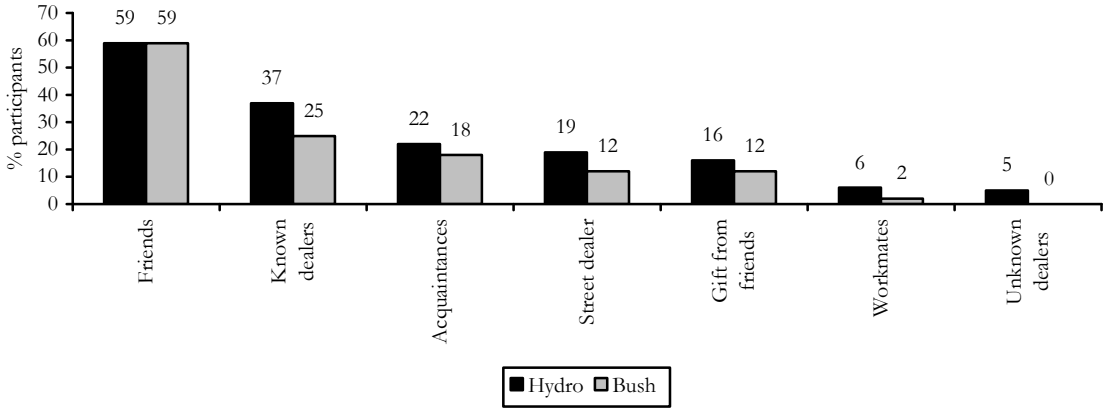
Source: IDRS IDU interviews

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

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

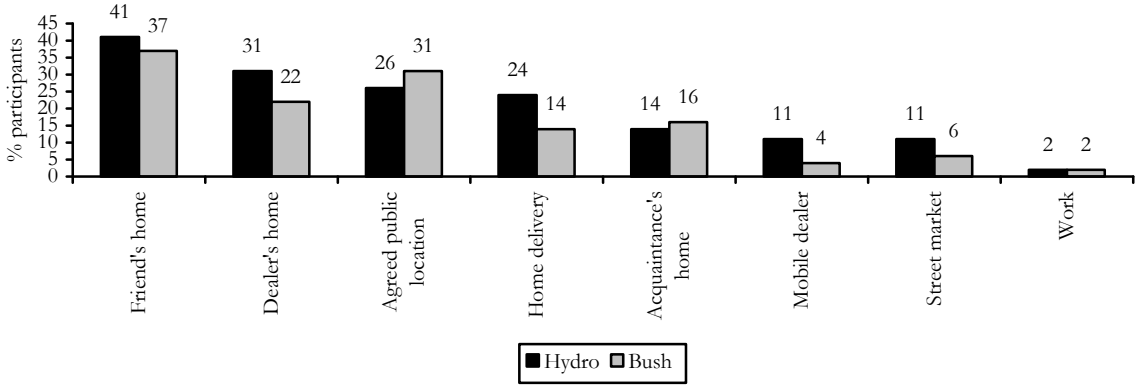
Consistent with the sources of cannabis identified in Figure 57, the most commonly nominated locations for obtaining cannabis in 2006 were a friend's home, a dealer's home and an agreed public location. Roughly one in four respondents indicated that they had obtained hydro cannabis via 'home delivery', compared with 14% for bush. Smaller proportions reported obtaining cannabis from an acquaintance's home, a mobile dealer or in a street market (Figure 58).

Figure 57: People from whom cannabis was purchased in the preceding six months, 2006



Source: IDRS IDU interviews. Of those who reported recent purchases.

Figure 58: Locations where cannabis was obtained in the preceding six months, 2006

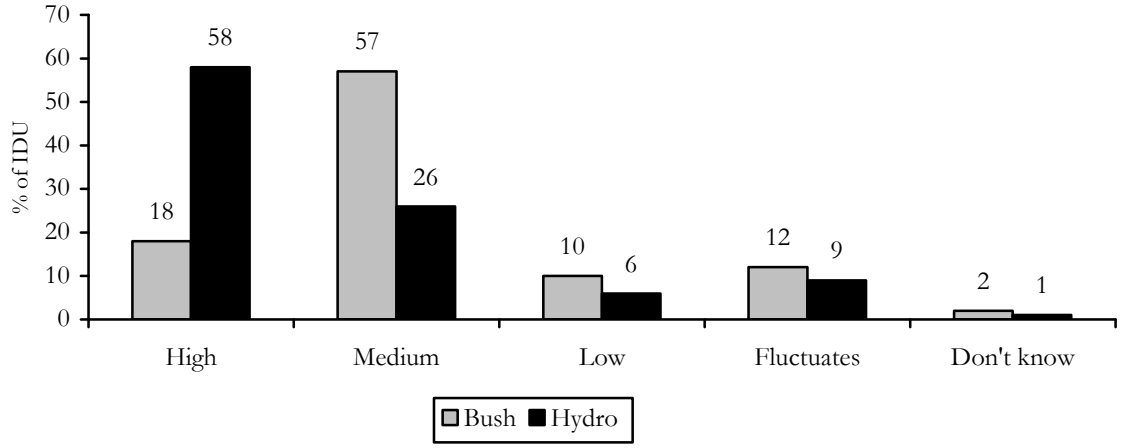


Source: IDRS IDU interviews

7.3 Potency

Figure 59 shows the perceived potency of cannabis as reported by IDU in 2006. There was a high level of agreement regarding the potency of both forms of cannabis, with the majority of respondents reporting that hydro was 'high' potency (58%) and that bush cannabis was 'medium' potency (57%).

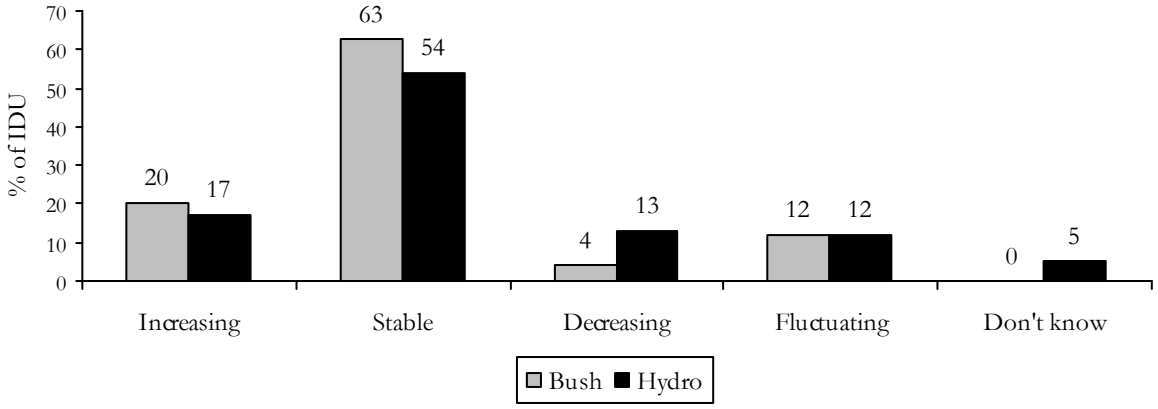
Figure 59: IDU reports of current potency of cannabis, 2006



Source: IDRS IDU Interviews
Note: Valid percentages shown.

The majority of those responding in 2006 indicated that the potency of both hydro (54%) and bush (63%) cannabis was 'stable', however, around one in five reported that the potency of both forms was 'increasing' (Figure 59).

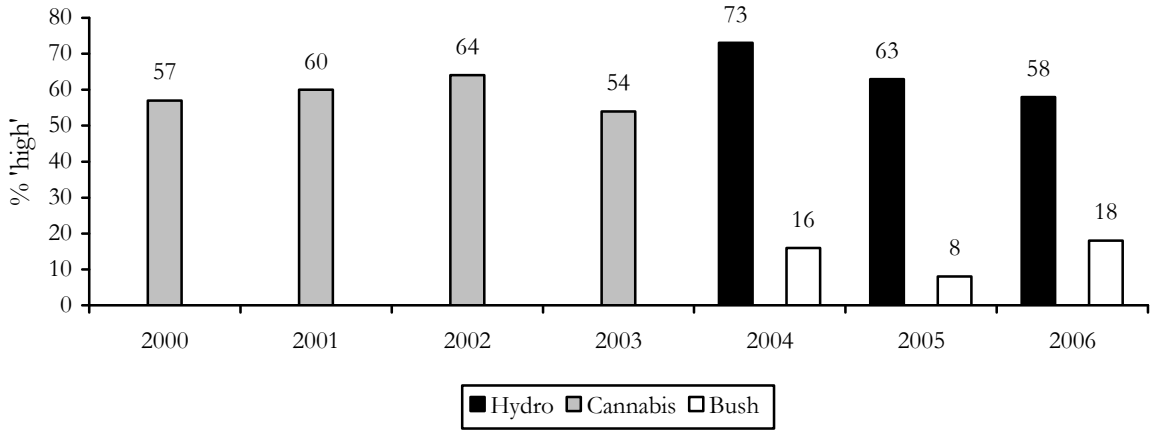
Figure 60: IDU reports of change in cannabis potency, 2006



Source: IDRS IDU Interviews
Note: Valid percentages shown.

Figure 61 shows the proportion of IDU who reported cannabis potency as high, from 2000 to 2006. Since 2004, respondents have been asked separately about the potency of bush and hydro cannabis. As illustrated in Figure 61, the proportion of IDU reporting the potency of hydro cannabis as high dropped from 2004 (73%) to 2006 (58%), while the proportion describing bush cannabis as high potency was smaller and variable (18% in 2006).

Figure 61: Proportion of IDU reporting current potency of cannabis as high, 2000–2006



Source: IDRS IDU Interviews
Note: Valid percentages are shown.
Note: Prior to 2004 IDU were asked about cannabis potency in general; since 2004 IDU have been asked separately about hydro and bush

Although IDU were readily able to make a distinction between hydro and bush cannabis, some law enforcement KE suggested that this distinction may be less meaningful than it appears. In the absence of quantified potency data for cannabis in Australia, it is difficult to better understand the distinction between hydro and bush, however, according to some KE, there is little difference in potency between hydro and bush, with potency determined more by choice of seed than growing method. One KE suggested that the term 'hydro' may serve as a 'marketing ploy', given that many IDU do seem to consider it synonymous with higher-potency cannabis. A number of law enforcement KE stated that although hydro cannabis is becoming more available, most of the cannabis on the market is still produced in outdoor, bush crops.

7.4 Use

7.4.1 Cannabis use among IDU participants

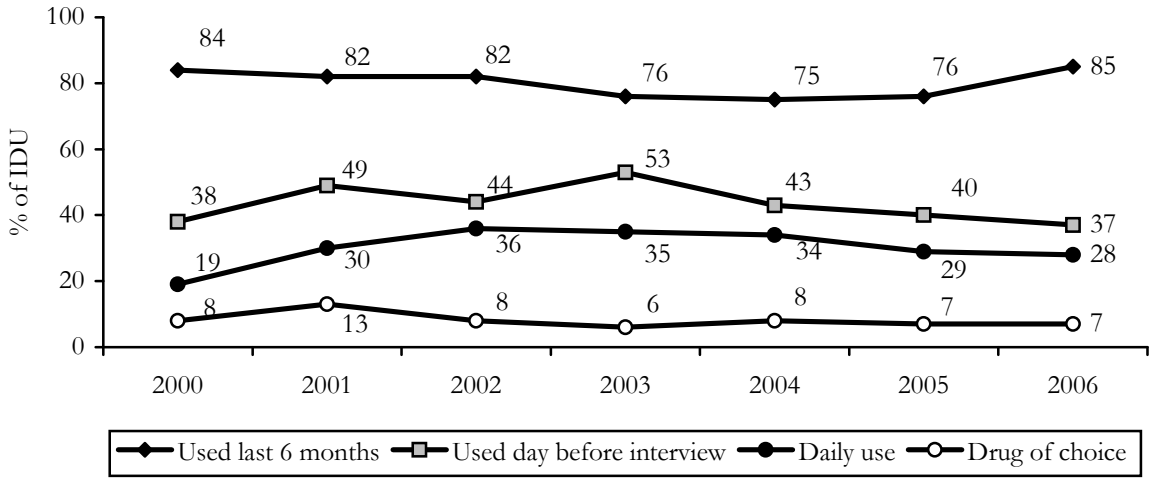
In 2006, ninety-eight percent of IDU reported that they had ever used cannabis, with 85% reporting recent use. Although the majority of IDU reported recent cannabis use, only 7% identified cannabis as their drug of choice. A number of KE observed that cannabis use is very common among IDU, with the majority using cannabis to come down from methamphetamine use. Indeed, another KE observed that cannabis is perceived by many IDU as a relatively innocuous drug. Once again in 2006, many KE commented on behavioural and mental health problems associated with cannabis use (see Section 7.5.2 below), however, many also reported a strong association between cannabis use and methamphetamine use among IDU, which may confound any apparent association between cannabis use and behavioural and mental health problems.

7.4.2 Current patterns of cannabis use

Between 2000 and 2004 the proportion of IDU reporting recent cannabis use fell from 84% to 75%; however, in the last two years this figure has risen to 85% of IDU in 2006. In 2006, twenty-eight percent of IDU reported daily cannabis use over the previous six months, and 37% reported use the day before interview – a decrease from previous years. The proportion of

respondents reporting cannabis as their drug of choice has remained relatively stable since 2000 (see Figure 62).

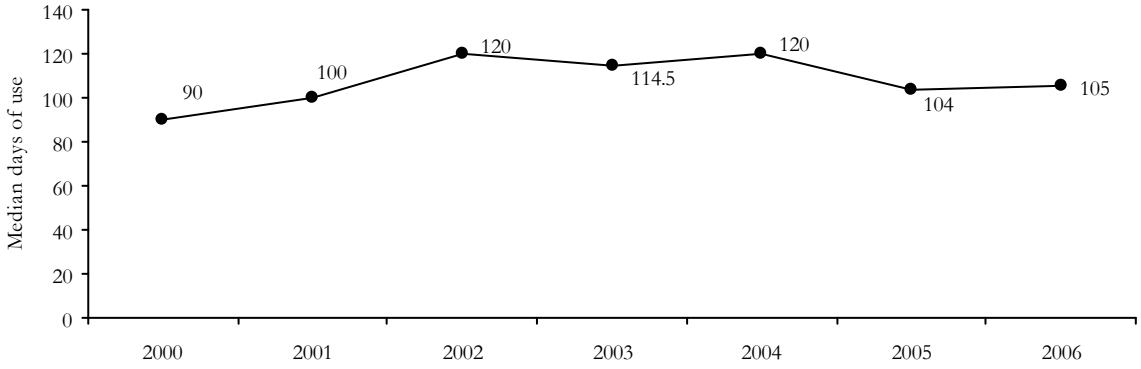
Figure 62: Prevalence and frequency of cannabis use among IDU, 2000 - 2006



Source: IDRS IDU interviews

For those who reported recent cannabis from 2000 to 2006, Figure 63 shows the median number of days used in the last six months, with 180 days indicating daily use. The frequency of cannabis use among IDU increased from 90 days (i.e. every second day) to a high of 120 days (i.e. 4 or 5 days a week) in 2002 and 2004, before falling to 105 days (about 4 days per week) in 2006.

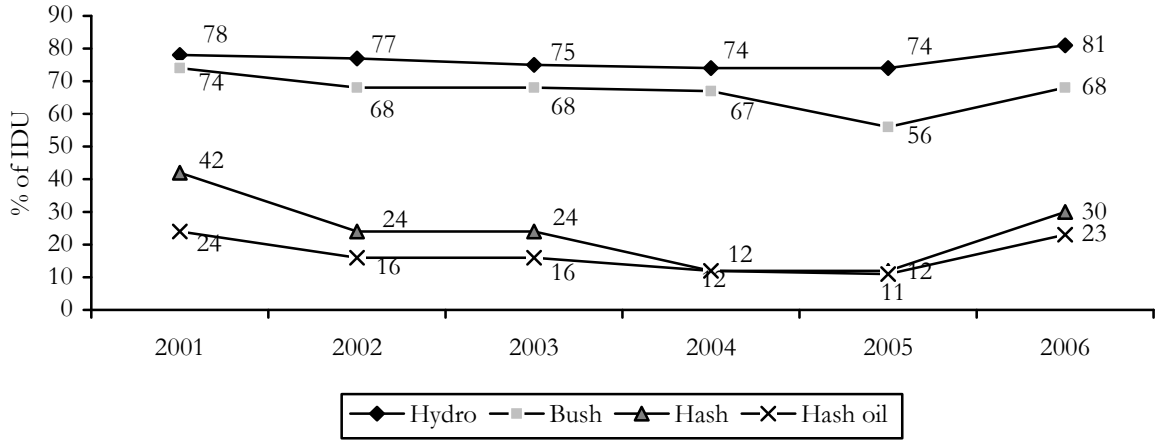
Figure 63: Median number of days of cannabis use in the past six months, among those who had used recently, 2000– 2006



Source: IDRS IDU Interviews

Figures 64 and 65 illustrate the forms of cannabis used recently, and the form most used by IDU, from 2001 to 2006. As in previous years, the majority of IDU in 2006 reported recent use of both hydro (81%) and bush (68%) cannabis, although the proportion reporting recent bush use was higher in 2006 than in 2005 (56%). Although fewer IDU reported recent use of hash (30%) or hash oil (23%) in 2006, these proportions also increased from 2005 (Figure 64).

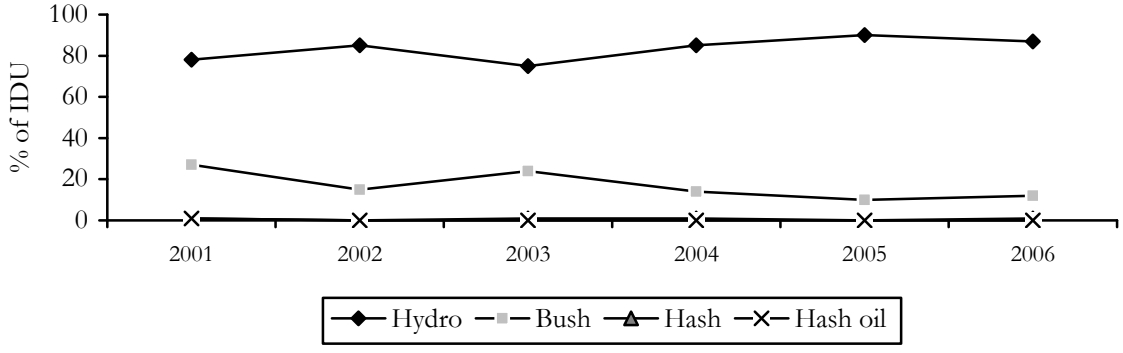
Figure 64: Proportion of IDU reporting recent use of cannabis, by form, 2001-2006



Source: IDRS IDU Interviews

Although a substantial minority of IDU in 2006 reported recent hash and hash oil use, and the majority reported recent bush use, the vast majority (87%) reported mostly using hydroponic cannabis recently, with 12% reporting mostly using bush cannabis and 1% (one participant) reporting mostly using hash recently (Figure 65).

Figure 65: Form of cannabis most used by IDU, 2001-2006



Source: IDRS IDU Interviews

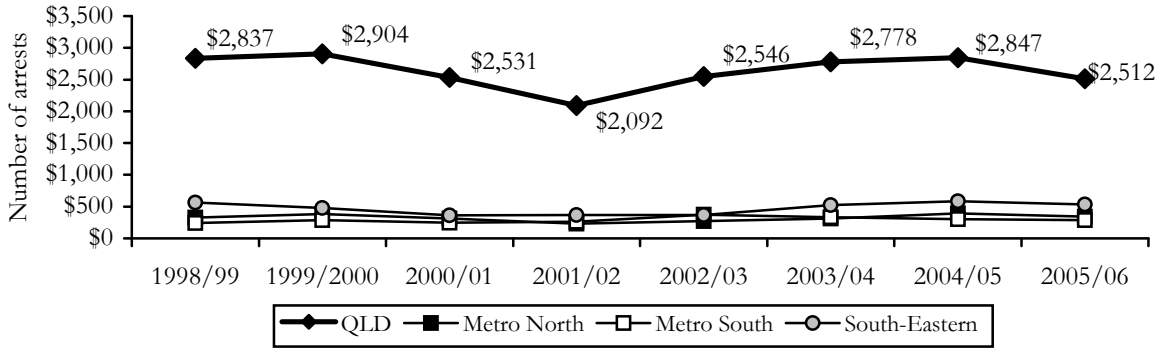
7.5 Cannabis related harms

7.5.1 Law enforcement

Figure 66 shows the number of arrests for cannabis use/possession in Queensland, from 1998/99 to 2005/06. The total number of arrests for the State dropped to a low of 2,092 in

2001/02, before rising to 2,847 arrests in 2004/05. In 2005/06, there were 2,512 arrests for cannabis use/possession in Queensland. Given that this figure includes instances where the individual was processed through the cannabis diversion program, trends in recent years are not necessarily indicative of changes in the incidence of cannabis use or dealing.

Figure 66: Number of cannabis possession/use arrests by geographic area, 1998/99 – 2005/06

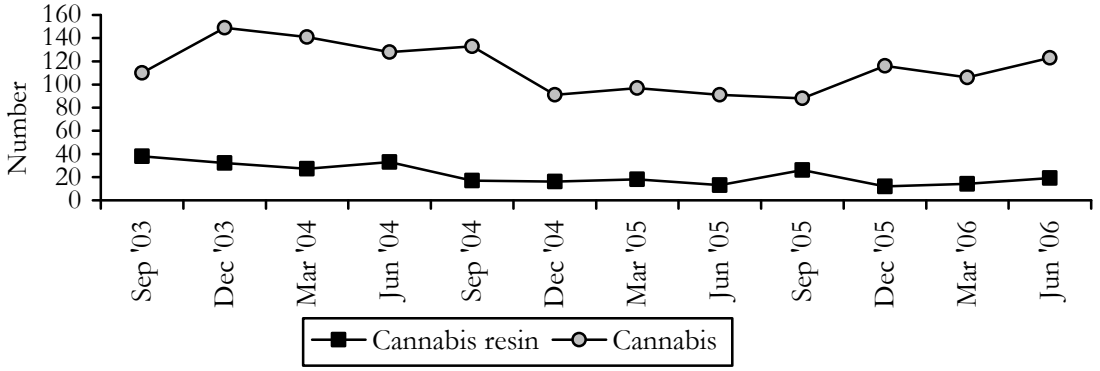


Source: Queensland Police Service
Note: Changes in the number of arrests may be indicative of changes in police activity, or an increase in possession/use, or a reflection of both.

According to KE, many regular cannabis users (including IDU) do not perceive dealing cannabis as a crime, and driving under the influence of cannabis is common. According to KE from the law enforcement sector, cannabis production in Queensland is highly organised, with established groups growing large, 'bush' crops which are then distributed by members of Outlaw Motorcycle Gang (OMCG). According to KE, however, organised syndicates are increasingly setting up organised 'hydro' plantations involving a number of houses. Despite this, according to KE, production of bush cannabis still greatly exceeds hydro production; whereas a 'hydro house' may yield about 60 cannabis plants, a bush crop may contain anywhere from 2,000 to 5,000 plants.

Figure 67 illustrates the number of cannabis seizures at the Australian border from July 2003 to June 2006. Over this time the total number of cannabis seizures has varied between 88 and 149 in each quarter, while the number of cannabis resin seizures has ranged from 12 to 38 in each quarter. In each quarter, the majority of seizures have been of cannabis seed.

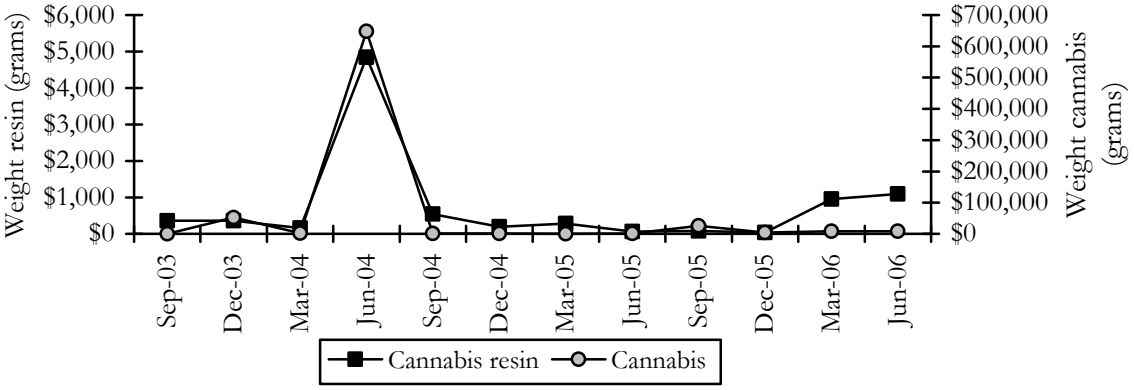
Figure 67: Number of cannabis seizures by Australian Customs Service, 2003/04–2005/06



Source: Australian Customs Service

Figure 68 shows the total weight of cannabis and cannabis resin seizures by Australian Customs Service from July 2003 to June 2006. From July 2003 to December 2005 ACS seized a median of 238 grams of cannabis resin per quarter, however, seizures of 954 grams and 1.1kg of cannabis resin were recorded in the first and second quarters of 2006 respectively. Over the same three year period ACS seized a median of 2.7kg of cannabis in each quarter. Unusually large seizures were recorded in the second quarter of 2004; 4.8kg of cannabis resin, and over 648kg of cannabis.

Figure 68: Weight of cannabis seizures by Australian Customs Service, 2003/04 – 2005/06



Source: Australian Customs Service

7.5.2 Health

A number of KE in 2006 expressed concern regarding the harmful health and behavioural effects of regular cannabis use. One KE noted an increase in the number of regular cannabis users (often single males) who were continuing to use cannabis into their late thirties and forties, and experiencing a range of health and psychosocial problems associated with their use. Although regular cannabis users may use up to 10-15 cones per day, some users presenting for treatment report using as many as 60 cones a day. Despite a growing perception that regular cannabis use is associated with a range of health and behavioural problems, a full understanding of the link between cannabis use and associated harms is limited by:

> (a) poor understanding of patterns of use among regular cannabis users: how much cannabis is in the typical 'cone'; what proportion of users mix it with tobacco? how many cones per day is typical?; and
>
> (b) poor understanding of the substance itself: has the potency of cannabis changed in recent years? is the distinction between hydro and bush meaningful; how much do these two forms of cannabis differ with respect to THC content?

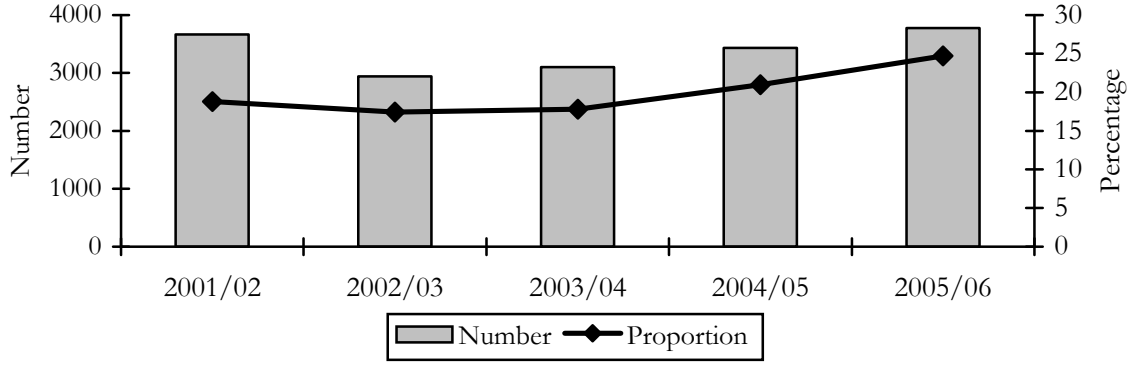
Calls to telephone help-lines

Figure 69 shows the number of calls made to ADIS regarding cannabis from 2001/02 to 2005/06. In 2005/06 3,775 calls were made regarding cannabis, compared with 3,432 in 2004/05. The proportion of calls to ADIS in relation to cannabis has increased steadily over this time, from 18.8% in 2001/02 to 24.7% in 2005/06.

Figures 70 shows the number of inpatient hospital admission for cannabis-related problems from 1993/94 to 2004/05, for Queensland and nationally. Nationally, the number of admissions increased by 320% between 1993/94 (424) and 2001/02 (1,358), falling slightly over the next two years before rising to 1,409 admissions in 2004/05. In Queensland, trends in cannabis-related hospital admissions followed a similar pattern, rising from 80 admissions in 1993/94 to 185 admissions in 2002/03, falling slightly before rising to 201 admissions in the 2004/05 financial year.

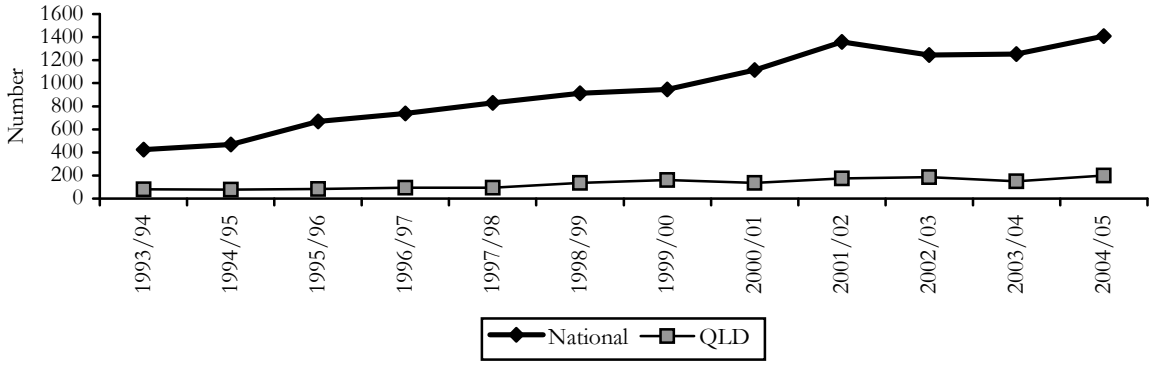
Some KE reported a growing recognition of cannabis as a drug for which treatment may be necessary, and the increase shown here may reflect this growing awareness to some extent. It is likely, however, that it is also indicative of an increase in cannabis-related problems among regular users.

Figure 69: Number and proportion of enquiries to ADIS regarding cannabis, 2001/02–2005/06



Source: ADIS

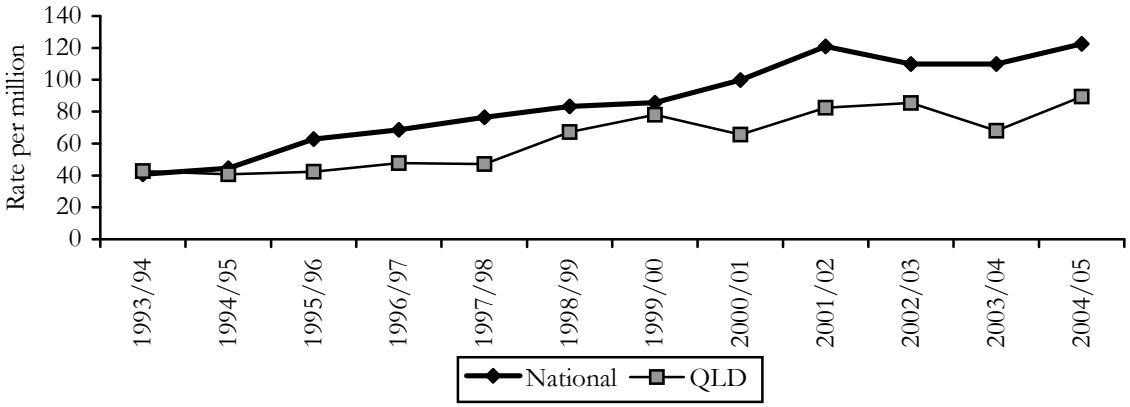
Figure 70: Number of inpatient hospital admissions where cannabis was the principal diagnosis, 1993/94 to 2004/05



Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

Figure 71 shows the rate of inpatient hospital admission where cannabis was the principal diagnosis, from 1993/94 to 2004/05, for Queensland and nationally. The trend towards increasing admission is consistent with that shown in Figure 70, however, Figure 71 also shows that compared to Australia as a whole, the rate of inpatient hospital admission for cannabis in Queensland has been lower. Although the rate of admission for Queensland and Australia was similar in1993/94 (43 in QLD versus 41 nationally), since 1994/95 the national rate has been higher than that for Queensland. Indeed, in 2004/05 the national admission rate of 123 per million persons was 37% higher than the Queensland rate of 90 admissions per million persons.

Figure 71: Rate of inpatient hospital admissions where cannabis was the principal diagnosis per million people aged 15-54 years, 1993/94 to 2004/05



Source: National Hospital Morbidity Database (Roxburgh & Degenhardt, 2006)

7.6 Summary of cannabis trends

- Compared with other illicit drug markets in Queensland, the cannabis market is distinguished by its **stability**, however, it is not entirely static.
- The majority of IDU in 2006 reported using both hydro and bush cannabis, yet the vast majority of these reported mostly using hydro.
- Hydroponic cannabis continues to be more expensive than bush cannabis, however, the **price** of both forms increased in 2006. As with other drugs, this increase was more evident in larger quantities of the drug, and many IDU reported that the price of cannabis had been stable recently.
- The majority of IDU report that both bush and hydro cannabis are 'easy' or 'very easy' to obtain. The perceived **availability** of hydro has been very high and stable, whereas the perceived availability of bush has been slightly lower, and more variable. There was some evidence of a small decrease in the perceived availability of both forms of cannabis, in 2006.
- IDU continue to describe hydro cannabis as 'high' potency and bush cannabis as 'medium' potency, however, in the absence of objective purity data, these perceptions cannot be verified. A number of KE noted that potency is determined more by the seed than the growing method, and that the term 'hydro' may be a **misnomer**. KE from the law enforcement sector suggested that most cannabis on the market in Queensland is from bush crops, although hydro production is increasing.
- The number of cannabis use/possession **arrests** in Queensland increased by 36% between 2001/02 and 2004/05, before falling by 12% in 2005/06. The total weight of cannabis **seizures** at the Australian border by ACS has been stable recently, however, the total weight of cannabis resin seizures increased markedly in the first two quarters of 2006.
- In the context of growing concern regarding the **mental health effects** of regular cannabis use, both the number and proportion of calls to **telephone help-lines** in Queensland in relation to cannabis use increased in 2005/06. The number and rate of inpatient **hospital admissions** for cannabis use also increased in 2004/05.
- KE reported a growing recognition in the community that regular, heavy cannabis use can significantly impact mental health and functioning. Increases in cannabis help-seeking and treatment episodes may reflect this growing recognition.

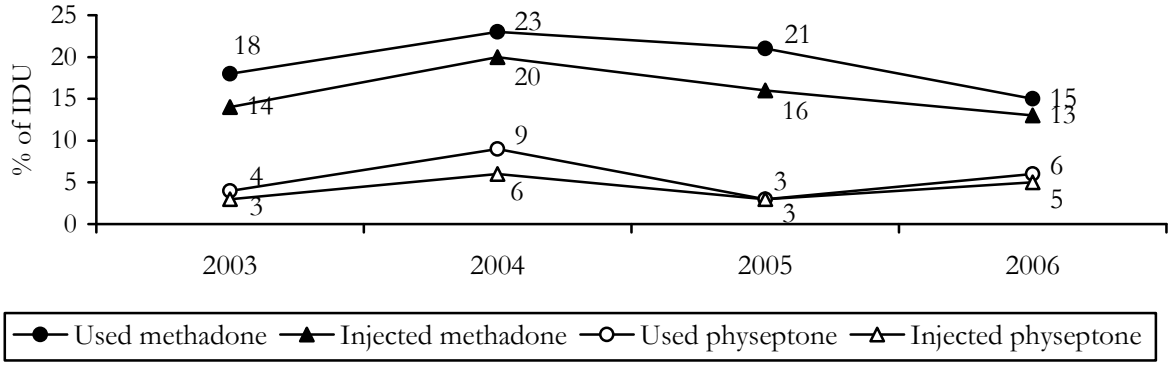
8. OPIOIDS

With on-going instability in the heroin market, a significant proportion of IDU in Queensland appear to have turned to alternative opiates which, although perhaps less desirable than heroin, are more readily available and offer a more consistent effect, at a more consistent and affordable price. In Queensland, patterns of use of pharmaceutical opiate preparations – methadone, buprenorphine, morphine and more recently oxycodone – have closely mirrored trends in the availability and use of heroin among IDU.

8.1 Use of illicit methadone

Consistent with declining rates of methadone maintenance treatment among IDU (see Section 4.5.2), in 2006 15% of IDU reported recent use of illicit methadone (i.e. methadone which was not prescribed to them), and 13% reported recent injection of illicit methadone. These rates have declined consistently since 2004. As in previous years, those using illicit methadone recently reported doing so only rarely: on a median of three days in the last six months. Rates of recent use (6%) and injection (5%) of illicit physeptone were higher in 2006 than in 2005, but still at a low level among IDU (see Figure 72).

Figure 72: Use and injection of illicit methadone and illicit physeptone among IDU in the last six months, 2003– 2006



Source: IDRS IDU Interviews

8.1.1 Price, availability and market characteristics

In 2006, twenty-one IDU were able to provide information about the price and availability of illicit methadone (see Table 17). The majority of respondents reported that the price of methadone had remained 'stable' recently (62%), however, 24% reported that the price had increased. Although the majority of respondents reported current availability as 'easy' or 'very easy' (62%), 24% reported current availability as 'difficult'. Similarly, although the majority (57%) reported that availability was stable, a further 29% reported that it had become more difficult to access illicit methadone recently. Of those who reported obtaining illicit methadone recently, 48% reported doing so from a friend, with only a small number reporting obtaining illicit methadone from a known dealer (10%) or an acquaintance (10%). Consistent with this, the venues in which IDU reported usually obtaining illicit methadone were a friend's home (29%) and an agreed public location (24%), (Table not shown).

Table 17: Price change and availability of methadone, as reported by IDU, 2003–2006

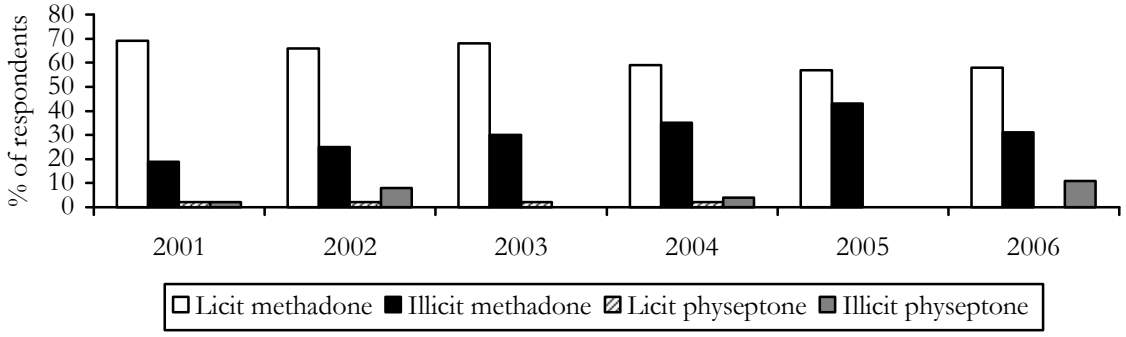
	2003	2004	2005	2006
Price change (%)				
Increasing	5	6	17	24
Stable	76	55	44	62
Decreasing	0	9	0	0
Fluctuating	0	6	0	0
Don't know	19	24	39	14
Availability (%)				
Very easy	0	18	13	14
Easy	33	49	52	48
Difficult	43	18	4	24
Very difficult	0	0	4	0
Don't know	24	15	26	14
Availability change (%)				
Easier	0	6	0	0
Stable	59	61	61	57
More difficult	5	0	4	29
Fluctuates	14	3	0	0
Don't know	23	30	35	14
Illicit Dose Origin (%)				
Take-away	76	90	72	92
Daily dose	5	0	0	0
Friend	0	3	0	0
Don't know	19	7	26	8

Source: IDRS IDU interviews
Note: No reliable price estimates available.
Note: Valid percentages are shown

8.1.2 Use patterns

IDU were also asked what forms of methadone they had most used in the last six months. In 2006 58% of those who responded (n=*36*) reported mostly using licit methadone syrup, while 31% reported most using illicit methadone syrup. The proportion reporting mostly using illicit methadone syrup has increased consistently since 2001. Whereas in 2005 no IDU nominated physeptone as the form most used, in 2006 11% of respondents nominated illicit physeptone tablets as the form of methadone most used recently (Figure 73).

Figure 73: Form of methadone most used recently, 2001- 2006

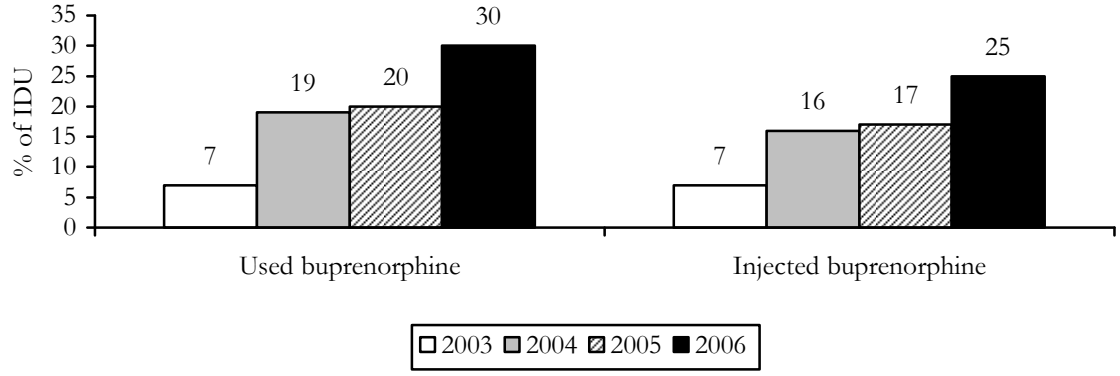


Source: IDRS IDU Interviews

8.2 Use of illicit buprenorphine

Whereas the proportion of IDU reporting current methadone treatment has declined in recent years, an increasing proportion of those interviewed are reporting current buprenorphine treatment (see Section 4.5.2). Consistent with this, there has been a steady increase in the proportion of IDU reporting recent use and injection of illicit (diverted) buprenorphine, since 2003. As Figure 74 illustrates, the proportion reporting recent illicit buprenorphine use increased from 7% in 2003 to 30% in 2006, while the proportion reporting recent injection increased from 7% in 2003 to 25% in 2006. Males (37%) were significantly more likely than females (12%) to report recent illicit buprenorphine use in 2006 ($\chi^2(1)=6.96$, $p=.008$).

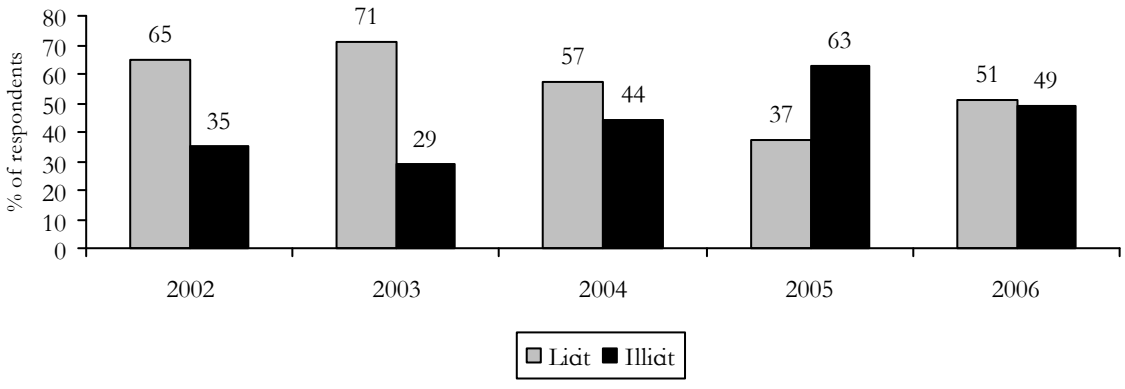
Figure 74: Recent (last six months) use and injection of illicit buprenorphine among IDU, 2003–2006



Source: IDRS IDU Interviews

Among those reporting recent buprenorphine use, Figure 75 shows the proportion identifying licit and illicit buprenorphine as the form they had most used recently. In 2006 roughly equal proportions reported that they had most used licit (51%) and illicit (49%) buprenorphine recently. Among those reporting recent illicit buprenorphine use in 2006, the frequency of use was typically low; those reporting recent use and used on a median of 5 days in the last six months, and those reporting recent injection had injected illicit buprenorphine on a median of 7 days in the last 6 months.

Figure 75: Form of buprenorphine most used recently, 2002-2006



Source: IDRS IDU Interviews

According to some KE, use and injection of diverted buprenorphine is increasingly common in prisons. A number of KE also reported increased concern about diversion of take-away buprenorphine doses. KE also reported a significant number of injection-related problems associated with this practice, and at least one public clinic has implemented a policy precluding any take-away doses, in an effort to reduce the diversion and injection of buprenorphine.

8.3 Morphine

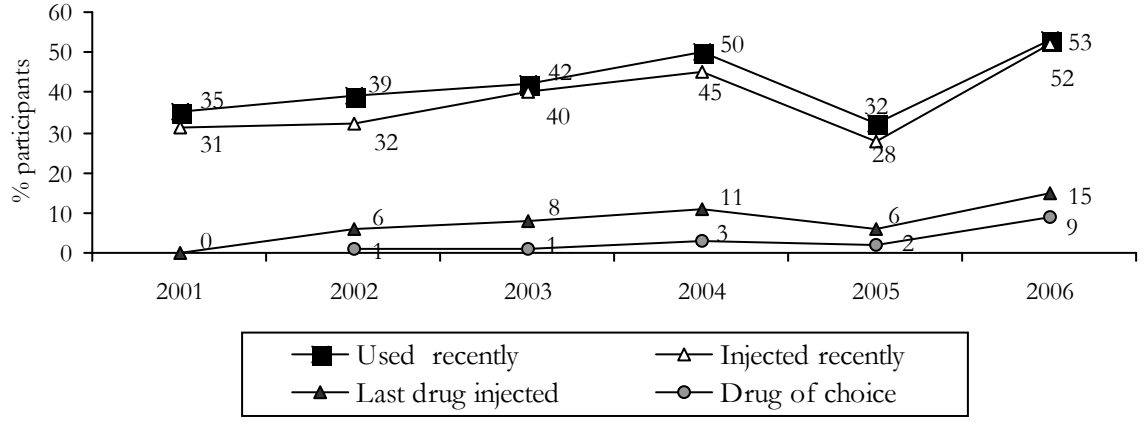
KE have for many years identified morphine as a commonly injected drug among IDU in north Queensland. In the context of an on-going heroin shortage, morphine has also become a commonly injected drug among IDU in south-east Queensland.

8.3.1 Use patterns

After increasing consistently from 2001 to 2004, in 2005 the proportion of IDU reporting recent use and injection of morphine dropped markedly, before rising again in 2006 (see Figure 76). In every year, almost all of those reporting recent use indicated recent injection of morphine, and for the first time in 2006, the majority of IDU reported injecting morphine recently. Among those reporting recent morphine injection, the median frequency of use was 10 days in the last 6-months. An increase in morphine injection is also evident in the proportion nominating morphine as the last drug injected, with this proportion rising from 0% in 2001 to 15% in 2006. For the first time in 2006, a noteworthy minority (9%) nominated morphine as their drug of choice (Figure 76). Those reporting recent illicit morphine use were also significantly more likely to report recent use of heroin ($\chi^2(1)=5.30$, $p=.02$).

Despite this, a number of KE, particularly those working in treatment settings, reported an increase in morphine use, injection and dependence among IDU. KE observed that over the last few years morphine has "*taken the place of heroin*" for some IDU, due to its reliable availability, consistent purity and lower price.

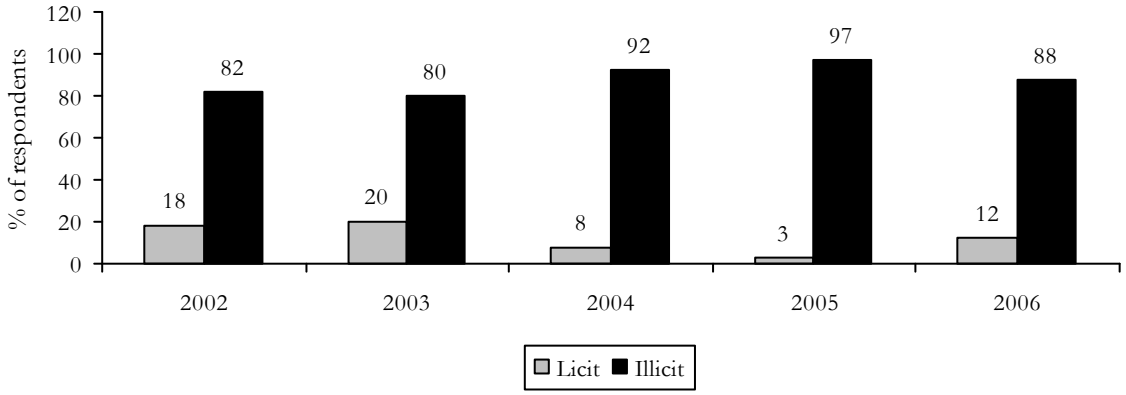
Figure 76: Proportion of IDU reporting morphine use and injection in the past six months 2001-2006



Source: IDRS IDU interviews

Among those reporting recent morphine use, Figure 77 shows the forms of morphine most used by IDU in the preceding six months. Consistently, the vast majority in each year have reported mostly using illicit morphine, with this proportion reaching a peak of 97% in 2005 before falling to 88% in 2006. As in previous years, the main brand of morphine used by IDU (83% of recent users) in 2006 was MS Contin.

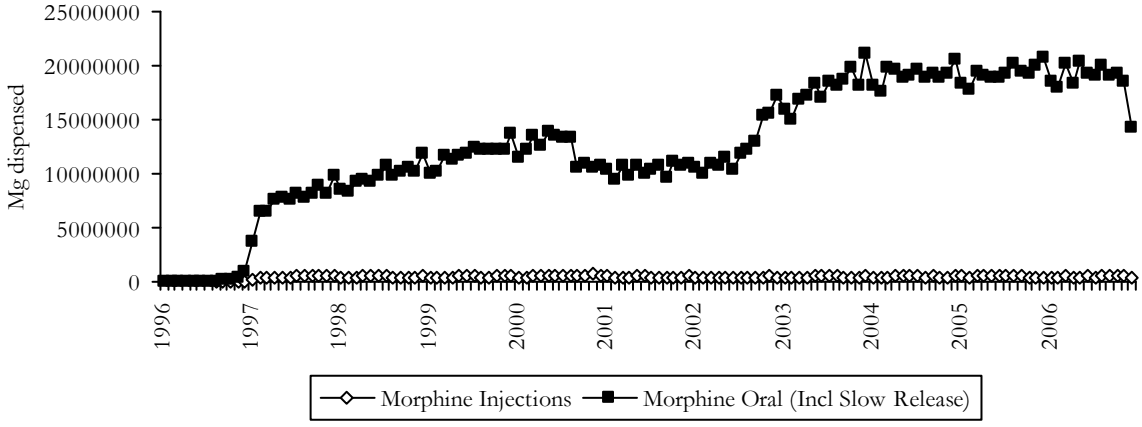
Figure 77: Form of morphine most used recently, 2001-2006



Source: IDRS IDU Interviews

The amount of oral morphine prescribed in Queensland has increased markedly over the last decade, from a total of 1,563,840mg in 1996 to 224,653,700mg in 2006 (Figure 78). It is impossible to determine from these data what proportion of the morphine being dispensed has been diverted, however, these data clearly indicate growing supply of morphine, which has the potential to be diverted.

Figure 78: Milligrams of morphine dispensed in Queensland, 1996 - 2006

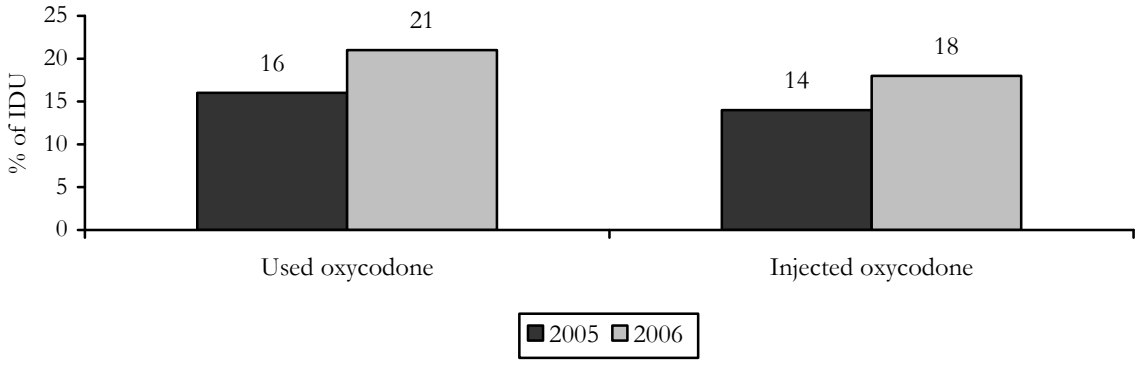


Source: Queensland Health, Drugs of Dependence Unit

8.4 Oxycodone

Prior to 2005 IDU were not asked about use of oxycodone, however, in 2005 a significant proportion of IDU specified recent use and injection. Consistent with key expert reports, in 2006 this proportion increased, with 21% of IDU reporting recent use of illicit oxycodone, with 18% reporting recent injection (Figure 79). As in 2005, the main brand of illicit oxycodone used by IDU in 2006 was Oxycontin.

Figure 79: Recent (last six months) use and injection of illicit oxycodone among IDU, 2005-2006



Source: IDRS IDU interviews

Continuing the trend from 2005, in 2006 IDU were more likely to report recent use of illicit (21%) than licit (8%) oxycodone, with 70% reporting that they mostly used illicit oxycodone (Table 18). As in 2005, the most commonly used brand of oxycodone among IDU in 2006 was Oxycontin (70%), however, 17% of recent users reported mostly using Endone.

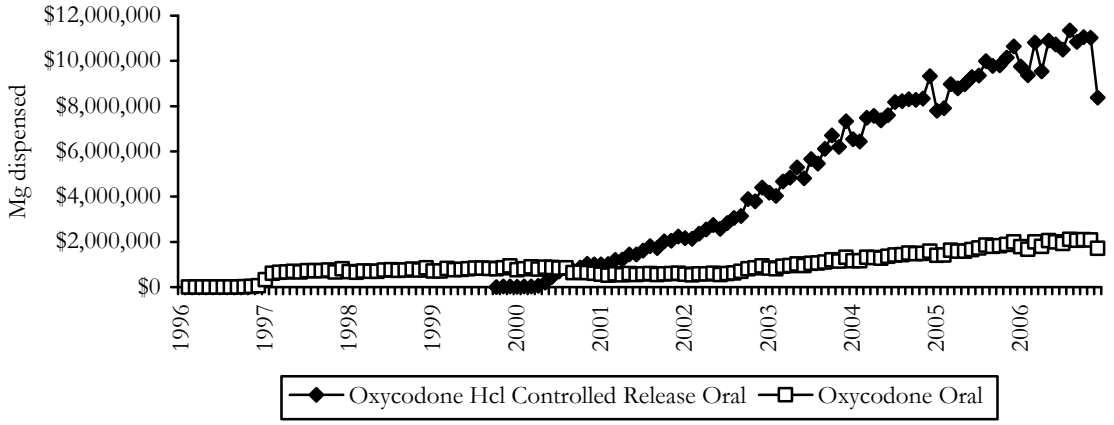
Table 18: Forms of oxycodone used and used most in the last six months, 2005-2006

	2005		2006	
	Used (%)	Most (%)	Used (%)	Most (%)
Oxycodone (licit)	6	16	8	30
Oxycodone (illicit)	15	84	21	70
Main brand				
Oxycontin		79		70
Oxycodone (generic)		11		3
Oxynorm		5		0
Endone		5		17

Note: Valid percentages shown for 'form most used'
Source: IDRS IDU interviews

The amount of controlled release oxycodone prescribed in Queensland has increased markedly over recent years, from a total of 5,951,540mg in 2000 to 124,232,775mg in 2006 (Figure 80). It is impossible to determine from these data what proportion of the oxycodone being dispensed has been diverted, however, these data clearly indicate growing supply of oxycodone, which has the potential to be diverted.

Figure 80: Milligrams of oxycodone dispensed in Queensland, 1996- 2006



Source: Queensland Health, Drugs of Dependence Unit

8.5 Other opioids

Among IDU in Queensland the main injected opiates are heroin, morphine, methadone, buprenorphine and oxycodone, however, a proportion of IDU in 2006 reported using various other opiates. In 2006, 7% of IDU reported using other licit opiates and 5% reported using other illicit opiates. Since 2001 only a minority of IDU have reported recent use other opiates each year (Figure 81).

Figure 81: Proportion of IDU reporting recent use of licit and illicit other opiates, 2001 - 2006

Source: IDRS IDU interviews
Note: prior to 2005 'other opiates' included oxycodone

Table 19 shows the main types of other opiates used in the last six months by those who reported recent use. Panadeine Forte was reported as the main type of other opiate used in the preceding six months by one-third of respondents – the same proportion as in 2004 and 2005.

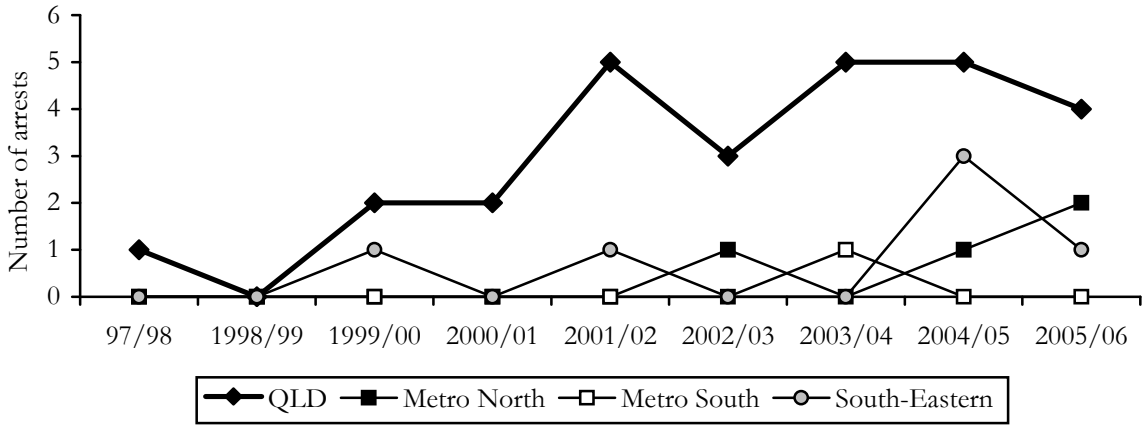
Table 19: Main type of other opiate used in the last six months, 2000– 2006

	2000	2001	2002	2003	2004	2005	2006
Panadeine Forte	4	4	12	0	33	33	33
Pethidine	7	3	12	20	24	11	0
Oxycodone	0	0	0	0	19	-/-	-/-
Codeine	0	3	18	0	10	11	0
Tramadol	0	0	0	0	5	22	17
Other	89	90	58	80	14	22	50

Source: IDRS IDU interviews
Note: Valid percentages are shown.

Despite some use of other opioids among IDU, the overall number of 'other opioid' possession/use arrests in Queensland remained low and stable in 2005/06, with only 4 arrests across the State during the financial year (see Figure 82).

Figure 82: Number of other opioid possession/use arrests by geographic area, 1997/98–2005/06



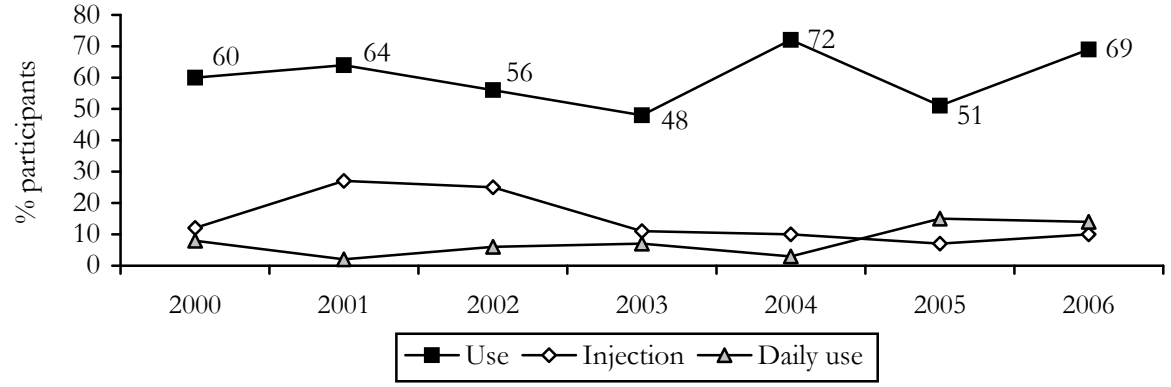
Source: Queensland Police Service

9. OTHER DRUGS

9.1 Benzodiazepines

The use of benzodiazepines among IDU increased in 2006, with 69% reporting use in the preceding six months, compared with 51% reporting recent use in 2005. Since 2001, rates of benzodiazepine injection among IDU have been low, with 10% of IDU reporting recent injection in 2006 compared with 64% in 2001. While injection of benzodiazepines has dropped markedly since 10mg Temazepam® gel capsules were removed from the PBS in 2001 (Breen et al., 2003), the proportion of IDU reporting daily use of benzodiazepines (including licit use) increased from 3% in 2004 to 15% in 2005 and 14% in 2006 (see Figure 83). According to key experts, use of benzodiazepines among IDU remains normative, although injecting use continues to be uncommon.

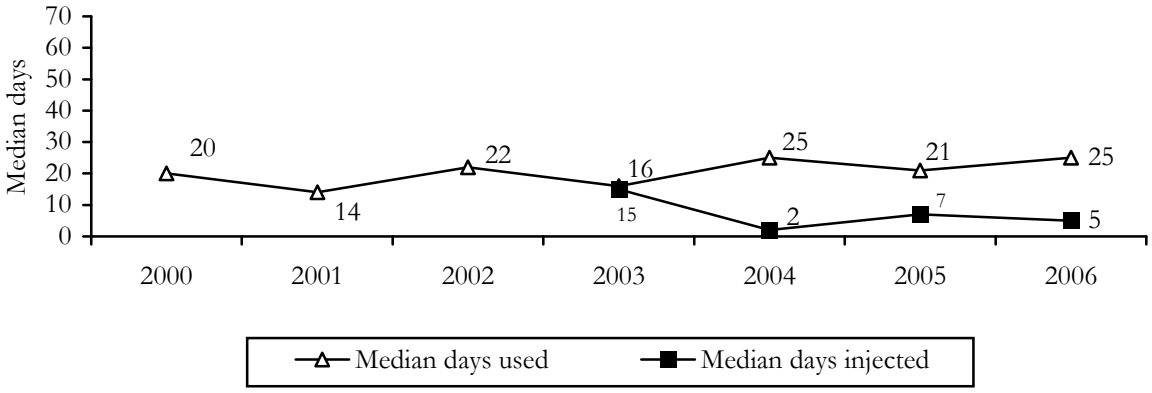
Figure 83: Proportion of IDU reporting benzodiazepine use and injection in the preceding six months, 2000-2006



Source: IDRS IDU interviews

Among IDU who reported recent use of benzodiazepines in 2006, the median number of days of use in the last six months was 25 (i.e. about once a week). Despite this, however, there was a small decrease in the median number of days injected – from 7 days in 2005 to 5 days in 2006 (see Figure 84).

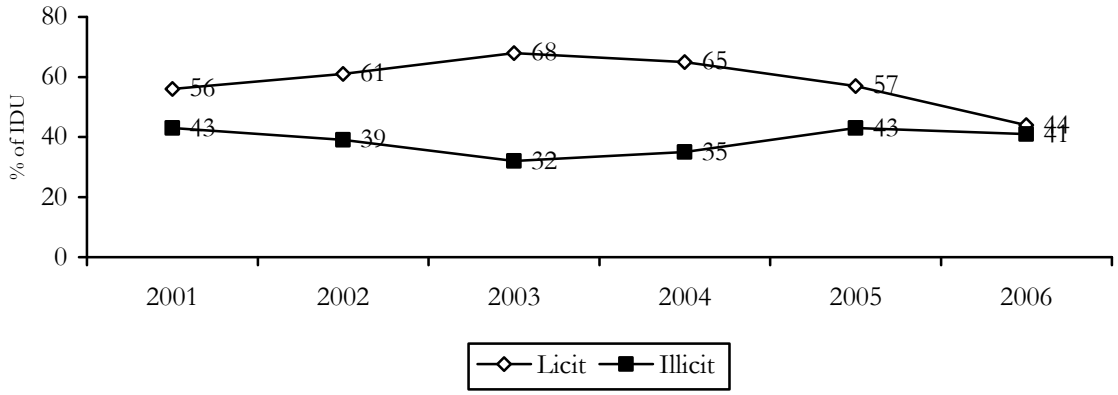
Figure 84: Median days use and injection of benzodiazepines in the past six months, 2000-2006



Source: IDRS IDU interviews
Note: Collection of data on the number of days injected commenced in 2003

Figure 85 show the form of benzodiazepines most used by IDU from 2000 to 2006. In 2006, almost equal proportions of IDU reported recent use of licit (44%) and illicit (41%) benzodiazepines, with over half (57%) reporting mostly using licit benzodiazepines. As in previous years, the main brand of benzodiazepine used by most IDU was Valium (65%).

Figure 85: Proportion of IDU reporting recent use of licit and illicit benzodiazepines, 2001- 2006



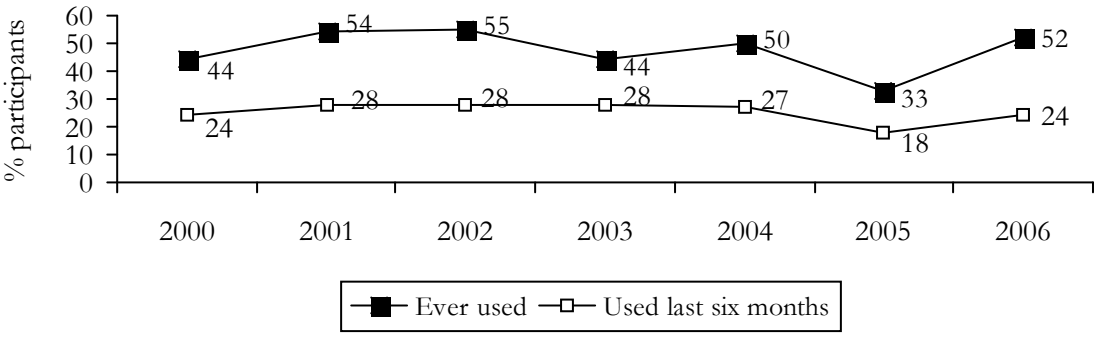
Source: IDRS IDU interviews

9.2 Antidepressants

The proportion of IDU reporting lifetime use of antidepressants increased from 33% in 2005 to 52% in 2006, and the proportion reporting recent anti-depressant use increased from 18% in 2005 to 24% in 2006 (Figure 86). The vast majority (85%) of those reporting recent anti-depressant use reported mostly using licit antidepressants, and consistent with this, the majority of recent users (59%) reported using either every day or every second day in the last six months. IDU reported using a wide range of anti-depressant brands, but among the most common were Avanza (26%) and Zoloft (22%).

Consistent with previous years, no IDU in 2006 reported either recent or lifetime injection of antidepressants. A number of KE reported high levels of mental health problems among IDU, particularly depression, and some observed that it is common for IDU to be prescribed antidepressants.

Figure 86: Proportion of IDU reporting lifetime and recent use of antidepressants, 2000-2006

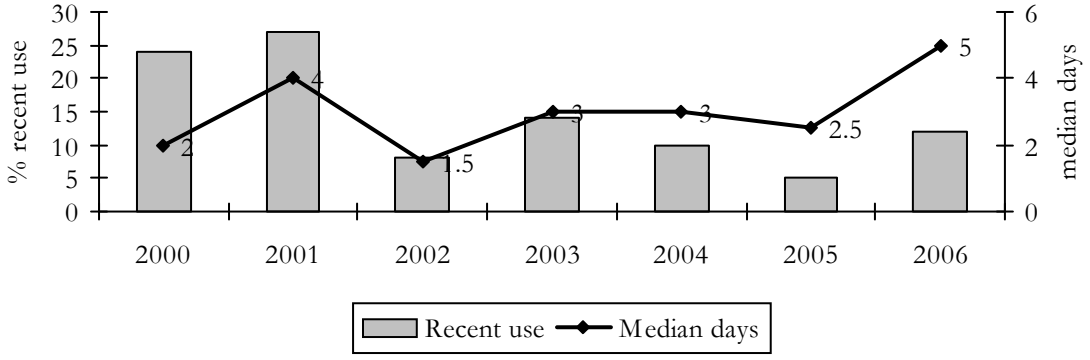


Source: IDRS IDU interviews
Note: Survey items on anti-depressant injection were first included in 2002

9.3 Hallucinogens

Only a small proportion of IDU in Queensland report recent use of hallucinogens each year. As shown in Figure 87, however, the prevalence of recent use increased in 2006, with 12% of IDU reporting recent use. The median number of days of use also increased, from 2.5 days in the last six months in 2005, to 6 days in the last six months in 2006. A number of KE from the law enforcement sector reported an increase in availability use of LSD, albeit from a very low base. One described the current availability as "variable and low", while another described LSD as a "drug of a previous generation". An increase in availability and use of hallucinogens is more likely to be evident among party drug users, and to be picked up in the Ecstasy and Related Drugs Reporting System (EDRS).

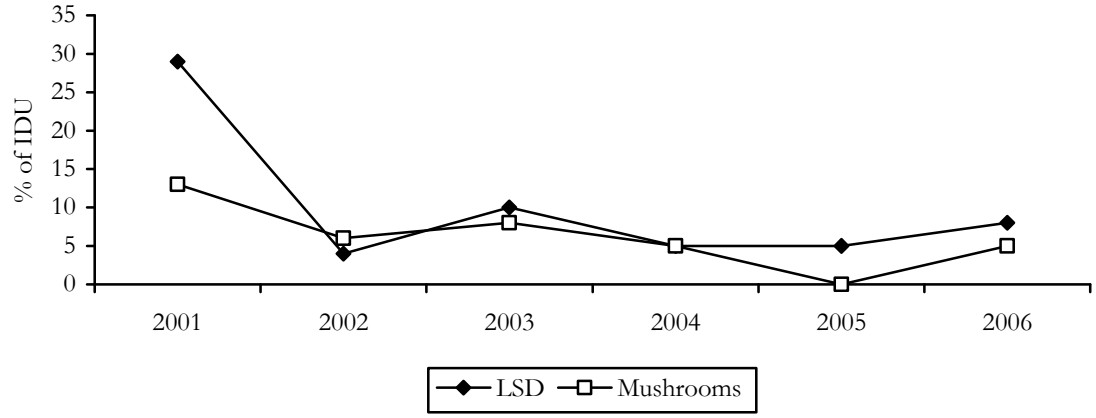
Figure 87: Prevalence and frequency of recent hallucinogen use among IDU, 2000–2006



Source: IDRS IDU interviews

In 2001, almost a third of IDU reported recent use of LSD, however, this proportion fell markedly in 2002, and has remained relatively stable since. The proportion reporting recent use of mushrooms fell to zero in 2005, however, in 2006 5% of IDU reported recent use of mushrooms, and 8% reported recent use of LSD (Figure 88).

Figure 88: Forms of hallucinogen used in the last six months, 2000 – 2006

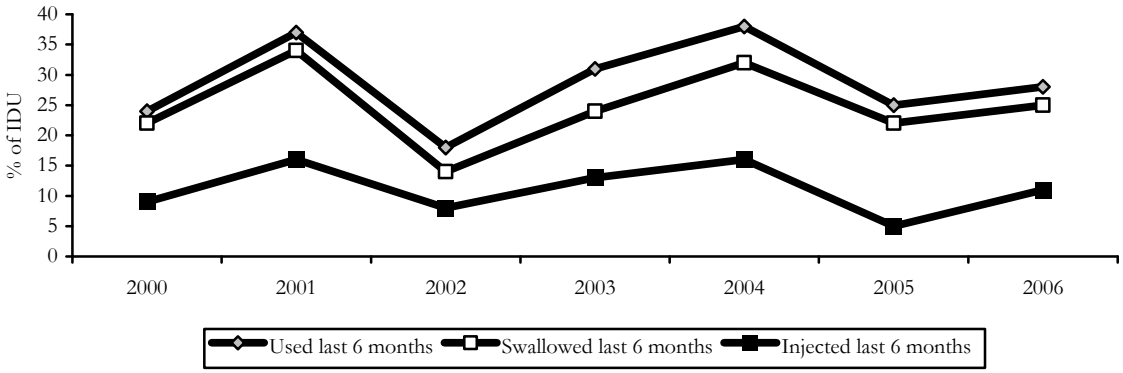


Source: IDRS IDU interviews

9.4 Ecstasy

Ecstasy use among IDU in Queensland seems to be largely opportunistic, however, the proportion of IDU reporting recent use has varied markedly in recent years. After increasing sharply during the heroin shortage in 2001 (to 37%), use of ecstasy among IDU dropped sharply in 2002 (18%) before rising again until 2004 (38%). In 2005, the proportion of IDU reporting recent use of ecstasy fell again (to 25%), rising to 28% in 2006 (Figure 89). Most recent users of ecstasy reported swallowing (25%) rather than injecting (11%), although the proportion reporting recent ecstasy injection was higher than in 2005 (5%). Among those reporting recent use, the median frequency of use was 4 days in the last 6 months.

Figure 89: Proportion of IDU reporting use, swallowing and injection of ecstasy in the last six months, 2000 – 2006



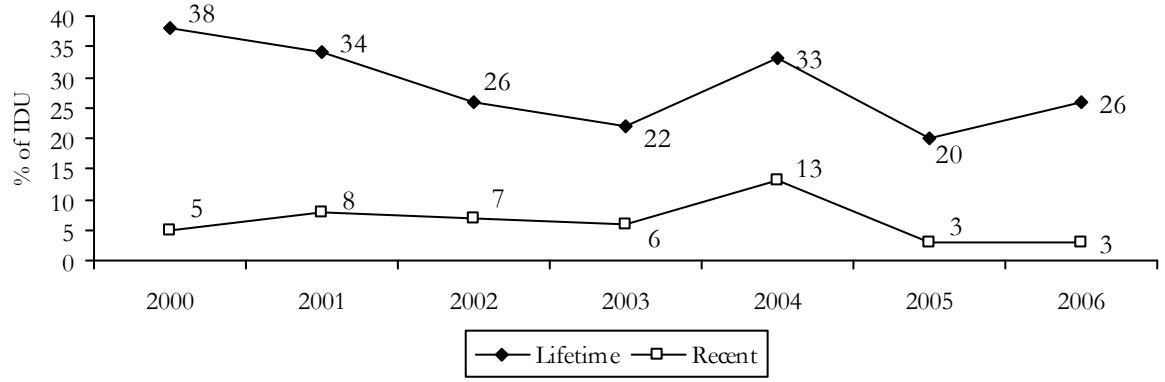
Source: IDRS IDU interviews

Key experts from the law enforcement sector reported an increase in domestic MDMA production in recent years, although the majority of MDMA is still imported. One KE reported that that an increasing majority of ecstasy pills do in fact contain MDMA, at a reasonably consistent purity of 20-40%.

9.5 Inhalants

One in four IDU in 2006 (26%) reported lifetime use of inhalants, however, only three IDU reported inhalant use in the last six months (Figure 90). Of these, one reported using amyl nitrate and one reported using nitrous oxide. Among adult IDU, such as those interviewed for the IDRS, use of inhalants is uncommon. According to KE, inhalant use is more common among youth, particularly Indigenous youth. KE from the correctional sector reported both cognitive deficits and mental health problems associated with chronic inhalant use.

Figure 90: Proportion of IDU reporting lifetime and recent use of inhalants, 2000 - 2006

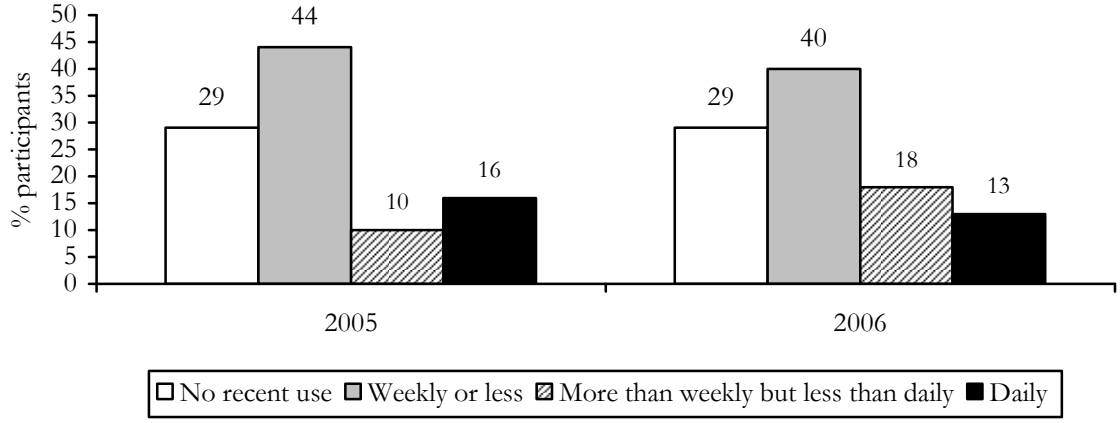


Source: IDRS IDU interviews

9.6 Alcohol and Tobacco

Only a minority of IDU report regular alcohol consumption. In 2006, 29% of IDU reported no recent alcohol use, 40% reported consuming alcohol once a week or less, and 18% reported use more than once a week, but less than daily (see Figure 91). Only 13% reported daily alcohol use in the last six months. Consistent with KE reports of increasing heavy drinking among young women, there was no significant difference in rates of daily drinking between males (13%) and females (15%).

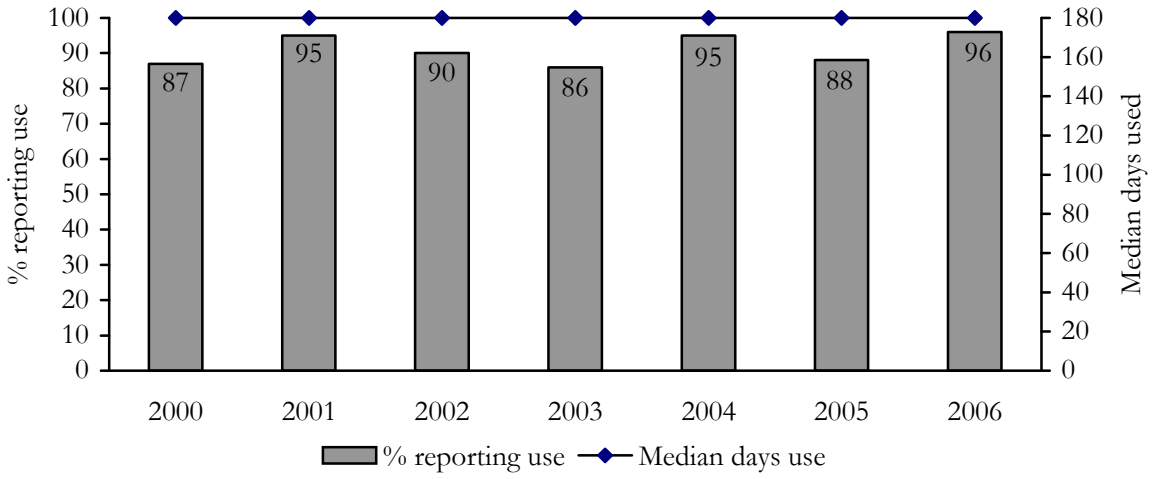
Figure 91: Patterns of alcohol use, 2005-2006



Source: IDRS IDU interviews

KE agreed that tobacco use is normative among IDU. In 2006, ninety- six percent of IDU reported recent tobacco use, and, not surprisingly, use was typically on a daily basis (Figure 92).

Figure 92: Participant reports of tobacco use in the last six months, 2000-2006



Source: IDRS IDU interviews

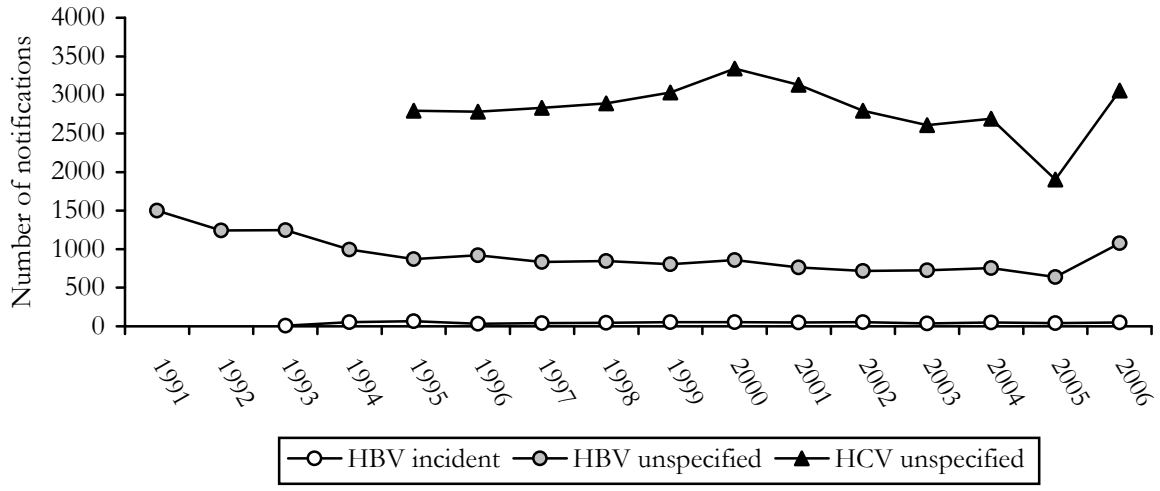
10. ASSOCIATED HARMS

10.1 Blood-borne viral infections

Rates of Hepatitis B virus (HBV) infection notification in Queensland have dropped reasonably consistently since 1991, with the rate of unspecified notifications dropping from 1,502 in 1991 to 638 in 2005, before climbing again to 1,078 in 2006. The number of HBV incident notifications has been low and quite stable over this time, with fewer than 100 notifications in any given year, and 49 notifications in 2006 (see Figure 93).

The rate of HCV infection in Queensland also decreased over this time, although Queensland data aggregate incident and unspecified notifications. After recording 2,794 notifications (incident and unspecified) in 1995, the HCV notification rate in Queensland rose to 3,339 in 2000 before falling back to 1,901 notifications in 2005. In 2006, however, there were 3,053 incident and unspecified HCV notifications in Queensland (Figure 93).

Figure 93: Total notifications for (unspecified and incident) HBV and HCV infections, QLD 1991-2006



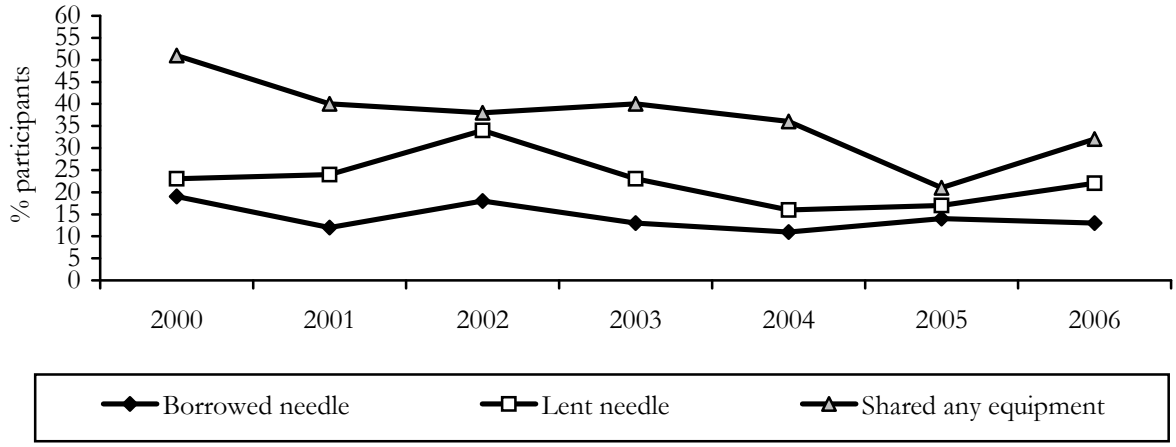
Source: Communicable Diseases Network – Australia – National Notifiable Diseases Surveillance System (NNDSS)[1]
Note: The 2006 data are provisional

10.2 Sharing of injecting equipment among IDU participants

Between 2000 and 2005 the proportion of IDU reporting sharing of injection equipment in the last month dropped from 51% to 21%, however, in 2006 this proportion increased to 32%. Over the same time period, the proportion reporting borrowing a needle has been low and quite consistent, ranging from 19% (2000) to 13% (2006). Each year a slightly larger number of IDU report lending a needle to someone else; between 2005 and 2006 this proportion increased from 17% to 22% (Figure 94).

[1] There are several caveats to the NNDSS data that need to be considered. As no personal identifiers are collected, duplication in reporting may occur if patients move from one jurisdiction to another and are notified in both. In addition, notified cases are likely to represent only a proportion of the total number of cases that occur, and this proportion may vary between diseases, between jurisdictions, and over time.

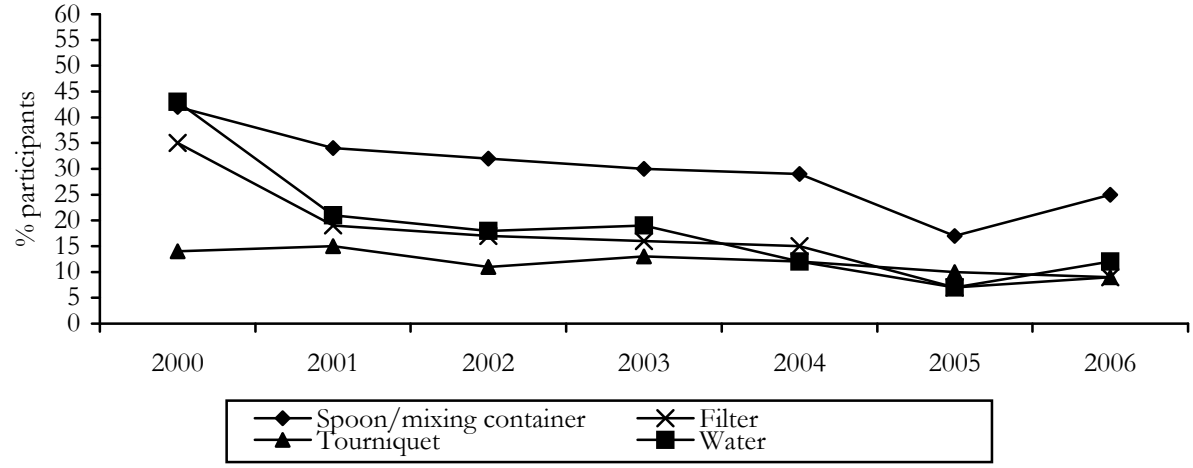
Figure 94: Proportion of IDU reporting sharing injecting equipment in the month preceding interview, 2000-2006



Source: IDRS IDU interviews
Note: Figure excludes participants who had not injected in the last month (in 2003 n=1, 2004 n=1, 2005 n=4 and 2006 n=1 were excluded)

Figure 95 shows the proportion of IDU reporting sharing of other injection equipment in the last month, from 2000 to 2006. Over this time, rates of sharing all types of equipment have fallen. The proportion reporting sharing a tourniquet fell from 14% in 2000 to 9% in 2006, and the proportion reporting sharing a spoon or mixing container fell from 42% in 2000 to 25% in 2006. Rates of sharing filters and water declined markedly over this time: In 2000 thirty-five percent of IDU reported sharing a filter, compared with 9% in 2006; in 2000 forty-three percent of IDU reported sharing water, compared with 12% in 2006. Despite this, a number of KE commented on the poor knowledge of some IDU with regard to the risks associated with sharing injection equipment.

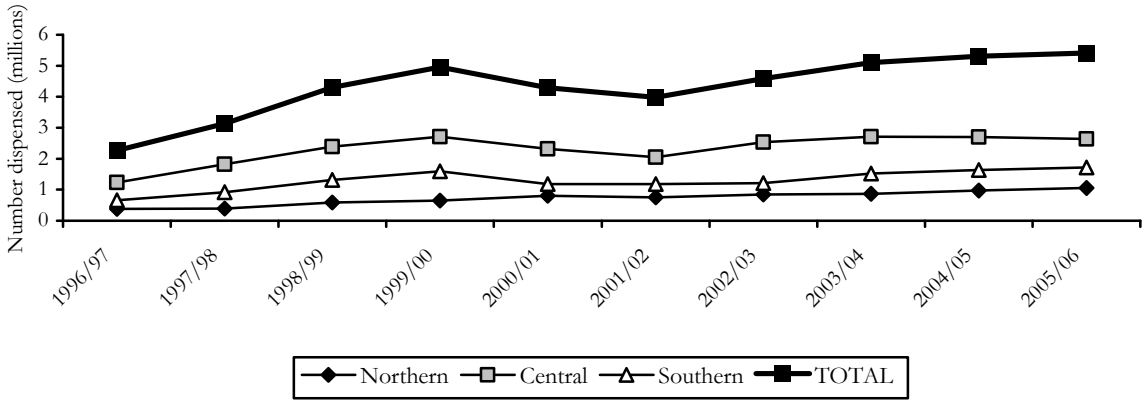
Figure 95: Proportion of IDU participants reporting sharing other injecting equipment by type, 2000-2006



Source: IDRS IDU interviews
Note: Excludes participants who had not injected in the last month (in 2003 n=1, 2004 n=1, 2005 n=4 and 2006 n=1 were excluded)

Figure 96 details the number of syringes dispensed to NSP by Queensland Health from 1996/97 to 2005/06, by region and for the State as a whole. The figure shows an increase in syringes dispensed in 1999/00, followed by a decline in the following two years. It is important to note however, that these data reflect the number of syringes dispensed to NSP by QLD Health, rather than the number dispensed by NSP to IDU. Since 2001/02, there has been a steady increase in the number of syringes dispensed in Queensland, with a total of 5,406,670 syringes dispensed in the 2005/06 financial year.

Figure 96: Number of syringes dispensed in Queensland, 1996/97– 2005/06

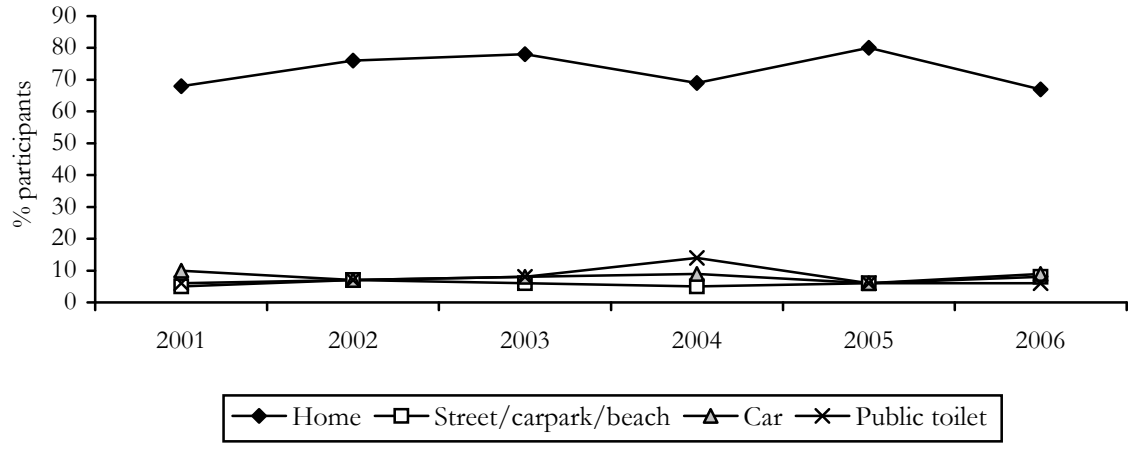


Source: Queensland Health

10.3 Location of injections

As has been the pattern in previous years, the majority of IDU in 2006 reported usually injecting in a private home (67%), however, small proportions of IDU reported usually injecting on a street, car park or beach (8%), in a car (9%) or in a public toilet (6%). There has been no significant change in the location of usual injection among IDU interviewed for the IDRS, since 2001 (see Figure 97).

Figure 97: Proportion of IDU participants reporting usual location for injection in the month preceding interview, 2001-2006



Source: IDRS IDU interviews

10.4 Injection-related health problems

After declining for many years, the rate of self-reported, injection-related problems among IDU increased in 2006 (see Table 20). The most commonly experienced injection-related problems in the last month were scarring and bruising around the injection site (55%), difficulty injecting (38%) and a dirty hit (25%). Smaller proportions reported experiencing a thrombosis (9%), abscesses or infections (8%) or an overdose (4%).

KE also reported a high rate of injection-related problems among IDU, and offered two possible explanations:

(a) IDU attending NSP are an ageing cohort of injectors, and with increasing age, an increasing number are experiencing a range of health problems related to their drug use; and/or

(b) an increasing proportion of IDU are injecting pharmaceutical opioid preparations, and doing so more regularly.

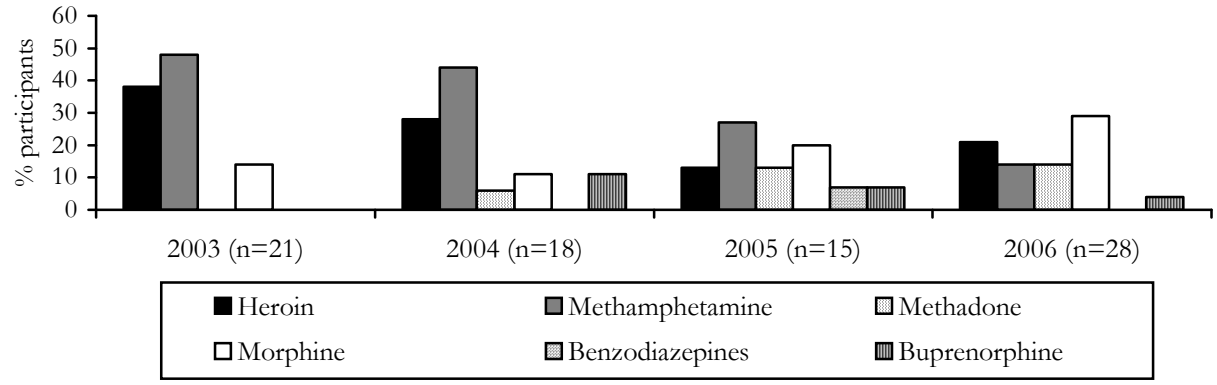
Table 20: Proportion of IDU reporting injection-related problems in past month, by problem type, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Overdose	8	7	6	7	3	3	4
Dirty hit	28	18	18	19	16	14	25
Abscesses/infections	14	10	14	16	11	5	8
Scarring/bruising	56	45	51	37	48	37	55
Difficulty injecting	36	32	43	35	40	31	38
Thrombosis	8	10	11	7	8	7	9
Total (mean)	1.50	1.43	1.46	1.22	1.26	1.20	1.38

Source: IDRS IDU interviews
Note: Includes all participants

For those reporting experiencing a dirty hit recently, Figure 98 shows the main drug causing the dirty hit, from 2003 to 2006. In 2006 the drug most commonly associated with a dirty hit was morphine (29%), followed by heroin (21%). Smaller proportions identified methamphetamine (14%), methadone (14%) or buprenorphine (4%) as the main drug causing the dirty hit in 2006 (Figure 98).

Figure 98: Main drug causing dirty hit in last month, 2003-2006

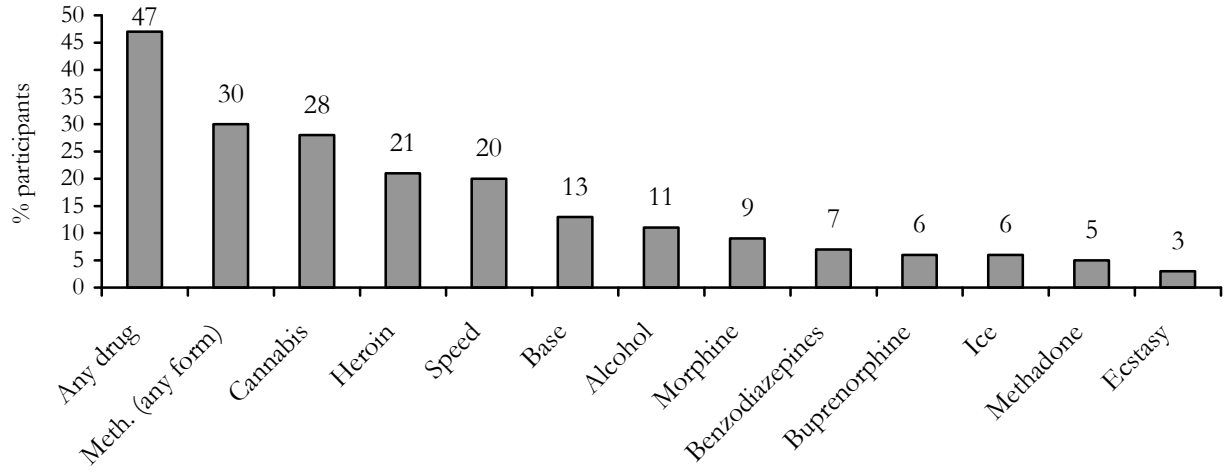


Source: IDRS IDU interviews

10.5 Driving risk behaviours

IDU in 2006 were asked about driving a vehicle under the influence of a drug in the last six months. As shown in Figure 99, 47% of IDU in 2006 reported driving under the influence in the last six months. The drugs most commonly consumed prior to driving were those used by the largest proportion of IDU: methamphetamine (30%) and cannabis (28%).

Figure 99: Driving under the influence by IDU participants, by drug type, 2006

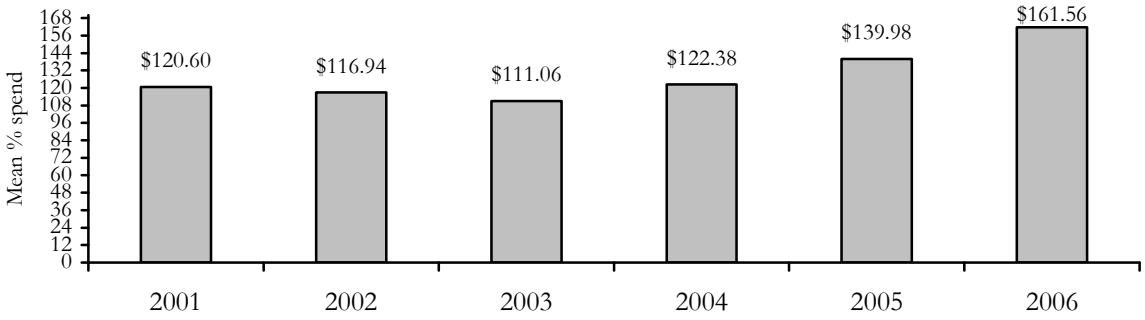


Source: IDRS IDU interviews

10.6 Expenditure on illicit drugs

The mean amount of money spent on illicit drugs the day before interview, from 2001 to 2006, is shown in Figure 100. The mean amount spent on drugs has increased consistently since 2003, with IDU in 2006 reporting spending a median of over $160 on drugs the day before interview.

Figure 100: Mean amount of money spent by IDU on illicit drugs on day before interview, 2001-2006



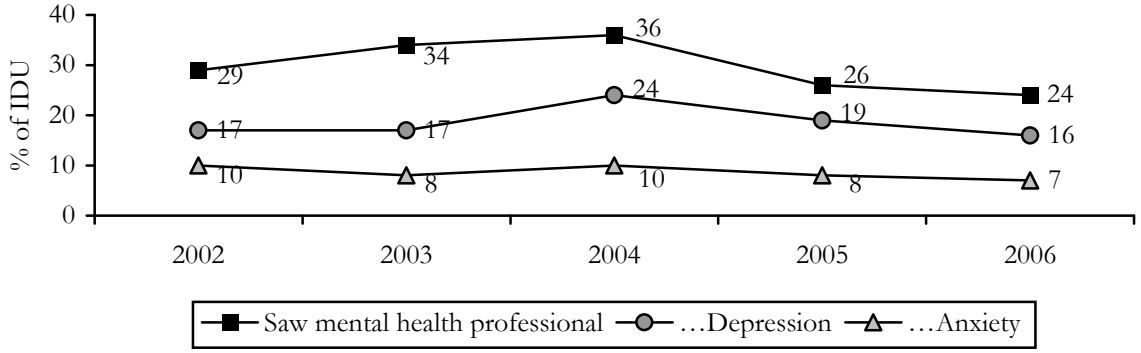
Source: IDRS IDU interviews
Note: Among those who spent money on drugs yesterday
Note: Comparable data are not available for 2000

10.7 Mental health problems

Consistent with previous years, 40% of IDU in 2006 reported experiencing a mental health problem other than drug dependence in the last six months. However, only 24% reported having seen a mental health professional in the last six months. Despite little change in the proportion of IDU reporting recent mental health problems, since 2004 the proportion of IDU reporting accessing a mental health professional recently has declined from 36% to 24%. The mental health problems for which IDU most often sought help in 2006 were depression (16%) and anxiety (7%), (see Figure 101).

A number of KE commented on the high rate of mental health problems among IDU, particularly those in a prison environment, and some noted a link between crystal methamphetamine use and psychosis. Nevertheless, the majority agreed that the most common mental health problem among IDU is depression. As in previous years, a number of KE in 2006 reported that the incidence and severity of mental health problems among IDU and other regular drug users had increased, with paranoia, psychosis, anxiety and general 'scatters' – symptoms typically associated with cannabis and/or methamphetamine use – becoming more prominent, particularly among younger users.

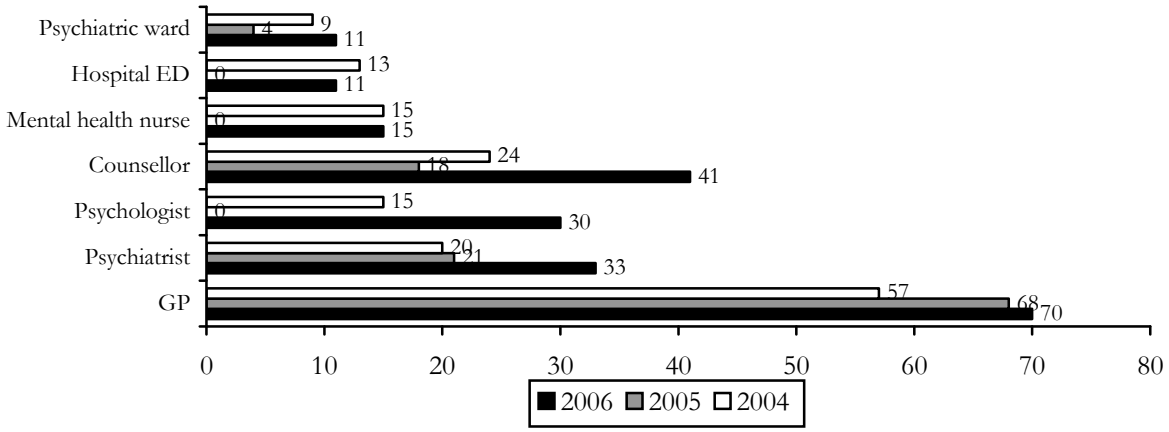
Figure 101: Proportion of IDU who saw a mental health professional in the last six months, for a problem other than drug dependence, 2002 - 2006



Source: IDRS IDU interviews

The types of mental health professionals seen by IDU in 2004, 2005 and 2006 are presented in Figure 102. Among those who reported seeing a mental health professional recently, the majority in each year reported seeing a General Practitioner (70% in 2006). However, in 2006 a substantial proportion also reported seeing a counsellor (41%), a psychiatrist (33%) or a psychologist (30%).

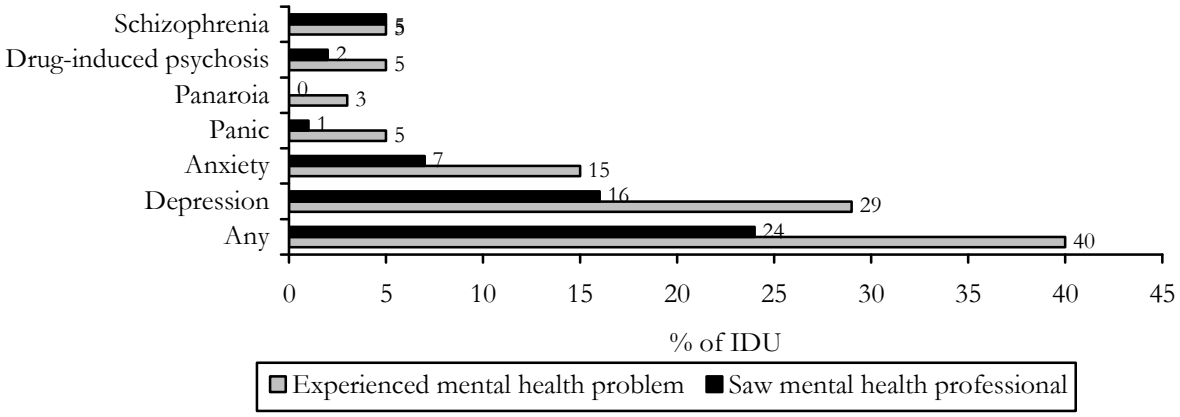
Figure 102: Types of mental health professional seen by IDU in the last six months, 2004-2006



Source: IDRS IDU interviews
Note: Valid percentages (proportion of those who had seen any mental health professional) are shown

Figure 103 shows the proportion of IDU reporting experiencing and seeking help for each of a range of mental health problems in the last six months. While a substantial minority of IDU (40%) reported experiencing a mental health problem other than drug dependence in the last six months, only 24% reported seeing a mental health professional in this time. Similarly, while 29% of IDU reported experiencing depression in the last six months, only 16% reported seeing a mental health professional about depression in this time, and of the 15% who reported experiencing anxiety, fewer than half (7%) reported accessing mental health services (see Figure 103). Evidently, a significant proportion of IDU who are experiencing mental health problems are not accessing appropriate mental health care.

Figure 103: Proportion of IDU who experienced a mental health problem and who saw a mental health professional recently, 2006



Source: IDRS IDU interviews

10.8 Substance-related aggression

IDU were asked whether they had become verbally aggressive whilst under the influence of, or withdrawing from, alcohol or any other drug, in the last six months (see Figure 104). More than a third of IDU (36%) reported becoming verbally aggressive while under the influence of a drug, and 41% reported becoming verbally aggressive while withdrawing from a drug recently. Smaller proportions reported becoming physically aggressive under the influence of a drug (14%) or coming down (14%).

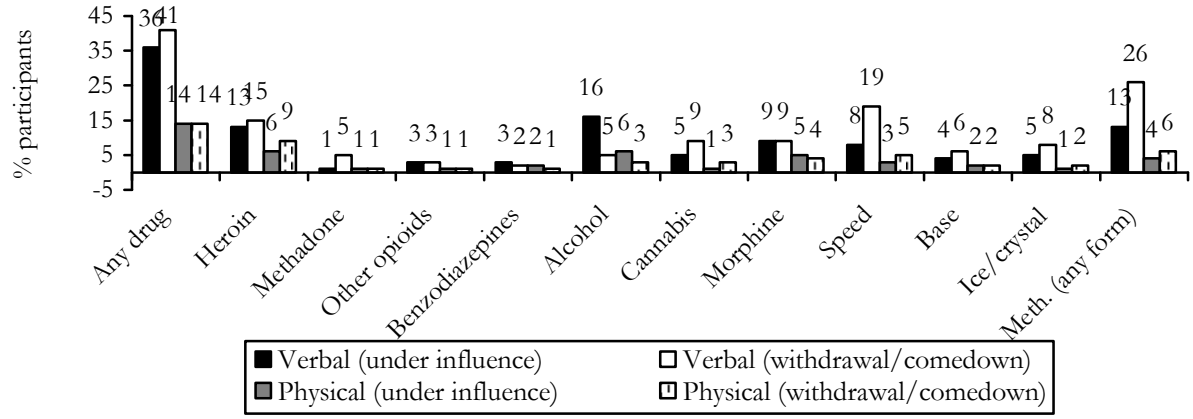
The substance most frequently associated with self-reported verbal aggression whilst under the influence was alcohol (16%), however, 13% also reported becoming verbally aggressive under the influence of heroin and methamphetamine. The drug most commonly associated with verbal aggression during withdrawal was methamphetamine (26%). Almost one in five IDU (19%) reported becoming verbally aggressive while withdrawing from powder methamphetamine recently; smaller proportions reported becoming verbally aggressive while coming down from base (6%) or ice/crystal (8%). Other drugs associated with verbal aggression during comedown included heroin (15%), cannabis (9%) and morphine (9%).

Fourteen percent of IDU reported becoming physically aggressive under the influence or withdrawing from a drug recently, and the drug most commonly associated with physical aggression was heroin, with 6% reporting becoming physically aggressive while intoxicated and 9% becoming physically aggressive in withdrawal. Drugs less commonly associated with physical aggression while intoxicated included morphine (5%) and alcohol (6%). In contrast to KE reports of an association between methamphetamine use and physical violence, only a small minority of IDU reported becoming physically aggressive, either while intoxicated (4%) or during comedown (6%).

Males were less likely than females to report aggression associated with intoxication or withdrawal, although most of these gender differences were not statistically significant. There was no significant gender difference in the proportion of IDU reporting verbal aggression either while intoxicated (males: 35%, females: 38%, $p > .05$) or during withdrawal (males: 39%, females: 47%, $p > .05$). Males were significantly less likely than females to report physical aggression while intoxicated (males: 10%, females: 27%, $p < .05$), although the gender

difference in the proportion reporting physical aggression during withdrawal was not significant (males: 11%, females: 24%, $p > .05$).

Figure 104: Proportion of IDU reporting substance-related aggression, by substance, 2006

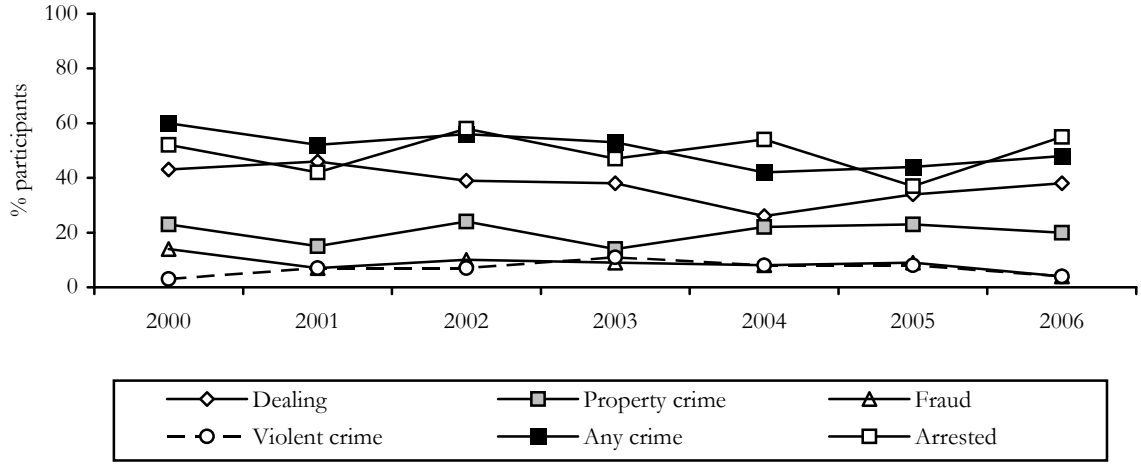


Source: IDRS IDU interviews

10.9 Criminal and police activity

In 2006, forty-eight percent of IDU reported engaging in some form of criminal activity in the last month, and more than half (55%) reported having been arrested in the last 12 months. As in previous years, the most common type of crime reported by IDU was drug dealing (38%), with a smaller proportion reporting engaging in property crime (20%) and few reporting engaging in fraud (4%) or violent crime (4%) in the last month (see Figure 105). A number of KE observed that among regular illicit drug users, low-level drug dealing is not uncommon, and is often undertaken solely to support the individual's personal drug use.

Figure 105: Proportion of participants reporting engagement in criminal activity in the last month by offence type, 2000-2006



Source: IDRS IDU interviews

Despite little change in rates of self-reported criminal activity among IDU, the proportion reporting arrest in the last year increased substantially from 2005 (37%) to 2006 (55%). Despite this, more IDU in 2006 (42%) than in 2005 (33%) reported that police activity had been 'stable'

recently. Nevertheless, 44% of IDU in 2006 stated that police activity had increased in the last six months, and consistent with this, 26% reported that police activity had made it harder to obtain drugs recently (Table 21).

Table 21: Criminal and police activity as reported by IDU participants, 2005-2006

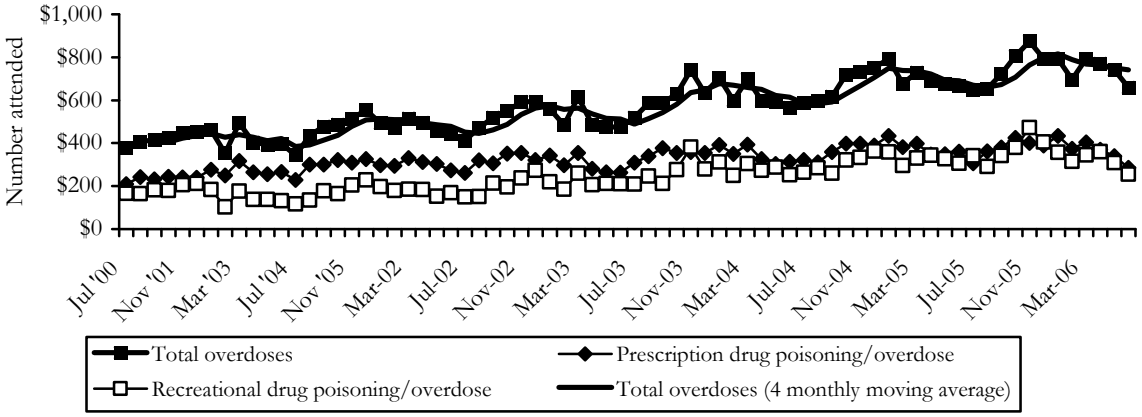
Criminal and police activity	2005 N=106 %	2006 N=112 %
Criminal activity in last month:		
Dealing	34	38
Property crime	23	20
Fraud	9	4
Violent crime	8	4
Any crime	44	48
Arrested in last 12 months	37	55
Police activity in last 6 months		
More activity	48	44
Stable	33	42
Less activity	4	4
Don't know	15	11
More difficult to obtain drugs recently		
Yes	19	26
No	78	72

Source: IDRS IDU interviews

10.10 Drug overdose

When Queensland Ambulance Service (QAS) paramedics attend an incident they deem to be a drug poisoning or overdose, they record whether the substance involved is believed to be a prescription drug (e.g. benzodiazepines, morphine) or a recreational drug (e.g. heroin, methamphetamine, ecstasy) overdose. Presently, it is not possible to disaggregate these figures to monitor trends in overdose associated with a particular drug. Figure 106 does, however, indicate the number of prescription drug poisoning/overdose incidents, and the number of recreational drug poisoning/overdose incidents, attended by QAS paramedics between July 2000 and June 2006. As the figure shows, attendance at overdose follows a cyclical pattern, with the number of overdoses markedly higher around December and January than at other times of the year. As with all indicator data, it is difficult to establish the extent to which this increase reflects an increase in the incidence of overdose, or the operational activity of QAS. Taking into account this cyclical pattern, there was a reasonably consistent increase in the number of such incidents attended by QAS between July 2000 and June 2006, with the total number of overdoses attended increasing from 5,020 in the 2000/01 financial year to 8,947 overdoses attended in the 2005/06 financial year – an increase of 78%.

Figure 106: Number of recreational drug and prescription drug poisoning and overdose incidents attended by paramedics in Queensland, 2000 – 2006



Source: Queensland Ambulance Service

11. DISCUSSION

The 2006 Queensland IDRS identified a number of new trends, and confirmed that other trends identified in previous years, continued into 2006. With each passing year the IDRS dataset becomes more valuable, as it is increasingly able to document both short-term changes and longer-term trends in illicit drug markets. Interpretation of these changes is complicated by the ageing sample of IDU accessed for the IDRS survey, but is facilitated by consideration of statewide indicator data and information provided by key experts.

11.1 Heroin

The impact of the 2001 heroin shortage continues to be evident in the Queensland heroin market, with evidence of on-going and perhaps increased suppression of supply, and unstable purity. There has been relatively little change in the price of heroin over time, indicating that at the retail level, price may be a relatively insensitive indicator of market dynamics. Perhaps indicative of this on-going suppression of the heroin market, there was evidence of a continued decline in heroin use among IDU in 2006. The average age of IDU attending NSP continues to increase, and those injecting heroin are typically older than those injecting methamphetamine. To an increasing extent heroin may be, as some KE have described it, "*a drug of a previous generation*".

The continued decline of the heroin market in Queensland is also reflected in indicator data, with declines in the number of arrests for possession, the number of calls to telephone help lines, the rate of self-reported overdose, and the number of pharmacotherapy registrations. The number of hospital admissions for opioids has been low and stable, however, this figure may also reflect the increasing number of IDU turning to alternative opioids (see Section 11.5) in response to a suppressed heroin market. Despite this, the number and weight of heroin importations intercepted at the Australian border increased in the first two quarters of 2006.

In contrast to most other Australia jurisdictions, the vast majority of opioid pharmacotherapy clients in Queensland are registered with a public prescriber. Despite high rates of injecting drug use and opiate dependence among new prison receptions, only 1% of client registrations in Queensland (versus 6.4% nationally) were in correctional facilities.

11.2 Methamphetamine

The IDRS monitors trends in three forms of methamphetamine: powder, base and crystal ('ice/crystal'). While the former two are mostly locally produced, crystal methamphetamine or 'ice/crystal' is mostly imported. As in previous years, in 2006 patterns of use and trends associated with powder and base differed substantially from those for ice/crystal.

Changes in illicit drug markets are not always reflected in the price of street-level quantities of the drug, and as in previous years, the price of a point of all forms of methamphetamine remained stable at $50. According to some KE, a point is loosely synonymous with "*fifty dollars worth*". In 2006 there was some evidence of a decrease in the price of powder and base methamphetamine, with the price of larger quantities falling slightly. Conversely, the median price of larger quantities of ice/crystal increased, although IDU continue to report widely varying prices for larger quantities of the drug.

While the majority of IDU once again rated all forms of methamphetamine as 'easy' or 'very easy' to obtain, ice/crystal was considered less readily available than the other forms, with availability less stable over time. The perceived availability of all forms of methamphetamine fell in 2006. IDU consistently (and accurately) rate ice/crystal as higher in purity than powder

and base, and there was little change in the perceived purity of each form from 2005. As seizure data do not distinguish among forms of methamphetamine, these data are limited in their ability to detect changes in purity over time.

The proportion of IDU reporting recent methamphetamine use dropped again in 2006, with only a small minority reporting daily use in the last six months. In 2005 there was evidence of a shift away from ice/crystal to less pure forms of methamphetamine. In 2006, however, the reverse occurred, with a larger minority of IDU identifying ice/crystal as the form most used recently. These divergent trends in methamphetamine use by form underscore the importance of distinguishing between powder, base and ice/crystal in monitoring methamphetamine trends.

Indicator data continue to suggest high levels of health and legal problems among regular methamphetamine injectors. Telephone help-line and hospital admission data provided no evidence of a 'further' increase in health-related problems among methamphetamine users, however, given that many methamphetamine users do not access treatment for their drug use, the actual incidence of acute health-related problems among this group is difficult to determine.

The number of arrests for use/possession of 'amphetamine-type stimulants' (ATS) in Queensland rose again in 2006, however, because KE reports suggest that ATS continue to be a priority for law enforcement, the observed increase in arrests may reflect increased law enforcement efforts in the ATS market, rather than increased market activity. Furthermore, the inclusive ATS category encompasses not only amphetamine and methamphetamine, but also 3,4-methylenedioxymethylamphetamine (MDMA), or ecstasy, which is now the second most commonly used illicit drug in Queensland and Australia after cannabis (AIHW, 2005). Until it is possible to disaggregate MDMA and methamphetamine related events in Queensland arrest data, these data will be of limited use in monitoring the methamphetamine market.

The number of clandestine laboratories detected in Queensland has fallen dramatically in the last two years, however, this does not necessarily indicate a decline in domestic methamphetamine production. In light of recent increases in precursor control and legislative changes to facilitate prosecution of methamphetamine 'cooks', this reduction in the 'number' of labs detected may reflect increasing organisation of methamphetamine production in Queensland, with fewer 'backyard' producers willing, or able to, manufacture the drug. In the absence of more detailed information about the nature or production capacity of lab detections, this drop in lab detections is difficult to interpret.

11.3 Cocaine

Cocaine use has traditionally been rare, sporadic and opportunistic among IDU in Queensland, and this continued to be the case in 2006. Among the small proportion who indicated recent use, the frequency of use was very low and roughly equal numbers reported using intranasally ('snorting') and injecting. The small number of IDU who reported on cocaine renders reports of price, purity and availability less reliable. Indeed, reports among IDU were widely variable, suggesting that supply channels for this group are not well established. There was little evidence of change in the price of cocaine in 2006, with the price continuing to vary between $200 and $300 per gram. IDU disagreed regarding the purity and the availability of cocaine in 2006, however, some KE reported an increase in the availability of high-purity cocaine in south-east Queensland.

Although there seems to be relatively little contact between cocaine users and either health or law enforcement agencies in Queensland, arrest data provide some evidence of an increase in the size of the cocaine market. Indeed, the number of arrests for cocaine use/possession in Queensland increased substantially from 1999/00 to 2005/06, however, the total number still

remains very low. The number of hospital admissions and telephone help-line calls related to cocaine has been low and variable in recent years. Anecdotal reports from users and KE suggest that there may be a sizeable and growing niche market for cocaine among non-injectors in Queensland, however, at present there is little reason to suspect that use of this drug will increase substantially among IDU.

11.4 Cannabis

The cannabis market in Queensland has traditionally been distinguished by its relative stability over time, although trends emerging over the last few years indicate that the market is not entirely static. As is the case with methamphetamine, in order to better understand the cannabis market it is important to distinguish between two forms of the drug: hydroponic cannabis ('hydro') and so-called 'bush' cannabis. Although these terms reflect the common understanding that 'hydro' is typically grown in small, indoor hydroponic plantations, while 'bush' is grown in large, outdoor crops in remote locations, there is surprisingly little evidence to confirm this view. Given our present level of knowledge, it would be prudent to simply consider 'hydro' synonymous with 'higher potency' and 'bush' with 'lower potency' cannabis.

As in previous years, in 2006 IDU typically rated hydro as 'high' potency and bush cannabis as 'medium' potency, although again, without objective purity data against which these perceptions can be compared, it is difficult to know how informative these reports are. Consistent with their ratings of potency, IDU reported that the price of hydro was about one-third higher than that for bush, however, there was evidence of an increase in the price of both forms in 2006. Hydro was reported to be 'easy' or 'very easy' to obtain, with bush perceived to be slightly less readily available; the perceived availability of both forms decreased slightly in 2006. Again consistent with previous years, in 2006 most IDU reported obtaining their cannabis from a friend's or a dealer's home.

The number of arrests for cannabis use/possession rose markedly from 2000/01 to 2004/05, before falling in 2005/06. This arrest figure includes both arrests and instances of diversion, however, and renders findings difficult to interpret. Clearly, there is a need for further research into the dynamics of the cannabis market in Queensland.

The vast majority of IDU reported recent cannabis use, with the proportion reporting use in the last six months increasing from 76% in 2005 to 85% in 2006. The average frequency of use among users was stable at an average of about 4 days out of 7 – considerably lower than the national average of daily use among IDU interviewed for the IDRS.

KE reported a growing recognition among users and the general community that regular, heavy cannabis use can lead to significant health problems. Consistent with this notion, the number of inpatient hospital admission for cannabis, and the number of calls to telephone help- lines in relation to cannabis, have increased. To what extent this increase reflects an increase in problems, and/or an increase in treatment-seeking behaviour among problematic users, is a matter for continued investigation.

11.5 Other opioids

Trends in illicit opioid use among IDU are, to an extent, the mirror image of those for heroin. In the context of a sustained suppression of the heroin market in Queensland, IDU appear to be increasingly sourcing and injecting a range of alternative opiates including morphine, methadone, buprenorphine and oxycodone. Compared to heroin, these alternative, pharmaceutical opioid preparations are of consistent purity, and relatively consistent price and availability. However, because they are not designed to be injected, they carry the potential for significant injection-related harm.

Following trends in opioid pharmacotherapy treatment, the proportion of IDU reporting recent use and injection of illicit methadone has decreased since 2004, while the proportion reporting use and injection of illicit buprenorphine increased. In 2006, fifteen percent of IDU reported recent use of illicit methadone, with almost all of these reporting recent injection of illicit methadone. Use and injection of illicit buprenorphine has increased consistently since 2003, with one in four reporting recent injection in 2006. There continues to be extensive diversion of buprenorphine among IDU, with half of those who reported recent use indicating that they had 'mostly' used illicit buprenorphine in the last six months. At least one dispensing service in south-east Queensland has implemented a policy precluding buprenorphine take-away doses, in an effort to reverse this trend.

Use and injection of illicit morphine continues to be endemic among IDU in Queensland. In 2006 more than half of those interviewed reported recent use and injection of illicit morphine, and almost one in ten identified morphine as their drug of choice. Among those reporting recent morphine use, MS Contin 100mg tablets continue to be the favoured brand for injection.

In recent years there has been a trend among IDU in Queensland towards use and injection of illicit oxycodone. Prior to 2005, IDU interviewed for the IDRS were not asked specifically about oxycodone, however, in 2005 16% reported recent use, and 14% specified recent injection. In 2006 these proportions increased to 21% and 18% respectively. Just as the majority of IDU report that they mainly use 'illicit' (versus 'licit') morphine, 70% of those reporting recent use of oxycodone in 2006 reported mainly using 'illicit' oxycodone. The preferred brand for injection appears to be Oxycontin.

Evidently, one undesirable consequence of the sustained heroin shortage in Queensland has been a marked increase in the use and injection of other, cheaper and more reliable opiates. These alternative opiates are not designed to be injected, and a proportion of IDU in 2006 reported a range of injection-related harms as a consequence of injecting these preparations.

11.6 Benzodiazepines

Following increased restrictions on the availability of 10mg temazepam gel capsules in May 2002, rates of benzodiazepine injection among IDU dropped markedly in 2003, and this reduction has been sustained through 2006. By contrast, in 2006 more than two-thirds of IDU reported recent benzodiazepine use, with most using orally. The proportion of IDU reporting daily benzodiazepine use increased from 3% in 2001 to 15% in 2005, and remained high (14%) in 2006, perhaps reflecting shifting prescribing practices rather than diversionary activity. Roughly equal proportions reported mostly using licit and illicit benzodiazepines recently, indicating that benzodiazepine diversion and injection is still a health concern for this population. As in previous years, in 2005 the vast majority of IDU reported mostly using Valium.

11.7 Other drugs

Consistent with KE reports, a significant proportion of IDU continue to report experiencing mental health problems, most commonly depression. Consistent with this, a substantial proportion of IDU each year report recent use of antidepressants. In 2006 roughly one in four IDU reported using antidepressants in the last six months, with most of these reporting licit use (i.e. as prescribed). As in previous years, no IDU in 2006 reported injection of antidepressants.

Only a small proportion of IDU in Queensland report recent use of hallucinogens each year, however, this proportion more than doubled in 2006, to 12%. Furthermore, and consistent with KE reports of an increase in LSD availability and use, the median frequency of

hallucinogen use among recent users doubled in 2006, to 5 days in the last 6 months. Hallucinogen use remains at a relatively low level among IDU, however, use increased noticeably in 2006.

Ecstasy (MDMA) is usually associated with 'recreational' drug users rather than injecting drug users, however, given its high level of availability, it is not surprising that a proportion of IDU will report recent use. In 2006 just over one in four IDU (28%) reported recent ecstasy use, with the majority of these using orally rather than injecting. Among recent users the typical frequency of use was 4 days in the last 6 months, indicating sporadic and/or opportunistic (versus regular) use.

In 2006 roughly one in four IDU reported lifetime use of inhalants, however, only 3% reported recent use: one using amyl nitrate, one using nitrous oxide ('bulbs') and one failing to identify the inhalant used. These findings are consistent with KE reports that inhalant use is primarily a concern among youth, younger than those recruited for the IDRS. A number of KE from a correctional setting expressed concern regarding the health effects of inhalant use on younger prisoners, particularly young Indigenous prisoners.

Although injecting drug users are typically thought of as illicit drug users, many also use licit drugs. Among IDU interviewed in 2006 almost two- thirds reported recent alcohol use, although only 13% reported daily alcohol use. Consistent with KE reports of increasing heavy drinking among young women, there was no significant difference in rates of daily drinking between males (13%) and females (15%). Whereas only a minority of IDU are daily drinkers, the vast majority smoke tobacco on a daily basis; in 2006 ninety-six percent reported recent tobacco use, typically on a daily basis.

11.8 Associated harms

The number of syringes being dispensed to IDU in Queensland has continued to climb, with almost five and a half million syringes dispensed throughout the State in the 2005/06 financial year. At the same time, despite on-going harm reduction efforts targeting safe injecting, the proportion of IDU reporting recent sharing of injecting equipment increased from 21% in 2005 to 32% in 2006. A number of KE noted that while many IDU are aware of the risks of sharing needles, many have limited knowledge of the risks associated with sharing other injecting equipment.

The rate of Hepatitis C notification in Queensland fell from a peak of 3,330 notifications in 2000 to 1,901 notifications in 2005, before rising again to 3,053 notifications in 2006. The prevalence of Hepatitis C infection among IDU remains high, and this is reflected in the rate of Hepatitis C infection among prisoners in Australia, which in 2004 was estimated at 34% of new receptions (56% of those with a history of injecting drug use) (Butler, Boonwaat, & Hailstone, 2005). At present, important harm reduction measures such as needle exchanges are not extended to IDU incarcerated in Queensland, or any other state or territory of Australia (Black, Dolan, & Wodak, 2004).

As in previous years, the majority of IDU in 2006 reported usually injecting in a private home, however, almost one- third (33%) reported usually injecting in riskier locations such as a car, the street or a public toilet. The number of injection-related problems reported by IDU increased noticeably between 2005 and 2006, perhaps driven by a combination of the continued ageing of the IDU samples attending NSP, and the continued increase in injection of pharmaceutical opioid preparations. The most commonly reported injection-related problems were scarring or bruising and difficulty injecting.

Although two- thirds of IDU reported usually injecting in a private home, almost half reported driving under the influence of drugs at least once in the last six months. The drugs mostly commonly used prior to driving were those used by the largest proportion of IDU: methamphetamine, cannabis and heroin. Given the significant risks associated with this behaviour, there is a clear need to further examine when, where and why IDU choose to drive under the influence of drugs, and what level of risk they perceive to be associated with this activity.

More than a third of IDU in 2006 reported having become verbally aggressive after substance use recently, with 41% reporting becoming verbally aggressive during withdrawal. Smaller, although not insignificant, proportions reported becoming physically aggressive under the influence of (14%), or withdrawing from (14%), a drug in recent times. The drugs most commonly associated with verbal aggression during intoxication were alcohol, methamphetamine and heroin, while the drugs most commonly associated with verbal aggression during withdrawal were methamphetamine (particularly powder methamphetamine), heroin and cannabis. In contrast to anecdotal reports of a strong link between crystal methamphetamine use and aggression, only 2% of IDU reported physical aggression associated with ice/crystal use recently. By contrast, given the relatively limited use of alcohol in this group, the proportion reporting aggression associated with alcohol use is significant.

There was little change in rates of self-reported criminal activity between 2005 and 2006, with more than a third reporting drug dealing recently, and one in five reporting property crime recently. Few IDU reported engaging in violent crime or fraud recently, however, more than half reported having been arrested in the last 12 months. Given the significant health and psychosocial problems faced by this group, contact with law enforcement agencies may provide an additional opportunity for referral into treatment, and/or for the provision of harm reduction messages.

Mental health problems – particularly anxiety and depression - continue to be common among IDU, with one in four reporting recently seeing a mental health professional in 2006. The proportion reporting experiencing mental health problems is considerably larger, indicating a degree of unmet healthcare need in this group.

12. IMPLICATIONS

Illicit drug markets in Queensland, as in other jurisdictions, continue to fluctuate and to interact. Accordingly, these markets should be monitored on a regular basis, and should not be interpreted in isolation from one another. The 2006 Queensland IDRS documented a number of new trends, and provided further evidence of inter-dependence among illicit drug markets in Queensland. In particular, it seems clear that changes in the availability of heroin have been associated with changes in the use of methamphetamine, and changes in the use of other opiates including morphine, methadone, buprenorphine and oxycodone. It is also clear that the cannabis market in Queensland is dynamic, and that further research is required to understand patterns of use and other market dynamics.

To the extent that illicit drug markets are interdependent, supply reduction, demand reduction and harm reduction policies should adopt a holistic view, recognising that targeting the use of one drug may impact on the availability and use of other drugs. In order to minimise drug-related harm, the realities of endemic polydrug use and interdependent illicit drug markets must be recognised. The data presented here further underscore the importance of this recognition.

REFERENCES

ACC. (2004). *Australian Illicit Drug Report 2002-2003*. Canberra: Australian Crime Commission.

AIHW. (2005). *2004 National Drug Strategy Household Survey: First Results* (Drug Statistics Series No. 13). Canberra: Australian Institute of Health and Welfare.

Black, E., Dolan, K., & Wodak, A. (2004). *Supply, demand and harm reduction strategies in Australian prisons* (ANCD research paper No. 9). Canberra: Australian National Council on Drugs.

Breen, C., Degenhardt, L., Roxburgh, A., Bruno, R., Fry, C., Duquemin, A., et al. (2003). *The impact of changes in the availability of publicly subsidised 10mg temazepam gel caps in Australia* (NDARC Technical Report No. 158). Sydney: University of New South Wales.

Butler, T., Boonwaat, L., & Hailstone, S. (2005). *National prison entrants' bloodborne virus survey report, 2004* (CHRCJ Research Report No. 1). Sydney: Centre for Health Research in Criminal Justice.

Butler, T., & Milner, L. (2003). *The 2001 Inmate Health Survey*. Sydney: NSW Corrections Health Service.

CMC. (2003). *Amphetamine: Still Queensland's No. 1 Drug Threat* (Crime Bulletin No. 5). Brisbane: Crime and Misconduct Commission.

Darke, S., & Hall, W. (1995). Levels and correlates of polydrug use among heroin users and regular amphetamine users. *Drug and Alcohol Dependence, 39*(3), 231-235.

Darke, S., & Ross, J. (1997). Polydrug dependence and psychiatric comorbidity among heroin injectors. *Drug and Alcohol Dependence, 48*(2), 135-141.

Day, C., Degenhardt, L., & Hall, W. (2006). Changes in the initiation of heroin use after a reduction in heroin supply. *Drug and Alcohol Review 25*(4), 307-313.

Johnson, H. (2004). *Drugs and crime: A study of incarcerated female offenders* (AIC Research and Public Policy Series No. 63). Canberra: Australian Institute of Criminology.

Kinner, S. A., Alati, R., Watt, K., Najman, J. M., Fowler, G., & Green, D. (2005). Substance misuse, mental health and urgency of presentation to a public emergency department in Australia. *Emergency Medicine Australasia, 17*, 363-370.

Makkai, T., & Payne, J. (2003). *Drugs and Crime: A Study of Incarcerated Male Offenders* (AIC Research and Public Policy Series No. 52). Canberra: Australian Institute of Criminology.

Roxburgh, A., & Degenhardt, L. (2006). *Drug-related hospital stays in Australia 1993-2005* (NDARC Technical Report). Sydney, NSW: University of New South Wales.