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Benzodiazepine and pharmaceutical opioid misuse and their relationship to crime

NORTHERN TERRITORY REPORT

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Benzodiazepine and pharmaceutical opioid misuse and their relationship to crime

An examination of illicit prescription drug markets in Melbourne, Hobart and Darwin

NORTHERN TERRITORY REPORT

Dr Bridie O'Reilly, Fiona Leibrick, Damian Huxtable
School of Health Sciences
Faculty of Education, Health and Sciences
Charles Darwin University

Dr Richard Chenhall
Menzies School of Health Research

Funded by the National Drug Law Enforcement Research Fund, an initiative of the National Drug Strategy

Chief Investigator: Dr Bridie O'Reilly
Associate Investigators: Fiona Leibrick and Dr Richard Chenhall
Research Associate: Damian Huxtable

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Abbreviations

ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
AODP	Alcohol and Other Drugs Program (within NT DH&CS)
AODPTS	Alcohol and Other Drugs Program Treatment Services
ANSP	Australian Needle Syringe Program
AUS	Australia
CDHAC	Commonwealth Department of Health and Aged Care
CDU	Charles Darwin University
DEU	Drug Enforcement Unit
DH&CS NT	Department of Health and Community Services
DRUMS	Drug Use Monitoring System
DUCO	Drug Use Career of Offenders
GP	general medical practitioner
HIC	Health Insurance Commission
HINT	Health for Injectors in the Northern Territory
IDU	injecting drug user
IDRS	Illicit Drug Reporting System
KI	key informant
MSO	Most Serious Offence
NAP	Network Against Prohibition
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDS	National Drug Strategy
NDSHS	National Drug Strategy Household Survey
NGO	Non Government Organization
NSP	Needle Syringe Program
NSW	New South Wales
NT	Northern Territory
NTAHC	Northern Territory AIDS and Hepatitis Council Incorporated
OMG	organized motorcycle gangs

OWMP	Opiate Withdrawal Management Program
QLD	Queensland
PBS	Pharmaceutical Benefits Scheme
PWID	people who inject drugs
S4	Schedule 4 drug
S8	Schedule 8 drug
SDS	Severity of Dependence Scale
TAS	Tasmania
TEDGP	Top End Division of General Practice
TUF	Territory Users Forum
VIC	Victoria

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Executive Summary

The National Drug Law Enforcement Research Fund commissioned research to enhance law enforcement understanding of the impact of benzodiazepine and pharmaceutical opiate use on crime in three select Australian jurisdictions where there was evidence of emergent or consolidated illicit markets: Victoria, Tasmania and the Northern Territory. The aims were to gain understanding of illicit benzodiazepine and pharmaceutical opiate market characteristics, investigate the hypothesized relationship between benzodiazepine and pharmaceutical opiate use and crime, explore the implications for emergency services staff and consider appropriate interventions to address the impact on law enforcement and health. The current research replicated core methods in the three target jurisdictions in four stages over a 14-month period commencing April 2003: interviews with law enforcement personnel, two surveys of benzodiazepine and pharmaceutical opiate users, analysis of secondary indicator data and in-depth interviews with key informants. This report focuses only on the Northern Territory findings.

Stage one: Law enforcement interviews (n=9)

Law enforcement personnel thought methamphetamine and cannabis were the drugs most commonly associated with crime, particularly property crime, some robbery with violence, and drug dealing. Illicit use of pharmaceutical opiates had little impact on policing because they did not fall under the *Misuse of Drugs Act*. There were few prescription-related prosecutions because of the issues associated with delineating between lawful and unlawful possession of legal drugs. Law enforcement personnel were mixed on whether availability of pharmaceutical opiates impacted on crime. Half thought it did through the illicit market and drug-related property crime and the other half believed it had the capacity to reduce drug-related crime because morphine was thought to reduce criminality in dependent users, particularly the hard-core crime that is typically associated with heroin markets. Some law enforcement personnel stated the opiate market was satisfied with morphine, thus protecting Darwin from an organized criminal group and a heroin market. There was less crime and less aggression and conflict between dealers and clients. Morphine acted as a heroin substitution program and it was a creative and socially acceptable harm reduction solution to satisfy the demand for opiates when the heroin market was destroyed in Darwin in the late 1980s and early 1990s. Users would regularly see a GP and, therefore, health and other issues could be identified and dealt with. The Health Insurance Commission investigation into morphine prescribing in 1999 and the resultant measures to reduce prescribing levels had shifted opiate use back into a criminal area and created a black market in which users were forced to participate. This created the need for additional money for high illicit prices and the result was crime, mainly break and enters, robbery and prostitution.

The majority of law enforcement informants stated there had been no other measures put in place in the previous 12 months to reduce the supply and availability of pharmaceutical opiates, but reductions in the supply of morphine would result in drug substitution. As MS Contin™ became more difficult to obtain, the availability of Kapanol™ and Anamorph™ had increased. There had been a gradual climb in methamphetamine use since the restrictions on prescribing of MS Contin™ and people may be using a range of other pharmaceutical opiates, methamphetamine and amphetamine-type analogues. Some informants believed effective morphine supply reduction would facilitate the re-development of the heroin trade or supply of illicit pharmaceutical opiates from interstate. Higher prices for pharmaceutical opiates plus heroin availability would lead to deteriorating health, corruption and more crime. In addition to drug substitution, some informants reported there would be an increase in the price of pharmaceutical opiates, leading to more

property crime and chemist theft. Appropriate harm minimization approaches to pharmaceutical opiate misuse also included educating GPs about prescribing practices, stricter limits on prescribing, changes to the code of conduct of GPs and a computer database to reduce doctor shopping.

Key informants believed benzodiazepines were diverted to the illicit market in the same ways as pharmaceutical opiates. Benzodiazepine availability did not have any impact on crime and this tablet trade was as unenforceable as that of pharmaceutical opiates. Intoxication issues were the same as for other drugs. Key informants did not think any measures had been implemented to reduce supply and availability of benzodiazepines and none knew if the Pharmaceutical Benefits Scheme restrictions on temazepam prescriptions in May 2002 had impacted on benzodiazepine availability or use. Benzodiazepine availability was not generally thought to affect other substance use. Appropriate harm minimization approaches to benzodiazepine misuse were the same as for pharmaceutical opiates. The key areas for policing were opportunities for law enforcement and the health sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opiates, knowledge of illicit market dealing patterns for benzodiazepines and pharmaceutical opiates, and the implications of prescription drug misuse for ambulance officers

Stage two: Survey of people who inject drugs (PWID) (n=101)

The mean age of first illicit drug use was 14.5 years while the mean age of first injection was 19.7 years. Over half had first injected methamphetamine and a third heroin. In the last six months, three in ten had used cannabis, one half alcohol or illicit benzodiazepines and two in five licit benzodiazepines. The large majority of PWID had injected illicit morphine and two thirds had injected methamphetamine. Licit morphine, methadone syrup and Physeptone™, plus cannabis and antidepressants, were the drugs most likely to be used on a daily or near daily basis.

Although the majority had injected morphine most, and most often used it, heroin was the preferred drug, followed by morphine and methamphetamine. MS Contin™ was the most preferred form of morphine and Serepax™ the most preferred benzodiazepine. Methamphetamine and methadone were the drugs next most often injected and used in the last month. The majority of PWID who had not used their preferred drug most in the last month stated it was due to lack of availability. The drugs likely to be substituted if the preferred drug was unavailable were morphine, benzodiazepines, cannabis and methadone. The most common second substitutes were benzodiazepines, methamphetamine and morphine. Almost three in five had purchased drugs the previous day.

Benzodiazepines

Those who had used benzodiazepines in the last six months more often used them orally than intravenously. GPs were identified as the most common source, usually reported for genuine symptoms. Gifts from friends were also common. The benzodiazepine forms most often used orally were Valium™, Serepax™ and Xanax™ while Normison™ 20 mg, Euhypnos™ 20 mg and Valium™ were the forms most commonly injected. Just over half of recent benzodiazepine users (used last month) had sourced the drugs from GPs and most of these accessed only one doctor. The majority thought gel capsules were difficult or very difficult to obtain through GPs. In contrast, the tablets were considered easy to obtain. The majority of those who had sourced illicit benzodiazepine capsules in the last six months thought they were difficult to obtain and had become more so, but the price was stable. Tablets were seen as easy or very easy to obtain and availability and price were stable. The median length of time to score the capsules was 30 minutes and 20 minutes for the tablets. Almost half of recent benzodiazepine users did not know if other drugs were sold by their usual illicit source, but others nominated morphine, cannabis and

methamphetamine. A third indicated they sourced from friends selling their scripts. The majority of those commenting on the likely impact of greater availability of benzodiazepines said their use would remain the same, but a third said they would use more to sleep better or to substitute for, or use with, morphine. In contrast, half thought their friends' use would increase. Positive consequences of greater availability included friends being less stressed, but negative aspects were increased dependency, overdoses, crime, health and mental health problems. Almost three in five thought a reduction in benzodiazepine availability would not affect them because they did not use the drugs or only used them occasionally or legitimately. Drug substitution could result for some, mainly morphine, alcohol, cannabis, buprenorphine and other sedatives. An equal number said they would stop using benzodiazepines. In contrast, only a quarter said reduced availability would not have an impact on friends. The most likely impacts were drug substitution with opioids, sedatives or methamphetamine, a reduction in use or more crime.

Pharmaceutical opiates

Those using pharmaceutical opiates in the last six months more often injected the drugs than used them orally, and injecting was more likely to occur on a daily basis. The most common sources were GPs for genuine symptoms, dealers and friends. Methadone syrup, methadone tablets (Physeptone™) and buprenorphine were most often taken orally. Morphine was most likely to be administered intravenously, usually as MS Contin™ 100 mg. Physeptone™ was injected by a third of recent users and methadone syrup by almost a quarter. The average price paid on last purchase was $57.31 for MS Contin™ 100 mg, $32.17 for MS Contin™ 60 mg and $51.31 for Kapanol™ 100 mg. Recent users of morphine were evenly split over availability of morphine via GPs: a third each said it was easier, more difficult or unchanged. Half of recent Physeptone™ users thought it was difficult or very difficult to obtain from GPs, but a quarter stated it was easy. The majority of recent morphine and Physeptone™ users obtained prescriptions from one doctor. Most recent morphine users considered the price of morphine stable and its availability both easy and stable. Median time to score from illicit sources was 30 minutes. The price for a 100 mg MS Contin™ tablet was stated to have risen from $50 to $60 in the last six months because of greater demand on illicit sources. The usual sources were user dealers, small time dealers and friends with prescriptions. Other drugs most likely to be sold by the usual sources were cannabis, methamphetamine and benzodiazepines.

Half of the recent methadone syrup users thought it was easy or very easy to obtain illicitly, while the other half thought it was difficult. Availability and price were both thought to be stable over the last six months. The median length of time to last score methadone syrup was 30 minutes. Most did not know if their usual sources also sold other drugs or their level of dealing. Usual sources tended to be friends selling their doses or friends giving away doses. Most recent Physeptone™ users thought it was difficult or very difficult to obtain it illicitly, price and availability were considered stable and the median length of time to score was 30 minutes. A range of drugs was reported as sold by the usual sources which were generally friends selling their scripts and user dealers. Most recent users of buprenorphine did not know about the price and availability of illicit sources. The median length of time to score was 75 minutes and the usual sources were friends selling or giving away their doses.

The majority of PWID said they would not use more morphine if it was more available and/or cheaper because some were not daily users or used occasionally and others were accessing morphine from GPs, on pharmacotherapy maintenance programs or using illicit methadone. Others said they would not buy more and would be better off financially. Some indicated it would mean reduced time searching, more stability in life and more likelihood of employment. However, a third stated they would use more morphine or use it more often, but some recognized this could create problems if their level of dependency increased or they used more for a period of time. A

number also thought there would be a reduction in police activity and crime. In contrast, two in five thought their friends would increase their morphine use. Possible drawbacks included more overdoses and infections, more dependent people, more people using morphine and younger people starting to use it. The benefits outlined included easier or better lives, improved financial circumstances and less time invested in searching for drugs. One in ten envisaged a decrease in crime. Just over a quarter thought they would be unaffected by a reduction in pharmaceutical opiate availability and/or price increase, principally because they were receiving prescription morphine for pain relief, were on a maintenance program or only used occasionally. Drug substitution was the next most common response and the drugs mentioned were benzodiazepines, alcohol, methamphetamine, illicit Physeptone™, cannabis, other opiate/painkillers and heroin. One in ten stated they would engage in more crime such as robberies and break-ins to obtain money to buy morphine. Only three people thought they would go on the methadone program. Nearly a third thought their friends would substitute other drugs or engage in crime. Benzodiazepines were the drugs most likely to be substituted because they were easy to obtain from GPs. Other consequences included people engaging in more violence and violent crime, break-ins, sex work, scamming and rorting for money and/or drugs, unpredictable behaviour and the development of organized crime.

Health benefits and risks

In the previous month, a third of the sample had experienced both difficulty injecting and injection-related bruising or prominent scarring, and morphine, benzodiazepines, methamphetamine and Physeptone™ were the main drugs implicated. Non-fatal overdose rates were very low and all involved polydrug use. The median length of time since the last Narcan™ administration was 5 years and none had been administered it in the previous year.

Almost half of those who had used benzodiazepines in the previous month had not experienced any problems from use and among the remainder the most commonly reported problems were blackout or memory loss, problems concentrating, low motivation, aggression and arguments. Almost three quarters had not experienced any problems from benzodiazepine withdrawal in the previous month, but among those who had the most commonly reported problems were problems sleeping, anxiety, aches and pains and feeling cold. The perceived benefits of benzodiazepine use included relaxation, assisted sleep, calmness, reduced worry/stress/anxiety, feeling good or better than usual and managing withdrawal effects, particularly from morphine. Benzodiazepines were also seen as useful for potentiating the effect of opioids and managing recovery following an amphetamine 'run' or binge. Risks of use were developing dependence, injection-related problems, overdose and accidental damage to self while intoxicated. The sample also highlighted behaviour change such as uncharacteristic behaviour, crime while under the influence of benzodiazepines, memory loss of actions, forgetfulness, loss of control and anger.

The majority of the sample had used morphine in the previous month and almost half without problems. The most frequently reported effects of morphine use were dependence, low motivation and anxiety. Over a third had not experienced withdrawal problems and among those that had the most commonly mentioned symptoms were problems sleeping, aches and pains, feeling cold, muscle tension/spasms, nausea and anxiety. The majority who had used morphine in the previous month saw many benefits, principally for pain relief and providing a better quality of life. Other benefits were relaxation, escaping, blocking out or altering reality, stress relief, feeling normal, socialization, sleep, anxiety reduction, being free of worry and alleviating depression.

Almost a third of the PWID had used methadone in the last month and the majority had not experienced problems from its use. The remainder reported the problems most likely to be experienced were dependence, relationship problems and anxiety. Although the majority had

not experienced problems from methadone withdrawal, the most commonly reported ones were nausea, feeling cold, aches and pains, anxiety and problems sleeping. The most commonly mentioned benefits of methadone included reduced use of other drugs, particularly morphine, being able to manage withdrawal when the main drug was not available, returning to a normal life and functioning better, improved relationships/family life, less crime, improved finances and health. Problems identified were dependence and withdrawal issues, slowness or numbness, dental and bone problems, injection-related risks, lowered capacity to self-manage pain and negative impact on employment. Only a small number had used buprenorphine in the previous month and half had not experienced any problems with its use. Of problems experienced, the most common were low motivation, dependence, feeling anxious and problems concentrating. Withdrawal had not been a problem for most, and among the remainder typical experiences included nausea, feeling cold, aches and pains, problems sleeping, muscle tension/spasms and anxiety. Buprenorphine's main benefits were assisting in cessation of drug use or reducing use, thus allowing improved functioning and reduced crime and managing withdrawal until the main drug could be accessed. Reported risks were dependence, injection-related problems, sleeping problems, headaches, low motivation and lethargy and death. Drawbacks were its cost, its blocking effects on other opiates and daily travel to the chemist.

In the previous month, the majority of benzodiazepine users never thought their use was out of control, never or almost never felt anxious about not having benzodiazepines, did not worry about their use, did not wish they could stop and would not find it difficult to stop. A similar pattern was evident with those who had used methadone and buprenorphine in the past month. The pattern for morphine was somewhat different, with half indicating they did not think their use was out of control and just over a third not becoming anxious at the prospect of not having a 'hit'. However, another third stated they would sometimes become anxious. Almost two in five said they did not worry about their morphine use or only worried a little about it. Just over a third reported they did not wish to stop using morphine and another third sometimes wished to. Over a third indicated they would not find it difficult to stop using morphine. The mean Severity of Dependence Scale score was 5.15 for morphine, compared to 2.37 for benzodiazepines, 2.74 for methadone and 1.31 for buprenorphine.

Illegal activity

Almost half of the PWID had a prison history and a third had been arrested in the previous year, mainly for property crime, violent crime and driving offences not involving alcohol or drugs. Just over one in ten of the sample had committed any property crime in the last month and the main reasons were needing money to buy drugs or food/goods or to support the individual and/or family. Almost a quarter of the sample reported participation in drug dealing and the reasons for doing so were the same as for property crime. The vast majority said they had not engaged in fraud or violent crime. Only three individuals had engaged in any illegal sex work. The total crime score was not significantly correlated with any of the demographic variables but displayed a significant positive correlation with number of days of methamphetamine use in the last six months and a significant negative correlation with days of licit morphine use. Involvement in any drug dealing in the last month was significantly correlated with the number of days of methamphetamine, cannabis or illicit benzodiazepine use in the last six months.

In the previous month, more people who had used methadone were involved in fights associated with use than those using benzodiazepines or buprenorphine. Morphine users were least likely to be involved in fights resulting from its use but most likely to be involved in fights when in morphine withdrawal. People who had used benzodiazepines were more likely to be aggressive from its use than those using morphine, methadone or buprenorphine. Benzodiazepine users were also most likely to have contact with the police because of use, to engage in criminal behaviour

for which they were not charged or be involved in criminal trouble, principally property crime. In contrast, those using morphine were more likely to be involved in criminal trouble, predominantly property crime, because of withdrawal.

Perceptions of police activity and its impact

Two in five PWID were either not aware of any changes in police activity around drug use in the last six months or thought activity had been stable. The majority of people did not think police activity had made it harder to obtain drugs and another one in five did not know if it had. When asked if police activity directed at prescription drugs had made it more difficult to access these drugs, four said police had not had any effect, and one said police do little about prescription drugs as their attention is more focused on methamphetamine and cannabis. However, eleven people said police had been specifically targeting prescription drugs and this had made it more difficult to obtain these drugs. Activity included focusing on possession without a legal script, busting dealers, searching, and working with chemists. When asked if any other activity had made it more difficult to obtain drugs, the majority stated there had not been an impact and one in five equally said there had been an impact or did not know. Nineteen PWID stated the measures implemented to limit GP prescribing and doctor shopping had resulted in a variety of consequences, specifically a reduction in supply, an increase in the price and more crime.

Market changes and impact of market changes on drug used most

Two thirds of the PWID interviewed reported noticing market changes for their most used drug and specific changes included an increase in the time required to obtain diverted morphine and less people dealing or selling their scripts. The GP crackdown and tightened prescribing practices were seen as the main factors contributing to reduced availability and resulting in a rise in morphine (MS Contin™) prices. The impact of market changes on PWID use and drug-related activities varied. There was little impact on those with an assured supply from a GP but some had reduced their use in response to price rises and limited finances. More commonly, people reported the changes meant they devoted more time, travel and effort to locating and obtaining their drug. People needed to extend their personal contacts in the supply networks and visit locations they would prefer to avoid. Some were angry and others had less time available for employment. Other impacts included increased periods of 'hanging out', which prompted a few to access pharmacotherapy programs, substitution of more readily available drugs like methamphetamine and increased levels of criminal activity and sex work.

If their most used drug was less available or more expensive, twelve PWID said they would stop using the drug, generally either through a pharmacotherapy program or detoxification. Only two said they would cease using morphine. Most people thought they would substitute other drugs, mainly other pharmaceutical opiates, benzodiazepines, alcohol, methamphetamine, cannabis or heroin. Some noted they would need to raise their levels of criminal activity, rorting and dealing or leave Darwin. Most thought it would lead their friends towards engaging in more crime (particularly property crime), violence, dealing, rorting, sex work and drug substitution, principally with benzodiazepines, methamphetamine, diverted methadone or forms of morphine other than MS Contin™. The consequences would be particularly dire for very dependent users, creating much higher levels of withdrawal frequency and discomfort and possibly triggering suicide.

If the most used drug was more available or less expensive, the majority of morphine users said they would not increase their use. Many commented they would be better off financially and have a better quality of life, less pain, and a greater capacity to work and engage in other activities. Some predicted their use would increase, while those on pharmacotherapy programs indicated such changes would not affect them. In contrast, the majority thought morphine-using friends would use much more. Dependent or potentially dependent users were seen as particularly vulnerable because lower prices would make it easier to use more, use more often and there

would be less need for occasional breaks in use to recover finances. Seventeen thought friends would not change their current morphine use pattern, but there would be a drop in crime and less stressful lives partly because of the reduced financial impost. Possible adverse consequences were more overdoses and people commencing use younger.

Stage three: Indicator data

The Australian Needle Syringe Program data indicate a steady decline in the proportion of clients last injecting heroin over the six-year period from 1996-2001. This was initially accompanied by a rise in the proportion last injecting morphine, but since 1998 there has been a decline accompanied by a rise in the proportion last injecting methamphetamine. The Northern Territory AIDS and Hepatitis C Council data demonstrate a similar pattern and the Illicit Drug Reporting System indicates a rise in the proportion that had injected morphine from 2000 to 2001 and no change in 2002 and 2003. The proportion injecting heroin dropped steadily over the four years, while the proportion injecting benzodiazepines and Physeptone increased. Pharmaceutical Benefits Branch data on the number of benzodiazepine scripts in the NT from 2001 to 2003 show alprazolam, bromozapam, clonazepam and flunitrazepam prescription numbers have been fairly low and remained steady. A decline in nitrazepam prescriptions from 2001 to 2002 was maintained in 2003. Oxazepam prescriptions declined slightly in 2002 but rose back to 2001 levels in 2003. Both temazepam and diazepam prescriptions dropped notably in 2002 and remained low in 2003. Drug Use Monitoring System data for NT consumption of forms of morphine sulphate from 1998 to 2002 show a rise in consumption of most forms from 1998 to 1999, in particular the 30 mg, 60 mg and 100 mg controlled release tablets, followed by a decline over the next three years. For other narcotic analgesics, there was a striking and consistent rise in consumption of the oxycodone Endone™ 5 mg tablets since 1996, accompanied by a reduction in oxycodone Prolodone™ 5 mg. The methadone Physeptone™ 10 mg rose in consumption from 1995 to 2000 and then fell sharply in both 2001 and 2002. Consumption of 0.324 mg/ml buprenorphine ampoules rose slightly from 1996 to 2000 and then declined in the next two years. Consumption figures for the 0.4 mg, 2 mg and 8 mg tablets show a noticeable rise in 2002, coinciding with the introduction of opiate pharmacotherapy programs in the NT.

Integrated Justice Information System data for 2001/02 to 2003/04 indicate the majority of NT drug offences in all years were related to use and/or possession of illicit drugs. Prescription drug offences involving prescription drug fraud were very low in all years. IDRS data on self-reported criminal activity from 2000 to 2003 demonstrated Darwin PWID consistently reported lower involvement in any crime than Australian PWID across all years, particularly property and violent crime and drug dealing. Darwin PWID were also less likely to have been arrested in the previous year.

IDRS data show a dramatic drop in participation in drug treatment from 2000 to 2003 but the rate increased in 2004, though the only treatment PWID were participating in was a pharmacotherapy program. In December 2003, 88 people were in the Opiate Pharmacotherapy Program (40 in buprenorphine and 48 in methadone). Ten buprenorphine clients were Alice Springs-based and 30 were in Darwin. Forty methadone clients were in Darwin and the rest in Alice Springs. NT Alcohol and Other Drug Treatment Services data show the vast majority of treatment episodes in all years were for alcohol. A steady rise in methamphetamine episodes occurred until 2002, then declined in 2003. Overall, episodes for morphine have been declining since 2001. There has been a marked reduction in the number of people participating in detoxification and/or withdrawal at detoxification services in the NT since 1999. This was principally due to a noticeable reduction in the numbers presenting for opiate (excluding heroin) detoxification/withdrawal at the Darwin service from 2000 to 2003 (186 to 30). Numbers for heroin and benzodiazepine detoxification/withdrawal have been consistently low in all years.

NT hospital separations from 2000/01 to 2002/03 show very few separations for opioid conditions, acute intoxication, mental disorder and withdrawal associated with polydrug use or drug poisoning. Emergency Department attendances for opioid mental and behavioural disorders remained fairly low in 2002/03 and 2003/04. Attendances for poisoning by opium, heroin and synthetic narcotics were also low and fairly stable. Benzodiazepine poisoning attendances rose in the January to March quarter of 2002/03 but then declined to original levels over the next two quarters. There were no recorded poisonings by morphine, methadone or codeine. Ambulance attendances for narcotics, stimulants, depressants, cannabis and unknown drug or substance misuse have increased in the Darwin region from 2002 to 2003.

Stage four: Survey of benzodiazepine and pharmaceutical opiate users (n=50)

The sample characteristics of the 50 injecting users was similar to that of that Stage 2 survey and 86% had participated in the first survey. In the previous six months, the majority had used cannabis, methamphetamine and alcohol. Almost two thirds had injected methamphetamine for an average of 39 days and one in three had injected heroin for a mean of 36 days. In the previous month, the majority injected at least once a day, usually in a private residence. Two in five preferred heroin but four in five most often injected morphine. The last time they could not access the most often used drug, the majority substituted another drug, generally morphine and benzodiazepines. All PWID had bought drugs in the last fortnight and the total amount spent was $25,521.40, averaging $521.46 per PWID, and close to two in five spent more on drugs than their total income from all sources for the fortnight.

Recent benzodiazepine use

In the previous six months, one in three PWID had used licit benzodiazepines but only a very small proportion had injected them. Licit benzodiazepines were obtained from a GP for reportedly genuine symptoms. In contrast, almost one in three had injected illicit benzodiazepines that were usually sourced as gifts or bought from friends. The benzodiazepine form most often used orally and intravenously was Valium™. A third of the sample had tried to access benzodiazepines from a GP and most obtained a script from only one GP. Half of PWID thought gel capsules were difficult or very difficult to obtain from a GP, while two thirds thought the tablets were easy or very easy to obtain. The majority of those who accessed a GP successfully obtained a prescription. The majority thought illicit benzodiazepine capsules were difficult or very difficult to obtain and had become more so. The price was stable. Tablets were seen as easy to obtain and availability and price were stable. Most said their usual illicit sources did not sell other drugs. Those seeking benzodiazepines mainly wanted them to assist with relaxation or sleep or to manage morphine withdrawal. Two thirds of PWID did not know if there had been any changes in the benzodiazepine market in the last 12 months

Recent morphine use

In the last six months morphine was more often injected than used orally and injecting was more likely to occur on a daily basis. The majority stated they obtained morphine from a GP, reported to be for genuine symptoms of pain. The most commonly injected morphine was MS Contin™ 100 mg. A third of the sample had tried to access morphine from a GP and most were successful with just one GP. Almost two thirds thought licit morphine was easy or very easy to obtain and availability was stable. The majority who had sourced illicit morphine in the last six months thought it was easy or very easy to obtain and availability and price were stable. Two in every five said their usual source of illicit morphine did not sell other drugs, but others mostly nominated

methamphetamine, benzodiazepines and cannabis. Main sources were friends selling their scripts, small time dealers and user dealers. Just over half of PWID had not noticed any changes in the morphine market.

Recent use of pharmacotherapies

In the last six months licit pharmacotherapies were more often used orally than injected and any injecting was more likely to occur on a near daily basis. Almost all reported they obtained pharmacotherapies for genuine symptoms. Illicit pharmacotherapies had been injected by one in three PWID and the usual sources were gifts and buying from a friend. The most common form used orally was methadone syrup and Physeptone™ 10 mg was the type most often injected. Two PWID had used licit Physeptone™, one saying it was very easy to obtain and stable and the other stating it was difficult and becoming more difficult. The majority who had sourced illicit Physeptone™ thought it was difficult or very difficult to obtain but availability and price were stable and the main source was friends selling their scripts. PWID provided comment on reasons for accessing or not accessing the methadone program and the majority of those responding stated they were on prescription morphine, were content with their level of morphine use or did not want to stop using morphine. Just over a third had used methadone syrup in the last six months and one in ten had injected it. The majority of those who had used methadone syrup said it was very easy to obtain and stable in both availability and price. The main sources of methadone syrup were friends selling, swapping or giving away their own doses. PWID provided comment on reasons for accessing or not accessing the buprenorphine program and the majority of those responding were not interested in changing their drug use or any type of pharmacotherapy, or had tried buprenorphine and did not like it. A third had used Subutex™ and only a very small proportion had injected it. There was insufficient information to determine if any changes in price or availability had occurred. Most PWID were not aware if there had been any market changes in pharmacotherapies.

Recent pharmaceutical opiate use

In the last six months only six PWID had used licit pharmaceutical opiates and all had obtained them from GPs for reportedly genuine reasons. Three had injected them. Illicit pharmaceutical opiates had been used orally by two PWID and eight had injected them. The most common forms were OxyContin™ 80 mg and Tramal™ 50 mg. The most common usual source was gifts. Only four PWID had tried to access pharmaceutical opiates from a GP and two had obtained a prescription from just one GP. Most thought licit pharmaceutical opiates were easy to obtain and availability was stable. There were insufficient numbers to determine any meaningful trends in price and availability.

Drug-related behaviour last month

Over two thirds of the sample had been intoxicated on drugs in the last month and had displayed uncharacteristic behaviour on average five times. Drugs involved were morphine and cannabis. One in three had committed shoplifting in the last month and the most common reasons were needing food and essential items. Only one in twenty reported committing any property theft mainly to obtain money or goods for drugs and food. Nearly one in five sold drugs to make money to buy drugs. A third swapped drugs usually to obtain the desired drug. One in five provided services that were legal for drugs or goods in exchange for drugs, usually to bypass using money. Only one in ten provided illegal services for drugs, usually to obtain money for drugs. Goods were sold to obtain drugs by one in ten, usually to obtain money for drugs. The majority had not done any rorting or scamming. The vast majority said they had not engaged in fraud or violent crime. Three in five had driven under the influence of drugs, most on a daily or near daily basis out of necessity. Two in every five did not think it affected their ability to drive.

Associations between illegal activity, demographics and drug use

Total criminal involvement was significantly correlated with the number of days of methamphetamine and cannabis use in the last six months. The differential between total income from all sources in the last fortnight and expenditure on licit and illicit drugs in the same time period was only significantly correlated with selling drugs in the last month. The numbers of days of methamphetamine and cannabis use were both significantly correlated with selling drugs, providing services for drugs, exchanging goods for drugs and selling goods for drugs. There was a significant association between days of ecstasy use and selling goods for drugs. The number of days of oral use of licit benzodiazepines was significantly correlated with shoplifting and providing services for drugs, while days of intravenous use of licit benzodiazepines was significantly correlated with selling goods for drugs. The total number of days of oral use of illicitly sourced benzodiazepines correlated significantly with shoplifting and providing services for drugs. Days of intravenous illicit morphine use was significantly correlated with property crime and swapping drugs.

Stage four: In-depth key informant interviews (n=29)

The key informants (KI) were unanimous in their belief that the morphine sulphate MS Contin™ was the pharmaceutical opiate most used, particularly the 100 mg tablet. Morphine sulphate was thought to be a primary rather than supplemental drug and usually sourced from GPs, the illicit market and friends. Some KI thought there had been an increase in other forms of pharmaceutical opiates, mainly OxyContin™. A broad range of people used pharmaceutical opiates and many users described their use as pain-related. There were indications of polydrug use and a blurring of the distinction between opiate and methamphetamine users. The types of impact on KI work were fewer overdoses than with opiates like heroin and fewer injection-related harms. Law enforcement KI stated pharmaceutical opiates had very little impact on their work because under the *Misuse of Drugs Act* it is not an offence to have morphine tablets in possession without a script. Pharmacists comments centred on verifying authenticity of prescriptions, checking for doctor shopping and breaches of contracts, demands for early pick-ups and some aggressive and hostile situations. Most KI reported access was readily available in all geographic areas, but the price was higher in rural and remote regions.

The main forms of benzodiazepines used were reported to be temazepam, particularly Normison™ and diazepam such as Valium™ and the main sources were prescriptions, friends and illicit market trading. KI reported a range of people used benzodiazepines and the main reasons were to manage sleep problems and anxiety. A number of KI linked benzodiazepine use to other drug use, particularly withdrawing from opiates, substitution for morphine when it was unavailable, to potentiate the effects of morphine or managing the come down from methamphetamine. The majority of KI did not think benzodiazepines were a primary drug and there was some injecting taking place. Impacts on work were chaotic behaviour, forgetfulness and poor concentration, involvement in arguments and fights while intoxicated and similar issues to pharmaceutical opiates at pharmacies. Benzodiazepines were thought to be easy to obtain through prescription in any location.

Most KI reported there was a small amount of diversion of takeaway methadone doses and a small proportion of people injecting the syrup. There was also some diversion of the methadone tablets Physeptone™. Methadone was not the preferred drug of those using it, as the preference was for opiates like heroin or morphine. Some KI also thought there was some diversion of buprenorphine to the black market. Only one KI reported intravenous use of this drug.

Nine KI thought doctor shopping was still occurring for morphine, particularly for MS Contin™ but the majority believed it had become more difficult. Those accessing pharmaceutical opiates from GPs were invariably described as claiming to be in chronic pain and some KI thought a number of people were accessing for non-legitimate reasons. The estimates of the proportion of prescriptions that were diverted ranged from none to a small proportion for financial gain. Non-opiate users were also thought to be involved in diversion of pharmaceutical opiates. An online database for clients was suggested to make prescribers' roles easier and to limit the diversion of pharmaceutical opiates. Other measures included daily pick up from pharmacies, random urine tests to ensure medication compliance, pharmacy depots for Schedule 8 drugs and care plans. KI reported there was more exchanging of pharmaceutical opiates without money among groups of friends than trading with money. There did not appear to be large-scale dealers or many professional dealers that operated as a business, and these were not specialized opiate dealers. Two Alice Springs KI reported that the majority of the morphine came in via backpackers and dealers sourcing it by illegal means. There appeared to be an underground movement of dealers coming from southern states and this was reported as a new phenomenon.

A number of KI thought there was a considerable amount of undetected doctor shopping for temazepam and diazepam, although there had been a reduction in doctor shopping for temazepam. Strategies mentioned to obtain benzodiazepines from GPs included false names, accessing a number of GPs and presenting with sleep, anxiety or pain issues. KI generally thought people obtained benzodiazepines for personal use and only a minority of people would share or swap these drugs with friends. KI did not think there was much selling of benzodiazepines. Measures proposed to limit doctor shopping and diversion of benzodiazepines were education of GPs, greater use of alternative strategies for sleep and anxiety disorders and a monitoring system like that for Schedule 8 drugs. Some KI suggested benzodiazepine trading was unlikely because the drugs were very easy to obtain on prescription. It was more likely that people would be sharing or swapping them among friends and little if any organized dealing. There was reported to be a small amount of trading and swapping in methadone syrup and the methadone tablets Physeptone™ and that this occurred mainly among social groups. A small amount of trading in buprenorphine among friends was reported and there was a belief the demand was low.

When discussing the relationship between availability of pharmaceutical opiates and crime, some KI did not think one existed because some opiate users had a criminal history prior to initiation into drug use. Others believed use of opiates was associated with crime, particularly among dependent users to obtain funds to support their dependency. The crimes most often mentioned were property crime, the occasional armed robbery, fraud and drug dealing. Another group of KI thought pharmaceutical opiate availability resulted in less crime because people had less contact with others engaged in criminal activity and they did not need to commit property crime and drug dealing to purchase morphine at high prices on the black market. Reductions in availability would increase the price and the level of criminal behaviour. Opiate users were also mentioned as victims of crime because those with prescriptions could be targets for assault and robbery. Most KI did not think organized crime was involved in the pharmaceutical opiate trade, but law enforcement KI indicated there was some organization, through not in the traditional sense of organized crime networks. Most KI did not think there was a relationship between benzodiazepine availability and crime. Some KI discussed illegal behaviour associated with benzodiazepine intoxication, such as people claiming to have experienced amnesia and impulsive break and enters. There were also reports of people shoplifting because people thought they were invisible. Intoxication was also associated with aggression, violence and assault. Most KI said there was no organized crime involvement in the benzodiazepine trade. Those on the methadone program were thought to engage in less crime than those accessing illicit morphine because the program provided stability in terms of accommodation and employment and provided the opportunity to deal with psychosocial issues associated with drug use. Those commenting on buprenorphine availability and crime were unsure if there was an association.

The majority of KI believed the police were not interested in pharmaceutical opiates, that the level of crime associated with these drugs was very low or that the police were quite powerless to impact on supply. Pharmaceutical opiates were a health issue and, even though the black market was of concern, the law enforcement KI stated it was an offence to supply morphine but not to be in possession of it, even without a prescription. The police must prove illegal acquisition through the point of sale and that was very difficult. These factors also applied to benzodiazepines. Morphine was of low priority because it was thought to be associated with *lower scale* illicit activity and a significantly smaller issue than illicit drugs. The situation was the same for benzodiazepines.

KI were divided in their opinion of the risks and benefits of easy and difficult availability of pharmaceutical opiates, with one group stating there were no benefits of easy availability because of the potential ramifications of opiate use, and the other reporting reduced crime, a stable lifestyle and greater productivity, better health through regular access to GPs and health professionals, removal of the illicit market, lower risk of overdoses and improved finances. The ramifications identified with easy availability were more opportunities for stand over tactics, greater involvement of organized crime, diversion and a more active black market, over-prescription and dependency, an increase in opiate use, injection of non-injectable drugs and injection-related issues, more overdoses and a financial strain on the health care system. The benefits of poor availability were political gain, more people entering the pharmacotherapy programs and a reduction in financial burden to taxpayers. The risks of poor availability were an increase in crime, an expansion of the illicit market, drug substitution, legitimate users being disadvantaged and the potential for a heroin market.

A number of KI thought there were no benefits attached to easy availability of benzodiazepines and the remainder thought the drugs were beneficial for managing supervised withdrawal, as a short term medication for sleep disorders, and for drug users to access to deal with opiate withdrawal or to tide them over until they obtained morphine. The risks reported with easy availability were using medication rather than dealing with underlying health and social issues, dependence and withdrawal, polydrug use and overdose, injection-related harm, aggression and violence, date rape and diversion to the black market. Two KI commented on the benefits of poor availability of benzodiazepines and one simply said it would be positive and the other thought restriction of certain forms would reduce injection-related harm. Poor availability was associated with drug substitution and legitimate clients being disadvantaged.

The benefits of easy availability of methadone were stability in life and increased productivity, improved health, reductions in crime, improved relationships with family and others, dealing with dependency, cost savings to the community and a reduction in diversion of pharmaceuticals to the black market. The risks of easy availability were using a medical treatment that did not deal with problematic drug use and its underlying issues, the expense for opiate users and the restrictive nature of the current program. None of the KI offered any benefits associated with poor availability of methadone. The benefits and risks associated with availability of buprenorphine were similar to those for methadone.

Measures that could be adopted to respond to pharmaceutical opiates included treating it as a health issue rather than one of law enforcement, removal of criminal sanctions, improved treatment options, harm minimization primarily focused on prescribed morphine for opiate dependent people, community education on the health and social consequences of drug use and partnerships between police, courts, treatment agencies and other key stakeholders. The most appropriate responses to benzodiazepines were restricting the supply and introducing a monitoring system, and educating GPs, pharmacists, service providers and the community on the effects of benzodiazepines and harms associated with use. Appropriate responses to methadone were

professional training of people involved in the methadone programs, including formal training in counselling. Some KI thought there was a need for a more holistic approach with methadone rather than drug substitution, including regular follow up with counselling. The measures reported for buprenorphine were similar to those for methadone.

In terms of information systems, KI mentioned the need for an email system with updates from information systems and research, formal evaluations of all service providers working with drug users, improved access to pertinent data, particularly from GPs and government departments, and a commitment from government to regularly interrogate data, extract useful information and distribute it widely. Some KI also thought it was important to establish an online monitoring system for Schedule 8 contracts and prescriptions, possibly through a national patient database. A number of KI were critical of the DH&CS Alcohol and Other Drug Program treatment service database, describing it as inconsistent and unreliable and not used constructively to generate regular interpretive reports on activities, trends and aspects of drug use. The database needed to be overhauled or replaced with a new electronic system. KI also mentioned the need to conduct research on patterns and trends in designer drugs, illicit use of drugs among Indigenous people and alcohol and alcohol-related harm.

Discussion and conclusions

The discussion of the results considers a range of perspectives but the focus is on the implications for the law enforcement sector. In terms of health and treatment, the results of this and other available evidence in the NT suggest the need to examine service utilization from a number of viewpoints and the role of non-pharmacotherapy forms of treatment either as full treatment in themselves or as adjuncts to pharmacotherapy. It is evident that few of the opiate users surveyed in this research would enter treatment programs, particularly pharmacotherapies, because most viewed methadone as far less desirable than continued use of morphine. KI also discussed their concerns about pharmacotherapy programs not being suitable or not meeting the needs of many opiate users.

The key aspect of the policing of pharmaceutical drugs was the licit status of drugs such as morphine and benzodiazepines, which do not fall under the *Misuse of Drugs Act,* and law enforcement personnel stated their distribution and use was largely outside their area of responsibility. Although the illicit markets for these drugs were of concern, the police could only impact in this area by obtaining evidence at the point of sale and they rarely received sufficient intelligence to gather such evidence. The majority of KI were of the same opinion and the users of pharmaceutical drugs also reported little evidence of any influence by the police on their distribution and use. While the acquisition of pharmaceutical drugs by users is highly organised in the sense of being a regular, planned behaviour involving networks of friends and other contacts, there was little evidence of the involvement by organised criminal networks in the distribution of these drugs. Law enforcement KI stated the drugs most commonly associated with crime and drug-related policing were the illicit drugs methamphetamine and cannabis, and work in this area involved a considerable amount of time and resources. This was supported by the current research. People using prescription drugs only tend to come in contact with police as a result of activities related directly or indirectly to sourcing money to purchase drugs or activities related to intoxication, rather than as a result of possession or supply of the drugs. This suggests that police may be better served by alternative options to arrest and criminal charges, possibly through effective liaison with diversion programs and service providers. Overall, the results suggest the use of prescription drugs needs to be viewed as a health rather than a criminal justice issue and that education about the use and effects of these drugs should be a priority for government, as should be funding of treatment and diversion options.

The NT is uniquely positioned with its opiate market dominated by the use of morphine rather than illicit heroin, and where the users largely control distribution rather than organized criminal networks. This has resulted in gains for the health of users, emergency services and the criminal justice system and these are likely to endure at current levels if the opiate market continues to be dominated by pharmaceutical opiates rather than an illicit opiate such as heroin. Government could harness the opportunity by shifting focus from supply control to harm reduction by expanding and restructuring the pharmacotherapy program to incorporate prescription morphine (including a safe injectable form), with regimes to allow for flexibility of lifestyle and long term support available to maximize the benefits of such pharmacotherapy programs.

Areas requiring further exploration are discussed and these include: the relationship between benzodiazepine intoxication and opportunistic crime and mental disturbances; the discrepancy between the indicator data on morphine consumption trends demonstrating reduced licit availability and surveys of drug users indicating easy, stable availability of morphine; and the applicability of the research literature on illicit drugs and crime in the context of opiate markets dominated by prescription drugs. Research design in the area is also discussed, particularly the shifting nature of any associations between drugs and crime. A variety of factors can produce dynamics that change over time, such as the availability of drugs and the social context and social construction of illegal behaviour, drugs, drug preferences and styles of use between and within cohorts. There is a need for quasi-longitudinal or longitudinal research incorporating qualitative methods in the tradition of ethnography to fully understand the complexity of the interplay between drugs and crime. Such research needs to be conducted with non-captive populations and include a much broader range of users than just those who inject drugs. Attributional, actor/observer and self-serving biases are important to consider in the design of such research.

Chapter one: Introduction

Review of the relevant Northern Territory literature

General population trends

Every three years the National Drug Strategy (NDS) Household Survey collects an array of information on drug use by Australians aged 14 years or more. Data on lifetime and recent use (past 12 months) of selected drugs from the last three surveys are displayed in Table 1 (Fitzsimmons & Cooper-Stanbury, 2000; AIHW, 2002). Specific information about morphine is not collected and data collection on methadone and other opiate use commenced in 2001.

Table 1: Lifetime and recent use of drugs in 1995, 1998 and 2001, Northern Territory and Australia (%).

	Lifetime use						Recent use					
	1995		1998		2001		1995		1998		2001	
Drug	**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**
Heroin	1.8	1.4	4.4	2.2	na	1.6	0.5	0.4	0.5	0.7	0.1*	0.2
Other opiates	na	na	na	na	na	1.2	na	na	na	na	0.8	0.3
Methadone	na	na	0.6*	0.5	na	0.3	na	na	0.2*	0.2	0.3*	0.1
Tranq/sleepers		3.2	10.8	6.2	na	3.2		0.6	4.7	3.0	1.1	1.1
Injected illegal drugs	1.7	1.3	3.8	2.1	na	1.9	0.9	0.6	0.9	0.7	1.9	0.6

* Not reliable as relative standard error greater than 50%.

In 1995 and 1998, the Northern Territory (NT) had higher proportions of people who had lifetime use of heroin and non-medical use of tranquillizers/sleeping tablets or who had injected illegal drugs than the Australian population. 2001 jurisdictional comparisons for lifetime use have not been released yet. From 1995 to 2001, the NT and Australia had similar proportions of people who recently used heroin, but in 2001 the NT had a higher proportion of people that had used other opiates in the past year (0.8% : 0.3%). The data for methadone use are unreliable in the NT but suggest there may be little difference between the NT and Australia in recent use of methadone for non-medical reasons. In 1998, more people in the NT than Australia had recently used tranquillizers/sleeping pills for non-medical reasons (4.7% : 3.0%) but the NT proportion dropped in 2001 to be the same level as the Australian one (1.1%). In all three surveys, the NT consistently reported higher proportions of people who had recently injected illegal drugs. In 2001, the NT proportion increased to three times that of Australia (1.9% : 0.6%).

Trends among specific groups

Youth

A NT Office of Youth Affairs survey of 847 young people aged 12-25 years indicated 4% had experienced mental health problems perceived to be related to drug use (Cavanagh, 2001). When asked if they had used any illegal drugs or substances in the last 12 months, 0.9% of youth reported using heroin, 3.2% had used methamphetamines, 2.0% ecstasy, 2.8% LSD, 0.5%

tranquilizers and 0.7% barbiturates. In the previous year, 0.9% had injected illegal drugs and only two individuals from this group had shared needles. Just over half of the youth surveyed (52%) stated cannabis and other drugs were readily available at school.

School students

In the NT, 716 secondary school students aged between 12 and 17 years participated in the 1996 Australian Secondary School Students Alcohol and Drug Survey (Bertram & O'Reilly, 1998). Only two questions examined non-medical use of opiates and benzodiazepine or benzodiazepine-like substances (sleeping tablets, tranquilizers, sedatives) and the majority of students, across all age groups, had never used these substances for non-medical reasons. Among 16-year-old students, 2% of males and 4% of females had tried heroin or opiates at some time in their life. Fewer 17 year old females had tried opiates than 16 year old females (2% : 4%), but more 17 year old than 16 year old males had tried opiates (14% : 2%). In the month before the survey, none of the students aged 12, 15 or 16 years had used sleeping tablets, tranquilizers or sedatives for non medical reasons. A small proportion of 13-year-old students had used sleeping tablets, tranquilizers or sedatives (1% of males and 2% of females) and only females among the 14 year old had used them (4%). Among the 17-year-old students, 4% of males and 2% of females had used these substances for non-medical reasons.

Youth not in education

A broad-based street intercept survey of 330 young people aged 16-24 and no longer in the education system in four NT urban centres found 51.4% had used cannabis in the preceding six months, 9.8% benzodiazepines, 3.9% opiates, 12.4% stimulants and 3.2% inhalants (O'Reilly & Townsend, 1999). Slightly more males than females had used opiates in the six months before the survey (4.3% : 3.3%) and use was more prevalent among the 18-20 year olds (7.1%) than the 16 to 17 year olds (2.2%) or those aged 21 to 24 years (1.9%). The prevalence of benzodiazepine use in the previous six months was slightly higher among females than males (10.5% : 9.2%) and a higher proportion of 18-20 year olds had used them (11.5%) when compared to their younger (8.7%) and older (8.9%) counterparts.

Tertiary students

In 2002, a survey of 386 tertiary students at the Northern Territory University found 1.4% had used benzodiazepines for non-medical reasons in the previous week, 2.4% in the past month and 6.8% in the last six months (Jessen, O'Reilly & Roberts, 2002). These rates were higher than the 1.1% reported for recent use (last 12 months) by the NT general population in the 2001 NDS Household Survey. None of the students reported use of opiates in the previous week, but 0.3% had used them in the last month and 1.1% in the last 6 months. In contrast, the 2001 NDS Household Survey reported only 0.3% and 0.8% of the NT population had recently used heroin or other opiates. In the previous six months, 2.2% of students had used benzodiazepines and cannabis concurrently and 1.1% took opiates and cannabis concurrently. Significantly more males than females used opiates and cannabis concurrently. Slightly more of the older students (25 years or more) had used benzodiazepines in the last six months (8% : 5%) or had used benzodiazepines and cannabis concurrently (3% : 1%) but there were no age differences in use of either opiates or opiates and cannabis concurrently (O'Reilly, Jessen & Roberts, 2003).

Prisoners

The Australian Institute of Criminology (AIC) Drug Use Careers of Offenders (DUCO) project surveyed 134 male prisoners in NT Correctional Services in 2001 (Lasoncz, 2001). A quarter (25.4%) of the sample had lifetime use of methamphetamine, 11.2% had used heroin, 4.5% street methadone, 8.2% morphine and 14.9% had used tranquillizers. Heroin or street methadone

was regularly used[1] by 2.2% of the prisoner sample and 4.5% regularly used morphine or tranquillizers. The mean age at which heroin use became a regular activity was 16.7 years (range 13-19 years) and it was 17.2 years (range 15-20) for tranquillizers. The mean age of regular use was higher for both for street methadone (23 years; range 21-25) and morphine (20.5 years; range 17-25). Illegal drugs had been used by 16% of the sample whilst in prison and 4.8% said they had injected drugs. Drugs were sourced from a range of people, particularly family, partners, friends, outside dealers and other inmates. Custodial officers and other prison staff were least likely to be nominated.

Treatment agency clients

The results of the Clients of Treatment Services Agencies Census in 1995 and 2001 (Table 2) indicated a rise in alcohol clients across all jurisdictions, and the NT had the highest proportion of alcohol clients (80.1%) in 2001. This was much higher than the national figure of 49.3%. From 1995 to 2001 the proportion of NT clients presenting with an opiate as the principal drug of concern dropped from 12.6% to 3.6%, while nationally figures were substantially higher in both years (39.1% and 33.6%). The proportion of polydrug clients (both including and excluding opiates) declined to zero in the NT despite the national figures indicating a stable number of clients for polydrug including opiates (7.1% : 7.4%) and a small drop in polydrug excluding opiates (5.1% : 3.5%).

Table 2: Clients of alcohol and drug treatment services by jurisdiction, 1995 and 2001.

		ACT	NSW	VIC	QLD	SA	WA	TAS	NT	Nat
Alcohol	1995	38.6	30.9	33.2	36.1	38.2	43.9	35.1	65.5	35.1
	2001	55.7	42.9	45.4	54.6	55.6	56.1	63.3	80.1	49.3
Opiates[a]	1995	39.4	45.8	43.4	34.3	37.5	21.4	29.9	12.6	39.1
	2001	30.2	40.4	36.3	31.8	21.1	23.4	10.1	3.6	33.6
Cannabis	1995	7.1	9.3	12.3	7.2	4.6	8.3	15.7	9.2	9.3
	2001	10.1	6.4	7.1	6.0	8.0	5.1	13.9	6.1	6.7
Amphet	1995	8.6	6.6	3.8	10.0	10.0	19.4	9.0	4.2	8.3
	2001	12.1	4.9	9.8	6.4	3.8	10.1	3.8	2.0	6.5
Polydrug	1995	4.7	7.2	7.8	9.8	6.2	3.5	2.2	6.7	7.1
inc opiate**s**	2001	2.0	8.3	10.1	6.5	8.0	3.7	2.5	0	7.4
Polydrug	1995	4.7	4.7	3.4	9.4	6.6	4.8	11.2	6.7	5.1
ex opiates	2001	0	4.1	3.4	1.8	12.6	1.1	0	0	3.5

[a] Includes polydrug including opiates.

Source: O'Reilly, 2002a.

The Australian Institute of Health and Welfare (AIHW, 2002) collated data on the services provided by twenty government funded treatment agencies in the NT that participated in the 2000/2001 Alcohol and Other Drug National Minimum Data Set. Of the 2564 clients, 62% were male, 62% were aged 20-39 years and most were Australian born (89%). Alcohol was the principal drug of concern of 66% of clients. In the NT, 3% of clients sought treatment for heroin, compared to 28% nationally. Benzodiazepine was the drug of concern for only 0.2% of NT clients in contrast to

[1] Several times weekly in the previous six months.

2.1% nationally. While benzodiazepine clients were spread across all age groups nationally, they were restricted to the 20-39 age group in the NT. No data were presented for other opiates, such as morphine, and cautious interpretation is required given the evidence indicating morphine is the main opiate used in the NT.

Needle/syringe program clients

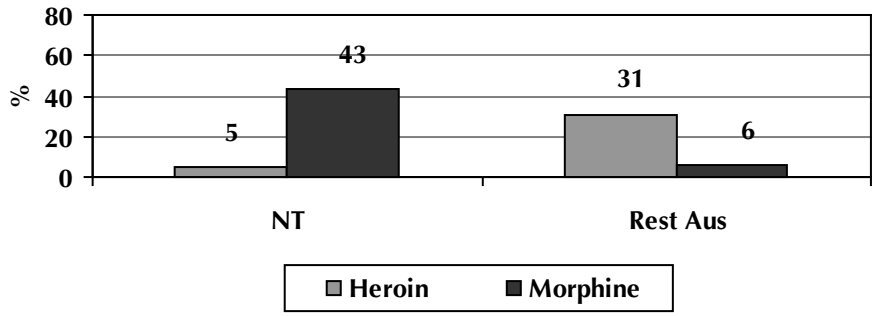
The Australian Needle and Syringe Program (ANSP) collates survey data on the prevalence of the last drug injected by Needle Syringe Program (NSP) clients in each jurisdiction (Table 3). These data highlight a unique pattern of opiate injection in the NT, where morphine was the most frequently injected drug. In 2001, 43% of NSP clients in the NT last injected morphine compared to a low 6% nationally. Only 5% reported last injecting heroin in contrast to 30% in the rest of Australia (Figure 1).

Table 3: Prevalence of last drug injected by jurisdiction, 2001.

Drug	ACT	NSW	VIC	QLD	SA	TAS	WA	NT
Cocaine	0 0%	146 21%	5 1%	2 <1%	9 3%	0 0%	2 1%	0 0%
Heroin	13 30%	221 32%	197 58%	217 26%	68 25%	0 0%	24 15%	5 5%
Methadone	9 20%	56 8%	0 0%	32 4%	10 4%	8 28%	4 2%	8 9%
Morphine	1 2%	4 1%	9 3%	47 6%	20 7%	8 28%	19 12%	40 43%
Amphetamine	18 41%	115 16%	84 24%	422 52%	143 52%	6 22%	92 56%	34 36%
>One drug	2 5%	39 6%	24 7%	47 6%	18 6%	4 14%	14 9%	5 5%
Not reported	1 2%	14 2%	2 1%	8 1%	5 2%	0 0%	4 2%	0 0%

Source: MacDonald & Zhou, 2002.

Figure 1: Prevalence of morphine and heroin injection in 2001, NT and rest of Australia (%)



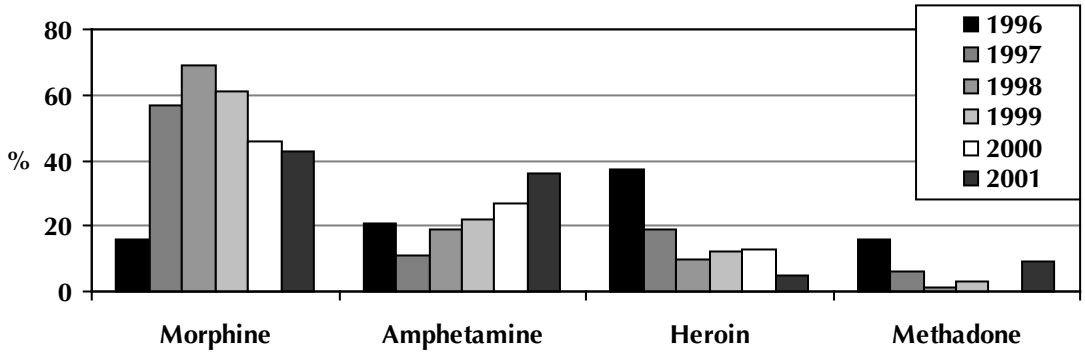
The NT rates of last injection for each drug from 1995 to 2001 (Table 4) indicate the proportion of NSP clients who last injected morphine increased markedly from 1995 to 1998 (34% to 69%), but dropped to 43% in 2001. This was accompanied by a steady increase in the proportion last injecting methamphetamine, rising to 36% in 2001 (Figure 2). At the same time, the proportion last injecting heroin decreased from its high of 37% in 1996 to just 5% in 2001. Methadone was last injected by 16% of NSP clients in 1996, but the rates declined thereafter, dropping to zero in 2000. However, this trend reversed in 2001 when the rate jumped up to 9%. The proportion in the NT reporting they had last injected more than one drug rose to 8% in 2000, but decreased to 5% in 2001. Benzodiazepines were very rarely the last drug injected and no NSP clients in the NT had last injected them in 2001.

Table 4: Prevalence of last drug injected in the NT, 1995 to 2001.

	1995		1996		1997		1998		1999		2000		2001	
Drug	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**
Heroin	6	20	7	37	19	19	10	10	11	12	12	13	5	5
Methadone	4	13	3	16	6	6	1	1	3	3	0	0	8	9
Morphine	10	34	3	16	59	57	71	69	56	61	43	46	40	43
Benzodiazepine	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Amphetamine	6	20	4	21	11	11	19	19	21	22	26	27	34	36
>One drug	3	10	0	0	2	2	0	0	0	0	8	8	5	5
Total	**30**		**19**		**102**		**102**		**93**		**95**		**94**	

Source: MacDonald & Zhou, 2002.

Figure 2: Prevalence of last drug injected by NSP clients in the NT, 1996 to 2000



A snapshot survey of Health for Injectors in the Northern Territory (HINT)[2] clients in July 1998 indicated 75% had last used morphine, 2% heroin and 3% methadone (Roberts, 1998a). Interestingly, only 8% of clients stated morphine was the drug of choice compared to the 57% nominating heroin. A third (33%) of clients had been on a methadone program but only 2% were on a program at the time of the study. In a second snapshot in October 1998, 74% had last used morphine, 6% heroin and 0.8% methadone (Roberts, 1998b; Roberts & Croft, 2000). Only 7% reported morphine as the drug of choice, compared to the 63% stating heroin. In a follow up

[2] Needle and Syringe Availability and Education Programme of the Northern Territory AIDS and Hepatitis C Council.

snapshot one year later (Roberts, 1999) the proportion of clients last injecting morphine dropped to 59%, while the proportion using heroin doubled to 12%. The proportion last injecting methadone increased to 3%. Close to half of the clients (51%) reported heroin as the drug of choice, compared to only 9% nominating morphine. Two thirds (63%) reported the last drug injected was not their drug of choice. Only 7% of clients were on a methadone program and none had ever been on other pharmacotherapies. The majority (89%) of clients had been in prison and 90% had injected while in prison. In 2002, the NT AIDS Council Needle/Syringe Program (NSP) client data for July to September indicated 49% last injected morphine and 40% methamphetamine (Duquemin & Gray, 2003). Only 3% had last injected heroin or methadone and 1% had used benzodiazepines.

People who inject drugs

In 2000 the Illicit Drug Reporting System (IDRS) was implemented nationally (Topp, Darke, Bruno, Fry, Hargreaves, Humenick, McAlister, O'Reilly & Williams, 2001). Most of the people who inject drugs (PWID) in the Darwin samples in all three IDRS surveys were male, had an average age in the early 30s, were unemployed with an average Year 10 secondary school education and had not attended any post-secondary courses (O'Reilly & Rysavy, 2001; O'Reilly, 2002a; Duquemin & Gray, 2003). One in ten identified as Indigenous in 2000 and 2001 and this increased to 20% in 2003.[3] Close to half of the PWID in each survey had a prison history. The proportion in treatment consistently declined over the three-year period, dropping from 34% in 2000 to 14% in 2003.

Table 5 summarizes key features of opiate and benzodiazepine use for each survey. Heroin was likely to be the first opiate injected by PWID in the NT and Australia, and also the preferred opiate. Examination of drug most injected in the last month indicated substantially more Australian PWID had injected heroin when compared to Darwin PWID. The drug injected most in Darwin was morphine and the proportion of Darwin PWID injecting this drug most often increased from 2000 to 2002 (52% : 65% : 74%). Similarly, the last drug injected was more likely to be morphine in Darwin when compared to Australian PWID. In 2002, 69% of Darwin PWID had last injected morphine and only 2% heroin, whereas in Australia the reverse was apparent: 42% had last injected heroin and 15% morphine. On the day before the survey, 74% of Darwin PWID had used morphine compared to only 13% of Australian PWID. Although morphine was the most recent and most frequently used drug among Darwin PWID, it was not the preferred drug, with just one in one in five nominating it. In 2002, heroin was the preferred drug of 55% of Australian PWID and 46% of Darwin PWID. Fewer Darwin PWID had ever used methadone or used it in the last six months when compared to Australian PWID. Only 1% reported it as the preferred drug and, in 2001, only 4% had injected it most often in the previous month (compared to a national rate of 6%). Use of other opiates was very low among Darwin PWID.

In 2000, three times as many Australian as Darwin PWID had used benzodiazepines in the previous six months (63% : 21%). By 2002, this gap had closed markedly, with the Australian PWID proportion remaining stable around 65% and the Darwin rate increasing to 55%. A similar pattern was evident in data collected on drugs used the day before the survey. In 2000, only 5% of Darwin PWID had used benzodiazepines the previous day, compared to 18% nationally. In 2002, the national proportion remained unchanged, but the Darwin rate had increased to 16%.

Table 6 depicts the forms of pharmaceutical opiates and benzodiazepines used in the last six months, and the forms most often used. In 2001 and 2002, close to two in five Darwin PWID who had used morphine had obtained it from licit sources; however, more PWID mostly used morphine from this source in 2002 than 2001. There was a concomitant reduction in the proportion of PWID that had most often used morphine from illicit sources.

[3] This may be due to a variation in sampling technique.

Table 5: Drug use history of opiates and benzodiazepines among PWID, 2000 to 2002.

		2000[a, b]		2001[c, d]		2002[e, f]	
Drug Class		**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**
Heroin	First drug injected	33	38	36	39	37	40
	Ever used	78	90	80	89	87	91
	Used last 6 months	50	79	36	67	22	68
	Injected most last month	14	60	5	36	2	43
	Last drug injected	9	58	7	35	2	42
	Used yesterday	11	49	6	27	2	27
	Preferred drug	44	63	39	48	46	55
Morphine	First drug injected	0	-	11	5	10	5
	Ever used	76	-	90	67	97	75
	Used last 6 months	74	-	84	43	86	50
	Injected most last month	53	-	65	13	74	17
	Last drug injected	56	-	57	12	69	15
	Used yesterday	11	-	62	13	74	13
	Preferred drug	18	-	22	5	20	6
Methadone	First drug injected	0	0	0	-	0	-
	Ever used	48	66	57	68	67	71
	Used last 6 months	23	44	36	48	37	44
	Injected most last month	3	5	2	6	4	6
	Last drug injected	4	5	3	5	4	6
	Used yesterday	9	19	13	23	5	23
	Preferred drug	1	2	1	2	1	-
Other opiates	First drug injected	7	4	0	-	3	-
	Ever used	18	58	34	44	56	54
	Used last 6 months	2	37	7	19	24	28
	Injected most last month	0	5	0	-	0	-
	Last drug injected	0	5	0	0	0	-
	Used yesterday	9	5	0	2	2	2
	Preferred drug	1	3	1	0	2	-
Benzodiazepines	First drug injected	1	-	0	-	0	-
	Ever used	37	77	62	78	77	83
	Used last 6 months	21	63	53	64	53	65
	Injected most last month	0	-	-	-	-	-
	Last drug injected	0	0	0	0	2	-
	Used yesterday	5	18	13	18	16	18
	Preferred drug	0	-	0	-	1	-

[a]O'Reilly & Rysavy, 2001; [b]Topp et al., 2001; [c]O'Reilly, 2002a; [d]Topp et al., 2002; [e]Duquemin & Gray, 2003; Breen et al., 2003.

Table 6: Forms of opiates used in the last six months and most often used (%).

	2001[1]		2002[2]	
Forms	**Used**	**Most often**	**Used**	**Most often**
Licit morphine prescription	41	30	42	40
Illicit morphine prescription	73	54	66	47
Licit methadone syrup	15	13	5	5
Illicit methadone syrup	10	7	4	0
Licit Physeptone tablets	8	6	13	10
Illicit Physeptone tablets	17	10	28	25
Licit other opiates	5	3	17	17
Illicit other opiates	3	2	8	5
Licit benzodiazepines	39	33	34	30
Illicit benzodiazepines	30	21	30	23

[1]O'Reilly, 2002a;
[2]Duquemin & Gray, 2003.

There was a reduction in the proportion of PWID using and mostly using methadone syrup from both licit and illicit sources from 2001 to 2002. However, more PWID had accessed Physeptone™ tablets from both licit and illicit sources and more than double the number were mostly using Physeptone™ from illicit sources in 2002 compared to 2001 (25% : 10%). There was also an increase from 2001 to 2002 in the proportion of PWID using other opiates from licit sources in the previous six months (5% : 17%) and in the proportion mostly using other opiates from licit sources (3% : 17%). The proportions using benzodiazepines from licit and illicit sources were similar for both years.

In Darwin, morphine was sometimes more difficult to obtain and could result in higher use of Schedule 4 drugs, particularly benzodiazepines such as temazepam (O'Reilly, 2002a). A more detailed examination of patterns of pharmaceutical drug use among Darwin PWID indicated the demographic characteristics of those who had used benzodiazepines in the preceding six months were very similar to the characteristics of the entire samples in both 2000 and 2001 (O'Reilly, 2002b). The majority of PWID that had recently used benzodiazepines preferred to use an opiate (heroin or morphine). From 2000 to 2001, there were increases in the proportion that had first injected morphine (0% : 9.9%), nominated morphine as their preferred drug (19.0% : 29.6%) and injected morphine most often in the previous month (66.7% : 81.4%). Close to half of recent benzodiazepine users preferred heroin, but few had injected it most often in the last month in either 2000 or 2001 (9.5% and 2.9%) or indicated it was the last drug injected (4.8% and 2.8%).

In 2001, recent benzodiazepine users most often used temazepam (Normison™), diazepam (Valium™) and oxazepam (Serapax™), with temazepam being the most frequently used. A comparison of main forms used in 2000 and 2001 indicated the decrease in the proportion of PWID using diazepam (Valium™) (57.7% : 9.5%) was accompanied by an increase in temazepam use (principally Normison™) (30.8% : 82.5%). Similarly, as the proportion nominating oxazepam (Serapax™) increased (0% : 6.4%), the proportion reporting flu nitrazepam decreased (Rohypnol™) (7.6% : 1.6%). The forms most commonly used in 2002 were not reported. In 2001, almost three quarters of recent benzodiazepine users (73%) obtained the drugs licitly and 62% stated this

was their usual source (O'Reilly, 2002b). Just over half (55%) had obtained benzodiazepines illicitly, but only 38% stated this was their usual source, suggesting many PWID accessed general practitioners for benzodiazepine prescriptions.

Prescribing patterns and trends

Narcotic analgesics

The Poisons and Pharmacy Branch of the NT Department of Health and Community Services (DH&CS) collates information on Schedule 8 drugs and Table 7 indicates the trends in consumption of Schedule 8 morphine narcotics from 1994 to 1999. Consumption of all Schedule 8 morphine narcotics increased from 1994 to 1998 and very large rises were evident in MS Contin™ 60mg and 100mg tablets and all doses of Kapanol™. From 1998 to 1999, there was a drop in consumption of MS Contin™ 30mg and 60mg, Kapanol™ 50mg and Anamorph™ 30mg tablets. However, consumption of all other Schedule 8 morphine narcotics continued to rise.

Table 7: Consumption of Schedule 8 morphine narcotics, 1994-1999, NT.

Drug name	1994	1995	1996	1997	1998	1999
MS Contin 10mg tabs	19,680	17,000	33,160	36,140	20,253	26,262
MS Contin 30mg tabs	18,880	20,380	31,580	34,100	27,653	24,900
MS Contin 60mg tabs	26,840	20,800	44,940	86,620	118,790	66,010
MS Contin 100mg tabs	18,540	17,440	19,820	74,400	242,808	319,135
Kapanol 20mg tabs	220	6,200	12,080	14,980	18,400	20,910
Kapanol 50mg tabs	160	3,580	8,240	15,080	18,986	17,580
Kapanol 100mg tabs	220	4,340	13,060	24,240	31,119	37,278
Anamorph 30mg tabs	54,120	48,840	59,020	62,140	80,135	54,494

Source: O'Reilly & Rysavy, 2001 (Oral doses only, injections and syrups not included).

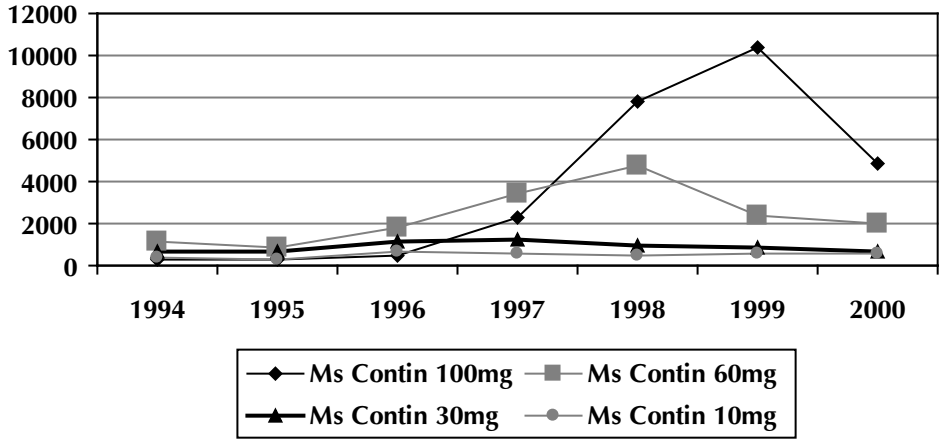
MS Contin™ 100mg is the preferred, most often used form of morphine, and the dramatic rise in the prescribing of these tablets from 1996 onwards is evident in Table 8 and illustrated in Figure 3.

Table 8: Requested PBS and RPBS morphine sulphate items January 1994-May 2001, NT.

Form	1994	1995	1996	1997	1998	1999	2000	2001
MS Contin 5mg tabs	-	-	59	56	64	102	91	42
MS Contin 10mg tabs	356	330	621	538	472	611	538	256
MS Contin 30mg tabs	695	635	1,154	1,265	991	819	713	283
MS Contin 60mg tabs	1,162	887	1,783	3,417	4,768	2,356	2,000	930
MS Contin 100mg tabs	247	315	485	2,278	7,770	10,393	4,884	1,212
MS Contin 30mg susp	-	-	-	0	6	25	13	0

Source: HIC.

Figure 3: Requested PBS and RPBS MS Contin items in the NT, 1994 to 2000



Duquemin and Gray (2003) report continuation in the reduction of MS Contin™ 100mg tablet dispensing since 2000, with a spike in the first two quarters of 2002. Dispensing levels before 1998 are not presented and it would appear the reduction has taken the levels to those of 1998 but not to the levels prior to the significant increase in prescribing since 1996 (see Table 8). However, there is no data on the trends in dispensing of other forms of morphine sulphate and it is impossible to determine if compensation has occurred with, for example, Kapanol™ or Anamorph™.

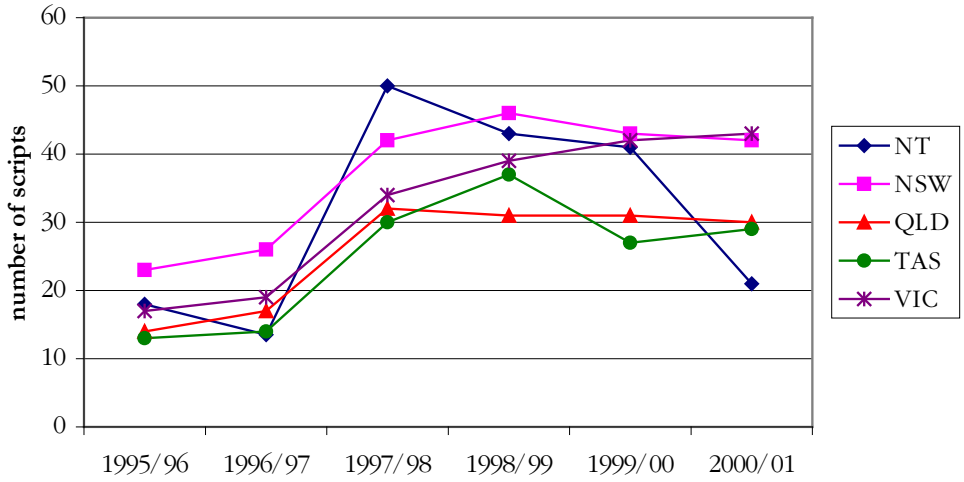
Doctor-shopping

In 1998/99, the Health Insurance Commission (HIC) Doctor-shopping Project identified 8,626 people in Australia as doctor-shoppers.[4] In the NT, doctor-shoppers accounted for 5.4% of Pharmaceutical Benefits Scheme (PBS) scripts for 10mg temazepam capsules and this was similar to the national figure of 5.6% (Dobbin, 2001; HIC, 2001). The NT had the highest rates of any jurisdiction for doctor-shopping of oxazepam 30mg and diazepam 5mg tablets (11.0 % and 10.9% respectively compared to 6.2% and 8.6% nationally). In January 1999, the NT introduced a voluntary contract system for people receiving Schedule 8 and some Schedule 4 medications. There was a decrease in the number of NT doctor-shoppers for benzodiazepines, codeine and narcotic analgesics (such as morphine) from 1998/99 to 2000/01 (Duquemin & Gray, 2003), but those who continued to doctor-shop obtained more scripts for narcotic analgesics. Figure 4 illustrates that the restrictions on prescribing of 10mg temazepam gel capsules resulted in a drop in benzodiazepine scripts by doctor-shoppers (Breen, Degenhardt, Roxburgh, Bruno, Fry, Duquemin, Fischer, Gray & Jenkinson, 2003), but Figure 5 indicates the decline in prescribing of 10mg temazepam gel capsules was accompanied by a marked increase in 10mg temazepam tablets.

[4] 15 or more GPs in a year, 30 or more Medicare consultations and more PBS prescriptions than clinically necessary. Identification confined to Health Care Card holders.

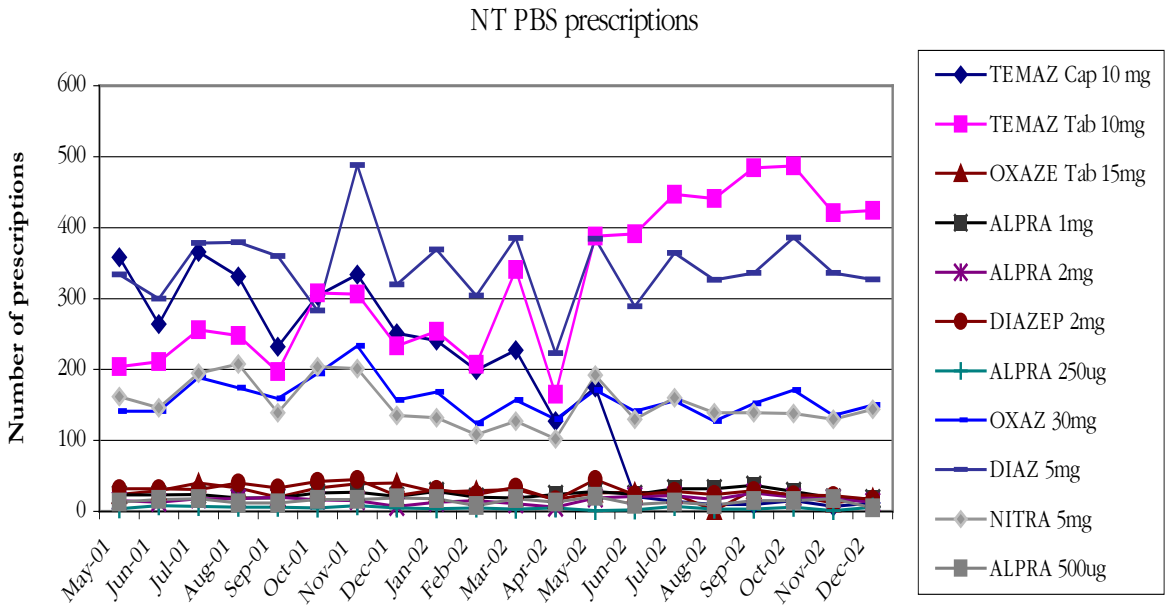
http://www.hic.gov.au/providers/publications_guidelines/program_review_fact_sheets/doctor_shopping.htm.

Figure 4: Median number of scripts from doctor-shoppers 1995/06 to 2000/01, selected jurisdictions



Source: Breen, et al., 2003a.

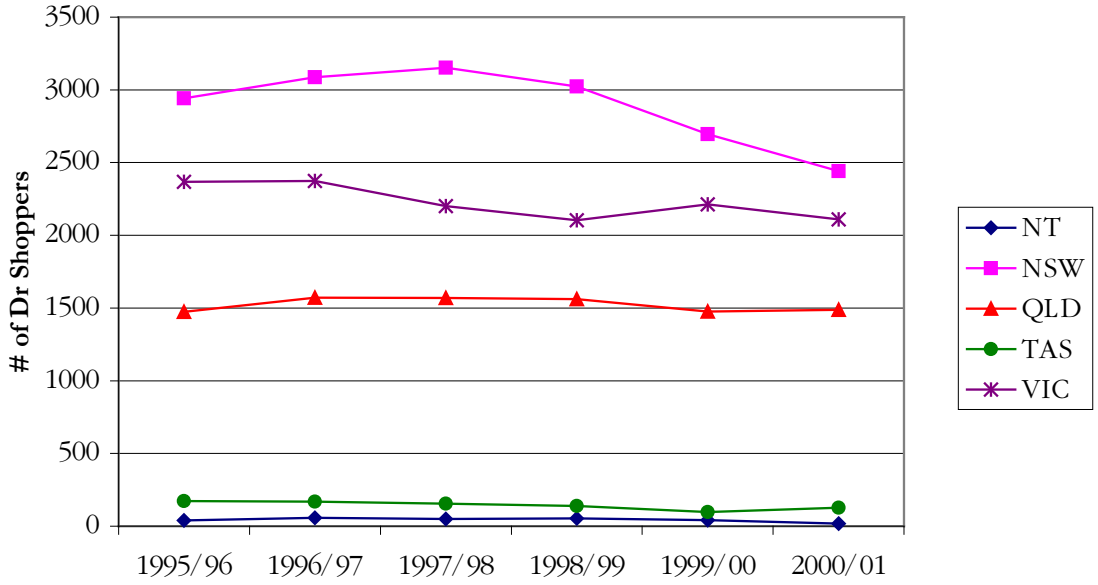
Figure 5: Prescribing of benzodiazepine forms in the NT, May 2001 to December 2002



Source: Breen, et al., 2003a.

The number of doctor-shoppers in the NT was lower than in some other jurisdictions and, in isolation, a few more or less can produce what appears to be a marked change. This is illustrated in jurisdictional comparisons of doctor-shoppers from 1995/06 to 2000/01, indicating comparatively stable numbers of benzodiazepine doctor-shoppers in the NT (Figure 6). NSW was the only jurisdiction to experience a notable decrease in numbers (Breen et al., 2003a).

Figure 6: Number of benzodiazepine doctor-shoppers 1995/06 to 2000/01, selected jurisdictions



Drug-related crime and police activity

Drug offences

Australian Bureau of Statistics (ABS) crime and justice data on drug offences for the year 1999/2000 indicate 83% of drug offences in the NT involved cannabis in contrast to 67% nationally (ABS, 2002; ABS, 2003). Heroin was associated with only 1.4% of drug offences and this is much lower than the national figure of 14%. Methamphetamine accounted for 11.4% of the offences and the remaining 2.9% of offences were listed as 'other drugs'. In 2000/01 a total of 1,081 people were arrested in the NT for drug offences (ABS, 2003) and 78.6% of these arrests were for cannabis. Heroin and other opioids accounted for 2.2% of drug offences, compared to 9% nationally. The NT arrest rate of 12.1 per 100,000 persons for heroin and other opioids was much lower than the national rate of 38.2 per 100,000 persons.

The NT courts finalized 562 drug offences in 2001/02 (Office of Crime Prevention, 2002; Office of Crime Prevention, 2003). The possession, non-commercial dealing and manufacture or cultivation of non-commercial quantities of illicit drugs accounted for 80% (n=448) of the finalized drug offences. Of the 440 offences covered by drug infringement notices, 96% related to the possession of cannabis and the remaining notices were for cultivation for personal use. Only 1.2% (n=7) of offences were related to prescription drugs. From July 2002 to March 2003, there was only one finalized prescription drug offence (of the 421 offences to the end of that period).

Drug-related offences: Court transcripts

A transcript of a NT Supreme Court case heard on 2 May 2003 reported the 30-year-old defendant had committed armed robbery of a pharmacy in Darwin in August 2000, using a blood-filled syringe as a weapon (SCC 20106693, 2003). The defendant had demanded MS Contin™ and escaped with two purple boxes of MS Contin™ (120 tablets totalling 3.6 grams) and three orange boxes (120 tablets equaling 10.8 grams). The retail value of the MS Contin™ was $353.69. The next day the defendant sold 40 tablets for $400 and then claimed to have self-administered the remaining 200 tablets in the following month. A work colleague introduced the defendant to morphine in May 2000 by offering a tablet to ease work-related stress. The defendant initially used morphine every few days to ease stress, but by June morphine was taken daily, morphine dependency was evident, and the defendant was dismissed from his employment.

A similar case in April 2003 heard the 42-year-old male defendant was an intravenous drug user and had used a blood-filled syringe to hold up a Darwin pharmacy on October 2002 (SCC 20214922, 2003). The defendant was arrested with a plastic bag containing three MS Contin™ packets, eight Normison™ packets, two packets of Norinyl™, three packets of Valium™, one of Xanax™, a bottle of Temaz™ and two bottles of Hypnodorm™. The total value of the 20 items was just over $1000. In another armed robbery of a pharmacy in May 2002, the 34 year old male offender was described as morphine dependent and used a knife to steal 1114 MS Contin™ and Kapanol™ tablets valued at $2169 (SCC 20209201, 2003). About six years earlier, the Darwin Pain Clinic had prescribed MS Contin™ 100 mg to the offender for severe back pain. The offender took increasing doses until he became dependent. At the time of the offence, the clinic had changed its policy and was attempting to wean the offender off MS Contin™.

A Local Court transcript of an application for a Commercial and Private Agents License reveals the circumstances surrounding the development of Pethedine™ dependency (NTMC 22, 2000). The applicant had suffered a serious injury in 1993 and, in 1994, was prescribed Pethedine™ tablets for chronic hip pain. The applicant had undergone surgery a number of times over a 3-year period, but pain persisted and by 1997, the applicant stated he was taking about 10-15 Pethedine™ tablets a day. The court was presented with an extract from the Poisons and Pharmacy Branch Prescription Monitoring Databases. This extract listed all the Schedule 8 drugs prescribed to the applicant from November 1990 to March 2000. In 1994, the applicant had attended two surgeries and obtained three prescriptions for a total of 80 Pethedine™ tablets, two prescriptions for a total of 40 morphine (30mg) tablets and one prescription for 20 oxycodone tablets. In 1995, he had been to two surgeries and obtained 11 prescriptions for a total of 220 Pethedine™ tablets. He attended four surgeries in 1996 and obtained 74 prescriptions for 1600 Pethedine™ tablets, one prescription for 20 morphine (30mg) tablets, two prescriptions each for 20 oxycodone tablets and one prescription for 10 morphine (60mg) tablets. He obtained 1318 Pethedine™ tablets from January to March in 1977 by attending four surgeries.

In March 2000 a 21-year-old male defendant pleaded guilty to 19 separate offences relating to unlawful entry, unlawful use of a motor vehicle, stealing and possession of cannabis (NTSC 31 Appeal, 2000). The offences took place between December 1999 and March 2000. The defendant had been apprehended and interviewed after one offence in December 1999 and when asked about this first offence he stated: *I can't remember much about that day. I kind of spun out, then bang, I woke up here*. He had taken six Rohypnol™ and had no recollection of the day's events. Details of the other offences indicate they were primarily committed to obtain property to sell for cash: *I needed cash to buy drugs*. The defendant had commenced intravenous heroin use at age 17 and was soon dependent. He had moved to Darwin late in 1999 in order to make a new start but had obtained and administered morphine on his day of arrival.

A court transcript on an application for an assistance certificate under the Crimes Victims Assistance Scheme reported the offender (withdrawing from morphine at the time) had waited outside the applicant's room in a boarding house and demanded morphine tablets from the applicant when he returned to his residence (NTSC 6, 2002). The offender pushed the applicant onto his bed, holding a knife at his throat. In the ensuing struggle, the applicant was stabbed in the neck and then the offender took the applicant's morphine tablets. In a second struggle, with the applicant armed with a Bowie knife, the applicant was stabbed in the chest. In further proceedings it was established that the applicant had unlawfully purchased the morphine tablets in the Darwin Mall and was, in fact, dependent on morphine and a small scale drug dealer (he would lend one morphine tablet in exchange for the promise of two in return).

Drug use patterns and offending among prisoners

NT DUCO data indicated only 2.3% of most serious offences (MSO) were drug offences (Lasoncz, 2001). Among those prisoners who had regularly[5] used heroin, 5.9% had committed a property MSO and 4.4% a violent one. A property MSO was more likely to be committed than a violent MSO by regular users of street methadone (5.9% : 1.5%) or morphine (5.9% : 2.9%), but the reverse held for regular use of tranquilizers (5.9% : 7.4%). In the six months prior to arrest, employment was the largest contributor to the weekly income. However, 23% of the weekly income came from the sale of drugs and this was almost as high as that from social security (26.7%). Heroin accounted for a quarter (25.5%) of the weekly expenditure on drugs in the six months prior to arrest, and this is on a par with alcohol. Tranquillizers took 4.1% of the expenditure, morphine 2.7% and street methadone only accounted for 1.4%. When asked the reason for committing property MSO, 29.4% of the prisoner sample said they were under the influence of drugs or alcohol, 17.6% said the offence was drug-or alcohol-related (excluding expense and influence), while 5.9% indicated the offence was committed to obtain money to buy drugs. A much greater proportion stated being under the influence of drugs and alcohol when they committed a violent MSO (50%), while fewer thought the violent MSO was drug-and alcohol-related (9.1%) or committed to obtain money for drugs (1.5%). In terms of the quantitative effect of drugs and alcohol on offending, twice as many prisoners stated a 100% effect than a 0% effect (46.6% : 21.2%). A 100% effect was higher for property crime than violent crime (52.9% : 36.9%). Of the self-reported qualitative effects, 50.8% said it was the pharmacological effects (60% for property crime and 58.8% for violent crime) and another 36.9% reported drugs and/or alcohol led to crime/prison (40% for property crime and 29.4% for violent crime).

Despite the perceived association between drug use and offending among the prison sample, no strong associations were evident in the six months prior to arrest. Morphine abstainers had a higher mean number of violent offences than regular users (0.7 : 0.5) or non-regular users[6] (0.3%). Similarly, heroin abstainers had the highest mean number of violent offences (0.7), followed by non-regular users (0.4%) then regular users (0.3). Non-regular users of morphine had close to three times the mean number of property offences than regular users (107.0 : 39.8) and abstainers had a relatively low mean (7.5%). The difference between non-regular and regular heroin users was even more marked (78.0 : 2.5) and the mean of 8.6 for heroin abstainers was much higher than for regular users.

Activities undertaken while under the influence of drugs

The NDS Household Survey collects information on the types of activities undertaken in the previous year while under the influence of drugs other than alcohol (Table 9). The NT had much higher participation rates for all the activities listed, including those that would constitute an offence. In 1998 twice as many people in the NT as Australia had driven a motor vehicle while under the influence of drugs (12.9% : 6.1%), verbally abused another person (3.8% : 1.8%) or caused damage to property (1.9% : 0.7%). Three times as many NT as Australian respondents had created public disturbances or nuisances (2.9% : 1.0%). The NT rates for physically abusing someone or stealing property were also higher but caution is warranted given the high relative standard errors. The 2001 results are not yet available.

[5] Used more than weekly in six months prior to arrest.

[6] Used monthly or less.

Table 9: Activities undertaken last year while under the influence of drugs, 1998.

	1998	
Activity	**NT**	**Aus**
Drove a motor vehicle	12.9	6.1
Operated hazardous machinery	2.3	0.7
Verbally abused someone	3.8	1.8
Physically abused someone	1.2*	0.5
Caused damage to property	1.9	0.7
Stole property	1.3*	0.4
Created public disturbances/nuisances	2.9	1.0

* Not reliable as relative standard error greater than 50%.
Source: Fitzsimmons & Cooper-Stanbury, 2000.

Criminal activity among PWID

Table 10 depicts PWID self-reported prison history, recent arrest and self-reported criminal activity in the last month from 2000 to 2003 in Darwin IDRS samples. Almost half of the samples from 2000 to 2003 had a prison history. There were some changes in the pattern of arrests for Darwin PWID over the three-year period. In 2000, property crime accounted for two in every five arrests, then one in every three in 2001. However, property crime only accounted for 21% of arrests in 2002, then rose to 45% of arrests in 2003. The proportion of arrests for dealing/trafficking declined from 2000 to 2001 (14% : 5%) and remained steady in 2002 and 2003. From 2001 to 2002, the proportion of PWID arrested for use/possession tripled (7% : 21%) but declined to its lowest level (5%) in 2003. Arrests for violent crime almost doubled from 2001 to 2002 (12% : 21%) then dropped to 10% in 2003.

Table 10: Self-reported criminal activity last month in IDRS samples, Darwin and Australia, 2000-03 (%).

Criminal history	2000[a]	2001[b]	2002[c]	2003[d]
Any crime	**35**	**33**	**42**	**28**
Any property crime	8	12	14	9
Any violent crime	2	3	12	5
Any drug dealing	30	24	31	20
Any fraud	12	5	13	3
Arrested last 12 months	**28**	**32**	**22**	**18**
- property crime*	39	34	21	45
- dealing/trafficking	14	5	4	5
- use/possession*	10	7	21	5
- violent crime*	na	12	21	10
Ever been to prison	**46**	**51**	**46**	**48**

[a]O'Reilly & Rysavy, 2001; [b]O'Reilly, 2002a; [c]Duquemin & Gray, 2003; [d]Moon, 2004.
*among those arrested.

In terms of self-reported criminal activity in the last month, no clear trends are evident. Engagement in any crime rose from 35% in 2000 to 42% in 2002 and then dropped to 28% in 2003. In 2001, of the Darwin PWID who had committed property crime in the previous month, 31% had committed such crimes on a weekly basis and another 31% more than once a week (O'Reilly, 2002a). Among those who had engaged in dealing, one in three did so on a weekly basis and 23% dealt drugs on a daily basis. Younger PWID (under 25 years) were more likely to have committed property crime in the previous month (23% : 7%), and more of the younger PWID engaged in property crime more than once a week (50% : 12%). While a higher proportion of the younger PWID dealt drugs in the previous month (37% : 22%), slightly more of the older group dealt drugs more than once a week (54% : 50%).

O'Reilly, Leibrick and Chenhall (2004) compared PWID prison history, recent arrest and criminal activity in the previous month in the morphine dominated opiate market of Darwin to that of the heroin dominated market in Sydney in 2000 and 2001. In both years fewer Darwin PWID had been arrested in the previous year and they engaged in comparatively less property and violent crime, less drug dealing, and were less aware of police activity than their Sydney counterparts. Comparison of recent drug use in the Darwin PWID samples provided some tentative support for the proposition that some self-reported crime was lower among IDU using pharmaceutical opiates than among their non-pharmaceutical opiate user counterparts. There is no apparent difference in the professionalism, standards or strategies employed by police services in Darwin (NT Police) and in other jurisdictions, or in their approaches to drug-related matters. While there will be variations in operational emphases at different times and in different places, all services respond to crime, including drug-related crime, wherever and whenever it occurs. It appears, however, from the IDRS results, that the NT police may have less drug-related crime to attend to than their peers in other jurisdictions.

PWID perceptions of police activity

Although the IDRS asks PWID to comment on their perceptions of police activities (Table 11), 2000 was the only year in which national figures were reported. The figures for the NT in 2003 were also not reported. In 2000, the distinguishing feature between PWID in Darwin and Australia was the proportion in Darwin who did not know if there had been any change in police activity (51% : 19%), or whether police activity had made it more difficult to 'score' (37% : 9%).

Table 11: Perceptions of police activity in the last 6 months 2000-03.

	2000[a, b]		2001[c]	2002[d]
Activity	**NT**	**Aus**	**NT**	**NT**
Any changes in police activity?				
Don't know	52	19	25	23
More activity	30	53	42	37
Stable	16	25	32	39
Less activity	2	3	1	1
More difficult to obtain drugs?				
Don't know	37	9	9	*
Yes	33	30	21	*
No	31	61	70	*

Table 11 continued.

	2000[a, b]		2001[c]	2002[d]
Activity	**NT**	**Aus**	**NT**	**NT**
Arrests				
More arrests	32	34	29	*
Stable	55	62	63	*
Less arrests	13	4	8	*

[a]O'Reilly & Rysavy, 2001; [b]Topp et al., 2001; [c]O'Reilly, 2002a; [d]Duquemin & Gray, 2003.
*Not reported.

In the NT from 2000 to 2001, the proportion of PWID who did not know if there had been any changes in police activity dropped substantially (52% : 25%) and remained at this lower level in 2002. Similarly, the proportion reporting they did not know if police activity had made it harder to obtain drugs also dropped noticeably (37% : 9%) in the same period. Those reporting more arrests in the last six months was slightly lower in 2001 than 2000 (29% : 32%) and the figures were not reported for 2003.

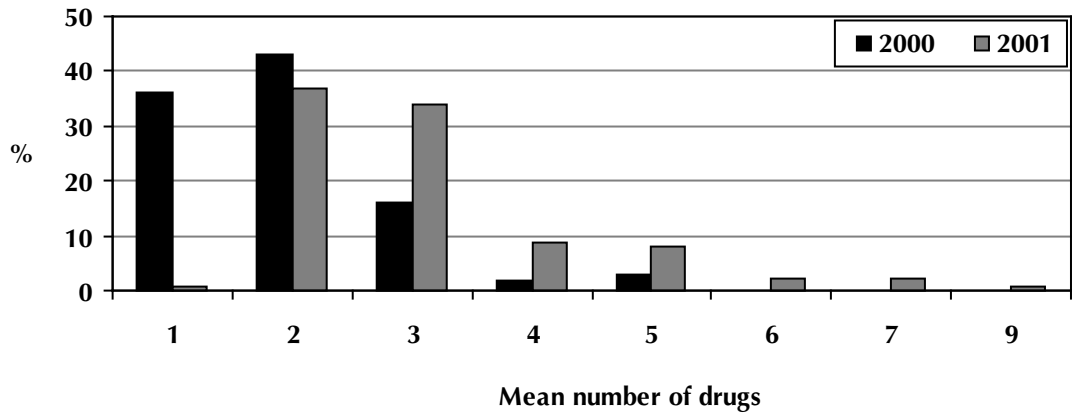
Health implications

Opioid overdose

Fatal opioids overdoses are rare in the NT, with only four deaths in 1999, two in 2000 and five in 2001 (all of whom were male) (Degenhardt, 2002). This contrasts with 306 deaths nationally in 2001. In the NT, non-fatal overdoses in the month prior to the IDRS data collection declined from 2000 to 2001 (18% to 10%) then dropped to zero in 2002 (O'Reilly & Rysavy, 2001; O'Reilly, 2002a; Duquemin & Gray, 2003). Close to a third of the Darwin PWID in 2001 and 2002 (32% and 37% respectively) had overdosed at least once on heroin. In contrast, only 10% of PWID in 2001 and 3% in 2002 had ever overdosed on morphine.

Polydrug use is a major risk factor in drug overdose and polydrug use was evident in the Darwin PWID. The median number of drugs used in the last six months was six in all three IDRS surveys and, in 2001, PWID had used an average of three drugs the previous day (O'Reilly, 2002a). Figure 7 indicates some notable changes in polydrug use from 2000 to 2001, with a significant drop in the proportion using only one drug the previous day (36% : 1%) and double the proportion using three or more drugs (21% : 56%).

Figure 7: Number of drugs used yesterday by PWID, 2000 and 2001



Source: O'Reilly, 2002a.

In 2001, at least two thirds of the Darwin PWID sample had used opiates on the previous day, and everyone who had used heroin had also used benzodiazepines. Of those who had used morphine, 19% had also used benzodiazepines and 18% of those who took methadone used benzodiazepines. In 2000, only 7% of opiate users had also used benzodiazepines on the previous day – thus the proportion of PWID exposing themselves to this risk more than doubled from 2000 to 2001. It is also worth noting that many PWID consumed alcohol on a regular basis. In 2001, 23% had drunk it the day before the survey and, of these, 19% had also used benzodiazepines. Comparative figures are not available for the 2002 PWID survey in the NT.

Injection-related problems

PWID participating in the IDRS in Darwin from 2000 to 2002 reported on injection-related problems in the previous month and these data are presented in Table 12. Overall, there was a decline over the three data collections in all injection-related problems. The levels of injection-related problems are similar to those reported for the Australian samples of PWID in 2002 (Breen et al., 2003).

Table 12: Injection-related health problems in the previous month, 2000 to 2002.

Type of problem	2000[a]	2001[b]	2002[c]
Prominent scarring and/or bruising	57	40	44
Difficulty injecting	49	41	31
Dirty hit (made feel sick)	38	40	18
Abscesses/infections from injecting	16	13	12
Thrombosis	10	9	5

[a]O'Reilly & Rysavy, 2001; [b]O'Reilly, 2002a; [c]Duquemin & Gray, 2003.

Benzodiazepine-related health issues

From 2000 to 2001, the proportion of Darwin PWID injecting benzodiazepines increased threefold (9.0% to 27.4%) and the proportion that swallowed them more than doubled (17.0% : 47.4%). In 2002, the same proportion of PWID had used benzodiazepines in the preceding six months, but the proportion injecting them declined to 17% (Duquemin & Gray, 2003). In 2001, health professionals reported increased benzodiazepine use among PWID, particularly temazepam, and estimated that 40% to 80% of morphine users were also using benzodiazepines from both licit and illicit sources (O'Reilly, 2002b).

Injection of non-injectable pharmaceuticals poses certain health risks, and Roberts & Grant's (2001) hepatitis C needs-assessment in the NT reported an increase in requests to pharmacists and accident and emergency staff for information on the adverse reactions of injecting temazepam capsules. Some of the NT health professionals participating in the IDRS highlighted the injection-related problems associated with benzodiazepines, noting there had been more hospital admissions for abscesses, infections, collapsed veins and amputations. Some users were thought to be unaware of the risks associated with intravenous use of benzodiazepines. Although temazepam was seen as the preferred benzodiazepine of opiate users, diazepam was thought to be more common and problematic as it was prescribed for opiate withdrawal.

The IDRS PWID also mentioned the problems associated with the increased use of benzodiazepines, especially those related to injecting temazepam:

People are using benzos more and injecting them. There are lots of problems like amputations, your brain turns to slush and memory loss. They're not using them just because morphine is hard to get. People are using morphine less and using drugs like temazepam more.

People are losing limbs because of Normison … It's bad shit for injecting, people get blocked veins, big damage.

There's lots of temazepam and lots of injecting problems, parts of fingers and hands have been amputated. People get blocked veins, big infections and abscesses.

These reports were verified by the PWID survey results. Table 13 compares injection-related problems of those who had and had not used benzodiazepines in the previous six months. In both 2000 and 2001, those who used benzodiazepines in the previous 6 months experienced more problems associated with abscesses/infections, scarring and bruising, dirty hits, difficulty injecting and thrombosis. In both years, recent benzodiazepines users had significantly higher rates of abscesses/infections. In 2000, there were significantly higher proportions of recent users of benzodiazepines experiencing scarring/bruising and difficulty injecting. There were no differences in overdose rates.

Table 13: Injecting problems last month, recent versus no recent benzodiazepine use (%).

	2000		2001	
Injection-related problem	**No recent use (n=79)**	**Recent use (n=21)**	**No recent use (n=64)**	**Recent use (n=71)**
Overdose	18.0	19.0	10.9	10.0
Abscesses/infections[a]	9.7	38.1	4.7	20.0
Dirty hit[b]	32.0	61.9	34.4	44.3
Scarring/bruising[c]	53.9	66.7	28.1	51.4
Difficulty injecting[c]	46.7	57.1	28.1	52.9
Thrombosis[b]	5.6	23.8	4.7	12.9

[a] Significant at p<.05 in 2000 and 2001.
[b] Significant at p<.05 in 2000.
[c] Significant at p<.05 in 2001.
Note: 'recent' refers to use of benzodiazepines in the previous 6 months.

Drug market characteristics and pharmaceutical drug use

The apparent easy availability of prescribed morphine for illicit use in Darwin might be explicable in differences that existed in regulations between the NT and other jurisdictions. In the NT a doctor could prescribe morphine (included in Schedule 8, *Poisons and Dangerous Drugs Act (NT)* 1983) to anyone, as long as it was for the treatment of a medical condition *other than addiction* (s 29(4)) (Italics added). If a doctor wished to prescribe morphine for the treatment of dependency, an application had to be made to the Chief Health Officer (s 31A(1)).

Roberts & Croft (2000) discuss the disparity between preferred drug (heroin) and last drug injected (morphine). They report the common source of morphine was a general medical practitioner (GP) (57% of clients), indicating heroin supplies were unreliable. They argued the absence of a methadone program resulted in many heroin dependent people being maintained by GPs through

the prescribing of morphine. Others have also suggested that in the absence of methadone replacement and other therapies,[7] which are provided for in most Australian jurisdictions, there was a *de facto* pharmocotherapeutic opiate maintenance program. This may have been supported by a number of Darwin GPs,[8] through the prescribing of MS Contin™, and to a lesser extent Kapanol™, was by way of diagnoses of a condition of 'severe and chronic pain' (O'Reilly and Rysavy, 2001; O'Reilly et al., 2004).

In response to the apparent burgeoning of prescriptions for morphine in the NT, Commonwealth PBS members and investigators from the HIC visited Darwin in August 1999 (O'Reilly and Rysavy, 2001). Between the 1999 PBS/HIC investigation and the 2000 collection of the IDRS, some PWID in Darwin began to experience reluctance among GPs to prescribe MS Contin™. For some, Kapanol™ appeared to be filling the gap (O'Reilly & Rysavy, 2001). The NT continued attempts to constrain the prescribing of morphine by identifying and monitoring the high prescribing GPs through DH&CS records. Section 31 of the *Poisons and Dangerous Drugs Act* allowed the Chief Health Officer to prohibit a medical practitioner from prescribing, supplying or administering any Scheduled drug by written notice, and some doctors received such notices.

In June 2002, Dr Henry Pang became the recipient of such a notice from the NT Chief Health Officer (Hendy, 2002). The letter stated:

> *The purpose of this letter is to inform you that I have formed the view that you are prescribing Schedule 8 substances in an inappropriate manner that constitutes a risk to public health and safety.*
>
> *I am therefore giving you notice that, under section 31 of the Poisons and Dangerous Drugs Act, I hereby prohibit you from having in your possession, supplying, administering or prescribing a Schedule 8 substance.*
>
> *This prohibition will commence at 9.00am on Monday 8 July 2002 and will remain in force pending the completion of any inquiry by the Medical Board into your professional conduct, or until further review by me in not more than six months time.*
>
> *For 6 of the 21 patients with whom you have an S8 contract agreement … you have consistently and repeatedly written prescriptions for quantities of opiate medication that are significantly in excess of the daily dose that you have stipulated on the prescription form to meet the patient's medical requirements … You have continued to prescribe regular opiate medications for some 18 patients (at 13 June 2002) for a period of longer than two months, with no contract agreement.*

The letter detailed some specific examples that had formed the basis of the action, but Dr Pang refuted these allegations and posted a response on his website (Pang, 2002). Dr Pang also obtained character and professional references and had these forwarded to the Chief Health Officer. On the 30 June 2002, the NT Network Against Prohibition (NAP) sparked community debate about this case with a press release titled: *40 lives at risk as another treatment option removed from drug users. NAP calls on NT Chief Health Officer to Resign* (NAP, 2002a). A second press release described the situation as a human rights emergency and called for an International Day of Action. NAP accused the NT Labor government of closing down health services (the Opiate Withdrawal

[7] The Northern Territory government altered Ministerial Guidelines to introduce the Opiate Withdrawal Management Program in February 2000 (a withdrawal service only). Prior to this, access to methadone was very restricted through application to the Chief Health Officer, principally for pregnant women.

[8] There is no evidence that there was collusion either formally or informally between the medical practitioners.

Management Program and the residential detoxification unit) and taking a zero tolerance approach through the NT Police (NAP, 2002b). NAP argued that while some of Dr Pang's patients would be referred to surgery for pain issues, others would receive no treatment at all and be forced to purchase opiates on the black market at expensive prices. NAP argued there were no appropriate treatment options for opiate-dependent people in Darwin. The NAP campaign may have worked against Dr Pang, as it implied he had, in fact, been prescribing opiates to opiate dependent people. Despite the NAP campaign, the notice was not rescinded and Dr Pang was prohibited from prescribing Schedule 8 drugs.

O'Reilly (2002) reported that from 2000 to 2001 there was a decrease in the proportion of Darwin PWID reporting morphine was very easy to obtain (31.0% : 14.8%) and almost double the number stating morphine was difficult to obtain (24.1% : 42.0%). Twice as many PWID stated it had become more difficult to obtain morphine (24.1% : 50.6%). In 2001, some PWID were experiencing difficulties in obtaining morphine prescriptions and the black market was very active, with increases in the price of the most popular form of morphine (MS Contin™ 100mg). The increase in the availability and use of Schedule 4 prescription drugs when morphine was difficult to obtain was a common theme. The increase in benzodiazepine use was consistently reported to be associated with greater difficulty in obtaining morphine and the rise in the price of diverted morphine. The following quote from one PWID illustrates this point:

> *People have got no choice. GPs take the morph away. They should leave the morph alone so people don't have to resort to this shit. It's bad.*

The comparatively cheaper price of benzodiazepines on the streets may also have played a role, as one PWID opined:

> *Normison™, the footballs, are being used by lots of people. They sell for $5-10 a tablet so they're cheap. People are injecting them but they don't know how to do it. There are big vein problems, fingers falling off, big infections. They should clear that stuff off the streets. Young people are shifting from morphine to footballs.*

Health professionals and PWID participating in the 2001 IDRS in Darwin predicted that reducing the supply of morphine may lead to increasing the prices on the streets, with consequent increases in the levels of crime, and create the potential to develop a heroin market (O'Reilly, 2002a). There was concern that continued efforts to curb the supply of Schedule 8 opiates, without a concomitant reduction in demand, was increasing the cost of drug-related harm to the NT community (O'Reilly, 2002b).

On 14th August 2003, the NT Minister for Health and Community Services announced further strengthening of controls on prescribing with an amendment to the *Poisons and Dangerous Drugs Act* (Northern Territory Government, 2003). The amendments include provisions to make it mandatory for all doctors to obtain a permit to prescribe Schedule 8 drugs. The Minister stated:

> *Until now, the Northern Territory has been the only jurisdiction without this type of legislation in place – inexcusable given that historically there is a significant problem with morphine dependency in the NT. In fact, when this government came into office, prescriptions for morphine in the NT were being dispensed at seven times the national average.*[9]

[9] The NT Labor government came into office in August 2001.

The amendments will ensure regulatory control of all Schedule 8 drugs and mandatory contracts to restrict patients to one doctor and a single pharmacy. Pharmaceuticals of particular concern, such as pharmacotherapeutic drugs, would have additional controls including permits to prescribe. The minister also stated other measures would include an effective system to alert of instances of over-prescribing and/or doctor-shopping, plus the establishment of a Schedule 8 Clinical Advisory Committee. At the time of finalizing this report, these amendments were still awaiting passage through parliament.

Study rationale

Findings from the IDRS reveal a potentially concerning picture of illicit markets for prescribed pharmaceuticals that are emergent in some jurisdictions and consolidated in others. *Australian Drug Trends 2001* (Topp et al., 2002) indicates the following trends (p. 119):

- Recent use of benzodiazepines was high (56%-85%) in all jurisdictions, and the NT recorded marked increases between 2000 and 2001. Diazepam was the most commonly used benzodiazepine, except in the NT where it was temazepam.
- Rates of recent benzodiazepine injection varied from 9% in Adelaide to 40% in Melbourne. In the latter city there was a notable increase in recent benzodiazepine injection from 1999 to 2000, but this appeared to stabilize in 2001. The use of temazepam capsules was strongly associated with benzodiazepine injection.
- There were marked differences within jurisdictions in the rates of injection of non-injectable drugs, such as methadone and benzodiazepines.
- There were marked jurisdictional differences in the rates of recent injection of methadone, ranging from 6% in Melbourne to 76% in Hobart.
- Hobart recorded significantly higher rates of methadone use and injecting than other jurisdictions.
- Darwin recorded significantly higher rates of morphine use than other jurisdictions.
- Rates of recent anti-depressant use were less variable across jurisdictions than methadone and benzodiazepines, ranging from 15% in Adelaide to 28% in Brisbane, Perth and Melbourne.

One of the main aims of the IDRS is to identify emerging trends of concern and thus highlight issues requiring further specialist research in order to inform law enforcement and health sector policy and program responses to illicit drugs. This has particularly been the case with respect to the issue of benzodiazepine and pharmaceutical opiate use. There has been a paucity of research on benzodiazepine and pharmaceutical opiate use in Australian jurisdictions. A similar lack of in-depth research exists for the market characteristics and patterns for these drugs, despite evidence of emergent illicit markets from studies such as the IDRS. This is problematic because the evidence reviewed above indicates drug markets and patterns of drug use vary between jurisdictions and it is reasonable to predict that patterns of pharmaceutical opiate and benzodiazepine use may also differ across settings. A necessary step in devising public health interventions around issues such as benzodiazepine injection is to gather reliable local evidence regarding the nature and extent of the problem. Additionally, there have been few Australian studies that have sought to investigate the potential nexus between prescribed pharmaceutical use and crime (O'Reilly et al., 2004). In response to these issues, the National Drug Law Enforcement Research Fund (NDLERF) sought tenders for research to enhance understanding in the law enforcement sector of the structure and functioning of illicit drug markets in Australia. The current research was commissioned to investigate the impact of benzodiazepine and pharmaceutical opiate use on crime in Victoria, Tasmania and the Northern Territory. This report presents the findings for the Northern Territory, and the readers are referred to the overview report for key findings and summary jurisdictional comparisons (Fry, Smith, Bruno 2004).

Study aims and objectives

The purpose of the current research is to enhance the understanding of the law enforcement sector about the impact of benzodiazepine and pharmaceutical opiate use on crime in three select Australian jurisdictions where there is evidence of emergent illicit markets: Victoria, Tasmania and the Northern Territory. The primary aims are to:

1. Gain a greater understanding of illicit benzodiazepine and pharmaceutical opiate market dimensions and characteristics.
2. Investigate the hypothesized relationship between benzodiazepine and pharmaceutical opiate use and crime.
3. Explore the implications for emergency services staff of emergent illicit markets for benzodiazepine and pharmaceutical opiates.
4. Consider appropriate interventions to address both the law enforcement and health impacts of benzodiazepine and pharmaceutical opiate use.

A secondary and broader aim of the research is to examine the potential nexus between prescribed pharmaceutical use, illicit prescription pharmaceutical markets, crime and health harms.

Chapter two: Methodology

A flexible and reflective study methodology is required when attempting to research the crime and law enforcement implications of diverse and fluid drug markets such as those that exist for benzodiazepines and prescribed opiates. The current research therefore incorporated a blend of epidemiological, social and market research methodologies in order to gather data from a number of complimentary data sources, including: available literature; existing data; current benzodiazepine and pharmaceutical opiate users; expert key informants from health and law enforcement sectors; and secondary indicators. The study replicated core methods in the three target jurisdictions of Victoria, Tasmania and the Northern Territory and was conducted in four stages over a 14-month period commencing April 2003:

1. Interviews with law enforcement key informants.
2. Survey of benzodiazepine and pharmaceutical opiate users.
3. Analysis of secondary indicator data.
4. In-depth interviews (health and law enforcement key informants) and a second survey of benzodiazepine and pharmaceutical opiate users.

Stage one: Law enforcement key informant interviews

The NT Commissioner of Police was contacted to seek permission to conduct interviews with law enforcement personnel and to nominate law enforcement officers suitable for inclusion in the interviews. In July 2003 key informant interviews were conducted with seven select law enforcement personnel at Police Headquarters and two in Alice Springs via phone in order to prioritize research questions and to inform the development of both the stage 2 drug user survey and the in-depth key informant interview schedule. The Alice Springs law enforcement informants were included at the specific request of the Commissioner of Police. Stage 1 key informant interviews were to detail participant experiences and perceptions of illicit benzodiazepine and prescribed opiate markets as well as the nature of operations, policing practices and nature of contact. The topic areas covered were: drugs commonly associated with crime, diversion of prescription drugs to illicit markets, the impact of prescription drugs on policing, the impact of licit and illicit markets in the perception of drugs on crime, how law enforcement could impact on illicit use of prescription drugs, and harm minimization approaches to illicit use of prescription drugs. The key informants were also asked to rank the 33 NDLERF research questions in order of priority. Key issues and themes were identified through reference to the NDLERF specified research questions, the literature review and analysis of extant data. Interviews took an average of an hour to complete and the information was subjected to thematic analysis using a word processor.

Stage two: Survey of people who inject drugs (PWID)

In recognition of the importance of people who inject drugs (PWID) as a valuable source of sentinel data on the operation of drug markets and associated drug-related behaviours, the proposed research included two face-to-face surveys. The first survey involved interviews with 101 PWID recruited from Darwin, Palmerston and the surrounding rural area (greater Darwin) in November 2003. Multiple methods were employed to recruit the PWID, including advertisements at alcohol and drug services and the Needle Syringe Programs (NSPs), active recruitment by NSP staff and the Territory Users Forum (TUF) and word of mouth. Potential interviewees were informed of set times the interviewers would be at Amity Community Services and the NSPs in Darwin and

Palmerston. Those interested in participating were provided with a study information sheet and consent form and screened against the entry criteria: injecting at least monthly in the preceding six months, using pharmaceutical opiates and/or benzodiazepines in the same time frame and residing in Greater Darwin for the past year.

The standardised structured interview included sections on demographics, drug use history and current patterns of use, specific aspects of pharmaceutical opiate and benzodiazepine use and consequences, price and availability of these pharmaceuticals, illegal activities, health and market characteristics and trends. Each interview took approximately 50 minutes to complete and the participants were reimbursed $20 for out-of-pocket expenses and time. Quantitative data were analysed using SPSS for Windows Version 11 and qualitative information was subjected to thematic and content analysis with a word processor.

Stage three: Secondary indicator data

Secondary indicator data collected in stage 3 of this research provides an additional important perspective on the issues under focus and assists in interpreting the relationships that may exist between crime and prescription pharmaceutical use. The stage involved the systematic examination of a variety of routinely collected data sources that could shed light on patterns of prescription pharmaceutical use and related harms. These sources include:

- Ambulance attendances
- Accident and Emergency data
- Hospital separations
- Drug-related offences
- Data on treatment service utilisation
- Needle Syringe Program data
- National Pharmacotherapy database
- Pharmaceutical Benefits Scheme data
- Drug Use Monitoring System (DRUMS)
- Illicit Drug Reporting Systems (IDRS)

Where possible, unit record data was requested and analyzed on an annual basis for a minimum of five years in order to examine any trends over time.

Stage four: Survey of people who inject drugs

The intended purpose of stage 4 was to facilitate interpretation of the data collected in the preceding study stages and also to perform an added monitoring function through replication of core components of the stage 2 user survey. The core data collected in the stage 4 survey provides a useful point of comparison when viewed against the stage 2 survey and data from core questions utilized in similar recent studies.

The survey involved face-to-face interviews with PWID recruited from Darwin, Palmerston and the surrounding rural area (greater Darwin) in March 2004. Multiple methods were employed to recruit the PWID, including advertisements at alcohol and drug services and the Needle Syringe Programs (NSPs), active recruitment by NSP staff and the Territory Users Forum (TUF) and word of mouth. Potential interviewees were informed of set times the interviewers would be at the NSPs in Darwin. Those interested in participating were provided with a study information sheet and

consent form and screened against the entry criteria: injecting at least monthly in the preceding six months, using pharmaceutical opiates and/or benzodiazepines in the same time frame and residing in Greater Darwin for the past year.

The standardised structured interview included sections on demographics, drug use history and current patterns of use, specific aspects of pharmaceutical opiate and benzodiazepine use, availability of these licit and illicit sources of pharmaceuticals, experiences when trying to acquire these drugs, drug-related behaviour and illegal activities, and market characteristics and trends. Each interview took approximately one hour to complete and the participants were reimbursed $20 for out-of-pocket expenses and time. Quantitative data were analysed using SPSS for Windows Version 11 and qualitative information was subjected to thematic and content analysis with a word processor.

Stage four: In-depth key informant interviews

In-depth qualitative interviews were conducted with key informants (professionals involved in the drug field) from health and criminal justice and law enforcement sectors that have specific, unique and valuable knowledge on benzodiazepine and pharmaceutical opiate use and related issues of concern. The aim of in-depth qualitative key informant interviews was to gain rich insight rather than achieve a number that suggests generalizability. However, there also needs to be an adequate number of informants to provide an accurate picture. The IDRS has identified 30-40 key informants per site as sufficient to assess drug patterns and identify some robust trends. Although phone interviews are very effective as a rapid data collection tool among key informants (Hando & Flaherty, 1993; O'Reilly, Rysavy & Moon, 1999; O'Reilly & Rysavy, 2001), face-to-face interviews were deemed more desirable to conduct in-depth discussions. Potential participants were identified from existing pools of professionals who have had previous involvement as key informants in the IDRS and related studies. Potential key informants were drawn from alcohol and drug treatment agencies (government and non-government), other health services, correctional services, law enforcement agencies, NTAHC, Territory Users Forum (TUF), doctors in general practice and pharmacists. Potential informants received study information sheets and consent forms and those interested in participating provided a completed consent form. Each key informant was then contacted by phone to arrange an appropriate time for an interview. Twenty nine key informants agreed to participate and the interviews were conducted in April and May 2004. Key informants were included from Alice Springs at the request of the Commissioner of Police. The semi-structured interview schedule included topics on benzodiazepines and pharmaceutical opiate users' characteristics, patterns of use, access from GPs, illicit market characteristics, illegal activities associated with use, data and information systems, benefits and risks associated with use and availability and market characteristics. The discussion topics paralleled the content of the stage 4 PWID survey and were designed to obtain in-depth information on topics and issues raised in the stage 1 law enforcement interviews and stage 2 PWID survey. The in-depth interview lasted an hour on average and the interviews were taped for later transcription. Key informants were sent a copy of the summary transcript for editing and approval. The sample of twenty nine key informants was composed of:

- General practitioner, n=1
- Alcohol and drug services personnel, n=6; two in Alice Springs
- Court psychologist, n=1
- Court diversion, n=1
- Needle/syringe program, n=2
- Researcher, n=1

- Pharmacists, n=5; one in Alice Springs
- Correctional services, n=4
- Drug Enforcement Unit, n=5; two in Alice Springs
- User group, n=1
- St John's Ambulance, n=1
- Government health professional, n=1

Twenty three informants stated their work brought them into contact with people who used drugs at least once a week, four had contact weekly or less and one informant did not have direct contact with people who use drugs. Interview information was subjected to thematic analysis using a word processor.

Chapter three: Study findings

Stage one: Law enforcement interviews

In July 2003 key informant interviews were conducted with nine law enforcement personnel in the NT to obtain their views on policing drug use and to prioritise the 33 NDLERF research questions. Seven informants stated their source of information was primarily from contact with both users and suppliers/manufacturers and the other two sourced information from discussion with peers, research literature, databases and consultation with other agencies. Most informants were involved in investigation and intelligence while two were involved in the policy and operational management areas. All informants nominated methamphetamine as the drug with which they had most contact and eight informants also stated cannabis. Four informants added morphine. Other drugs mentioned were ecstasy, alcohol and kava.

Drugs most commonly associated with crime

Key informants were asked to state which illicit drugs they thought were most commonly associated with crime, and methamphetamine and cannabis were the most commonly nominated (Table 14).

Table 14: Drugs most commonly associated with crime.

Drug/s	No
Methamphetamine & cannabis	3
Morphine, methamphetamine & cannabis	2
Methamphetamine powder	1
Alcohol, methamphetamine, cannabis, amphetamine-type analogues & inhalants	1
Alcohol, then cannabis then methamphetamines	1
Cannabis & amphetamine-type analogues	1

Morphine

Only two informants discussed morphine and crime, and the crimes typically associated with morphine use were break and enter and, to a lesser degree, some robbery with violence. The impact on policing was a higher workload for all police because of property crime. One informant stated morphine took up a lot of police time and it was hard to obtain convictions.

Methamphetamine

Nine informants provided information on methamphetamine and crime. Methamphetamine use was typically associated with property crime: general theft, break and enter and shop stealing. Three informants also mentioned some drug dealing, while another stated some fraud occurred. Another two informants stated methamphetamine was associated with violence in nightclubs and brawls when people were thrown out of nightclubs. One reported an increase in methamphetamine-related assaults and violent robbery was reported to be more prevalent than commonly perceived. Road accidents were also mentioned. Property crime was seen to have an impact on policing and occupy a considerable amount of time. There was no typical profile for

methamphetamine dealers as they ranged from professionals, to old people, poorer people and users. There was also thought to be a large range of non-using dealers. One informant stated the focus was on harm minimization and targeting the dealers and suppliers rather than users.

Cannabis

Eight key informants provided information on cannabis and crime. Cannabis users came from all sectors of society and there were no particular demographics. Crime was thought to be associated with some regular users, particularly break and enter into houses and vehicles. One informant stated property crime was static among non-Indigenous users and tended to be associated with people in their 20s. Another informant indicated there was crime associated with cultivation, possession and supply, plus some violence between suppliers. In terms of Indigenous groups, one informant said Indigenous juveniles could engage in some break and enter to obtain the money to buy cannabis while older youths (older teens to early 20s) may have a break and enter history and only do a small amount for money. According to another informant, there was less crime associated with cannabis than with alcohol, particularly violent crime, in Indigenous communities. However, cannabis-induced psychosis was increasing. The impact of cannabis-related crime on policing was similar to that of illicit drugs such as methamphetamine. One informant stated there was a lot of policing associated with property crime and it was estimated to occupy 50% of the Drug Enforcement Unit (DEU) time. This informant considered property crime to have the most detrimental effect on society. Another informant thought there was more widespread cannabis use, a higher proportion of younger people using and, although it is seen as a social drug, there are costs associated with policing it. Police were attempting to minimize the production and use of cannabis. This was confirmed by another informant who said the focus was on identifying suppliers and closing them down. One informant indicated the general policy direction was toward early intervention as this was beneficial to the person, particularly youth. One example of this was the Pre-Court Drug Diversion Scheme. Finally, another informant believed the flow of cannabis into Indigenous communities was increasing exponentially. This was causing a financial drain on communities and an increase in poverty.

Amphetamine-type analogues

Two informants discussed amphetamine-type analogues and crime and both indicated the crimes generally associated with these drugs were possession, supply and property crime. One thought the availability was increasing in Darwin. The impact was a greater focus on minimizing the production and use of amphetamine-type analogues and apprehending the organizers.

Alcohol

Those informants commenting on alcohol stated alcohol-related crime impacted across all sectors and had the greatest impact of all the drugs. For the whole of the Northern Territory, 69-71% of all police work was alcohol-related. When greater Darwin was excluded, alcohol was responsible for 89% of all police work.

Inhalants

One informant discussed Indigenous petrol sniffing. The violence associated with petrol sniffing was increasing, particularly unusual crime.

Pharmaceutical opiates

Diversion of pharmaceutical opiates to the illicit drug market (n=9)

The key means provided for obtaining prescription opiates and diversion to the illicit market were:

1. Legitimate morphine users were over-prescribed (or managed to be prescribed more than required) and then sold the excess. People obtained the maximum number of morphine prescriptions possible from the Pain Clinic or 'soft' GPs. The excess was then sold to those in shared housing, housing commission blocks and friends. Some buyers also waited outside pharmacies. Taxi drivers were also implicated, with one informant stating the driver would pick up older people from the hospital and drive them to the pharmacy, bottle shop and then home. The driver would then sell the opiates.
2. Prescription morphine was also obtained by feigning symptoms at the Pain Clinic or at GPs. These were either used by the person and/or on-sold to others.
3. Theft of morphine prescriptions and tablets also occurred. Genuine recipients, particularly older people, were targeted by users and suppliers and there were instances of violent assaults with prescription or tablet theft. Sometimes threats alone were sufficient.
4. False reports of break and enters with theft of prescriptions and/or tablets also occurred. The person would complete a Statutory Declaration and present to the doctor for a replacement prescription.

In Alice Springs, Kapanol™ had appeared on the market and was obtained in much the same way as morphine. The significant difference, however, was that it was known some Kapanol™ was coming from interstate (Adelaide) and law enforcement personnel in Alice Springs believed most of the Kapanol™ was from interstate.

Impact of illicit use of pharmaceutical opiates on policing (n=9)

One informant stated morphine was *just another illegal drug.* Another said most of the DEU work was related to cannabis and methamphetamine and little could be done about pharmaceuticals. It was a health issue according to another informant and the police could do little. Prescription-related prosecutions were minimal and police could not enforce the tablet trade. A preventative approach was required.

All informants indicated the main issue was delineating between lawful and unlawful possession of legal drugs. This is very difficult because the police generally cannot determine if the prescriptions are legitimate or not. As one informant stated, people generally do not keep copies of scripts they have filled. Additionally, morphine was not an illicit drug under the *Misuse of Drugs Act* and police encountered difficulty trying to enforce legitimate possession and use. Often users had a legitimate script as well as possibly diverted morphine. Additionally, the offences were obscure and fell under the *Poisons and Dangerous Drugs Act*. There was different scheduling for the *Misuse of Drugs Act* and the *Poisons and Dangerous Drugs Act* despite the fact they were meant to mirror each other. Unlawful supply was the only provable link in the chain. However, it was almost impossible to obtain evidence and police would have to acquire it from an actual sale as it happened. This was highly unlikely because most suppliers sold to a circle of users, most of whom had a script as well. Two informants stated the medical profession was the problem and one referred to GPs as drug dealers. Another two informants stated there was little the police could do until legislative changes were made.

Three informants highlighted the positive aspects of a morphine market. One stated the impact was not negative for the police because if the opiate market was satisfied with morphine then Darwin was protected from organized criminal groups and a heroin market. This informant believed that without morphine, organized criminal groups from the southern states would become established

in Darwin. Additionally, morphine was more predictable for dependent users as the dependence seemed more controllable and manageable. Dependent heroin users tended to be chaotic. There was less crime with morphine and less drama between dealers and clients because users knew the strength and purity. This also resulted in few opiate overdoses. Two other informants echoed these sentiments. Until the HIC clampdown, pharmaceutical opiates were not a problem in Darwin. Morphine acted as a heroin substitution program and its use was a creative and socially acceptable solution to satisfy the demand for opiates once the heroin market was destroyed in Darwin. This removed the criminal element that had been associated with heroin. Morphine was seen as a good example of harm reduction. Dependent users could anonymously access their GP of choice on a regular basis, their dependence could be addressed and managed, general health and other issues could be identified and dealt with and there was no social stigma. The HIC clampdown shifted opiate use into a criminal area and created a black market in which users were forced to participate. This created the need for additional money for the high black market prices compared to prescription prices and the result was crime: break and enters, robbery and prostitution. The other informant stated Darwin had an unofficial opiate-based maintenance program and questioned the value of alerting health if MS Contin™ availability was high. It may be preferable to simply ignore it and not alert health as this may actually result in an increase in harm if health was effective in reducing availability. The only other issue raised by one informant related to hygiene and the occupational health and safety issues surrounding discarded injecting equipment. Informants were unanimous in the view that different brands of pharmaceutical opiates did not produce different impacts on policing. Nor were different brands seen to be associated with different types of crime.

Pharmaceutical opiate intoxication and policing (n=9)

The consensus was that pharmaceutical opiate intoxication did not result in issues different to intoxication on any substance. Two informants said they had little contact with people intoxicated on opiates, and another three informants stated most people inject in homes so the police do not have contact with them. Home-based use also meant people were not driving so it was unlikely contact would be made through vehicle offences. One informant stated that most law enforcement personnel could determine if someone was intoxicated but they generally do not need to identify the actual substance. As another commented, law enforcement have a duty of care to both the public and the user and it is important for them to know how to manage intoxication. There is a custody manual with instruction on how to manage intoxicated people and this is adhered to in order to avert deaths in custody. One informant believed there could be difficulties with opiate users in custody as once intoxication had passed they may be *hanging out* and interviewing was very difficult and potentially seen as a form of coercion, thus rendering evidence inadmissible.

Impact of licit and illicit drug markets on pharmaceutical opiate misuse (n=7)

One informant commented *there is always a market for pain relief* and another emphasized there will always be substitution in a drug using culture as the demand will always remain. If one drug becomes less available, then another appears as a replacement. If both become less readily available then a third appears and so on. When heroin was in Darwin pharmaceutical opiate use was a lot lower. MS Contin™ appeared as a result of the heroin crackdown in the 1980s and early 1990s. If heroin was cheap and available again, then pharmaceutical opiate use would decline. At the moment, according to one informant, heroin was an extra rather than an alternative because it sold for $60-80 while a MS Contin™ script cost very little. This informant believed users made a choice based on price rather than the purity of the product. As MS Contin™ became more difficult to obtain, the availability of Kapanol™ increased and some Anamorph™ was also available. In 1999 there was a large spike in MS Contin™ prescribing and since the clampdown the prescription rate for both 100mg MS Contin™ and Kapanol™ has dropped significantly. As yet, there is not corresponding spike in another drug (no obvious replacement drug). There had been

a gradual climb in methamphetamine use since the MS Contin™ clampdown and it is possible people have increased the use of a range of other pharmaceutical opiates (particularly other forms of Kapanol™), methamphetamine and amphetamine-type analogues. This informant thought it was simply a matter of what drugs and when: possibly other opiates and Schedule 4 drugs across the board would be substituted.

Pharmaceutical opiate availability and crime (n=9)

Four informants did not think pharmaceutical opiate availability impacted on crime, one informant was unsure and the remaining four believed availability did affect crime. One informant stated that without heroin Darwin no longer had the hard core crime that seemed to be developing ten years ago when heroin was around. Another stated MS Contin™ had been a good heroin substitution program and was better than methadone clinics. MS Contin™ had peaked in 1999 and the result had been a clampdown and the level of prescribing had been reduced by two thirds. However, there has been no public debate and decriminalization was essential. MS Contin™ availability reduced criminality in dependent users, and those who acknowledged dependence and attempted to manage it benefited from access to MS Contin™. Another informant thought there were more crimes of possession and supply when MS Contin™ was more readily available. There had also been more users robbing each other. In contrast, another informant commented that the number of robberies had increased recently with reduced availability. This informant also reported more threats with blood filled syringes and greater targeting of pharmacies.

Measures to reduce supply and availability of pharmaceutical opiates (n=9)

The majority of informants (n=7) stated there had been no measures put in place in the previous year to reduce the supply and availability of pharmaceutical opiates. Two informants stated the HIC continues its monitoring and the police provide support to health measures. One of these informants suggested that targeting GPs does not achieve anything as there has to be proof that GPs were not prescribing legitimately. Many GPs want to help people and believe that what they are doing is medically correct. Not many GPs were currently supplying Schedule 8 drugs. The other discussed attempts to limit doctor-shopping and said they had been somewhat effective, but not as effective as they could have been. A third informant stated some doctors had been told to *pull their heads in* and this had reduced the amount of MS Contin™ available. The fourth informant had been holding discussions with policy makers and the Department of Public Prosecutions to determine appropriate offences for various forms of pharmaceutical opiate misuse. Unintended effects have been substitution of other drugs, as discussed above.

Pharmaceutical opiate availability and other drug use (n=9)

The issue of availability and substitution has been discussed above. As MS Contin™ has become more difficult to obtain from GPs, Kapanol™ and Anamorph™ have appeared because users attempt to substitute some other form of morphine. One informant stated there was not much impact as there was a huge black market industry for users to access. Informants believed that if morphine became very difficult to obtain, users would switch over to other drugs, particularly methamphetamine, cannabis, alcohol and ecstasy. There would also be a demand for heroin.

How law enforcement could impact on pharmaceutical opiate misuse (n=9)

Five informants spoke about legislative changes. One indicated the current legislation left police with the only option being to address unlawful supply and the changes needed so that unlawful possession was easier to prove. Another said there needed to be harsher penalties for illicit users and the law should make it necessary for people to have scripts with them. This would make it easier to prove if possession was legitimate or not. Another informant agreed that the onus should be on the person to prove they had legal possession. Legislation to create specific offences

for the supply and injection of pharmaceutical opiates was proposed by one informant. The remaining informant thought it was important to identify the appropriate offences and sort out the scheduling under the *Misuse of Drugs Act*. Two informants thought it was important to support health measures. One stated prohibition does not work in a drug using culture and the demand was always there. The community believes law enforcement can stop supply but this was not the case. One informant commented that the best thing the police could do was to forget about the offenders. Another stated there was nothing that could be done and police had no control. It was in the hands of the GPs, and police could not enforce the trade in tablets.

Appropriate harm minimization approaches to pharmaceutical opiate misuse (n=9)

Four informants nominated measures to change GP behaviour, through education of GPs about prescription practices so they would be more aware, prescribe with more care and understand where the tablets may be going. If a GP gave a repeat prescription every month and there was no improvement after 12 months the GP needed to think *Hang on. What's going on here?* Another informant thought there needed to be more industry control to reduce the amount of opiate prescribing, and to control who received prescriptions. This informant believed the GPs knew who the dependent users were but continued to prescribe them morphine.

One informant commented that it was important to change legislation and to work with the Department of Health and Community Services who could deal with the users. People also needed to be educated about the value of harm minimization. Alterations to the methadone program were seen as necessary by one informant because programs that require daily visits were very difficult for recovering users. Legislation change was required to allow for less frequent visiting. Another informant thought an effective measure would be for the situation to return whereby MS Contin™ acted as a substitution program. This would remove the criminality and eliminate the black market. Dependent users could be under the care of GPs and have their health and other issues attended to. Obtaining morphine on the PBS prevents the individual and/or family becoming impoverished, removes the criminal element and the need for resorting to activities like prostitution. Finally, one informant did not know what an effective harm minimization measure would be and another simply stated: *Get them out of town*.

Implications of effective supply reduction of pharmaceutical opiates (n=8)

One informant believed there would be more chemist theft and substitution of another drug or drugs. Drug substitution was also nominated by five other informants. One of these thought legitimate users would be disadvantaged. Two informants thought a heroin trade would develop and/or supply of black market pharmaceutical opiates from interstate. One of these stated there would be an increase in the price of pharmaceutical opiates and this, combined with increased heroin availability, would lead to more crime and possibly more violent property crime. The other said effective supply reduction would produce a black market that does not exists now; that is, heroin. With this would come worsening health, corruption and crime. The regulated morphine market was preferable as drug use was not problematic for the community. Regulated morphine allowed for proper treatment, improved health and better social functioning. Another informant also said the crime rate would rise because other drugs are more expensive than MS Contin™. One informant mentioned withdrawal and health issues and a drug likely to be immediately substituted was methamphetamine as it is readily available. This informant was unsure if heroin would become available and was uncertain as to why heroin was *unpopular* in Darwin. Only one informant believed there would be no impact at the moment.

Patterns of pharmaceutical opiate use, crime and police activity (n=9)

Nine law enforcement key informants provided information on morphine patterns of use, morphine-related crime and police activity in the previous year. Seven informants nominated MS Contin™ as the most used form and Kapanol™ by two in Alice Springs. Two informants stated some people also used Kapanol™ and another indicated some Kapanol™ and Anamorph™ as well. All informants stated injection was the main form of administration, with four informants indicating morphine was used on a daily basis and one stating use was more than weekly but not daily. Four informants could not provide any details on the usual frequency of morphine use. Only one informant provided information on quantity of use, indicating it was several times a day. This informant did not know what amount was injected. Other drugs generally used by morphine users were: methamphetamine (n=2), methamphetamine & cannabis (n=2), methamphetamine, cannabis, ecstasy & alcohol (n=1), cannabis & alcohol (n=1) and cannabis, alcohol & tobacco (n=2). Two informants provided information on other significant features of use. One stated intravenous use was popular because morphine users like injecting. The other informant indicated morphine users would use everything including heroin if it was available. They select MS Contin™ because of the price, not purity, because they were not health conscious.

Features of morphine use

The majority of informants (n=6) indicated there had been no change in the frequency of morphine use or quantity used, but three informants thought there had been an increase in both frequency and quantity. Only one of the nine informants thought there had been an increase in the rate of injecting. The remaining eight informants indicated no change had been noted. Two informants indicated there had been a notable increase in the use of Kapanol™ in Alice Springs and another noted a decrease in the use of MS Contin™ in Darwin. Another commented there had also been an increase in Kapanol™ use in Darwin. Two informants thought there had been an increase in the number of people using morphine, while the remaining informants had not noted any change. No changes had been observed in age or ethnicity among people using morphine. Only one informant reported any other change in the previous six months: users increasingly have a script as well. Another noted the situation was generally stable, with some fluctuation in supply reflected in change in prices.

Morphine prices and availability

Eight informants provided information on the price of MS Contin™ and Kapanol™. The prices provided for a 100mg tablet of MS Contin™ ranged from $50-100. One informant specifically stated the price of MS Contin™ was $60 to $80 depending on size, with the 60 mg tablet usually selling at $60 on the black market and $80 for the $100mg tablet. Another informant also stated the 100mg tablet sold for $80. The four informants providing information on Kapanol™ all stated it was $1 per milligram. Three informants thought the price had been stable in the last six months and one stated it fluctuated. The remaining informants (n=4) did not know about price stability. Five informants believed the forms of morphine available had not changed in the previous six months, but three thought there had been a change. All opined that Kapanol™ was becoming more available. MS Contin™ was believed to be easy (n=2) or very easy (n=4) for users to obtain. Most informants (n=5) believed some forms of morphine were easier to obtain than others. The other three informants did not know if this was the case. Kapanol™ was believed to be easier to obtain or becoming more available as MS Contin™ became harder to obtain. One informant explained that Kapanol™ was easier to obtain since the HIC wielded the big stick in relation to GP prescribing of MS Contin™. Prescriptions had to reduce in six months or some GPs would lose their provider number. This informant believed the HIC was the biggest driving factor in availability of various forms of morphine.

One informant thought people obtained morphine for genuine reasons, while another three believed people presented to doctors with fake symptoms. The remaining four informants indicated morphine was obtained by a variety of methods, particularly presenting with fake symptoms, stealing, forging or altering scripts and purchase on the black market. Most informants (n=7) did not think there were different sources for different pharmaceutical opiates. When asked if availability had changed for different forms of opiates, two informants thought it had become more difficult, three stated it was stable, another two believed it had become easier and the remaining informant thought it fluctuated. The reasons provided all revolved around MS Contin™ becoming more difficult and Kapanol™ becoming easier.

Of the five informants providing information on changes in the supply/trafficking of pharmaceutical opiates, three thought there had not been any changes in the last six months. One stated the penalty for selling pharmaceuticals opiates was much less than for selling illicit drugs as it was a minor offence under the Poisons and Dangerous Drugs Act. There was little outlay, the risks were very low and profit margins high, making it very lucrative. People could make much more money selling pharmaceuticals than they could selling illicit drugs. This could lead to a lot of pharmaceutical dealing activity. Another stated that pharmacies were being watched by suppliers who would approach people leaving with filled scripts.

Morphine and crime

The majority of informants thought property crime had remained stable over the last six months, and only one thought there was more property crime. One informant said people tended to steal easily transportable and sellable goods. Break and enters were thought to be opportunistic. This informant also stated there were some house break and enters by juveniles to obtain money for cannabis. Most informants did not think there had been any changes in morphine drug dealing, but the two from Alice Springs stated Kapanol™ was more available, with some coming from interstate and some local diversion of scripts onto a black market. All informants agreed there had been no change in trafficking. Most informants (n=7) did not think the level of fraud had changed either. However, one informant believed there was less fraud, particularly fewer altered scripts. The informant thought the drop may be due to the health sector dealing with this issue. The types of fraud generally mentioned were credit card fraud, altering or forging scripts and false reports of break and enters with script theft. These false reports allowed people to complete a statutory declaration and present to the doctor for a replacement script. The majority of informants thought the level of violent crime had remained stable, while one informant thought there had been an increase in the number of people being assaulted and having their scripts or tablets stolen. This informant also thought the false reports of break and enters with script theft had increased. Another informant stated the NT does not have ram raids and hold ups, except for the occasional pharmacy, but the rate was very low compared to other jurisdictions. Informants were unanimous in believing there had been no other changes in crime in the last year.

Police activity

All informants thought there had been no change in police activity toward opiates users or suppliers in the previous six months. One informant stated they were still targeting traffickers and dealers, leaving the users alone. This informant reported the number of charges for straight use was negligible. All informants reported there had been no change in the number of arrests, with one stating dealers knew what amounts changed the category of the offence from possession so they do not carry amounts that constitute trafficking or a commercial quantity. Most informants (n=5) thought there had been no change in drug busts, but three indicated there had been an increase in both the number and size of seizures. Another informant said the number of busts was very low so change was not evident.

When asked if they had any other comments to make in regard to police activity or opiate users, five provided mixed commentary. One informant stated pharmaceutical opiates do not receive attention as they are on the lower end of the scale, as prescription drug users were seen as a lower priority by policy makers: *Morph heads are the lowest of the low*. Another said the community thinks targeting users has an impact so the government continues with this approach. People became *addicted* for a reason and this was often to do with child abuse and dysfunctional families. This informant thought law enforcement was having no impact and it would take a lot of time, money and resources to target those who should be targeted. A third informant said users were not as visible in the last six months as they must have changed their points of contact.

The Alice Springs market was described as a *funny market*. It was very closed, but more than usual at the moment, even known informants were not talking. There was no intelligence coming in at all and this was unusual and disturbing. The paranoia of heavy users was increasing and it was thought that either the quality had improved or the market was being approached by an organized motorcycle gang (OMG). The methamphetamine market has been sourced by a couple of regular suppliers. Most comes from Darwin or Adelaide but some was produced locally. An OMG approach makes everyone very nervous and frightened and that might explain the complete lack of intelligence coming in.

Benzodiazepines

Diversion of benzodiazepines to the illicit drug market (n=3)

Diversion occurred in much the same way as with pharmaceutical opiates. People access GPs for scripts and then on-sell.

Impact of illicit use of benzodiazepines on policing (n=5)

Four informants stated that benzodiazepines do not impact on policing and police have little contact. They did not appear to be a problem in Darwin. One commented that benzodiazepines were not negative for the police, only for the users. It impacted in a good way in some respects as benzodiazepines satisfied the opiate users. Another said dependent opiate users often have a blister packet of benzodiazepines on them. The issues regarding legal possession of pharmaceuticals were the same as for pharmaceutical opiates.

Pharmaceutical benzodiazepine intoxication and policing (n=4)

Three informants stated there were no policing issues in regard to benzodiazepine intoxication. The other informant said the issues were the same as for any other drug in regard to occupational health and safety.

Impact of licit and illicit drug markets on benzodiazepine misuse (n=4)

Two informants thought there was no impact, while another two thought availability did have an impact. One said there was always a market for pain relief and both indicated that if MS Contin™ is difficult to obtain then users will resort to whatever else is available.

Benzodiazepine availability and crime (n=4)

Of the four informants, three thought benzodiazepine availability had no effect on crime and the other informant did not know.

Measures to reduce supply and availability of benzodiazepines (n=4)

One informant was unaware of any measures to reduce the supply and availability of benzodiazepines and the other three said no measures had been implemented.

Benzodiazepine availability and other drug use (n=4)

Three informants did not think benzodiazepine availability affected other substance use and the fourth informant was unsure.

Impact of PBS restrictions on temazepam prescriptions in May 2002 (n=4)

None of the informants knew if the PBS restrictions had impact on benzodiazepine availability or use. As three informants clarified, they have little contact with benzodiazepines and there appears to be little benzodiazepine use.

How law enforcement could impact on benzodiazepines misuse (n=4)

One informant stated the police could do very little as it was in the hands of the GPs and the trade in these tablets was as unenforceable as that of pharmaceutical opiates. The other three referred to measures to curb prescribing and doctor-shopping, but this was not a policing area. One indicated the police would liaise with Health and endorse their policies and practices in this regard. Work also needed to be done on drug scheduling. Schedule 8 drugs needed to automatically go into Schedule 2 of the *Misuse of Drugs Act* but did not at the moment.

Appropriate harm minimization approaches to benzodiazepine misuse (n=4)

One informant thought GPs needed education about prescribing practices. Another informant suggested there be a computer database that allowed GPs to share current records to cut down on doctor-shopping. Another informant thought there should be stricter limits on who can be prescribed, what was prescribed and the quantity. Doctor-shopping needed to be reduced and the police could consider requesting changes to the code of conduct of doctors. The remaining informant thought it was important for the police to support health policies and practices.

Implications of effective supply reduction of benzodiazepines (n=4)

Two informants thought there would an increase in the use of other available drugs, either methamphetamine or another pharmaceutical. The other two informants did not think there would be any impact at all.

Patterns of benzodiazepine use, crime and police activity

No informants could provide any details on any aspects of benzodiazepine use, price, availability or crime among people who used benzodiazepines.

Prioritizing research questions

Law enforcement personnel were presented with a list of 33 research questions identified by NDLERF and asked to rank the importance of each question on a scale from 1 (not at all important) to 5 (extremely important). Full results are contained in Appendix A. The top five issues identified by the law enforcement personnel were:

1. The implications of prescription drug misuse for ambulance officers.
2. Opportunities for law enforcement sector to maximize impact on reducing supply of illicit benzodiazepines and pharmaceutical opiates.
3. Opportunities for the health sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opiates.
4. Black market dealing patterns for benzodiazepines and pharmaceutical opiates in general illicit markets.
5. How benzodiazepines are obtained on the illicit market.

The next five important issues were:

1. How pharmaceutical opiates are obtained on the illicit market.
2. Knowledge about groups other than illicit drug users who may be committing crimes to obtain prescription drugs.
3. The implications of prescription drug misuse for police.
4. The implications of prescription drug misuse for accident and emergency staff.
5. Knowledge about the localities/settings targeted by people if committing crimes while under the influence of prescription drugs.

The least important areas were information about the limitations of HIC processes, costs of benzodiazepines and pharmaceutical opiates on the black market, knowledge about the routes of administration, enhanced surveillance measures to reduce doctor-shopping and information about the potential impact of rescheduling of drugs by the PBS on use and associated crime.

Summary

Law enforcement personnel generally thought that methamphetamine and cannabis were the drugs most commonly associated with crime, particularly property crime, and this occupied a considerable amount of police time. However, they also reported there was some robbery with violence and drug dealing. In terms of pharmaceutical opiates, law enforcement personnel believed that diversion to the illicit drug market was principally a result of legitimate morphine users selling some of their script to the illicit drug market plus script and tablet theft and false reports of script and tablet theft.

Illicit use of pharmaceutical opiates such as morphine had little impact on policing given they could not enforce the tablet trade, resulting in minimal prescription-related prosecutions. There were issues associated with delineating between lawful and unlawful possession of legal drugs. Often users have a legitimate script, morphine is not an illicit drug, and offences fall under the Poisons and Dangerous Drugs Act. Unlawful supply was the only provable link in the chain but it was almost impossible to obtain evidence. Pharmaceutical opiate intoxication did not result in issues different to intoxication on any substance. Four informants did not think pharmaceutical opiate availability impacted on crime, one informant was unsure and the remaining four believed availability did affect crime. Access to MS Contin™ was thought to reduce criminality in dependent users and reduce hard-core crime that is typically associated with heroin markets. Some law enforcement personnel stated the opiate market was satisfied with morphine, thus protecting Darwin from an organized criminal group and a heroin market. There was less crime and less drama between dealers and clients. Morphine acted as a heroin substitution program and its use was a creative and socially acceptable solution to satisfy the demand for opiates when the heroin market was destroyed in Darwin. Morphine could be seen as a good example of harm reduction. Users would regularly see a GP and, therefore, health and other issues could be identified and dealt with. The HIC clampdown shifted opiate use into a criminal area and created a black market in which users were forced to participate. This created the need for additional money for the high black market prices compared to prescription prices and the result was crime: mainly break and enters, robbery and prostitution.

The majority of law enforcement informants stated there had been no measures put in place in the previous 12 months to reduce the supply and availability of pharmaceutical opiates. However, most believed that reductions in the supply of morphine would result in it being replaced by another drug. If this drug then became unavailable a third would appear and so on. They stated MS Contin™ appeared as a result of the heroin crackdown in the 1980s and early 1990s. As MS Contin™ becomes more difficult to obtain, the availability of Kapanol™ has increased and some

Anamorph™ was available as well. There had been a gradual climb in methamphetamine use since the restrictions on prescribing of MS Contin™ and people may be using a range of other pharmaceutical opiates, methamphetamine and amphetamine-type analogues. Some informants believed effective morphine supply reduction would facilitate the re-development of the heroin trade or supply of black market pharmaceutical opiates from interstate. Higher prices for pharmaceutical opiates plus heroin availability would lead to deteriorating health, corruption and more crime, including violent property crime. In addition to drug substitution, some informants reported there would be an increase in the price of pharmaceutical opiates, leading to more property crime and thefts from pharmacies. Appropriate harm minimizations approaches to pharmaceutical opiate misuse included educating GPs about prescribing practices, stricter limits on who can be prescribed what and the quantity prescribed, requesting changes to the code of conduct of doctors and establishment of a computer database so GPs share records to reduce doctor-shopping.

Key informants believed benzodiazepines were diverted to the illicit drug market in ways similar to pharmaceutical opiates. Most informants stated benzodiazepines do not impact on policing and that the police have little contact with these drugs. Benzodiazepine availability did not have any impact on crime and this tablet trade was as unenforceable as that of pharmaceutical opiates. Intoxication issues were the same as for other drugs. Key informants did not think any measures had been implemented to reduce supply and availability of benzodiazepines and none knew if the PBS restrictions on temazepam prescriptions in May 2002 had impacted on benzodiazepine availability or use. Most of the informants commenting on benzodiazepines did not think benzodiazepine availability affected other substance use but two informants thought effective supply reduction might result in increased use of other drugs, possibly another pharmaceutical drug or methamphetamine. Appropriate harm minimization approaches to benzodiazepine misuse were the same as for pharmaceutical opiates.

The key areas for the 33 NDLERF research questions were opportunities for law enforcement and the health sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opiates, knowledge of illicit market dealing patterns for benzodiazepines and pharmaceutical opiates, and the implications of prescription drug misuse for ambulance officers.

Stage two: Survey of people who inject drugs (PWID)

Overview of the sample of people who inject drugs (n = 101)

Past and current drug use patterns and related issues are discussed from the perspectives of the 101 people who inject drugs, and results are summarized according to the major drug groups. The demographics of the sample of people who inject drugs (PWID) are presented in Table 15.

Table 15: Demographic characteristics of the PWID sample.

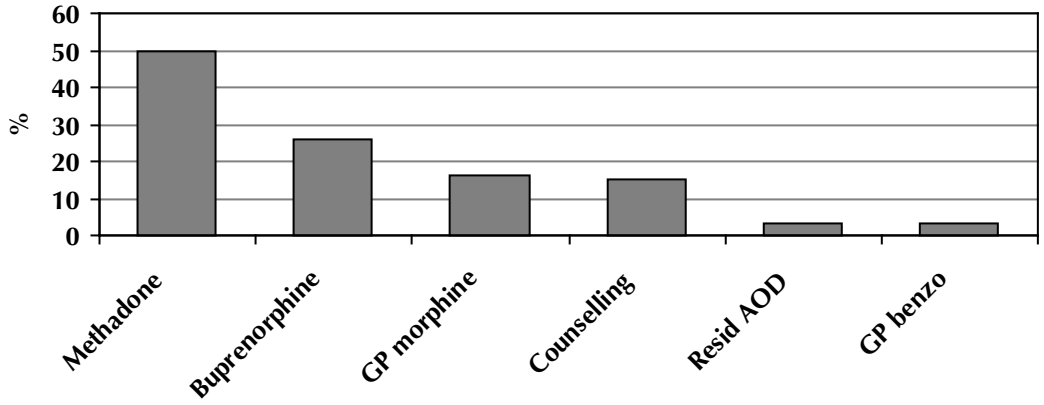
Sample Characteristics	2003 (n=101)
Mean age (years)	34.5 (range 17-53) median 33
Sex (% male)	77.2
Ethnicity (%)	
English speaking background	100
Indigenous	15.0

Table 15 continued.

Sample Characteristics	2003 (n=101)
Place of residence (%)*	
Own house/flat	80.2
Parents/family house/flat	1.0
Boarding house/hostel	7.9
Shelter/refuge	2.0
Drug treatment residence	2.0
No fixed address	6.9
Employment (%)	
Not employed	79.2
Full time	2.0
Part time/casual	14.9
Student	1.0
Home duties	2.0
Sex industry worker	1.0
School education (mean years)	10 (range 6-12)
Post-school education/training (%)	
None	52.5
Trade/technical	37.6
University/college	9.9
Main income source (%)	
Wage/salary	8.9
Pension/allowance/benefit	90.1
Sex work	1.0
Prison history (%)	51.5

The majority of the PWID sample was male (77%) and the mean age was 34.5 years (range 17-53). All the PWID stated English as their main language and 15% identified as Indigenous. Almost a third of the PWID lived in inner Darwin, 38.6% in the northern suburbs and another 24.7% in Palmerston (Darwin's satellite city) and the surrounding rural area. Of all PWID, 6.9% had no fixed address. The majority were unemployed, the average level of education was Year 10 of secondary school and most had not attended any post-secondary courses. In the previous six months, 43.6% has accessed drug treatment and the most common forms were the pharmacotherapies methadone (39.6%) and buprenorphine (24.5%) and drug counselling (15.1%). Of interest is the 9.4% of PWID who considered prescribed morphine to be a form of drug treatment. Two thirds of the sample was not participating in any drug treatment at the time of the survey, and of the 32.7% who were currently in treatment, the majority (50%) were on the methadone program (Figure 8). PWID had been in treatment from a month to 8 years, with the mean length of 19.8 months (median 10.5 months).

Figure 8: Current treatment types (n=32)



Drug use history of the PWID

The mean age of the first use of an illicit drug was 14.5 years (range 8-26 years) while that for first injection was 19.7 years (range 12-45 years) (Table 16). The vast majority had first used cannabis (72.3%), followed by heroin (12.9%) and methamphetamine (7.9%). Methamphetamine was the first drug injected by 53.5% of the PWID, followed by heroin (32.7%). Morphine had been first injected by 7.9% but no PWID had first injected benzodiazepines.

Table 16: Drug use history of PWID.

Behaviour	**n=101**
Mean age first illegal drug	14.5 (Range 8-26; SD 2.99)
First drug used (%)	
Heroin	12.9
Methadone	1.0
Methamphetamine	7.9
Cocaine	1.0
Hallucinogens	3.0
Morphine	2.0
Cannabis	72.3
Mean age of first injection (years)	19.7 (Range 12-45; SD 6.48)
First drug injected (%)	
Heroin	32.7
Other opiates	1.0
Methamphetamine	53.5
Ecstasy	2.0
Morphine	7.9
Heroin & cocaine	1.0
Heroin & amphetamine	1.0

Half of the PWID stated heroin was the preferred drug, followed by morphine (19.8%), methamphetamine (10.9%) and benzodiazepines (6.9%) (Table 17). In contrast, almost two thirds of the PWID had injected and most often used morphine in the last month. Methamphetamine and methadone were the next two drugs most often injected (9.9% and 7.9%) and used (8.0% and 14.0%) in the last month. Of those nominating morphine as preferred drug, 85% indicated the preferred form was MS Contin™. One in eight also stated MS Contin™ was the form most often injected and most often used in the last month. Among PWID that preferred benzodiazepines, Serepax™ was mentioned more often than other forms. However, Xanax™ was the form most often injected and used in the last month.

Table 17: Drug preferences versus actual usage (%).

Drug Class	Preferred drug	Inject most last month	Used most last month
Heroin	50.5	1.0	2.0
Morphine	19.8	62.0	65.3
Methadone	1.0	14.0	7.8
Methamphetamine	10.9	8.0	9.9
Benzodiazepines	6.9	7.0	5.0
Morphine & benzodiazepines	-	3.0	3.0
Buprenorphine	-	4.0	-
Cannabis	5.0	1.0	-
Cocaine	2.0	-	-
Ecstasy	1.0	-	-
Any opiate	1.0	-	-
Alcohol	1.0	-	-
Heroin & cocaine	1.0	-	-
Methamphetamine & ecstasy	-	-	1
Did not inject last month	na	4.0	na

From Table 17 it can be seen there are some discrepancies between the preferred drug and the drug used most last month, particularly in relation to heroin, morphine and methadone. The majority of PWID (63%) indicated they had not used the preferred drug most last month because it was unavailable, 12.3% indicated it was because they were on a pharmacotherapy and 5.5% stated it was a combination of price and availability. Another 6.8% indicated the drug was not injectable (cannabis and alcohol). PWID indicated the drug they would try to access if the drug used most last month was unavailable (Table 18). Morphine was nominated by 46.5% of PWID (51.1% MS Contin™ and 36.2% Kapanol™), followed by benzodiazepines (10.9%; 6.4% Valium™ and 27.3% Normison™), cannabis (10.9%) and methadone (10.9%). If the first substitute was not available then 20.8% stated they would try to access benzodiazepines (28.6% Hypnodorm™ and 19.0% Temazepam generic), methamphetamine (15.8%) or morphine (14.9%; 33.3% Kapanol™ and 33.3% Morphine generic).

Table 18: First and second drug substitutes (%).

Drug class	First substitute	Second substitute
Heroin	5.9	3.0
Morphine	46.5	14.9
Methadone	10.9	12.9
Methamphetamine	4.0	15.8
Benzodiazepines	10.9	20.8
Other opiates	5.0	9.9
Cannabis	10.9	10.9
Alcohol	4.0	5.9
Ecstasy	-	1.0
No other drugs	3.0	7.0

Of the PWID who had used morphine most in the last month (62.3%), another brand of morphine was most commonly nominated as the first substitute (27%), followed by methadone (9%) (Table 19).

Table 19: Most used drug classes first and second substitutes (%).

Drug used most	%	First substitute	n	Second substitute	n
Heroin	1.0	Morphine	1	Benzos	1
Methamphetamine	7.9	Morphine	5	Benzos	3
		Cannabis	3	Morphine	2
				Methamphetamine	1
				Ecstasy	1
Methadone	13.9	Morphine	10	Benzos	5
		Benzos	2	Morphine	4
		Alcohol	1	Methadone	1
		Cannabis	1	Other opiates	1
				Methamphetamine	1
				Alcohol	1
				Cannabis	1
Morphine	62.3	Morphine	27	Benzos	10
		Methadone	9	Methadone	10
		Benzos	5	Methamphetamine	9
		Heroin	5	Morphine	8
		Other opiates	4	Other opiates	8
		Methamphetamine	4	Cannabis	8
		Cannabis	4	Alcohol	4
		Alcohol	2	Nothing	3
		Nothing	2	Heroin	2
		LSD	1	Nothing & suicide	1

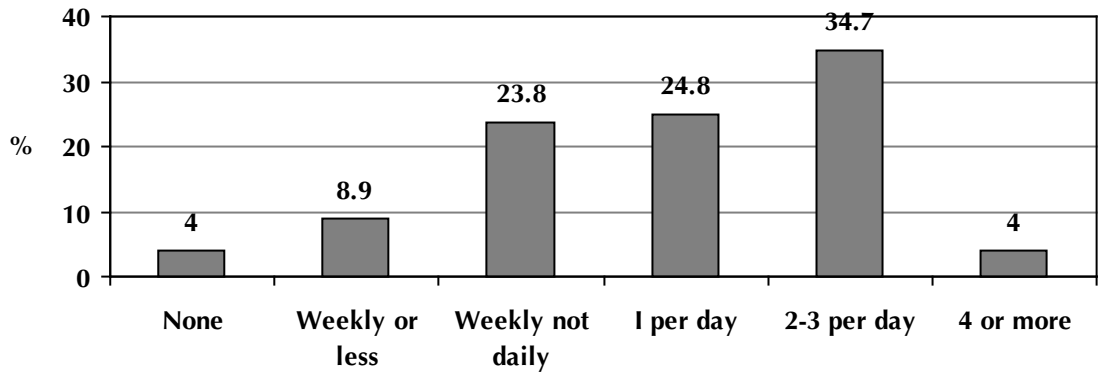
Table 19 continued.

Drug used most	%	First substitute	n	Second substitute	n
Benzodiazepines	6.9	Benzos	3	Methamphetamine	2
		Morphine	2	Benzos	1
		Alcohol	1	Other opiates	1
		Cannabis	1	Heroin	1
				Cannabis	1
				Nothing	1
Buprenorphine	4.0	Morphine	1	Benzos	1
		Other opiates	1	Methamphetamine	1
		Cannabis	1	Cannabis	1

The most common second substitutes were methadone, benzodiazepines, methamphetamine, morphine and other opiates. Most PWID who had used methadone the most in the previous month (13.9%) stated morphine would be their first substitute and benzodiazepines their second substitute. Benzodiazepines and morphine were most often mentioned as first substitutes among PWID who had used benzodiazepines most in the last month and a range of other drugs were mentioned as second substitutes. Of the 7.9% who had most used methamphetamine, morphine and cannabis were the only two drugs nominated as first substitutes. Benzodiazepines were the most frequently mentioned second substitute.

In the previous month, 59.5% of PWID injected at least once a day and 36.5% more than weekly but not every day (Figure 9). The vast majority usually injected in a private home (91.1%) in the previous month but a small proportion (4%) injected most often in public toilets or wherever was safe or in a car (1%).

Figure 9: Frequency of IV drug use in the month before the survey (%)



Most PWID (58.4%) purchased drugs on the day before the survey (Table 20). Morphine and cannabis were the drugs most likely to be purchased and the mean expenditure on each was $79.43 and $27.67 respectively.

Table 20: Drugs purchased previous day and mean expenditure (n=59).

	%	Mean $	Median $	Range
Did not purchase drugs	41.6			
Heroin (n=1)	1.0	100.00	100	0
Methamphetamine (n=3)	3.0	83.33	100	50-100
Morphine (n=37)	36.6	79.43	60	20-300
Methadone (n=5)	5.0	46.00	50	30-50
Cannabis (n=15)	14.9	27.67	25	20-55
Benzodiazepines (n=7)	6.9	44.29	22	2-100

Recent drug use of the PWID sample

PWID used a wide variety of illicit and licit drugs (Table 21) in the last six months and the most common drugs taken (but not injected) were cannabis (59.4%), alcohol (50.5%), illicit benzodiazepines (48.5%) and licit benzodiazepines (42.6%). The majority had injected illicit morphine (91.1%) and methamphetamine (66.3%). The other most common drugs injected were illicit benzodiazepines (39.6%), illicit Physeptone™ (33.7%), licit benzodiazepines (29.7%) and licit morphine (26.7%). Licit morphine, cannabis, antidepressants, licit methadone and licit Physeptone™ were the drugs most likely to be used on a daily or near daily basis. Mean preferences were obtained for each of the 17 drug classes and the top five drugs were heroin (8.7), morphine (7.5), cocaine (7.3), cannabis (6.8) and methamphetamine (6.1). The least preferred drugs were antidepressants (2.8), inhalants (3.3), alcohol (4.1), pharmaceutical stimulants (4.7) and methadone (4.8). Of the most preferred drugs, heroin and cocaine had a very low usage rate with a mean of 3 and 5 days respectively for the past 6 months. In contrast, the least preferred antidepressants and methadone were used on a near daily basis and alcohol almost weekly.

Table 21: Drug use by the PWID sample in the last six months (n=101).

	% IV	Days[1]	% Oral	Total days[2]		Drug Preference	
		Mean		Mean	Median	Mean	Median
Heroin	20	33	3	28	3	8.7	10.0
Methadone licit	9.9	43	20.8	114	163	4.8	4.5
Methadone illicit	13.9	11	8.9	16	8		
Physeptone licit	5.9	106	5.0	99	105	5.2	5.0
Physeptone illicit	33.7	29	14.9	31	10		
Morphine licit	26.7	140	12.9	142	180	7.5	8.0
Morphine illicit	91.1	86	10.9	87	72		
Homebake	1.0	30	1.0	15	15	5.1	5.0
Other opiates licit	7.9	21	7.9	21	18	5.8	6.0
Other opiates illicit	16.8	12	10.9	15	10		
Methamphetamine	66.3	35	10.9	38	15	6.1	7.0

Table 21 continued.

	% IV	Days[1]	% Oral	Total days[2]		Drug Preference	
		Mean		Mean	Median	Mean	Median
Pharmaceut stimulants	8.9	21	9.9	43	17	4.7	5.0
Cocaine	4.0	5	0	6	5	7.3	8.0
Hallucinogens	0	0	6.9	11	10	4.9	5.0
Ecstasy	16.8	7	16.8	13	4	5.4	6.0
Benzodiazepines licit	29.7	66	42.6	66	40	5.6	6.0
Benzodiazepines illicit	39.6	41	48.5	36	12		
Alcohol	0	0	50.5	52	20	4.1	4.0
Cannabis	-	-	59.4	114	130	6.8	8.0
Antidepressants	2.0	10	21.8	100	90	2.8	2.0
Inhalants	-	-	7.0	4	2	3.3	2.0
Buprenorphine licit	4.0	24	18.8	68	22	5.6	6.0
Buprenorphine illicit	8.9	6	8.9	7	5		

[1] Among those who injected drug class in last six months;
[2] Among those who had injected and/or used in last 6 months.

Recent benzodiazepine use

Routes of administration, sources of and forms used

Those PWID who had used benzodiazepines in the last six months reported on routes of administration and sources of benzodiazepines (Table 22).

Table 22: Route of benzodiazepine administration and source last 6 months.

		%	%
Oral use	%	64.4	
	Mean days	45	
	Median days	20	
IV use	%	46.5	
	Mean days	57	
	Median days	20	
		% Usual	**% All**
Source	Real symptoms	38.0	9.0
	Fake symptoms	4.0	8.0
	Gift	18.0	26.0
	Steal	1.0	1.0
	Forge script	-	1.0
	Buy: friend	7.0	22.0
	Buy: dealer	7.0	11.0
	Swap	-	2.0
	Other	-	2.0

An oral route of administration was more frequent than intravenous (64.4% : 46.5%) and the median number of days used was similar for both routes of administration (20 days). GPs were the most common usual source of benzodiazepines (38.0%), generally for genuine symptoms. The other common source was as a gift from friends (18.0%). Table 23 indicates various forms of benzodiazepines used in the six months before the survey. The most common forms taken orally were Valium™ (28.7%), Serapax™ (19.8%) and Xanax™ (14.9%). The mean number of days used indicates the pattern of use was weekly or less.

Table 23: Benzodiazepine forms used last 6 months (n=101).

	% Oral	Mean days oral	% IV	Mean days IV	Mean liking	Mean price last paid	
Alepam	6.9	17	5.0	35	6.8	15mg	$3.50
						30mg	$22.67
Alodorm	2.0	12	0	0	8.0		
Alprax	1.0	30	1.0	1	6.0		
Antenex	9.9	37	2.0	4	5.1	5mg	$3.00
Ativan	1.0	50	1.0	12	7.0	2.5mg	$10.00
Ducene	4.0	10	3.0	6	6.4	2mg	$2.00
Euhypnos 10	4.0	14	5.0	8	8.0		$4.00
Euhypnos 20	7.9	9	12.9	22	6.7		$5.61
Frisium	2.0	1	0	0	7.5	10mg	$2.00
Hypnodorm	11.9	27	7.9	12	6.1	1mg	$4.80
Kalma	3.0	30	1.0	100	5.3		
Mogodon	7.9	17	5.0	17	5.6	5mg	$2.90
Murelax	1.0	6	1.0	12	7.5		
Normison 10T	9.9	11	5.0	22	5.1		$3.33
Normison 10C	3.0	6	3.0	49	5.2		$4.00
Normison 20C	9.9	18	18.8	36	6.2		$7.43
Paxam	0	0	1.0	42	2.0		
Rivotril	7.9	4	4.0	52	5.4	0.5mg	$1.00
						2mg	$3.75
Serapax	19.8	18	5.9	44	5.7	30mg	$3.17
Temaze 10C	7.9	31	7.9	37	5.2		$4.67
Temaze 20C	7.9	7	9.9	18	5.7		$5.00
Temaze 10T	8.9	15	4.0	12	5.5		$3.75
Temtabs	2.0	3	1.0	3	4.0		
Valium	28.7	21	12.9	45	5.9	2mg	$2.67
						5mg	$2.25

Table 23 continued.

	% Oral	Mean days oral	% IV	Mean days IV	Mean liking	Mean price last paid	
Valpam	6.9	19	4.0	15	5.3		
Xanax	14.9	23	9.9	48	6.0	0.5mg	$5.00
						1mg	$5.00
						2mg	$5.50
Unisom	1.0	1	1.0	1	1.0		
Diazepam (gen)	6.0	27	1.0	4	6.2	5mg	6.25
Catapress	2.0	4.5	0	0	4.0		

The most common forms used intravenously were Normison™ 20mg capsule (1.8%), Euhypnos™ 20mg capsule (12.9%) and Valium™ (12.9%) and the mean days used indicates they were injected weekly or more. The average price of 2mg of Valium™ was $2.67 (median 2, range $1-5) and $2.25 (median 1.5, range $1-5) for a 5mg tablet. Normison™ 20mg capsules averaged $7.43 (median 5, range $2-25), Euhypnos™ 20mg capsules were $5.61 (median 5, range $2.50 - 10), Serapax™ 30mg $3.17 (median 2.5, range $2-5) and all sizes of Xanax™ averaged $5.00.

Price, availability and market changes

Recent benzodiazepine users also provided information on the price and availability of this drug class in the last 6 months (Table 23). Among those who had used benzodiazepines, 51.5% had sourced them from a GP. More recent benzodiazepine users thought gel capsules were difficult/very difficult to obtain from a GP than tablets (16.2% : 4.0%) and that gel capsules had become more difficult to obtain in the last 6 months (20.2% : 17.1%). The majority of recent benzodiazepine users (78.8%; n=41) had accessed their scripts for gel capsules or tablets from only one doctor.

Table 24: Availability and sources of licit benzodiazepines (n=52).

	% Gel capsules	% Tablets
Availability from GPs		
Don't know	22.2	3.0
Did not request/get	57.6	50.5
Easy	4.0	8.2
Difficult	7.1	2.0
Very difficult	9.1	2.0

Table 24 continued.

	% Gel capsules	% Tablets
Change availability from GP		
Did not request/get	77.8	51.5
No change	2.0	29.3
More difficult	20.2	17.1
Easier	-	1.0
Fluctuates	-	1.0
Number doctors gave benzodiazepine prescription		
0	63.3% n=31	10.0% n=5
1	n=15	n=26
2	n=1	n=12
3	n=1	n=4
4	n=1	
5	n=1	
6		n=1
11		n=1
30		n=1
Mean (median) number of successes	0 (0)	2.18 (1)
Number doctors refused benzodiazepine prescription		
0	81.6%	79.2%
1	n=3	n=3
2	n=4	n=2
3	n=1	n=2
4		n=1
5		n=1
10	n=1	n=1
Mean (median) number of failures	0.49 (0)	0.67 (0)

Recent benzodiazepine users also commented on the price and availability of benzodiazepines from illicit sources (Table 24). The majority of those who had sourced illicit benzodiazepine gel capsules thought they were difficult to obtain and had become more difficult to access illicitly in the last six months. Most thought the price of gel capsules was stable but some reported an increase in the illicit price. In contrast, the majority of recent benzodiazepine users thought the tablets were easy or very easy to obtain. Close to half thought availability of the tables was stable while the other half thought it had become more difficult to obtain them illicitly. The price was usually considered to be stable.

Table 25: Price, availability and sources of illicit benzodiazepines (n=63).

	% Gel capsules	% Tablets
Change in price		
Don't know	49.2	36.1
Increasing	19.7	14.8
Stable	26.2	44.3
Fluctuating	4.9	4.9
Availability		
Don't know	20.2	13.1
Did not get/request	46.5	41.4
Very easy	4.0	11.1
Easy	5.1	18.2
Difficult	16.2	11.1
Very difficult	8.1	5.1
Change availability		
Did not get/request	62.6	51.5
Stable	11.1	22.2
Easier	1.0	-
More difficult	25.3	24.2
Fluctuates	-	2.0
Minutes to score last time		
Number who searched	23	28
Mean (median) minutes	317.1 (30)	99.2 (20)
Range	1-2880	1-1620
Other drugs sold by source		
Don't know	50.8	
Sell no other drugs	5.7	
Heroin	3.2	
Methadone	25.8	
Other opiates	16.1	
Methamphetamine	45.2	
LSD	3.2	
Ecstasy	16.1	
Benzodiazepines	35.5	
Cannabis	58.1	
Inhalants	3.2	
Morphine	80.6	

Table 25 continued.

	% Gel capsules	% Tablets
Level of dealing		
Don't know	21.3	
Friend selling script	19.7	
Friend giving away excess script	9.8	
User/dealer	27.9	
Small time dealer	18.0	
Large scale supplier	3.3	

Almost half of recent benzodiazepine users did not know what other drugs were sold by their usual illicit source. Those that provided information most often nominated morphine, cannabis and methamphetamine. When asked about the level of dealing of their usual source, a third indicated the source was a friend selling their script. Another 26.2% of sources were thought to be user dealers. None of the benzodiazepine users had accessed these drugs from the Internet, they did not know how easy or difficult it was to access benzodiazepines from this source and did not think any of their friends has used the Internet to access them.

PWID perceptions of the impact of greater availability of benzodiazepines

In all, 79 PWID provided commentary on the impact of greater availability of benzodiazepines through increased supply or lower prices. The majority (n=56) reported it would not affect their drug use, and, of these, five specified that they did not use benzodiazepines, one commented he was trying to stop using them, eight indicated they rarely used the drugs and three were on prescriptions for medical reasons.

> *It wouldn't affect me because I use for withdrawal from morphine only.*
>
> *It wouldn't – I only use benzos as an adjunct to heroin.*
>
> *I can get it if I want from scripts because I am diagnosed with bi-polar so it would have no effect.*

Another 21 PWID stated they would use more benzodiazepines if the drugs were more available. Reasons for greater use included to sleep better (n=3), use instead of morphine (n=4) or in combination with morphine (n=4).

> *It would be better. I would get a script from my doctor more easily – I could sleep and be more productive and efficient during the day.*
>
> *Would use a little bit more, not like morphine. Until two weeks ago I would have used more and got another addiction, now – no worries.*
>
> *I'd use them a lot more and morphine a bit less.*
>
> *Would use them instead of illicit morphine if I could get them from the doctor.*

Only two PWID did not know if change in benzodiazepine availability would affect them. In contrast, only 11 PWID thought an increase in availability of benzodiazepines would not impact on their friends.

It wouldn't make much difference because it is not the prime drug or the drug of choice for them.

The majority (n=40) thought their friends would use more and there were a mixture of positive and negative consequences presented. Seven thought it would be good for their friends and they would be happier or less stressed, while other PWID thought using more would result in dependency (n=5), overdoses (n=1), more crime (n=4), health and mental health issues (n=7).

There would be less crime, violence and aggravation because people could afford it. It would stop hard core drugs like heroin coming in.

They'd all die: they'd use too much, not eat, do stupid things, have accidents, do violent crime.

A lot of people would come undone. They would fall apart at the seams. When you inject apparently they're really addictive.

Some would really become a mess! Too many friends abuse benzos: it's horrible.

They would be in a lot of trouble, health and mental health especially. It'd also affect their general well being and family life.

Nineteen PWID did not know if greater availability would affect their friends, another two did not care and the remaining two PWID stated they did not have any friends.

PWID perceptions of the impact of reduced availability of benzodiazepines

Eighty-two PWID commented on the impact of a reduction in availability of benzodiazepines. The majority (n=57) stated that this would have no effect on them because they did not use benzodiazepines (n=47), only occasionally used them (n=6) or were prescribed for medical reasons (n=4).

I only use benzos if I can't get what I want so it wouldn't really affect me.

I don't use them any more after the temazepam blocked up my veins.

There's not much demand for them. The S4s are $5-10 a tablet. It probably wouldn't have any impact that I can see.

Two PWID stated they would continue to use benzodiazepines by doctor-shopping and, if they were unsuccessful, they would then access from the black market.

I would still try to get it through GP shopping or buy more off the street.

Ten PWID mentioned substitution of other drugs. The drugs mentioned were buprenorphine (n=1), alcohol (n=1), cannabis (n=2), morphine (n=1) and other sedatives (n=3).

Since I only use benzos as a come down drug after speeding or to control morphine withdrawal, it wouldn't have much effect on me. I would use alcohol instead.

I would smoke pot – you can get that. I'd switch. You can fall back on it and it does pretty much the same. It makes you calm and relaxed. I tried three GPs in last 6 months to get benzos (capsules and tablets) and couldn't get anything from them so I had to get them on the streets.

If I couldn't get a script from my doctor I would have to resort to other drugs with a similar effect. I have trouble sleeping if I don't use benzos. This is a long-standing problem that predates drug use.

Another ten PWID reported they would stop using benzodiazepines if they were more difficult to obtain. One PWID stated it may be beneficial as it would provide an opportunity to stop using these drugs. One reported ceasing to use benzodiazepines would result in more migraine headaches and two PWID who used them to manage morphine withdrawal thought they would suffer more without benzodiazepines. Of the remaining three PWID, one said it would be very bad, one would leave Darwin and the third one claimed a rise in price would result in more criminal activity.

When asked how a reduction in benzodiazepine availability would affect their friends, only 19 of the 80 IDU responding to this question stated they did not think it would affect their friends. Two stated they did not care and another two indicated they did not have any friends. Thirteen PWID did not think their friends would be affected at all.

Most of them are on morphine or methadone and only use benzodiazepines when they can so it wouldn't really affect them.

Three PWID reported their friends would continue to try to source benzodiazepines through doctor-shopping and accessing the black market, but 13 PWID believed their friends would use benzodiazepines less or cease using them altogether. Of these, three thought their friends and others would be better off if benzodiazepines were more difficult to obtain. Another three stated it would make it harder for those friends who used benzodiazepines to manage morphine withdrawal.

According to 16 PWID, their friends were likely to substitute other drugs and the types of drugs mentioned were opiates (n=1), morphine (n=4), Physeptone™ (n=1), methamphetamine (n=1) and other sedatives (n=2).

They wouldn't sleep as much. They would have pain problems. They'd have to go to another source.

Yes it would affect some of them, those that just use benzos. They would be in a bit of trouble. They would go on morphine, Physeptone or something.

They have already moved onto Xanax since temazepam became less available and they are going crazy with it. They would go to another one if this wasn't around.

The remaining six PWID believed their friends would engage in more crime if benzodiazepines became difficult to obtain.

My friends would be stressed out and unpleasant and may be do more crime.

They would also have to do dodgy shit like crime to get the money. They are madder than me and they'd be more violent.

Recent pharmaceutical opiate use

Routes of administration, sources of and forms used

Routes of administration and sources of pharmaceutical opiates were obtained for those PWID who had used these drugs in the last six months (Table 26). Pharmaceutical opiates were more often administered intravenously than orally (98.0% : 62.4%). The median number of days used indicates that intravenous use was more likely to occur on a daily basis (180) while oral use was generally weekly (29 days). The most frequently reported usual sources were GPs (38.6%) and dealers (36.6%). Of those accessing GPs for pharmaceutical opiates, the majority stated it was for genuine symptoms. The other common source was as a gift from friends (18.0%).

Table 27 indicates various forms of pharmaceutical opiates used in the six months before the survey. The most common forms taken orally were methadone syrup (26.7%), Subutex™ (24.8%) and Physeptone™ (14.9%). Morphine was most likely to be administered intravenously and the most common forms were MS Contin™ 100mg (86.1%), MS Contin™ 60mg (51.5%) and Kapanol™ 100mg (48.5%). It is also worth noting that Physeptone™ was injected by 31.7% of recent pharmaceutical opiates, methadone syrup by 20.8% and Oxycontin™ by 12.9%. The most liked drugs were higher doses of morphine and the least liked were low doses of morphine, codeine phosphate and Pethidine™. The average price paid on last purchase was $57.31 (median 60, range $25-80) for MS Contin™ 100mg, $32.17 (median 30, range 25-60) for MS Contin™ 60mg and $51.31 (median 50, range $15-60) for Kapanol™ 100mg.

Table 26: Pharmaceutical opiate route of administration and source.

		%	%
Oral use	%	62.4	
	Mean days	67	
	Median days	29	
IV use	%	98.0	
	Mean days	118	
	Median days	180	
		Usual	**All sources**
Source	Real symptoms	38.6	24.8
	Fake symptoms	3.0	1.0
	Gift	5.9	36.6
	Steal	-	2.0
	Forge script	-	1.0
	Buy: friend	14.9	38.6
	Buy: dealer	36.6	23.8
	Swap	-	2.0
	Other	-	2.0

Table 27: Pharmaceutical opiate forms used in the last 6 months.

	% Oral	Mean days oral	% IV	Mean days IV	Mean liking	Mean price last paid	
Codeine phosphate	3.0	12	1.0	2	3.5	30mg	$5.00
Dilauldid	0	0	1.0	1	8.0		
Anamorph 30mg	4.0	17	27.7	22	7.4	30mg	$21.36
Kapanol 20mg C	2.0	26	17.8	22	6.6		$18.23
Kapanol 50mg C	2.0	21	28.7	16	6.0		$31.25
Kapanol 100mg C	4.0	14	48.5	36	7.1		$51.32
MS Contin 5mg	2.0	101	1.0	8	7.0		$30.00
MS Contin 10mg	1.0	30	1.0	1	3.0		$27.50
MS Contin 15mg	1.0	30	3.0	14	4.0		$23.33
MS Contin 30mg	2.0	19	12.9	21	6.4		$20.10
MS Contin 60mg	8.9	19	51.5	62	7.3		$32.17
MS Contin 100mg	7.9	19	86.1	80	7.6		$57.31
MS Contin 200mg	1.0	1	8.9	4	8.4		$98.89
MS Mono C	0	0	1.0	20	10.0	90mg	$40.00
						120mg	$80.00
Ordine liquid	1.0	6	1.0	10	6.0		$30.00
Endone 5mg	2.0	8	1.0	15	6.7		
Oxycontin	5.9	11	12.9	20	5.9	10mg	$20.00
						80mg	$38.33
Pethidine 50mg	1.0	2	2.0	1	4.3		
Methadone syrup	26.7	93	20.8	26	6.5		
Physeptone 10mg	14.9	37	31.7	45	6.6		$12.19
Subutex	24.8	51	10.9	13	6.2	0.2mg	$2.00
						108mg	11.67
Temgesic	5.0	11	0	0	6.6		
Tramal 50mg	3.0	8	1.0	1	7.3		

Mean days calculated from only those who had used forms.

Price, availability and market changes

Recent morphine and Physeptone™ users provided information on the price and availability of these drugs in the last six months (Table 28). Recent users of morphine were evenly split over availability from GPs, with a third each stating it was easier, more difficult or unchanged. A quarter of recent Physeptone™ users stated availability from GPs was easy, while 50% thought it was difficult or very difficult. The majority of recent morphine and Physeptone™ users obtained prescriptions from only one doctor.

When asked for details about any reported change in availability of prescription morphine, one PWID stated that continuity with the one doctor or regularity of supply was often difficult if, for example, a doctor went away or was unwell. This was the case even if the prescription was on the doctor's file. Most doctors will not prescribe and this PWID said there only two options: wait for the doctor to return to work or purchase it illegally. Five PWID commented on doctors become

stricter with morphine prescriptions because of legislative changes, the diversion of prescription morphine into the black market and concern about morphine dependency. One PWID accused one GP of killing eight people by over prescribing morphine.

Table 28: Availability and sources of licit pharmaceutical opiates (%).

	Morphine (n=28)	Physeptone (n=8)
Availability from GPs		
Don't know	3.7	25.0
Very easy	11.1	-
Easy	29.6	25.0
Difficult	29.6	37.5
Very difficult	29.6	12.5
Change availability from GPs		
Don't know	7.4	25.0
No change	29.6	25.0
More difficult	63.0	50.0
Number doctors gave prescription		
1	92.6	87.5
2	7.4	12.5
Mean (Median) successes	1.1 (1)	1.0 (1)
Number doctors refused prescription		
0	96.3	75.0
1	0	25.0
20	3.7	0
Mean (Median) failures	0.7 (0)	0.25 (0)

Recent pharmaceutical opiate users also commented on the price and availability of morphine from illicit sources (Table 29). The majority of recent morphine users considered the price to be stable and availability to be easy and stable. The median time to score the last time they obtained morphine from illicit sources was 30 minutes. Three PWID commented that the price for a 100mg MS Contin™ tablet was $50 six months ago but had now risen to $60 as there was a greater demand on illicit sources. The price of MS Contin™ 60mg had also increased by $10. Price was also reported to vary with the source and the amount available from illicit sources. If morphine was readily available, MS Contin™ 100mg would cost $50; however, it was $70 when morphine less readily available. Nine PWID commented on morphine availability, indicating it fluctuated according to script availability, government actions and dealers.

Depends if anyone is around with a script and what the script is for.

The GP clampdown has meant doctors are not writing scripts for people.

Fluctuates greatly and depends on the time of the month – on the timing that people get scripts and what they are prescribed.

It's getting harder as dealers getting warier.

If there is heaps around it is easy, but if there is not much around it is difficult.

Table 29: Price, availability and sources of illicit pharmaceutical opiates (%).

	Morphine n=93	Methadone n=18	Physeptone n=32	B'norphine n=16
Change in price				
Don't know	7.5	50.0	25.0	75.0
Increasing	22.6	-	21.9	6.3
Stable	62.4	50.0	43.8	18.8
Decreasing	1.1	-	-	-
Fluctuates	5.4	-	9.4	-
Availability				
Don't know	3.2	27.8	21.9	50.0
Very easy	15.1	5.6	6.3	6.3
Easy	50.5	27.8	34.4	12.5
Difficult	21.5	33.3	34.4	25.0
Very difficult	4.3	5.6	3.1	6.3
Depends on type	5.4	-	-	-
Change availability				
Don't know	6.5	44.4	31.3	75.0
More difficult	38.7	5.6	25.0	-
Stable	45.2	44.4	40.6	18.8
Easier	4.3	5.6	-	6.3
Fluctuates	4.3	-	3.1	-
Depends on type	1.1	-		-
Minutes to score				
Number who searched	87	9	19	4
Mean (Median)	61.7 (30)	73 (30)	216.5 (30)	162.5 (75)
Range	2-720	10-240	3-2400	20-480
Source: Takeaway dose		61.1		
Don't know		38.9		
Drugs sold by source				
Don't know	35.5	66.7	36.4	81.3
Sell no other drugs	25.0	n=3	n=7	n=2
Methadone	11.7	n=2	n=4	n=1
Morphine	25.4	n=2	n=7	n=1
Cannabis	35.0	n=2	n=6	n=1
Methamphetamine	28.3	n=1	n=2	n=1
Benzodiazepines	21.7	n=1	n=4	n=1
Other opiates	5.0	n=1	n=2	n=1
Ecstasy	8.3	n=1	n=1	
LSD	1.7			
Cocaine	1.7			

Table 29 continued.

	Morphine n=93	Methadone n=18	Physeptone n=32	B'norphine n=16
Dealing				
Don't know	14.0	44.4	15.6	43.8
Friend selling script	20.4	16.7	31.3	31.3
Friend give excess script	3.2	22.2	9.4	18.8
Friend exchange goods	1.1	5.6	-	-
User/dealer	35.5	5.6	34.4	6.3
Small time dealer	23.7	5.6	9.4	-
Large scale supplier	2.2	-	-	-

Other drugs most likely to be sold by the usual sources of morphine were cannabis (35.0%), methamphetamine (28.3%) and benzodiazepines (21.7%). When asked about the level of dealing of their usual source, 35.5% indicated the sources were user dealers, 23.7% were considered to be small time dealers and 20.4% were friends selling their prescription drugs.

Half of the recent methadone syrup users thought it was easy/very easy to obtain illicitly while the other half thought it was difficult. Availability and price were both thought to be stable over the last six months. The median length of time to score illicit methadone syrup was 30 minutes. The majority of recent users did not know if their usual sources also sold other drugs or their level of dealing. The usual sources tended to be friends selling their scripts (doses) or friends giving away any excess of the drug.

The majority of recent Physeptone™ users thought it was difficult or very difficult to obtain illicitly and both price and availability had been stable for the last six months. The median length of time to score was 30 minutes and there were a range of drugs believed to be sold by the usual sources. The usual sources were friends selling their scripts (31.3%) and user dealers (34.4%). Most of the recent users of buprenorphine did not know about the price and availability of illicit sources. On the last occasion, the median length of time to score was 75 minutes and the usual sources were friends selling their scripts (31.3%) and friends giving away the drug (18.8%). None of the recent pharmaceutical opiate users had purchased these drugs over the Internet in the last 6 months, did not know how easy or difficulty it was to access Internet sources and none had any friends that had purchased these drugs on the Internet.

PWID perceptions of the impact of greater availability of pharmaceutical opiates

PWID were asked how they would be affected by greater availability of pharmaceutical opiates (more available and/or cheaper). The majority (n=58) of the 95 PWID that responded to this question reported they would not use any more morphine than they currently did. Of these, seven specifically stated they did not use it on a daily basis or only used occasionally so an increase in availability and/or lower prices would not impact on their pattern of use. A small number of PWID (four) reported they were accessing morphine from GPs and would not alter their pattern of use or dose. Another nine indicated they were currently accessing the methadone or buprenorphine program and would not be affected. Three others were accessing methadone from other sources and would not use any more morphine, and one PWID preferred heroin and would continue to use this drug.

> *I was only using morphine last month because I couldn't get a Physeptone™ script. It is not my preferred drug so it probably wouldn't affect me.*

I had a bogey operation, a bad surgeon. I've never felt the same since. The pain can't be diagnosed. I started using pain relief. It's genuine. I went downhill for a while on morphine. Then I went on the methadone program and then onto Physeptone™. I haven't had any problems since. I get the Physeptone™ using a pensioner's script.

Sixteen PWID said they would not buy any more and would, therefore, be in a better financial position if morphine was cheaper.

It would just be cheaper. There would be more of it. I wouldn't get addicted to it. You don't buy more just because it is cheaper.

I would not have to waste so much money. I wouldn't use more, just what I need (or normally use) to satisfy.

It would be a lot easier. I would live better because I'd have more money for other things like shoes. I wouldn't use more.

Finally, three PWID added they would not have to spend as much time looking for morphine or have to look for it first thing in the morning. Two indicated this would provide more stability in life and enable employment.

It would be easier day-to-day. I could work and not have to go at first thing to try to score.

In contrast, 28 PWID stated they would use more morphine or use it more often. Four of these stated they may have problems if their level of dependency increased or they used more for a period of time.

If it was three times as cheap, I would use three times as much!

I'd probably use more for a little bit but I'd have to go back to a certain dose. You can't stay at high level of use for long – you can't get where you want to go.

I might use a bit more for a while but you can't keep that up or it gets out of control. You have to go back to your usual dose.

One PWID stated greater morphine availability would mean a shift from benzodiazepines to morphine.

I would switch to morphine from benzos. Wax is better than chalk.

While one PWID thought there would be benefits with easier morphine availability, another indicated that this would result in more people using it, particularly younger people.

Life would be better and I would function better. I would try to get back to work. I'd use a little bit more but I'd be careful with it. At the moment the cost is high so I take risks.

Everyone would use. That means young people with no outlook. It would destroy any chance of being someone.

Five PWID mentioned a reduction in police activity and crime if morphine were more available, particularly cheaper.

There'd be not so much crime. I wouldn't have to steal every day to get them.

The police department would have nothing to do – there would be much less crime.

Finally, two PWID simply stated they would be happier and three thought it would be helpful if morphine was more readily available.

The PWID then commented on the impact on their friends of greater availability of pharmaceutical opiates. Of the 92 PWID that responded, 17 did not know how greater availability would affect their friends, two stated they did not care and another two indicated they did not have any friends.

Although the majority of PWID stated greater availability would not result in an increase in their own use, the majority (n=39) thought their friends would increase their use of morphine. Some of the reported drawbacks of increased use were more overdoses and infections (n=2), more people with morphine dependency (n=9), more people using morphine (n=3) and younger people starting to use morphine (n=2). Two PWID stated that people might use more for a while but the novelty would wear off and they would go back to their normal pattern of use.

> *It would affect some people who have habits as they would use more. Some might use stacks.*
>
> *People would be less likely to take breaks to recover their finances, which would also increase their tolerance.*
>
> *I think too many people would use it for the wrong reason. Probably younger people would get involved.*
>
> *There would be wax figures everywhere.*

Twenty PWID thought their friends would not alter their pattern of morphine use if it was more available. Seven PWID thought their friends lives would be generally easier or better, eleven indicated friends would be better off financially and three stated that they would not have to spend so much time looking for morphine.

> *They'd be healthier. They'd eat more. They'd have more money for food.*
>
> *They would be financially better off. The stats for crimes to support a habit would go down. Using these drugs would become more socially acceptable because it would be easier to get and users would have more money for other goods and activities like food and accommodation.*

Fourteen PWID reported there would be an impact on crime. While nine PWID thought the crime rate would decrease, five thought it would increase because there would be more people using morphine and more people using it more often or in larger quantities.

> *They should give people their drug of choice. Legalize it and get rid of crime.*
>
> *They would be more inclined to use – drug habits would go up more. Then the crime rate would go up – they'd go out and do crime to support their habits. If habits increase, crime increases.*
>
> *There might be less crime but if you are using heaps more then you'd still have to do crime.*

The other four PWID thought it would be good for their friends, one thought it would be helpful and the fifth thought friends would be happier.

PWID perceptions of the impact of reduced availability of pharmaceutical opiates

The participants were asked to comment on the implications of reduced availability and/or increase in price of pharmaceutical opiates. Of the 95 PWID that responded to this question, 26 stated that a reduction in the availability and/or rise in the price of pharmaceutical opiates would not affect them. Four PWID did not provide any details on why there would be no impact. Seven PWID explained they were on prescription morphine for pain relief and, therefore, would not be affected.

> *I would never be using any more than the amount I am prescribed.*

> *As I am prescribed, this wouldn't affect me. If there was no script then I would have all sorts of problems.*

The eight PWID that were on either buprenorphine or methadone indicated they would not be affected, particularly as some only used other opiates occasionally, not on a daily basis. One PWID used benzodiazepines, another heroin every day and two PWID stated they only used morphine occasionally so it would not have any impact.

> *No. It is nice if it is there, given to me. But I've never gone and bought it.*

The final two PWID stated they would not be directly affected but it would impact directly and indirectly through friends and the adverse consequences that would result.

> *It wouldn't affect me as I'd leave. It'd affect the drug scene generally. There'd be a soaring crime rate, and you'd have GPs, nurses and chemist targeted.*

Substitution of another drug was the next most commonly reported response to a reduction in availability and/or increase in price of pharmaceutical opiates (n=31). The drugs mentioned for substitution were benzodiazepines (n=4), alcohol (n=4), methamphetamine (n=3), illicit Physeptone™ (n=3), cannabis (n=2), other opiate/painkillers (n=3) and heroin (n=1).

> *It'd be very bad. I wouldn't know what to do. I'd try to find something. Maybe I'd take on crystal meth.*

> *It'd piss me off. I'd drink more alcohol. I would substitute alcohol if I couldn't get anything else.*

> *I would go without or increase my use of alcohol which could lead to aggression, trouble with the police. I have had big problems with alcohol for my entire life.*

> *Heroin would become more available. If you shut down one drug, another one moves in. Down south you've got heroin, up here you've got morphine.*

Of the remaining nine PWID, three stated they would substitute heroin if it was available and the other six indicated they would move to a location where there was an established heroin market.

> *I would suffer and consider moving to a place with heroin. I wouldn't substitute another drug – I'd only use heroin.*

Twelve PWID thought there would be changes in crime if pharmaceutical opiates were less available or more expensive. An increase in the price was seen as a major contributing factor to an increase in criminal activity and 11 PWID stated they would engage in more crime such as

robberies and break-ins to obtain the money to buy morphine. One PWID mentioned activities like rorting and it was not possible to ascertain if such activities would be illegal or not. Two of the twelve PWID also added comment on the possible activities of other PWID.

> *It would be a bad omen for those doing the right thing and keeping control.*

> *It would be hell out on the streets.*

Twelve PWID indicated they would stop using morphine. Of these, two simply said they would just go without it. Another three indicated they would not be able to afford it and would have to give it up. The remaining seven mentioned having to detoxify or go cold turkey and one of these stated there was nothing to substitute and it was not worth going on any of the pharmacotherapy programs.

> *It would affect me and financially destroy me: I use it every day. I would hopefully have to seriously try to give up.*

Seven PWID stated they would continue to use morphine but they would use less each occasion or use it less frequently.

> *I'd still buy it but I'd use less. I would still get it somehow. I wouldn't do crime as I'm not that sort of person.*

> *I would probably still get it somehow. Maybe I wouldn't use as much. I wouldn't be able to unless I want to be full-time criminal. But I'm not that sort of person.*

Only three PWID thought they would go on the methadone program if pharmaceutical opiates were more difficult to obtain. Of the remaining four PWID that responded, one thought it would make it very unfair, another indicated that he would go crazy because of the level of dependency and the last two said they could not function, one indicating he would suicide.

> *I'd be in pain. I couldn't function as a normal person. I couldn't look after my baby at all. I use morphine for genuine reasons – for pain.*

> *If the pain increased then I would suicide. It would be a death sentence for me.*

PWID were also asked to indicate how they thought reduced availability and/or price increases would affect their friends. Of the 97 PWID that provided a response to this question, nine did not know how their friends would be affected, four were unsure, two did not care, three said they had no friends and six thought their friends would not be affected. Five of the latter indicated this was because these friends had access to prescription morphine.

PWID thought the most likely responses to a reduction in availability of pharmaceutical opiates would be substitution of other drugs (n=30) or crime (n=31). One of the drugs mentioned as a likely substitute was the benzodiazepine group (n=7) such as Hypnodorm™, Normison™ and Valium™ because they were considered to be easy to obtain from GPs. One PWID mentioned that there were health risks associated with benzodiazepines, such as injection-related problems and loss of limbs. Other drugs mentioned were forms of morphine other than MS Contin™ or more illicitly obtained morphine (n=7), illicitly obtained Physeptone™ (n=2), heroin (n=3), methamphetamine (n=4) and alcohol (n=1). One PWID thought it would create the necessary climate for establishing a heroin market in Darwin.

> *Some users would take up speed or other injectable drugs, but some are only into*

opiates. It wouldn't affect people that earn a lot of money, like sex workers. Of the others, some would switch, some would use less, and some go back down south.

They would be into everything to get what they need. You become sick when you don't have it, its unbearable.

They'd switch to an alternative drug: it would be a big lifestyle change if it was to a different kind of drug, such as speed. There would be an influx of other drugs and backyard manufacturers.

They'd probably start using other drugs like benzodiazepines or try and find an alternative. It might wake a few of them up to trying to find a different lifestyle. But it could have the reverse effect too and lead them to explore a bit more.

Things would become more violent: there would be more drinking.

In terms of crime, five PWID specifically mentioned more violence and violent crime and one thought organized crime would develop. Other crimes mentioned were break-ins, sex work, scamming and rorting for money and/or drugs.

Younger users are more likely to increase crime because of their fear of hanging out.

It would make everyone more angrier. They are most dangerous when they are on edge and hanging out and likely to do something unpredictable. I wouldn't do some things but others would – like crime and bashing old people to get scripts.

They'd withdraw and probably use something else. They'd have to spend money and time finding it. There could be less crime – it'd be hard to get so people wouldn't worry about it. Or it could send everyone on a crime spree. It's hard to tell.

Of the remaining PWID, five thought their friends would stop using the drug, four thought friends would go onto the methadone program and nine thought friends would be greatly affected but did not indicate how these friends would deal with the situation. The final two PWID thought some friends might commit suicide.

Some use 100mg four times a day and it would be terrible for them – a disaster as they are very dependent.

I'd feel sorry for them because of hanging if they use over 100mg a day, because of the vomiting, diarrhoea, hot and cold sweats – it's horrible.

Health benefits and risks

Injection-related health issues

Table 30 indicates the types of injection-related health problems PWID experienced in the month before the survey. Over a third of the PWID had experienced injection-related bruising or prominent scarring and difficulty injecting, while close to one in ten reported abscesses or infections and thrombosis. Dirty hits (injections that make the person feel sick or very ill) were experienced by 15.3% of PWID in the previous month. Dirty hits and infections at the site of the injection can be related to adulterants in the mixture injected.

Table 30: PWID injection-related health problems in the previous month (n=101).

Type of problem	%
Prominent scarring and/or bruising	35.7
Difficulty injecting	35.7
Abscesses/infections from injecting	13.3
Thrombosis	9.2
Dirty hit	15.3
Overdose	3.1
Mean injection-related problems	1.12
Median injection-related problems	1.0
Range	0-5

Drug overdose

Non-fatal drug overdoses in the previous month were very low and the main drugs involved in the three cases were methamphetamine, benzodiazepines and Fantasy/GHB. The other drugs used with the methamphetamine overdose were benzodiazepines and cannabis. In the overdose with benzodiazepines the other drug involved was morphine. In the case of the Fantasy overdose a variety of other drugs were used: alcohol, methamphetamine, ecstasy and cannabis. The main drugs involved in dirty hits were morphine (n=8), benzodiazepines (n=3), methamphetamine (n=2) and Physeptone™ (n=1). Other drugs involved were methamphetamine, benzodiazepines, buprenorphine and Physeptone™ and five PWID had not used any other drug at the time.

Recent overdose history (Table 31) indicates none of the PWID had overdosed on heroin and there was a very low rate of morphine and benzodiazepine overdose (median of 0 for both). Narcan™ was administered to 17% of the sample at some point in their life and the median length of time since the last administration was 60 months. None had been administered Narcan™ in the year before the survey.

Table 31: Drug overdose history of PWID (n=101).

Overdose history		
Heroin OD last 6 months	Mean number of times	0
	Median number of times	0
	Range	0
Morphine OD last 6 months	Mean number of times	.02
	Median number of times	0
	Range	0-1
Benzodiazepine OD last 6 months	Mean number of times	.03
	Median number of times	0
	Range	0-2
Narcan administration	Mean months since last	70.8
	Median time	60
	Range	12-264

Benzodiazepines benefits and risks

PWID that had used benzodiazepines or pharmaceutical opiates in the last month were asked to indicate any effects they had experienced from use of the drug in that month (Table 32). Almost half of those who had used benzodiazepines had not experienced any problems in the last month. The most commonly reported problems were blackout or memory loss (22.8%), problems concentrating (21.1%), low motivation (19.3%), aggression (17.5%) and getting into arguments (15.8%). Almost three quarters had not experienced any problems from benzodiazepine withdrawal in the previous month but the most commonly reported problems were problems sleeping (21.1%), feeling anxious (15.8%), aches and pains (15.8%) and feeling cold (15.8%).

Table 32: Effects of drug use last month (% yes).

	Benzod	Morphine	Methadone	B'norphine
Used last month	58.0	89.0	31.0	15.8
Drug Use				
No problems	47.4	41.9	60.0	50.0
Swelling of limbs	12.3	11.6	3.4	6.3
Hospitalization	5.3	0	0	0
Contact ambulance	3.5	2.3	0	0
Contact police	10.5	0	3.4	0
Dependence	5.3	30.2	20.7	25.0
Gangrene	1.8	0	0	0
Blackout/loss of memory	22.8	5.8	3.4	6.3
Feeling anxious	12.3	22.1	13.8	18.8
Getting into arguments	15.8	8.1	6.9	0
Relationship problems	14.0	12.8	17.2	6.3
Getting into fights	8.8	2.3	10.3	6.3
Criminal trouble	7.1	4.7	3.4	0
Low motivation	19.3	25.6	10.3	31.3
Problems concentrating	21.1	14.0	10.3	18.8
Aggression	17.5	8.1	6.9	6.3
Criminal behaviour not charged	10.5	3.5	6.9	6.3
Other	6.8	6.9	10.3	25.0
Withdrawal				
No problems	71.9	34.9	66.7	68.8
Nausea	12.3	50.0	24.1	31.3
Feeling cold	15.8	53.5	20.7	31.3
Aches and pains	15.8	58.1	20.7	31.3
Problems sleeping	21.1	59.3	17.2	25.0
Muscle tension/spasm	12.1	50.0	13.8	25.0
Other physical	4.5	9.3	3.4	0

Table 32 continued.

	Benzod	Morphine	Methadone	B'norphine
Feeling anxious	15.8	50.0	20.7	25.0
Getting into arguments	5.3	24.4	6.9	6.3
Relationship problems	3.5	19.8	6.9	6.3
Getting into fights	0	8.1	6.9	6.3
Criminal trouble	0	7.0	0	6.3
Low motivation	10.5	37.2	6.9	12.5
Problems concentrating	5.3	32.6	10.3	12.5
Problems with memory	3.5	20.0	6.9	12.5
Other psych/social	4.5	5.8	6.9	6.3

These PWID were also asked to discuss the benefits and risks associated with taking benzodiazepines. Only three stated there were no benefits of benzodiazepine use. Twenty seven PWID commented on the positive aspects, such as inducing relaxation (n=15), assisting with sleep (n=19), having a calming effect (n=3), reduced worry/anxiety/stress (n=12) and generally making the person feel good/better (n=3).

Another fifteen PWID commented on the utility of benzodiazepines for managing drug withdrawal. Thirteen of these PWID stated benzodiazepines were specifically used to ease symptoms of morphine withdrawal by preventing constantly thinking about morphine, producing relaxation and inducing sleep. The other two PWID mentioned substituting benzodiazepines when they could not obtain methadone or drugs in general.

> *Dealing with withdrawal from opiates and buprenorphine. "Symptomatic relief from opiate withdrawal" – this is what is on my GP scripts.*

> *Benzodiazepines compensate for when I can't get morphine. It helps stop me hanging out so much. They make me feel good. I have a good sleep and feel relaxed.*

Eight PWID stated the benefits of benzodiazepines were associated with use of other drugs. They could add to the effect of other opiates such as morphine (n=5), methadone (1) and heroin (n=1). The remaining PWID used benzodiazepines to reduce the anxiety resulting from methamphetamine use (such as after three days of use). Of the remaining PWID, one stated benzodiazepines provided freedom, another liked the confidence they gave and the third commented that people gave him money for no apparent reason.

Four PWID stated that one of the risks of using benzodiazepines was developing drug dependence. Twenty-five PWID mentioned problems relating to injecting benzodiazepines and the risk of overdose. The most commonly mentioned injection-related problems were vein damage (n=13) and damage or loss of fingers or limbs (n=10). Other intravenous use problems were sores/infections (n=4), blood clots (n=5), scarring (n=3) and gangrene (n=2). Three PWID also mentioned the risk of stroke and cardiac arrest. Seven PWID stated there was a risk of overdose while another mentioned the possibility of accidental damage to self while intoxicated.

> *I'm pretty aware of the risks about not being good to inject it. I try to swallow it as often as possible. I have the literature on the risks and am aware of them.*

Twelve PWID mentioned behaviour change, uncharacteristic behaviour and crime while under the influence of benzodiazepines. Benzodiazepines were seen as responsible for *doing stupid stuff* (n=5), notably crime (n=4), and thinking one was invisible (n=2).

> *Get into police trouble a lot when I'm on benzodiazepines. I steal stuff that I don't normally do. I turn into a kleptomaniac – a thief. I'm not like that normally. I do stupid things – like steal a cup (like that foam take-away coffee cup there) and think I'd pulled off crime of the century.*

> *You get arrested real easy because they make you think you are invisible so you do stupid things (like crime) and you get caught.*

Other behaviour change mentioned was loss of control with higher doses (n=2), lack of awareness or memory of one's actions (n=20), being angry or short tempered (n=2) and fighting (n=2). One PWID also noted that there was a risk of being robbed after taking benzodiazepines.

> *I wake up and people say I did this and did that and I don't remember. You never know what you have done.*

Other frequently mentioned risks related to memory loss and blackouts (n=5), forgetfulness (n=2) and losing things (n=1). Four PWID mentioned adverse effects on the brain and brain function:

> *You turn into a blithering idiot. You can't function properly if you have long term use or use high doses.*

> *It affects the brain. You communicate real poor and have a hard time connecting with yourself.*

> *You can turn into a fruitcake.*

In contrast, fourteen PWID stated there were no risks associated with using benzodiazepines. Two of these PWID said they had not been using them long enough and another believed there were no risks if benzodiazepines were not used intravenously.

Morphine benefits and risks

The majority of PWID (89.0%) had used morphine in the previous month and 41.9% had not experienced any problems from their morphine use (Table 31). The most frequently reported effects of morphine use were dependence (30.2%), low motivation (25.6%) and feeling anxious (22.1%). Withdrawal problems did not affect 34.9% of morphine users in the previous month. The most common withdrawal symptoms were problems sleeping (59.3%), aches and pains (58.1%), feeling cold (53.5%), muscle tension/spasms (50.0%), feeling nausea (50.0%) and feeling anxious (50.0%).

When asked about the benefits of taking morphine, only 11 PWID stated there were none. Another seven could not elaborate any benefits of morphine use because of the issues associated with morphine dependence and the need to use it everyday to prevent withdrawal.

> *It helps stop me feeling sick because of my dependence. Once you get dependent and get a habit, you don't feel stoned.*

> *I don't see one because I am dependent. I can't get up and go until I have it – it's not a benefit; it's a physical thing.*

However, the majority of PWID who had used morphine in the previous month found many benefits from its use. Many recent morphine users (n=36) stated it was beneficial for pain relief and providing a better quality of life, particularly when used correctly (n=9). For some of these people, morphine provided the additional benefit of enabling sleep because of the absence of pain (n=4).

> *None unless needed for medical reasons. It's good for its intended purpose – that is pain relief. I used it as a legitimate script for pain reasons. It didn't occur to me that it could be injected or anything like heroin. Once I found this out I then started to inject it.*

> *It relieves the pain in my back and legs. It is made by the government so you know what you are getting. It's pure so you know how much you are getting. It's not cut like heroin which could only be a little bit of heroin or a lot of it in the deal. You could get nothing or you could overdose. There are no rip offs with morphine because of its purity.*

> *I use it for genuine reasons. I'm not in pain and can function normally. I've got more body movement.*

> *It motivates me to do housework and other things like gardening, driving, shopping. It helps control the pain from an old back injury which flares up after activity like shopping or walking around, and pain and anxiety due to Hepatitis C. It changes my state of being every couple of days, so I don't have to live with the same fucking thing day after day.*

> *I have been through domestic violence for nine years. I lost a baby. It was a miscarriage. I got cracked bones in my back. It helps with pain. One year ago he slashed my neck with a machete. Then I got injured in a car accident – hurt my shoulder. I get pain. It really helps with pain relief.*

> *To take prescribed medication without a reason – someone who has a dependence – that is wrong but for pain management it is about the best there is when a stable dosage is taken.*

Fifteen PWID mentioned benefits associated with relaxation (n=10), socialization (n=5), sleep (5) and being free of worry (n=3).

> *It makes me more relaxed socially, more outgoing, and with more energy, more self reliant, and with less need for sex so I don't worry about not getting any. It comes in a pure, known dose, so there is less risk of overdose or vein damage and you are more able to step down your dose.*

> *There are benefits – it lays you back a bit and things don't worry you so much. It's a good social drug because you can interact with other people, not get angry or frustrated with people and have a good time. It makes me feel real relaxed and in a good mood.*

> *There's relaxation and a proper night's sleep. You chill out. When you have nothing to do it's something to do. It's like going to the shop and buying a different type of food (it has a different effect).*

For 24 PWID, morphine was also associated with stress relief (n=8), anxiety reduction (n=4), alleviating depression (n=2), feeling normal (n=5) and escaping, blocking out or altering reality (n=8).

> *I have it to bring me up to normal. It keeps me calm. It's good for pain: cramps, aches and pains. It puts you on a mellow laidback carefree spell, soothing stress and anxiety relieving.*

Make things seem better than they actually are. It makes you happy, gives energy.

Just blocks things out – my youth, parents, everything, reality.

You get a good high – it's one of the best things you can get up here. You can get it easily and it is cheap. You don't have to chase around all day as it is always there.

Finally, one PWID stated that morphine was beneficial when coming down from methamphetamine and was better than using cannabis.

Methadone benefits and risks

Almost a third of the PWID had used methadone in the last month and the majority (60.0%) had not experienced problems from its use (Table 31). The types of problems most likely to be experienced were dependence (20.7%), relationship problems (17.2%) and feeling anxious (13.8%). Although the majority (66.7%) had not experienced problems from methadone withdrawal, the most commonly reported ones were nausea (24.1%), feeling cold (20.7%), aches and pains (20.7%), feeling anxious (20.7%) and problems sleeping (17.2%).

Only five PWID stated there were no benefits and one of these said methadone had wrecked his life. The most commonly mentioned benefits were associated with returning to a *normal* life and being able to function better (n=5), better relationships/family life (n=5), finances (n=4), and health (n=2), less crime (n=5) and reduced use of other drugs, particularly morphine (n=7).

It allows you to have a more stable life. You can work if you want to or need to. It allows you to do more, and allows me to do more with my son such as go away with him on weekends. I can plan my life a bit better. I can occasionally visit relatives in other states and that's helped heaps.

Like all opiates it makes me function a lot better and get out and do things, and it's cheaper and there is no crime involved.

On the program I don't need to steal, I save money, my family's starting to mend and relationship problems are lessening.

I don't have to worry about hanging. And I don't have to get other half to do crime to support our habit. We have more available money, but not much more, just a bit. I don't shoplift any more: I was shoplifting about three times a day to support the habit. All day was spent going out to steal, sell and then score. I don't get the feeling of using morphine – it feels like pumping in water.

I have a bad back with pinched nerve but the GPs won't give me morphine any more. Methadone is a way of controlling morphine as it is expensive and it got out of control. If morphine becomes a habit then I have to do crime as the GPs won't prescribe. They won't give me what will help but they try to give me all sorts of things that won't help.

Six PWID stated methadone was useful as a substitute for easing withdrawal or *hanging out* whenever the main drug was unavailable. One of these PWID indicated that a period on methadone provided a break from morphine, reduced tolerance, thus allowing a lower dose upon resumption of morphine use. Another PWID considered the benefits of methadone (Physeptone™) were that it was very relaxing and allowed him to drift off for a while without having to worry about anything.

Thirteen PWID could not identify any risks associated with using methadone, and of these one qualified the statement by adding this was because it was swallowed at the chemist. One added that methadone was wonderful. In contrast, one PWID felt methadone resulted in slowness and another felt like a numb zombie. Five mentioned dependence and withdrawal issues and this, combined with difficulties associated with picking up methadone syrup from the hospital every day, were highlighted.

> *With Physeptone™ I could take it and self manage pain. With methadone syrup have to go and take it everyday even if I am not in pain. And I'm out of work because of it – the GP rang my boss and I got sacked and I have to pick it up every day. The GP in the clinic at the hospital wrecked my life – turned me into a junkie on 80 ml methadone a day even if I don't need it every day for pain. The GP won't give me takeaway so I can get another job. And I can't get Physeptone™ which I can manage and be able to work.*

PWID also mentioned some health risks associated with methadone use, mainly dental and bone problems (n=4), injection-related risks (n=3) and breastfeeding.

> *It can't be doing my body any good. It hasn't done my teeth any good. I think my health has suffered. I try and eat well and the fact that it's a bit of an appetite suppressant can be a bit of a problem.*

Only two PWID raised risks associated with the criminal justice system. One was concerned that he would breach his parole with a contaminated urine sample, while the other thought that if the police caught him injecting, they would inform his GP and have his Physeptone™ prescription terminated.

Buprenorphine benefits and risks

Half of the PWID using buprenorphine in the previous month had not experienced any problems with its use (Table 32). The most common problems experienced among the remainder were low motivation (31.3%), dependence (25.0%), feeling anxious (18.8%) and problems concentrating (18.8%). Withdrawal had not been a problem for 68.8% of PWID but for those who had experienced problems the typical ones were nausea (31.3%), feeling cold (31.3%), aches and pains (31.3%), problems sleeping (25.0%), muscle tension/spasms (25.0%) and feeling anxious (25.0%). The main benefits of buprenorphine were assisting in cessation or reduction of drug use (n=10), allowing improved functioning and reduced crime. Buprenorphine was also useful during periods of withdrawal until the main drug could be accessed.

> *It gives one a stable platform upon which to carry on and repair a damaged life. Cuts out the craving. One only needs to stay away from users and dealers and it's half won.*

> *It helps heaps, no withdrawal. It is easy to kick the habit. Makes you think clear. Stops you from wanting, craving. Puts your life on track. Lead a normal life. Best thing ever brought out.*

The health risks associated with buprenorphine were injection-related problems (n=2), death (n=1), dependence (n=10) and side effects (n=2) such as sleeping problems, headaches, low motivation and lethargy. Drawbacks to buprenorphine use were also the cost (n=1), opiates not having any effect (n=1) and having to travel to the chemist every day (n=2). Six PWID did not identify any risks associated with buprenorphine use while another stated the risks were few.

> *Very little, if you are prepared to take on another addiction in order to foster a long-term plan of fighting drug abuse.*

Benzodiazepine and pharmaceutical dependence.

PWID that had used benzodiazepines and/or pharmaceutical opiates in the last month completed a Severity of Dependence Scale (Gossop, Darke, Griffiths et al., 1995). A score of zero indicates no dependence, under six suggests mild dependence and higher scores indicate dependency issues (Table 33).

Table 33: Severity of Dependence Scale.

	Benzodiaz	Morphine	Methadone	Buprenorp
Think use out of control				
Never/almost never	73.7	50.0	76.7	100.0
Sometimes	21.1	24.4	13.3	0
Often	3.5	17.4	3.3	0
Always/nearly always	1.8	8.1	6.7	0
Prospect of missing a hit make anxious				
Never/almost never	71.9	37.2	63.3	75.0
Sometimes	12.3	38.4	23.3	6.3
Often	7.0	14.0	6.7	12.5
Always/nearly always	8.8	10.5	6.7	6.3
Worry about your use				
Not at all	68.4	39.5	60.0	93.8
A little	24.6	37.2	30.0	6.3
Quite a lot	3.5	11.6	0	0
A great deal	3.5	11.6	10.0	0
Wish you could stop using				
Never/almost never	59.6	36.0	66.7	81.3
Sometimes	26.3	30.2	20.0	12.5
Often	7.0	18.6	10.0	0
Always/nearly always	7.0	15.1	3.3	6.3
How difficult to stop using				
Not difficult	71.9	37.6	53.3	62.5
Quite difficult	12.3	17.6	20.0	31.3
Very difficult	12.3	28.2	23.3	0
Impossible	3.5	16.5	3.3	6.3
Severity of Dependence Scale				
Mean score	2.37	5.15	2.74	1.31
Median score	1.00	5.00	0	0.50
Range	0-12	0-14	0-14	0-7

In the previous month, the majority of benzodiazepine users never thought their use was out of control (73.7%), never or almost never felt anxious about not having benzodiazepines (71.9%), did not worry about their use of benzodiazepines (68.4%), did not wish they could stop (59.6%) and would not find it difficult to stop (71.9%). A similar pattern was evident with those who had used methadone and buprenorphine in the past month.

The pattern for morphine was somewhat different with 50% indicating they did not think their use was out of control and 37.2% not becoming anxious at the prospect of not having a hit. However, another 38.2% stated they would sometimes become anxious. Almost an equal proportion stated they did not worry about their morphine use (39.5%) and only worried a little bit about morphine use (37.2%). While 36.0% reported they did not wish to stop using morphine in the previous month, another 30.2% sometimes wished to. Over a third (37.6%) indicated they would not find it difficult to stop using morphine. The differing pattern between morphine and benzodiazepines and other pharmaceutical opiates is reflected in the overall Severity of Dependence Scale scores. The mean score for morphine was 5.15, compared to 2.37 for benzodiazepines, 2.74 for methadone and 1.31 for buprenorphine.

Illegal activity among PWID

Prison history and arrested in the last 12 months

Close to half of the PWID (51.5%) had a prison history and 33.3% were arrested in the previous year. Table 34 indicates a third of the arrests were for property crime, followed by violent crime (24.2%) and driving offences not involving alcohol or drugs (18.2%). A third of the property crimes were drug-related, principally morphine. Of the violent crime, 16.7% was drug-related (morphine and benzodiazepines).

Table 34: Arrest offences and drugs involved in the previous year.

Offence category	%	% drug related	Drug involved-related	
Use/possession	9.1	100	Heroin n=1	Morphine n=2
Dealing/trafficking	6.1	100	Methamphet n=1	Cannabis n=1
Alcohol and driving	12.1	80		
Property crime	30.3	33.3	Morphine n=7	Bzd n=1
Fraud	9.1	12.5	Heroin n=1	Morphine n=1
Violent crime	24.2	16.7	Bzd n=1	Morphine n=1
Other driving offence	18.2	100	Heroin n=1	
Failure to appear	6.1		Morphine n=2	
Billpost, resist arrest, etc	6.1		Morphine n=2	
Offensive weapon	3.1			
Tampering motor vehicle	3.1			

Note: % calculated amongst those arrested, not entire sample.

Self-reported property crime last month

PWID were asked to report on their level of participation in property crime in the last month (Table 35) and the reasons for committing this type of crime (Table 36). Only 14.1% had committed any property crime, with 5.1% stating they committed such crimes less than once a week, 4.0% once a week and 3.0% more than once a week. Only one individual committed property crime on a daily basis.

Table 35: PWID self-reported participation in property crime in the previous month (%).

Property crime	(n=99)
None	85.9
Less once a week	5.1
Once a week	4.0
More than once a week (not daily)	3.0
Daily	1.0

Committing property crime to obtain money to buy drugs was the most frequently reported reason that matched the motives of the individuals involved (50.0%). This was followed by needing money to buy food and/or goods (35.7%) and to support oneself and/or family (28.6%).

Table 36: PWID self-reported reasons for committing property crime last month (%).

Reason	Not at all	A little	A lot	Drugs involved
Group hang out with do this	71.4	14.3	14.3	
Needed money buy drugs	42.9	7.1	50.0	Methamphetamine (1)
Couldn't get script	92.9	7.1		Morphine (n=1)
Wanted money/goods	78.6	7.1	14.3	
Needed money support self/family	57.1	14.3	28.6	
Had debts	85.7	7.1	7.1	
Needed food/goods	50.0	14.3	35.7	
Urged by friends	92.9		7.1	
Lost temper	92.9		7.1	
Withdrawing from drugs	71.4	7.1	21.4	Morphine (n=3) Speedball (n=1)
Intoxicated at time	64.3	21.4	14.3	Morphine (n=1) Speedball (n=1) Valium (n=1)
Cannot explain why	85.7	7.1	7.1	

Self-reported drug dealing last month

The majority of PWID did not report participation in drug dealing (78.8%) in the previous month (Table 37). Close to one in ten (11.1%) dealt drugs less than once a week, only 1.0% did so once a week, 7.1% dealt drugs weekly but not every day and 1.0% did so every day. Table 37 indicates the main reasons were needing money to buy drugs (42.9%), needing money to support oneself or family (28.6%) and needing food and/or goods (23.8%).

Table 37: PWID self-reported participation in drug dealing in the previous month (%).

Drug dealing	(n=99)
None	78.8
Less once a week	11.1
Once a week	1.0
More than once a week (not daily)	7.1
Daily	2.0

Table 38: PWID self-reported reasons for drug dealing crime last month (%).

Reason	Not at all	A little	A lot	Drugs involved
Group hang out with do this	76.2	14.3	9.5	
Needed money buy drugs	33.3	23.8	42.9	Benzodiaz (n=1) Morphine (n=1) Morp & bzd (n=1) Physeptone (n=1) Methamphet (n=1)
Couldn't get script	71.4	14.3	14.3	Morphine (n=4) Morp & bzd (n=1) Physeptone (n=1)
Wanted money/goods	85.7	9.5	4.8	
Needed money support self/family	61.9	9.5	28.6	
Had debts	66.7	19.0	14.3	
Needed food/goods	52.4	23.8	23.8	
Urged by friends	90.5	9.5		
Lost temper	90.5		9.5	
Withdrawing from drugs	85.7	14.3		Morphine (n=1) Morp & bzd (n=1)
Intoxicated at time	76.2	14.3	9.5	Morphine (n=1) Morp & bzd (n=1) Methamphet (n=1)
Cannot explain why	81.0	19.0		

Self-reported fraud last month

The vast majority (97.0%) did not report engaging in fraud in the previous month (Table 39). The remaining 3% indicated they committed fraud less than once a week. A variety of reasons were reported but there are too few responses to indicate any meaningful pattern (Table 40).

Table 39: PWID self-reported participation in fraud in the previous month (%).

Fraud	(n=99)
None	97.0
Less once a week	3.0
Once a week	-
More than once a week (not daily)	-
Daily	-

Table 40: PWID self-reported reasons for committing fraud last month (%).

Reason	Not at all	A little	A lot	Drugs involved
Needed money buy drugs			n=3	Morphine (n=2) Methapmet (n=1)
Couldn't get script	n=2		n=1	Morphine (n=1)
Wanted money/goods	n=2		n=1	
Needed money support self/family	n=2		n=1	
Had debts	n=2	n=1		
Needed food/goods	n=2	n=1		
Withdrawing from drugs	n=2	n=1		
Intoxicated at time	n=2		n=1	Methamphet (n=1)
Cannot explain why	n=2	n=1		

Self-reported violent crime last month

The vast majority (97.0%) did not report committing any violent crime in the previous month (Table 41). Of the remaining 3%, 2% committed violent crime less than once a week and the other individual more than weekly but not every day. The sample committing crime was too small to provide any meaningful information about reasons for committing violent crime (Table 42).

Table 41: PWID self-reported violent crime in the previous month (%).

Violent crime	(n=99)
None	97.0
Less once a week	2.0
Once a week	-
More than once a week (not daily)	1.0
Daily	-

Table 42: PWID self-reported reasons for committing violent crime last month (%).

Reason	Not at all	A little	A lot	Drugs involved
Couldn't get script	n=2		n=1	Physeptone
Lost temper	n=2		n=1	
Withdrawing from drugs	n=2		n=1	Physeptone

Self-reported illegal sex work last month

The overwhelming majority of PWID (96.9.0%) did not report engaging in any illegal sex work in the previous month (Table 43). Of the remaining 3%, 1% did such sex work less than once a week, another once a week and the third individual did it more than weekly but not on a daily basis. The PWID were not asked to provide reasons for engaging in illegal sex work.

Table 43: PWID self-reported illegal sex work in the previous month (%).

Illegal sex work	(n=99)
None	96.9
Less once a week	1.0
Once a week	1.0
More than once a week (not daily)	1.0
Daily	-

Self-reported fights, violence and crime from drug use last month

PWID that had used benzodiazepines or pharmaceutical opiates in the last month were asked about consequences of both the use of the drug and any drug withdrawal during the month (Table 44). More of those who had used methadone (10.3%) were involved in fights from its use than PWID using benzodiazepines (8.8%) or buprenorphine (6.3)%. Those using morphine were the least likely to be involved in fights from its use (2.3%) but most likely to be involved in fights from morphine withdrawal (8.1%). PWID who had used benzodiazepines were more likely to be aggressive from its use (17.5%) than those using morphine (8.1%), methadone (6.9%) or buprenorphine (6.3%). Those using benzodiazepines were also most likely to have contact with the police from its use (10.5%), engage in criminal behaviour for which they were not charged (10.5%) or be involved in criminal trouble (7.1%), principally property crime. In contrast, those using morphine were more likely to be involved in criminal trouble because of withdrawal (7.0%) and this was predominantly property crime.

Table 44: PWID aggression, contact with the police and criminal activity resulting from benzodiazepine use the previous month (%).

	Benzodiazepines		Morphine		Methadone		Buprenorphine	
	Use N=57	W'draw	Use N=86	W'draw	Use N=29	W'draw	Use N=16	W'draw
Fights (%)	8.8	0	2.3	8.1	10.3	6.9	6.3	6.3
Aggression (%)	17.5		8.1		6.9		6.3	
Contact with police (%)	10.5		0		3.4		0	
Criminal behaviour not charged (%)	10.5		3.5		6.9		6.3	
Criminal trouble (%)	7.1	0	4.7	7.0	3.4	0	0	6.3
Violence (n)	0	0	0	0	1	0		0
Property (n)	3	0	4	2	0	0		1
Fraud (n)	0	0	0	0	0	0		0
Dealing (n)	0	0	0	0	0	0		0

Associations between criminal involvement, demographics and drug use

Non-parametric Spearman's rho correlations were conducted to examine any possible correlations between demographic variables, drug use and self-reported crime in the last six months. A total crime score was calculated by adding the scores for the four variables examining crime in the last month: property crime, dealing, fraud and violent crime. There were no significant correlations between any demographic variables or drug used most last month and the total crime score. There was a significant negative correlation between the number of days PWID had used prescription morphine in the last six months and total crime score (rho = -.365; p = .047) and significant positive correlation between the number of days of methamphetamine use (rho = .265; p = .043) and total crime score and any drug dealing last month (rho = .265, p=.029). Involvement in any drug dealing demonstrated a significant positive correlation with days of illicit benzodiazepine use (rho = .281, p =.025) and days of cannabis use (rho = .259, p = .038) in the last six months.

Perceptions of police activity and its impact

Changes to police activity re prescription drugs last 6 months

A large number of PWID (40.4%) were not aware if there were any changes in police activity around drug use in the last six months. The majority (42.4%) thought activity had been stable, while 16.2% thought there had been more activity. Only 1.0% of PWID reported there was less police activity. When asked if there had been any change in police activity directed specifically at prescription drugs, nine PWID commented on other impacts on drug availability, particularly the GP crackdown on prescription of S8 drugs and a change in the way pharmacists were operating. The reduction in prescribing had resulted in fewer prescription drugs available, making in harder and more time consuming to score. One mentioned the police were working with chemists and there was a GP, chemist and police network operating.

> *Doctors have been prescribing too freely so they did a witch hunt on them.*

I've seen it with the GP and pharmacist crackdown. It's harder to cash scripts at the chemist. They use all types of excuses not to cash the script. It's hard to do plausible things with GPs to get scripts especially with that computer network. The chemists know which GP you are contracted to.

The police are asking more questions about who is going into the chemists, and hanging around outside chemists to see who is meeting who and when.

Eight PWID said the police were low key and did not appear to have changed their activity in the last six months. One commented the police could not do anything about people who have prescriptions.

Police are low key and quiet. Not even hassled by them yet.

Twelve PWID stated the police had been more aware and active in trying to curb the drug trade, particularly morphine. Some of this activity included the drug court, more undercover work and targeting users and dealers to prevent on-selling of scripts. One PWID stated dealers were much more wary since the police became more vigilant about morphine.

Morphine possession without legal script has increased a lot. More in courts.

Hotter; more sneaky; more undercover; focusing on morphine.

Harder to get: must be doing something. Clamping down on everything. There's more activity – unless I'm just unlucky.

Don't seem to like people who have anything to do with drugs. Hard on it.

In contrast, one PWID stated the police had cracked down on cannabis but eased efforts directed toward prescription drugs.

Police activity made more difficult to obtain drugs

The majority of PWID (69.7%) did not think police activity had made it harder to obtain drugs in the last six months and another 20.2% did not know if it had. Only 10.0% reported police activity had made it harder to obtain drugs. When asked if police activity directed at prescription drugs had made it more difficult to access these drugs, four stated the police had not had any effect. Two of these stated the clampdown on GP prescribing had made it more difficult. One PWID stated the police do little about prescription drugs as their attention is more focused on methamphetamine and cannabis. In contrast, eleven PWID stated the police had been specifically targeting prescription drugs and this had made it more difficult to obtain these drugs. Activity such as focusing on possession without a legal script, busting dealers, searching PWID and working with chemists had resulted in dealers becoming wary or harder to find and a reduction in supplies to dealers.

If they bust the guy that sells the occasional pill I buy to top up my prescription, then it makes it harder for me. It takes longer to buy, and it costs me more.

I always wait until nighttime before buying and I go to chemists in crowded shopping centres.

It was very hard a while back – they were checking toilets, handbags, etc. I don't like it and was searched a couple of times. Why me?

Other activity made more difficult to obtain drugs

When asked if any other activity had made it more difficult to obtain drugs, the majority (57.1%) stated there had not been an impact of any other activity, 20.4% answered yes and the remaining 22.4% did not know. Nineteen PWID stated the crackdown on GP prescribing and doctor-shopping had resulted in a variety of consequences. There had been a reduction in supply making it harder to obtain the drugs (n=10), an increase in the price (n=6) and more crime (n=3).

> *GP crackdown has made them harder to get and more expensive. There's less dealers have them but there's the same number of users who use them.*

> *GP and pharmacy crackdown: the GP wouldn't give me morphine but gave me benzodiazepines instead because I was hanging out. If I had morphine I wouldn't have got into trouble (arrested for shoplifting committed while intoxicated by Valium).*

> *GPs didn't have a problem prescribing. GPs don't prescribe much any more as they have a problem prescribing because of the health clampdown. There are new rules for GPs about morphine and benzodiazepines so GPs can't decide anymore what should be given out. There shouldn't be a figure on how many people can have S8 drugs: It's like Jehovah Witnesses deciding how many people can go to heaven.*

An additional three PWID specifically mentioned pharmacists, stating they were more aware and vigilant, notified GPs if there was a breach of contract and were also more reluctant to fill some prescriptions.

> *Pharmacists sometimes bitchy and threaten to rip up contract. The arseholes try to get it over you. They treat you like a bag of shit*

> *The chemist notifies if you swap doctors. The chemist notified my GP about me swapping GPs. In the last year, I tried 6 GPs for morphine and had no luck. I'm not really a doctor-shopper. It's just that some don't want to give me morphine for pain.*

Market changes in the drug used most in the last 12 months

The majority of PWID reported that the market for the drug they used most had changed in the last year. A third (33.0%) thought there had been no changes and 11.3% did not know if there had been any changes. Eleven PWID specifically mentioned that in the last year the length of time spent scoring morphine had increased. They were fewer dealers and PWID had to travel further in attempts to score. Sometimes there was no morphine to be obtained anywhere.

> *It takes a longer time to score. Have to travel to score. Morphine has got harder to get since the GP crackdown. The dealers from the Mall are gone – you now need to travel to the suburbs. It now takes two phone calls instead of one.*

> *There are less people with scripts. You need to know more people and chase about more. It's harder to get sometimes – some days you can't score. You start withdrawing and get sick.*

Twenty-two PWID thought it had become harder to obtain morphine on the streets in the last 12 months. Part of the reduction in availability was attributed to fewer dealers and it was harder to obtain morphine if the PWID did not know the right people. When morphine was scare the dealers also increased the price of morphine and some PWID attributed this to greed.

> *There has been a slight reduction in the available quantity of morphine. I used to have two dealers and a backup; now I have only one.*

It has got harder for others to get morphine. The GP crackdown has had no effect on me. I get my morphine from three pensioner friends. I usually have to call all three friends now.

The GP crackdown and prescribing practices appeared to be the main contributing factors to reduced availability. Nine PWID commented on the reduction in the number of prescriptions provided by GPs. One PWID had tried on a number of occasions to source morphine from a GP but had been unsuccessful in the last six months.

It's harder to get licit drugs mainly because the number of doctors prescribing has dropped, and also because the programs they have started running at the hospital are focused on withdrawal rather than dealing with people's problems.

It's getting harder and harder to get morphine. Users are really looked down on by doctors and pharmacists.

It's a lot harder to score and it looks like getting harder still. People have to go through the pain clinic and say they have a bad back.

Two PWID commented that morphine availability varied according to the time of month because of GP prescribing practices.

The GP must write scripts at start of the month because everyone is selling at the start of the month and so there is hardly any about at the end of the month.

A lot of people have been chopped off from GP scripts. There's the same amount of people scoring but less people to score from. Sometimes it's easy to get morphine, sometimes it's hard. It depends on the time of the month and script pickup. When people pick-up their scripts then you have to jump in quick or you will miss out. There's a lot of looking around when it's not pickup time.

Seventeen PWID mentioned there had been a rise in the price of morphine and some mentioned that the price varied according to the dealer. Three PWID stated the price of a 100mg tablet of MS Contin had increased from $50 to $60 in the last year, one PWID reported the cost was now $70 and another two PWID stated there had been a general price rise of $10. Two PWID commented that this rise was a result of a small number of people becoming increasingly greedy.

I am now buying much less of it off the street because it is more expensive than 12 months ago: I now buy one pill a week instead of 4 or 5.

Everyone is covering their arse as they can't afford to sell it cheap. If they sell MS Contin™ for $40-50 then they might have to pay $60 later to get some for themselves – so they have to sell their stuff for a high price.

Three PWID commented that benzodiazepines were harder to obtain from GPs. One commented that substitution of one benzodiazepine for another had occurred as a result of altered prescribing practices.

But the benzodiazepine temazepam has dropped right off with GPs losing the license to prescribe S8 drugs. It's very hard to get and there are not many temazepams around. So people are really getting into the Xanax instead and going a bit crazy over them.

Only three PWID commented on illicit pharmacotherapy drugs. One stated the price of illicit methadone had increased from less then $10 to more than $15. Another stated it was sometimes difficult to obtain illicit methadone and this was of concern because the PWID would become sick and have to access a GP, something he did not like to do. Another PWID commented that people on the buprenorphine program were giving others samples in an attempt to convince people to start using this drug.

Sixteen PWID commented on methamphetamine and were split in their opinions on the changes in the methamphetamine market. Ten PWID thought the methamphetamine market had become more competitive with more people using, a reduction in both availability and purity sometimes accompanied by a slight price rise or the perception that buyers were not getting what they paid for.

> *Speed has got shittier. It was always a gutter drug anyway, but it's much worse now: there is no rush, no feeling. The speed has no legs: it's like using water, a waste of money.*

> *It has been very hard to get pure methamphetamine and it has got harder. It is impure because of all the cutting, you could be injecting anything. The price is the same. This affects health through dirty hits and that sort of thing.*

> *Amphetamine is harder to get and the price is up a bit. With morphine there are more of these than you can poke a stick at. Everyone gets it prescribed. Ecstasy harder to get but is here.*

In contrast, six PWID thought there had been an increase in availability generally, more dealers and a reduction in the price and availability of better quality methamphetamine.

> *There's increased availability of speed. Every man and his dog is cooking, everyone is trying. There are more people injecting. The quality is fluctuating.*

> *Better speed is getting around even after that big $16m bust. Drugs are more in my face than they have been in the past – pills especially.*

> *More people are dealing speed. There was only one or two main ones but now every man and his dog is into dealing it.*

Two PWID commented on cannabis. Availability remained easy but one PWID commented:

> *Since the new laws, I can't drive to drug premises and collect pot. Now I ring up and they deliver. The cost has gone up $5 because of the delivery. The purity hasn't changed. Delivery is a lot more social though because you don't have to leave where you are and go anywhere. It's now easier to get.*

Three PWID thought there had not been any changes in the market for the drug they used most. One PWID obtained morphine from a GP and had not been affected by illicit market changes. Another PWID commented:

> *Things never change. It's just a cycle. It's about local, national and international greed. It will never stop and can't be beaten.*

Impact of market changes in drug used most

Fifteen PWID stated the market changes had not directly affected them. Two of these PWID stated they were prescribed and this enabled them to stay *out of the loop*. Another PWID usually obtained drugs as gifts and was unaffected by any market changes. Other PWID stated they knew the right people and one PWID commented that there was no real impact as money was only wasted on methamphetamine when it was readily available, not when it was scarce.

Five PWID stated the reduction in availability of the drug they had used most had resulted in them using less. Two PWID said they had cut down on the amount they used and were in a better financial position because of this. One of these was attempting to manage pain without using morphine. Two PWID simply used less because there was not the money to purchase it at the higher prices and the fourth PWID had begun using heroin on a more occasional basis.

> *I'm not bothering about it (speed). I don't indulge every now and then like I used to like to. It effects all drug users.*

Three PWID had not reduced their drug use but commented they were experiencing financial difficulties because of the market changes relating to price. One reported going into debt with the price increase in the previous year.

> *It's financially harder. I don't eat as well as I should sometimes. Sometimes there is less money for other things and I've had to tighten the budget up.*

Fifteen PWID commented on the effects of drug availability and eight indicated they spent more time searching and engaged in more traveling to obtain drugs. Sometimes it was not possible to locate a source even after much searching.

> *It is harder to get on. You have to go places you don't want to go – bad houses and marked houses that the police are watching. The dealers are now spread all over town.*

> *It's hard to score. You need to know a lot more people to score. Some people have periods where they can't get any morphine and they start to withdraw.*

> *I spend longer looking. Lots of walking around and transport is difficult when you are in pain. Some will have to take a back seat on occasion.*

> *If I can't get it then I am stumped. It's not that often, maybe one day a fortnight. I would have to spend ages looking and I can't do that.*

One PWID was angry about GPs prescribing morphine to people who did not need it for medical reasons and the money these people made out of diverting it to the black market. Another PWID was also angry because of the reduced availability of morphine and commented:

> *It makes me angry toward society and I want to start getting even.*

One PWID stated the difficulty in scoring and time spent looking had impacted on employment. Another stated it was harder to obtain what was needed. There were fewer people obtaining methadone and this made it harder to obtain it illicitly when it was needed. Another PWID had tried to obtain benzodiazepines (both gel capsules and tablets) from three GPs in the last six months and was unsuccessful on each occasion. Consequently, this PWID had begun purchasing these drugs on the streets. Another PWID had started cooking more methamphetamine to counteract the reduction in availability. Finally, one PWID reported it was much easier to obtain morphine on the streets and this had made life easier, with less hassle and no time spent searching for drugs.

Changes in the drug market resulted in some PWID having periods of withdrawal (n=5). Two of these PWID moved onto pharmacotherapy treatment and another began purchasing illicit methadone. Another had sought treatment but was not impressed with the services available.

> *There needs to be more honesty in treatment centres and having the option to feel comfortable without spending big money.*

Four other PWID engaged in some drug substitution. One morphine user began using a lot more methamphetamine and this caused problems with her non-drug using boyfriend. Two other PWID had substituted morphine and/or benzodiazepines for methamphetamine.

> *I use speed to stay away from other drugs. I would only use it twice a fortnight as I don't need any more than that. Now I have to use morphine as the speed is crap.*

> *When I can't get amphetamine, I get morphine or benzodiazepines. It fluctuates depending on who's been busted and who hasn't.*

One PWID did not think the reduction in the availability of morphine had had much impact despite the reported consequences of using benzodiazepines.

> *None really. It has affected my using in that I used some temazepam (Normison) and my veins got blocked up. It's no good. My veins have just started to come back from temazepam use.*

Five PWID reported engaging in more criminal activity as a result of the alterations in the drug market.

> *I can't get a Physeptone™ script any more. I got the last one four weeks ago. I have to buy off the streets or hit [assault] people coming out of the methadone program and steal their doses, mainly takeaway doses.*

> *The increased price has meant more rorting, sex work and criminal activity. It is harder to get. Relationships and time are affected.*

> *I do more sex work to get more money. And then I use more.*

> *Some days I have to go without and hang out and get sick. Or else I try and sell drugs for my regular dealer so I can make sure I get some.*

Impact if drug used most less available/more expensive

Twelve PWID stated that if morphine became very difficult to obtain and/or expensive they would withdraw and/or stop using the drug.

> *I would have to give up because I want more out of life (or at least a life!)*

> *I'd probably stop using it. It'd be no longer feasible. It wouldn't be a fun drug. It'd be a gutter drug.*

> *I'd go cold turkey – finish. I've been trying to get into a detox program but there's nothing for single white males. All my dole cheque and half of my brother's wages go on morphine.*

> *I'd give it up – there's nothing else to substitute. It's not worth going on methadone, buprenorphine, Physeptone™ – they're just all bullshit.*

Only two PWID stated they would reduce their use of morphine and this would be due to an increase in price.

> *I'd still buy it but use less. I'd still get it somehow. I wouldn't use as much. I wouldn't be able to unless I want to be a full-time criminal. I wouldn't do crime as I am not that sort of person.*

Nine PWID reported that changes in the illicit market would not affect their morphine use as they were prescribed morphine. Eight of these indicated that they only used the amount they were prescribed and, therefore, were not affect by illicit market forces. The remaining PWID supplemented the script by swapping drugs with friends.

> *I wouldn't have it and so wouldn't have pain relief. I have a genuine script for pain so it would affect me.*

Seventeen PWID reported they would substitute other drugs for morphine and the main drugs mentioned were other pharmaceutical opiates (n=3), benzodiazepines (n=4), alcohol (n=3), methamphetamine (n=2), heroin (n=1) and cannabis (n=2).

> *I would get something similar to Kapanol. I would suffer: it's really hard. They have no idea.*

> *I would have to stop maybe. I would use other prescription drugs if I could get them – I don't think I could use nothing.*

Three PWID stated they would attempt to commence a methadone program and another PWID reported she would go to Perth and have another Naltrexone™ implant. Fifteen PWID were already on a pharmacotherapy and did not think they would be affected by such market changes. Three made comments about what might happen if their access to pharmacotherapy was interrupted.

> *It would be devastating, as I would need to score methamphetamine to help bring me down so I would have to scam money to score. I'd lose balance and go back into a vicious cycle. It [no methadone program] would affect my study and work and my whole lifestyle: you can't do much if you are scamming money all the time.*

> *I would go back to using lots of morphine and do more crime if there was no methadone program.*

> *If there was no buprenorphine program, I would be devastated. I'd be driven to suicide.*

Seven PWID said there would be an increase in crime, rorting and dealing if morphine was much less available, either through their own activities or those of others.

> *I'd have financial trouble. Maybe I'd be doing crime. I could benefit as there'd be no way to afford it, maybe detox. Would affect regular family relationships.*

> *I'd have to decide how to bend the rules to get what I need. It would make me angrier. But I'd rather hang out in a corner and get pissed than do crime.*

> *It would be harder and I would have to revert to wheeling, dealing and stealing.*

Four PWID identified pain as an issue if morphine was much less available.

> *It would affect me financially: I would be in pain a lot more and wouldn't be working.*

> *If the pain increased then I would suicide.*

If morphine became difficult to obtain in Darwin, six PWID reported they would leave Darwin and head for a bigger city with a heroin market.

> *I would suffer and consider moving to a place with heroin. I wouldn't substitute another drug – I only use heroin.*

> *It wouldn't affect me – I'd leave. It would affect the drug scene generally. There'd be soaring crime rate and GPs, nurses and chemists would be targeted.*

One PWID commented that a reduction in morphine availability would lead open the door to heroin in Darwin and the remaining PWID did not know what the consequences might be.

Three PWID were accessing methadone from illicit sources and provided comments about the implications of reduced availability on the black market.

> *It'd be terrible as I'd have to steal from other people. I'd use more benzodiazepines and cannabis. I'd use other drugs.*

> *I'd withdraw and then probably use morphine or something. But it would cost money. I get Physeptone™ as a gift – call it a donation. I'd have increased financial costs and I'd have to spend time finding it.*

> *It might increase my morphine habit a little bit but that's not the best thing to do.*

Only one PWID indicated he/she would stop using benzodiazepines if they became difficult to obtain. Two other PWID reported they would substitute other drugs (methamphetamine and alternatively benzodiazepine) and another two stated they would engage in crime.

Seven PWID provided information on the impact of reduced availability of methamphetamine. Two IDU stated they would not be affected because they would manufacture more methamphetamine. Another PWID would continue to use the same amount but would earn more to gain the money required. Three PWID indicated they would substitute other drugs such as benzodiazepines and cannabis and the remaining PWID saw the increased cost as a waste of money and would attempt to stop using the drug. Only one PWID commented on heroin as the drug used most and this PWID indicated he/she would substitute morphine. If this was not possible then the other alternative was the methadone program.

Impact on friends if drug used most less available/more expensive

Fourteen PWID stated they did not know what affect there would be on their friends if the drug they used most was much less available. Another three PWID stated they did not care what impact it might have. One of these PWID commented that it was not possible to say because different users are affected differently. An additional four PWID responded that they did not have any friends and could not comment on this question. Only five PWID stated there would be no change and that friends would find the drug if it was available at all: they would look harder or find a way to obtain it. Two of them indicated that their friends were on prescription morphine and, therefore, they would not be affected by a reduction in black market availability.

Ten PWID commented on the difficult time their friends would have if morphine became less available. These PWID stated that friends would be *shattered,* mortified or devastated (n=3), particularly those who were dependent users (n=5).

> *Some might commit suicide. They'd have a hard time coming down and they'd have a really hard time getting off it.*

> *It would be hell if MS Contin™ dried up on the streets.*

The most common reported effect was more crime (n=25), sex work (n=2), rorting (n=2), dealing (n=3), property crime (n=4) and violence (n=5).

> *There would be more criminal activity. They wouldn't stop – just do what they have to do to get the drug.*

> *There would be a huge rise in criminal activity – but they are not friends, just acquaintances.*

The next most common response was drug substitution (n=23) and the most commonly mentioned drugs were benzodiazepines (n=5), illicit methadone (n=2), morphine other than MS Contin™ (n=2) and methamphetamine (n=3).

> *I would hit the benzos harder. There'd be financial problems. And increased crime. There would also be increased health risks like people losing limbs from benzos.*

> *Other users would turn to benzos like Rohypnol, Normison and Valium. These are cheaper and easier to get from doctors.*

Only three PWID thought their friends would seek drug treatment. One PWID stated friends would go interstate where they could receive better access, *proper* and better medical care and long term help. One mentioned that some friends might try to access the methadone program. A small number of PWID thought their friends might reduce their consumption (n=2) or stop using morphine (n=4) if morphine became difficult to obtain. Finally, one PWID thought reduced availably would pave the way for a heroin market in Darwin. Of the five PWID who commented on the impact of reduced availability of benzodiazepines, one said their friends would stop using them, another reported they would substitute another drug and a third PWID simply said it would be very bad. Two PWID believed there would be more crime and violence.

> *Some would have to go into detox, or do dodgy shit like crime to get the money. They are madder than me and they'd be more violent.*

Five PWID reported on the effect of a reduced supply of methamphetamine on their friends. One said that, if the purity dropped, friends would use more and then stop using as they would see it was a waste of money. Another PWID stated that most friends were dealers and they would be more stressed because users would owe them a lot more money. One PWID reported friends would probably engage in more methamphetamine manufacture to counteract the reduction in availability. Two PWID commented on activities to secure the money to purchase drugs. One indicated that their methamphetamine friends were all criminals already so they would not do much more crime, while the other reported:

> *They would need to spend all day scamming money. This would effect work, study, and their whole lifestyle.*

Impact if drug used most more available/cost less

The majority of PWID who most often used morphine (n=41) stated that they would not increase their use of morphine if it was more available and/or cheaper. A small number of PWID said it would make their life easier as they would not have to spend so much time scoring (n=2) but most indicated they would be in a much better financial position if morphine was cheaper (n=14).

> *I wouldn't use more, but it would make less of a hole in my finances.*

> *I'd eat more. I wouldn't really buy it (morphine) any more. Just because it's cheap doesn't mean you'd buy more.*

> *Life would be a lot easier: I wouldn't have to spend a dole cheque on dope.*

> *It wouldn't encourage anyone else to use morphine. I'd have more money for food and other things.*

Some other PWID (n=9) that used morphine noted they would have an improved quality of life, including pain relief and a greater capacity to work and do other activities.

> *It would be just easier for me, for pain relief and travelling. Because of the dependency on a doctor there's a dependency on staying in town.*

> *I could get work and I'd have more stability.*

> *It would make it easier to live day to day, to go to work and I would go through less pain to get my work done.*

The PWID who indicated they were on prescription morphine (n=10) did not think they would use more morphine. Four of these PWID specifically stated they were using it for genuine reasons (pain relief). They would stay on the prescribed dose. Three mentioned that use might increase a small amount for a time.

> *I might use a bit more for a while but you can't keep that up or it gets out of control. You have to go back to your usual dose.*

Only 17 PWID who most often used morphine reported they would use more if it was more available. Three of these PWID believed they would become more dependent if morphine was more available. A number of PWID said they would use more because they would be able to afford to financially (n=4) and one PWID expressed concern about widespread use, especially by younger people.

> *I would use more and bigger quantities because it was cheaper to get more stoned.*

Thirteen PWID who were on a pharmacotherapy program believed increased morphine availability would not affect them or change their patterns of use.

> *I would stick to the methadone program and maybe use a little more every now and then.*

The remaining eight PWID thought there would be a reduction in crime if morphine was more available. One PWID reported he would not have a prison history if morphine had been readily available.

> *I would never have gone to jail if this was so. I commit crime to supplement an opiate habit. Methadone and buprenorphine make me sick as hell. Buprenorphine is powerful shit and it makes me more stoned. I might use a bit more heroin. I don't want to go back to jail.*

The other seven PWID specifically stated there would much less crime and less police activity.

> *Not so much crime, would not have to steal every day to get them.*

> *The police department would have nothing to do – there would be much less crime.*

Four PWID accessed pharmacotherapy drugs illicitly. One said that he would use more illicit methadone if it was cheaper, another indicated that less money and time would be spent on obtaining illicit methadone. The third PWID indicated he would engage in less crime as he would have more money if illicit Physeptone™ was cheaper. The remaining PWID thought he would become sick from use and would need to see a GP to go onto a methadone program.

Five PWID commented on benzodiazepines and four stated they would be happier and life would be better. Two of these PWID indicated they would use more benzodiazepines if they were more available. The fifth PWID did not speculate on what the effect would be as benzodiazepines were not going to become more available.

Of the seven PWID that most often used methamphetamine, only one stated it would not affect the level of drug use. The remaining six reported they would use more if it was more available.

> *Yes, I'd use more – obviously! You could get more for your dollar.*

> *I would have a habit. I would have to do something about controlling use. Because of the price I'm OK right now.*

> *I'd use more – where do I sign up? I'd drop off using other drugs.*

> *It would make life easier. Would party more and longer with less anxiety.*

The only PWID who used cannabis most said a lot more would be kept at home so it was available when the PWID wanted to use it. Only one PWID did not know what would happen if the drug used most became more available.

Impact on friends if drug used most more available/cost less

In contrast, when asked what effect increased availability would have on their friends, the majority of PWID thought their morphine-using friends would use a lot more (n=37). Of these, only one PWID thought they would use a little more occasionally while eight PWID thought their friends would use a lot more than currently, particularly those who were dependent.

> *It would affect some people who have habits, as they would use more. Some might use stacks.*

Five of these PWID thought friends would become more dependent or develop a dependency. One PWID thought friends would be less likely to have breaks in morphine use to recover finances and this would result in a higher tolerance in the longer term. Another PWID commented there would be more overdoses and two thought more younger people would start using morphine or using more of it.

> *I think too many people would use it for the wrong reason; probably younger people would get involved.*

Only 17 PWID thought their friends would not change their current pattern of morphine use. For some friends increased availability would be a relief and make life easier or happier (n=4).

> *It would be easier day to day. They could work and not have to go out first thing to try to score.*

The most frequently mentioned benefit to friends of increased morphine availability with unchanged consumption was financial (n=7).

> *They would continue as they are. Maybe they might over indulge once in a while. They would be financially better off.*

Twelve PWID mentioned alterations in criminal activity of friends if morphine was more readily available. Nine PWID believed their friends would engage in less crime, but three PWID thought the crime rate would remain the same or increase because friends would use a lot more morphine.

> *There would be less crime, violence and aggravation because people could afford it. It would stop hard-core drugs like heroin coming in.*

> *You wouldn't see any crime, or bums on the street.*

Five PWID reported on friends who most often used benzodiazepines. Two said their friends would be much happier, another two reported their friends would use much more and the remaining PWID stated:

> *They'd all die: they'd use too much, not eat, do stupid things, have accidents, do violent crime.*

Two PWID said their friends who were on pharmacotherapy would not be affected by increased availability of morphine.

Of the four PWID who reported on friends who mostly used methamphetamine, one said friends would use a lot more if it was pure methamphetamine and another believed friends would all develop dependency. Another PWID said most friends were dealers and they would be less stressed over money and PWID owing them money. Two commented on crime and one of these thought there would be less crime. The other commented:

> *Speed users are the worst for crime, break and enters, etcetera. But what we were taking was insured.*

In all, thirteen PWID did not know how friends would be affected. Of the remaining PWID, one did not care and the other two stated they did not have any friends.

Other comments by PWID on pharmaceutical opiates

Of the ten PWID providing additional comments on pharmaceutical opiates, nine PWID commented on the difficulty in obtaining morphine since the GP clampdown. Of these, one had unsuccessfully tried 25 GPs in one month and four PWID were critical of the restraints placed on GPs, stating that people knew what they needed and how to use the drugs wisely to manage such conditions as pain, anxiety and depression to improve quality of life. One PWID reported the restricted supply affected crime as the price had risen, dealers were making a lot of money and people were forced to source money by engaging in petty crime to purchase morphine on the illicit market. Another three commented that GPs needed to be able to manage opiate dependency.

> *If morphine was dispensed without prejudice and accurately as per a GP recommendation then it is OK. It should not be dispensed for some bullshit story. If a person said they had an opiate problem and GP prescribed morphine for that problem then there would be less social problems and crime. If the person makes one mistake then they should be cut off their contract. One fuckup and no redemption. This would save the health system shitloads of money. With doctor-shopping and the like, bulk billing is through the roof. GPs need more appreciation of opiate addiction and what it's about. GPs should be allowed to manage opiate dependent people on contract with morphine.*

The remaining PWID was critical of prescribing practices by at least two GPs in Darwin and described in detail his experience of developing opiate dependency. The following is a key point made by this PWID.

> *There is at least one corrupt GP in Darwin. I know one that provides scripts to friends and long-term patients. They don't need morphine at all, sell it and make heaps of money. The GP knows this but keeps giving scripts – corrupt and a drug dealer. I had a dislocated hip. The GP gave me a box of Anamorph. I took them that night, went back next day and the GP kept giving me more morphine. I was hooked after a week or two and he never told me I would become dependent. Once I was, he just kept prescribing me MS Contin™ and gave me heaps more than I needed. I was injecting two 100mg tablets five times a day. Then the GP was busted and I got cut off. I had to score on the streets. Then I found another GP who gave me Kapanol for pain and said I couldn't inject it. I found out you could so I injected it and got cut off. I used all sorts of stuff from the streets, whatever I could get – morphine, methadone, benzos. I did lots of vein damage with benzos and could only inject in the neck after a couple of weeks. I finally got onto the buprenorphine program and all the injecting-related problems are gone now. The buprenorphine wait list was 2 weeks. It was usually six and if it had been that long I wouldn't have bothered. Six weeks is too long to wait. People could end up in jail or dead by the time the appointment came up. Methadone is six weeks as well. It was bad enough waiting two weeks and I had a big benzo problem by the time I got onto buprenorphine.*

Other comments by PWID on benzodiazepines

Six PWID provided additional comments on the negative aspects of benzodiazepines, with one PWID commenting on poly-drug use and overdose when benzodiazepines were used and another indicating injecting benzodiazepines could result in serious injecting-related problems. Another three PWID specifically commented that benzodiazepines caused certain crimes, specifically shoplifting. The two remaining PWID thought GPs should not prescribe temazepam and one of these thought benzodiazepines should be banned as they were *evil* drugs.

> *Euhypnos causes injecting scars, damage, losing fingers. I couldn't stop using. I'd found a new vein and injected into that. I missed it and got a big infection. If you have trouble*

injecting then you are doomed – instant infection and ulcer. I was smart enough to stop. The mad GP gave me benzos if I couldn't get morphine and I got into heaps of shit.

Benzos are shit. You steal things, target shops, and it makes you do stupid things like steal things when people can clearly see you. I only take benzos if fed up and there is no morphine, just to get out of it and sleep.

Benzos should not be prescribed for people that shoot it up, as when they are intoxicated they think they're invincible and invisible and do stupid things like shoplift in plain sight. GPs should look for evidence of shooting up like scars before prescribing. This would save many lives.

Another two PWID thought benzodiazepines should be more available in prescription for people who needed them, particularly for sleep problems and GPs should not assume that people will misuse the drugs.

It shouldn't be so hard for those that don't sleep properly to get benzos. GPs automatically think people will do something wrong with them. They assume people are going to abuse even though they want them for genuine reasons.

Suggested responses to drug use

Ten PWID made additional comments about what they thought were the most appropriate responses to drug use. One PWID commented that there have always been drugs and that some were socially acceptable in the past with no resulting problems. Police activity around drug busts was criticized and the PWID commented.

Busts equals drought. Young people then save money by sniffing glue. All they have really done is put the price up so people use other drugs which may be worse for them. We use heavier drugs if we can't get what we want.

Eight PWID thought that drugs like morphine should legalized and available on prescription and three of these also commented that heroin trials would be beneficial. Two commented that the wax should be removed from the morphine so it could be injected safely once prescribed. The benefits of prescription morphine and heroin trials were considered to be a reduction in marginalization, crime and a reduction in overdoses.

I think morphine should be made more available to people with addiction. It saves crime. You just go to your GP and get it regularly. Lots of crime is committed to obtain drugs. There should be a legal GP outlet for morphine. We have methadone and buprenorphine so should have morphine as well.

They should be legalized and available on script so that they are a known purity. The stigma would be removed and there would be less violent crime such as dealers killing or threatening people who owe them money and users getting money for drugs.

If alcohol was banned I would jump for joy because of its bad social effects. Opiates should be freely available for dependent users for maintenance and withdrawal. Opiates should be readily available for those suffering from injury or illness where other pharmaceuticals don't provide relief. GPs and other related medical agencies should be given greater latitude to dispense, rather than less. There shouldn't be registration for benzo and opiate users, only for prescribers. There should be more injecting rooms. All drugs should be legalized: it would save the cops a lot of time.

One of the remaining PWID commented that drug users were important to the economy of Darwin by providing work for glaziers, police, insurance company employees, locksmiths and the like while the remaining PWID stated.

> *If drugs can't be kept out of our prisons, how will zero tolerance ever get drugs off our streets? Harm minimization is the only logical way to go. America is proof of this.*

Summary

Sample characteristics, drug use history & recent drug use

The sample of PWID was predominantly male (77.2%) with an average age of 34.5 years, educated to Year 10 level, generally unemployed (79.2%) with the main income sourced from Centrelink (90.1%) and non-Indigenous (85%). Almost half had completed some post-secondary education and 51.5% had a prison history. One in every two PWID had participated in some drug treatment in the previous six months, principally methadone or buprenorphine pharmacotherapies (54.7%) and drug counselling (15.1%). Nearly one in ten considered prescribed morphine to be a form of drug treatment. Of the 32.7% currently in treatment, the majority (50%) were on the methadone program. Length of treatment varied from less than a month to up to 8 years, with a median length of 10.5 months.

The mean age of first illicit drug use was 14.5 years (generally cannabis) while the mean age of first injection was 19.7 years. Over half (53.5%) had first injected methamphetamine and for 32.7% heroin was first injected. Only 7.6% first injected morphine and none of the PWID had first injected benzodiazepines. Although 62% had injected morphine most and most often used it in the last month, heroin was preferred by half the sample, followed by morphine (19.8%), methamphetamine (10.9%) and benzodiazepines (6.9%). MS Contin™ was the most preferred form of morphine and Serepax™ the most preferred benzodiazepine. Methamphetamine and methadone were the drugs next most often injected (9.9% and 7.9%) and used (8.0% and 14.0%) in the last month. The majority of PWID who had not most often used their preferred drug in the last month (predominantly heroin) stated this was due to lack of availability. PWID stated that the drugs likely to be substituted if the preferred drug was unavailable were morphine (46.5%), followed by benzodiazepines (10.9%), cannabis (10.9%) and methadone (10.9%). If the first substitute was unavailable, 20.8% indicated they would shift to benzodiazepines, 15.8% to methamphetamine and 14.9% to morphine. Among those most often using morphine in the last month, another brand of morphine was most often cited as the first substitute, while among those most often using methadone the first substitute cited was most often morphine. Those most often using benzodiazepines indicated another benzodiazepine or morphine as first substitutes. Over half (58.4%) had purchased drugs the previous day and 36.6% had bought morphine, spending an average of $60. Cannabis was purchased by 15.9% and mean expenditure was $25.

In the last six months, 59.4% of the sample had used cannabis, 50.5% alcohol, 48.5% illicit benzodiazepines and 42.6% licit benzodiazepines. The majority of PWID (91.1%) had injected illicit morphine in the last six months and 66.5% had injected methamphetamine. Illicit Physeptone™ was injected by 33.7% of the sample, licit morphine by 26.7%, licit benzodiazepines by 29.7% and 39.6% injected illicit benzodiazepines. Licit morphine, methadone syrup and Physeptone™, cannabis and antidepressants were the drugs most likely to be used on a daily or near daily basis. In the previous month, 59.5% injected at least once a day and 36.5% more than weekly but not daily and the majority (91.9%) injected in a private residence.

Benzodiazepines

Those with recent benzodiazepine use (last six months) more often used them orally than intravenously (64.4% : 46.5%) and the median days of use for both was 20 days. GPs were

identified as the most common source (38%) and PWID indicated access was for genuine symptoms. Gifts from friends were also common (18%). The benzodiazepine forms most often used orally were Valium™, Serepax™ and Xanax™, usually weekly or less. Normison™ 20mg, Euhypnos™ 20mg and Valium™ were the forms most commonly injected, usually on a weekly basis or more. The mean price of Valium™ was $2.67 (2mg) and $2.25 (5mg), Serepax™ was $3.17 (30mg), Xanax™ (all sizes) was $5.00, Normison™ was $7.43 (20mg), and Euhypnos™ was $5.61 (20mg).

Just over half (51.1%) of recent benzodiazepine users (used last month) had sourced the drugs from GPs and 78.8% accessed only one doctor (78.8%, n=41). The majority thought gel capsules were difficult or very difficult to obtain through GPs. In contrast, most thought the tablets were easy to obtain. The majority of those who had sourced illicit benzodiazepine capsules in the last six months thought they were difficult to obtain and had become more so. Most thought the price was stable. Tablets were seen as easy or very easy to obtain and availability and price were stable. Almost half of recent benzodiazepine users did not know if other drugs were sold by their usual illicit source, but others nominated morphine, cannabis and methamphetamine. A third indicated they sourced from friends selling their scripts and 26.2% sourced from a user-dealer. Over 70% of the 79 PWID who commented on the likely impact of greater availability of benzodiazepines said their use would remain the same and 26.5% said they would use more to sleep better or to substitute for or use with morphine. In contrast, just 50.6% thought their friends' use would increase and only 13.94% thought greater availability would not impact on their friends' use. Positive consequences of greater availability included friends being less stressed, but negative aspects were increased dependency, overdoses, crime, health and mental health problems.

Of the 82 PWID who commented on the impact of reduced benzodiazepine availability, 57.3% thought they would not be affected because they did not use the drugs or only used them occasionally (7.3%) or legitimately (4.9%). Drug substitution could result for 12.2% and the drugs mentioned were morphine, alcohol, cannabis, buprenorphine and other sedatives. An equal number said they would stop using benzodiazepines. In contrast, only 23.7% of the 80 PWID commenting on the effect on friends said it would not have an impact and 20% stated friends would substitute with other opioids, sedatives or methamphetamine. Sixteen percent thought their friends would reduce or cease use. Only 7.5% indicated friends would engage in more crime.

Pharmaceutical opiates

Recent pharmaceutical opiates users (used last six months) more often injected the drugs than used them orally (98.0% : 62.4%). Injecting was more likely to occur on a daily basis and oral use weekly. The most common sources were GPs with genuine symptoms (38.6%), dealers (36.6%) and friends (36.6%). The most common forms taken orally were methadone syrup (26.7%), Subutex™ (24.8%) and Physeptone™ (14.9%). Morphine was most likely to be administered intravenously, usually as MS Contin™ 100mg (86.1%), MS Contin™ 60mg (51.5%) or Kapanol™ 100mg (48.5%). Physeptone™ was injected by 31.7% of recent users, methadone syrup by 20.8%, and OxyContin™ by 12.9%. Higher doses of morphine were preferred over low dose morphine, codeine phosphate and pethidine. The average price paid on last purchase was $57.31 for MS Contin™ 100mg, $32.17 for MS Contin™ 60mg and $51.31 for Kapanol™ 100mg. Recent users of morphine were evenly split over availability of morphine via GPs: a third each said it was easier, more difficult or unchanged. Half of recent Physeptone™ users thought it was difficult or very difficult to obtain from GPs, but a quarter stated it was easy. The majority of recent morphine and Physeptone™ users obtained prescriptions from one doctor. Five PWID commented doctors were stricter with morphine prescriptions because of legislative changes, the diversion of prescription morphine and concerns about morphine dependency.

Most recent morphine users considered the price of morphine stable and its availability both easy and stable. Median time to score from illicit sources was 30 minutes. If morphine was readily available, MS Contin™ 100mg would cost $50 but rise to $70 when it was less readily available and availability fluctuated according to script availability, government actions and dealers. Over a third (35.5%) indicated their sources were user-dealers, 23.7% bought from small time dealers and 20.4% bought from friends with prescriptions. Other drugs most likely to be sold by the usual sources were cannabis (35.0%), methamphetamine (28.3%) and benzodiazepines (21.7%).

Half of the recent methadone syrup users thought it was easy or very easy to obtain illicitly, while the other half thought it was difficult. Availability and price were both thought to be stable over the last six months, with it taking about 30 minutes to score. The majority did not know if their usual sources also sold other drugs or their level of dealing. Usual sources tended to be friends selling their doses (16.7%) or friends giving away doses (22.2%). Most recent Physeptone™ users thought it was difficult or very difficult to obtain Physeptone™ illicitly, price and availability were considered stable and the median length of time to score was 30 minutes. A range of drugs was reported as sold by the usual sources which were generally friends selling their scripts (31.3%) and user-dealers (34.4%). Most recent users of buprenorphine did not know about the price and availability of illicit sources. Median length of time to score was 75 minutes and the usual sources were friends selling their doses (31.3%) and friends giving it away (18.8%).

The majority of PWID (61%) said they would not use more morphine if it was more available and/or cheaper because some were not daily users or used occasionally and others were accessing morphine from GPs, were on pharmacotherapy maintenance programs or using illicit methadone. Seventeen percent said they would not buy more and would be better off financially. Others indicated it would mean reduced time searching, more stability in life and more likelihood of employment. However, 30% stated they would use more morphine or use it more often but some recognized this could create problems if their level of dependency increased or they used more for a period of time. Others thought there would be a reduction in police activity and crime. In contrast, 42% thought their friends would increase their morphine use. Possible drawbacks included more overdoses and infections, more dependent people, more people using morphine and younger people starting to use it. Nearly 22% thought their friends would not alter their pattern of use. The benefits outlined by 22% of PWID included easier or better lives, improved financial circumstances and less time invested in searching for drugs. One in ten envisaged a decrease in crime and only 5% predicted an increase because more people would be using morphine, and more often or in larger quantities.

Just over a quarter (27%) thought they would be unaffected by a reduction in pharmaceutical opiate availability and/or price increase, principally because they were receiving prescription morphine for pain relief, were on a maintenance program or only used occasionally. Drug substitution was the next most common response (32.6%) and the drugs mentioned were benzodiazepines, alcohol, methamphetamine, illicit Physeptone™, cannabis, other opiate/painkillers and heroin. Eleven percent stated they would engage in more crime such as robberies and break-ins to obtain money to buy morphine. Only 13% said they would cease use because it would be financially unviable for them while 7% would continue to use, but use less each time or use less frequently. Only three people thought they would go on the methadone program. Nearly a third (31%) thought their friends would substitute other drugs or engage in crime (33%). Benzodiazepines were the drugs most likely to be substituted because they were easy to obtain from GPs. Other drugs mentioned were different forms of morphine, illicit Physeptone™, heroin, methamphetamine and alcohol. Other consequences included people engaging in more violence and violent crime, break-ins, sex work, scamming and rorting for money and/or drugs, unpredictable behaviour and the development of organized crime. One in ten thought their friends would cease use or go on a drug program.

Health benefits and risks

In the previous month, 35.7% had experienced both difficulty injecting and injection-related bruising or prominent scarring, 13.3% had abscesses or infections, 9.2% thrombosis and 15.3% dirty hits. Morphine, benzodiazepines, methamphetamine and Physeptone™ were the main drugs implicated. Non-fatal overdose rates were low (three cases) and all involved poly-drug use, mainly methamphetamine, benzodiazepines and Fantasy. The median length of time since the last Narcan™ administration was 5 years and none had been administered it in the previous year.

Almost half (47.4%) of those who had used benzodiazepines in the previous month had not experienced any problems from use and among the remainder the most commonly reported problems were blackout or memory loss (22.8%), problems concentrating (21.1%), low motivation (19.3%), aggression (17.5%) and getting into arguments (15.8%). Almost three quarters (71.9%) had not experienced any problems from benzodiazepine withdrawal in the previous month, but among those who had the most commonly reported problems were problems sleeping (21.1%), anxiety (15.8%), aches and pains (15.8%) and feeling cold (15.8%). The perceived benefits of benzodiazepine use included relaxation, assisted sleep, calmness, reduced worry/stress/anxiety, feeling good or better than usual and managing withdrawal effects, particularly from morphine. Benzodiazepines were also seen as useful for potentiating the effect of opioids and managing recovery following an amphetamine *run* or binge. Risks of benzodiazepine use were developing dependence, injection-related problems, overdose and accidental damage to self while intoxicated. The sample also highlighted behaviour change such as uncharacteristic behaviour, crime while under the influence of benzodiazepines, lack of awareness or memory of actions, forgetfulness, loss of control and anger.

The majority of the sample (89.0%) had used morphine in the previous month, many (41.9%) without problems. The most frequently reported effects of morphine use were dependence (30.2%), low motivation (25.6%) and anxiety (22.1%). Over a third (34.9%) had not experienced withdrawal problems and among those that had the most commonly mentioned symptoms were problems sleeping (59.3%), aches and pains (58.1%), feeling cold (53.5%), muscle tension/spasms (50.0%) nausea (50.0%) and anxiety (50.0%). While some PWID saw no benefits to morphine use because of issues associated with dependence and the need to use daily to prevent withdrawal, the majority who had used in the previous month saw many benefits, principally for pain relief and providing a better quality of life. Other benefits were relaxation, escaping, blocking out or altering reality, stress relief, feeling normal, socialization, sleep, anxiety reduction, being free of worry and alleviating depression.

Almost a third (31%) of the PWID had used methadone in the last month and the majority (60.0%) had not experienced problems from its use. The remainder reported the problems most likely to be experienced were dependence (20.7%), relationship problems (17.2%) and anxiety (13.8%). Although the majority (66.7%) had not experienced problems from methadone withdrawal, the most commonly reported ones were nausea (24.1%), feeling cold (20.7%), aches and pains (20.7%), anxiety (20.7%) and problems sleeping (17.2%). The most commonly mentioned benefits of methadone included reduced use of other drugs, particularly morphine, being able to manage withdrawal when the main drug was not available, returning to a normal life and being able to function better, better relationships/family life, less crime, improved finances and health. Problems identified were dependence and withdrawal issues, slowness or numbness, dental and bone problems, injection-related risks, breastfeeding problems, lowered capacity to self-manage pain and negative impact on employment because of daily pickup requirements at the hospital.

Only 15.8% of PWID had used buprenorphine in the previous month and half had not experienced any problems with its use. Of problems experienced, the most common were low motivation (31.3%), dependence (25.0%), feeling anxious (18.8%) and problems concentrating

(18.8%). Withdrawal had not been a problem for 68.8% and among the remainder typical experiences included nausea (31.3%), feeling cold (31.3%), aches and pains (31.3%), problems sleeping (25.0%), muscle tension/spasms (25.0%) and anxiety (25.0%). Buprenorphine's main benefits were assisting in cessation of drug use or reducing use, thus allowing improved functioning and reduced crime and managing withdrawal until the main drug could be accessed. Reported risks were dependence, injection-related problems, sleeping problems, headaches, low motivation and lethargy and death. Drawbacks were its cost, its blocking effects on other opiates and having to travel to the chemist every day.

In the previous month, the majority of benzodiazepine users never thought their use was out of control (73.7%), never or almost never felt anxious about not having benzodiazepines (71.9%), did not worry about their use (68.4%), did not wish they could stop (59.6%) and would not find it difficult to stop (71.9%). A similar pattern was evident with those who had used methadone and buprenorphine in the past month. The pattern for morphine was somewhat different with 50% indicating they did not think their use was out of control and 37.2% not becoming anxious at the prospect of not having a hit. However, another 38.2% stated they would sometimes become anxious. An almost equal proportion said they did not worry about their morphine use (39.5%) or only worried a little about it (37.2%). While 36.0% reported they did not wish to stop using morphine another 30.2% sometimes wished to. Over a third (37.6%) indicated they would not find it difficult to stop using morphine. The mean Severity of Dependence Scale score was 5.15 for morphine, compared to 2.37 for benzodiazepines, 2.74 for methadone and 1.31 for buprenorphine.

Illegal activity

Almost half of the PWID (51.5%) had a prison history and 33.3% had been arrested in the previous year. Almost a third (30.3%) of arrests were for property crime, followed by violent crime (24.2%) and driving offences not involving alcohol or drugs (18.2%). A third of property crimes were drug-related, principally morphine. Of the violent crime, 16.7% was drug-related (morphine and benzodiazepines). Only 14.1% of the sample had committed any property crime and 5.1% said they committed these crimes less than once a week, 4.0% once a week and 3.0% more than once a week. The main reasons were the need for money to buy drugs (50.0%) or food/goods (35.7%) or to support the individual and/or family (28.6%). The majority did not report participation in drug dealing (78.8%) but 11.1% dealt less than once a week, 1.0% once a week, 7.1% weekly but not every day and 1.0% every day. The main reasons were the need for money to buy drugs (42.9%), or to support the individual and/or family (28.6%) or to buy food and/or goods (23.8%). The vast majority (97.0%) said they had not engaged in fraud and the remaining 3% committed fraud less than once a week. The majority (97.0%) had not committed any violent crime and 2% committed violent crime less than once a week and one individual more than weekly but not every day. Only 3% had engaged in any illegal sex work, one individual less than once a week, another once a week and the third individual more than weekly but not daily. Total crime score was not significantly correlated with any of the demographic variables but was there was a significant positive correlation with number of days of methamphetamine use in the last six months and a significant inverse relationship with days of licit morphine use. Involvement in any drug dealing in the previous month was significantly correlated with days of methamphetamine, cannabis and illicit benzodiazepine use in the last six months.

Investigation of the impact of drug use and withdrawal states on criminal activity, fights and violence in the last month indicated more people using methadone (10.3%) were involved in fights associated with use than those using benzodiazepines (8.8%) or buprenorphine (6.3)%. Morphine

users were least likely to be involved in fights from morphine use (2.3%) but most likely to be involved in fights when in morphine withdrawal (8.1%). People who had used benzodiazepines were more likely to be aggressive from its use (17.5%) than those using morphine (8.1%), methadone (6.9%) or buprenorphine (6.3%). Benzodiazepine users were also most likely to have contact with the police because of use (10.5%), to engage in criminal behaviour for which they were not charged (10.5%) or be involved in criminal trouble (7.1%), principally property crime. In contrast, those using morphine were more likely to be involved in criminal trouble, predominantly property crime, because of withdrawal (7.0%).

Perceptions of police activity and its impact

Two in five (40.4%) of PWID were not aware of any changes in police activity around drug use in the last six months, 42.4% thought activity had been stable and 16.2% thought there had been an increase in activity. When asked about change in police activity directed specifically at prescription drugs, twelve people said police had been more aware and active in trying to curb the drug trade, particularly morphine, and cited the drug court, more undercover work, and targeting of users and dealers to prevent on-selling of scripts. One stated dealers were much more wary as police had became more vigilant about morphine and another said police had cracked down on cannabis but eased efforts toward prescription drugs. Eight people said police were low key and did not appear to have changed their activity in the last six months. The majority of people (69.7%) did not think police activity had made it harder to obtain drugs and another 20.2% did not know if it had. Only 10.0% reported police activity had made it harder to obtain drugs. When asked if police activity directed at prescription drugs had made it more difficult to access these drugs, four said police had not had any effect, and one said police do little about prescription drugs as their attention is more focused on methamphetamine and cannabis. However, eleven people said police had been specifically targeting prescription drugs and this had made it more difficult to obtain these drugs. Activity such as focusing on possession without a legal script, busting dealers, searching PWID, and working with chemists had resulted in dealers becoming wary or harder to find and a reduction in supplies to dealers. When asked if any other activity had made it more difficult to obtain drugs, the majority (57.1%) stated there had not been an impact and 22.4% did not know. The remaining 20.4% stated the measures implemented to limit GP prescribing and doctor-shopping had resulted in a variety of consequences – specifically a reduction in supply, an increase in the price and more crime. Three people observed pharmacists were more aware and vigilant, notified GPs if there was a breach of contract and were also more reluctant to fill some prescriptions.

Market changes and impact of market changes on drug used most

Although most PWID interviewed reported noticing market changes for their most used drug, a third had not. Specific major changes identified were an increase in the time required to obtain diverted morphine and less people dealing or selling their scripts. The GP crackdown and tightened prescribing practices were seen as main factors contributing to reduced availability, and these two factors had directly contributing to a rise in morphine (MS Contin™) prices. One individual observed that the substitution of less tightly prescribed benzodiazepines such as Xanax™ has absorbed unmet demand for temazepam. Diverted methadone was also reported as being sometimes difficult to obtain and the price had risen from under $10 to over $15. The impact of market changes on PWID use and drug-related activities varied. Among the few who had an assured supply, such as through their GP, there was little impact and some others had reduced their use in responses to price rises and limited finances. More commonly, people reported the changes meant they devoted more time, travel and effort to locating and obtaining their drug. People needed to extend their personal contacts in the supply networks and visit locations they would prefer to avoid. Some were angry and others had less time available for employment.

Other impacts included increased periods of *hanging out*, which prompted a few to move on to pharmacotherapy programs; substitution with more readily available drugs like methamphetamine; and increased levels of criminal activity and sex work.

If their most used drug was less available or more expensive, twelve PWID said they would stop using the drug, generally either through a pharmacotherapy program or detoxification. Most people thought they would substitute other drugs, mainly other pharmaceutical opiates, benzodiazepines, alcohol, methamphetamine, cannabis or heroin. Some noted they would need to raise their levels of criminal activity, rorting and dealing, or leave Darwin. A different pattern of responses emerged when they reported on the likely impact on others. Most thought it would lead to then engaging in more crime, violence, dealing, rorting, sex work and drug substitution, principally with benzodiazepines, methamphetamine, diverted methadone or forms of morphine other than MS Contin™. The consequences would be particularly dire for very dependent users, creating much higher levels of withdrawal frequency and discomfort and possibly triggering suicide. Only a few thought friends would seek drug treatment or reduce or stop using their drug.

If the most used drug was more available or less expensive, 41 morphine users said they would not increase their use. Many commented they would be better off financially and have a better quality of life, less pain, and a greater capacity to work and engage in other activities. Some predicted their use would increase, while those on pharmacotherapy programs indicated such changes would not affect them. In contrast, the majority (n=37) thought morphine-using friends would use much more. Dependent or potentially dependent users were seen as particularly vulnerable because lower prices would make it easier to use more, more often, and there would be less need for occasional breaks in use to recover finances. Seventeen thought friends would not change their current morphine use pattern, but there would be a drop in crime and less stressful lives partly because of the reduced financial impost. Possible adverse consequences were more overdoses and people commencing use younger.

Additional comments provided by PWID included criticisms levelled at the opiate prescribing constraints placed on GPs on the grounds that people knew what they needed and how to use the drugs wisely to manage pain, anxiety and depression and to improve quality of life. It was also asserted that GPs needed to be able to manage opiate dependence and some PWID suggested morphine maintenance prescribing, or even heroin prescribing trials. Harm-reduction strategies raised included provision of morphine forms that could be safely injected. Some PWID emphasized concerns over injecting-related harms and the behavioural disinhibition associated with benzodiazepines.

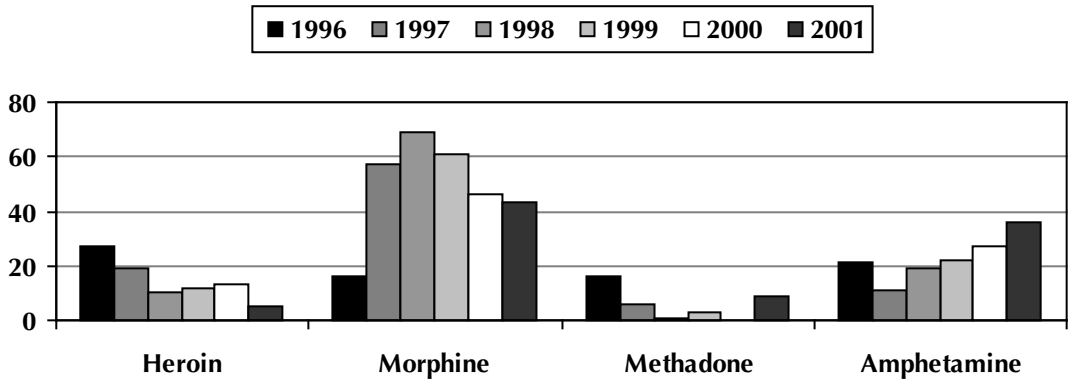
Stage three: Secondary indicator data

Northern Territory indicators

Use trends

The Australian Needle Syringe Program conducts an annual client snapshot from all NSPs, and the data on drug last injected from 1996-2001 are presented in Figure 10. Over the six-year period, there has been a steady decline in those last injecting heroin and this was initially accompanied by a rise in the proportion last injecting morphine. There had been a decline in the proportion last injecting morphine from 1998 and a concomitant rise in the proportion last injecting methamphetamine.

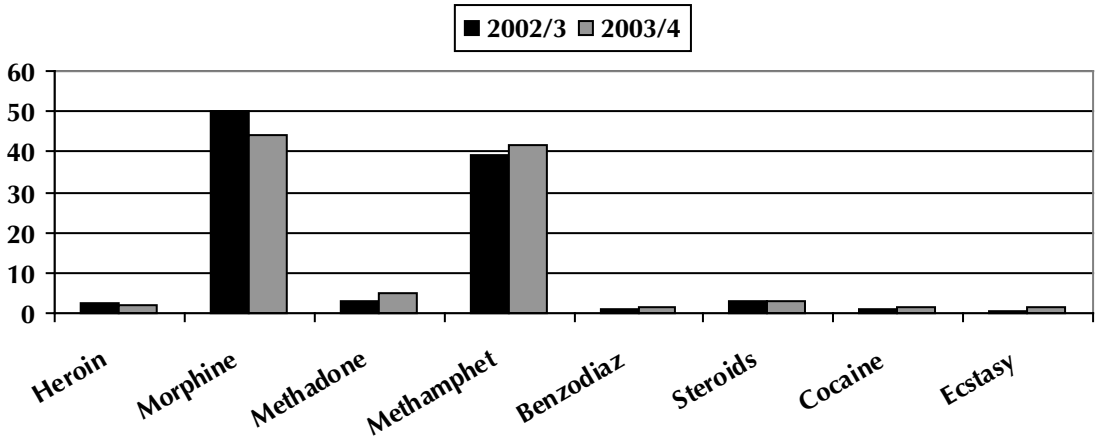
Figure 10: Last drug injected by needle syringe clients in the Northern Territory, 1996-2001 (%)



Source: MacDonald & Zhou, 2002.

The NT AIDS and Hepatitis C Council (NTAHC) also collects information from its two NSPs in Greater Darwin, and last drug injected among these clients in 2002/03 and 2003/04 are displayed in Figure 11. Among Greater Darwin NSP clients, morphine and methamphetamine were the drugs most likely to be injected in 2002/03 and 2003/04 and there was a drop in those last injecting morphine (50.2% : 44.1%) accompanied by a slight rise in those last injecting methamphetamine (39.2% : 41.5%). The only other change was a slight rise in those last injecting benzodiazepines (0.8% : 1.5%) or methadone (3.2% : 4.8%).

Figure 11: Last drug injected by needle syringe clients in Greater Darwin, 2002/03-2003/04* (%)



Source: Northern Territory AIDS and Hepatitis C Council client database, Darwin.
* Year to 30 April 2004.

NTAHC also conducts a client snapshot annually, and the data on last drug injected versus preferred drug from 1999 to 2003 are presented in Table 45. Overall, there has been an increase in clients reporting methamphetamine as the last drug injected and a decline in those indicating morphine or heroin was the last drug injected. The proportion last injecting methamphetamine and the proportion stating this was the preferred drug were fairly similar from 1999 to 2002 when a discrepancy occurred with a lower proportion preferring the drug than actually last using it. In contrast, until 2003, there was always a higher proportion of people nominating heroin as the preferred drug than last injecting it, suggesting a lack of availability of this drug.

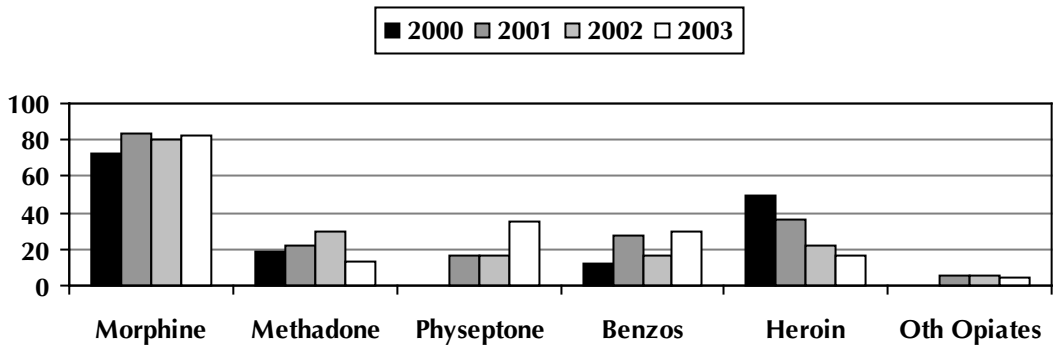
Table 45: Last drug injected and preferred drug of NSP clients 1999-2003 (%).

DRUG	1999		2000		2001		2002		2003 Dry		2003 Wet	
	Last	Pref	Last	Pref	Last	Pref	Last	Pref	Last	Pref	Last	Pref
Morphine	58	9	53	29	64	20	73	26	45	8	42	12
Methamphetamine	25	24	23	28	28	23	15	13	33	16	36	23
Heroin	13	55	8	34	6	45	2	45	2	53	1	18
Methadone	3	0	7	0	0	0	4	4	4	0	3	0

Source: Northern Territory AIDS and Hepatitis C Council, Darwin.

The Illicit Drug Reporting System (IDRS) is conducted annually in all jurisdictions and collects an array of data on drug use by people who inject drugs in each capital city. Figure 12 presents the drugs injected in the last six months in the Darwin samples from 2000 to 2003 and Figure 13 displays the proportion of PWID who injected specific drugs most in the month before the surveys. From 2000 to 2001 the proportion of PWID who had injected morphine rose but then remained relatively stable over the next 2 years. The proportion injecting heroin has dropped steadily over the four year period, while the proportion injecting benzodiazepines and Physeptone™ increased.

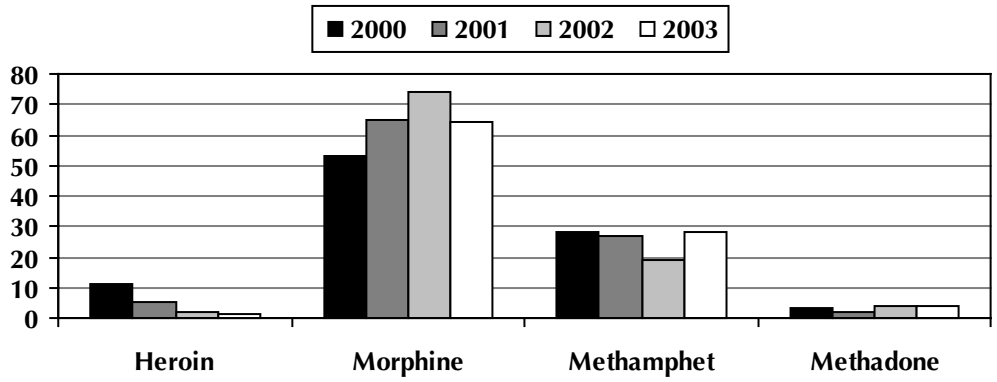
Figure 12: Drugs injected in the last six months, Darwin IDRS samples 2000-2003 (%)



Note: Illicit methadone and Physeptone™ only. Physeptone™ data not available 2000.
Sources: O'Reilly & Rysavy, 2001; O'Reilly, 2002; Duquemin & Gray, 2003; Moon, 2004.

In the month preceding the IDRS survey, there was a steady rise from 2000 to 2003 in the proportion of PWID most often injecting morphine and a concomitant reduction in the proportion most often injecting heroin. The proportion most often injecting methamphetamine dropped from 2001 to 2002 but returned to original levels in 2004. The proportion mostly injecting methadone has remained relatively steady.

Figure 13: Drug injected most in the month before the Darwin IDRS surveys, 2000-2003 (%)

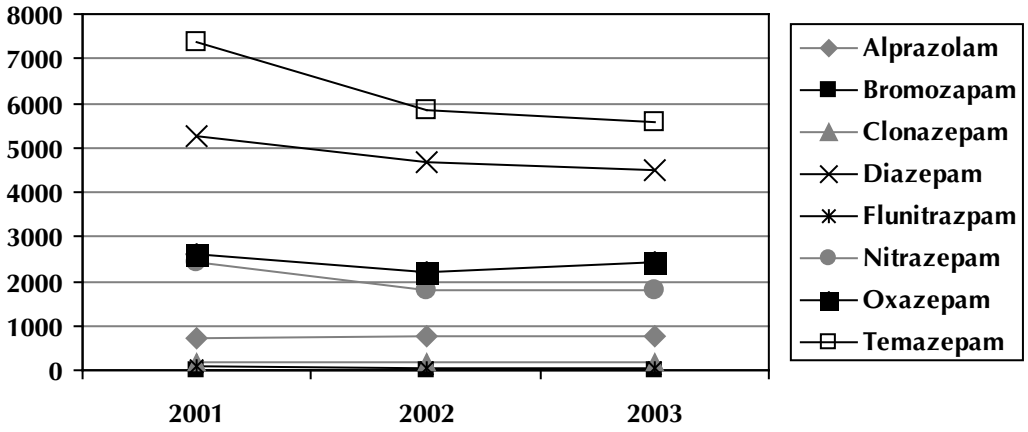


Sources: O'Reilly & Rysavy, 2001; O'Reilly, 2002; Duquemin & Gray, 2003; Moon, 2004.

Prescribing trends

The Pharmaceutical Benefits Branch of the Commonwealth Department of Health and Aging collates data on the number of Pharmaceutical Benefit Scheme (PBS) and Restricted Pharmaceutical Benefit Scheme (RPBS) prescriptions dispensed, and Figure 14 depicts the number of benzodiazepine scripts in the NT from 2001 to 2003. Alprazolam, bromozapam, clonazepam and flunitrazepam prescription numbers have been fairly low and remained steady over the three-year period. There was a decline in nitrazepam prescriptions from 2001 to 2002 and this reduction was maintained in 2003. Oxazepam prescriptions declined slightly in 2002 but rose back to 2001 levels in 2003. Both temazepam and diazepam prescriptions dropped notably in 2002 and remained at this lower level in 2003.

Figure 14: Benzodiazepine Pharmaceutical and Restricted Pharmaceutical Benefit Schemes prescriptions in the NT, 2001-2003

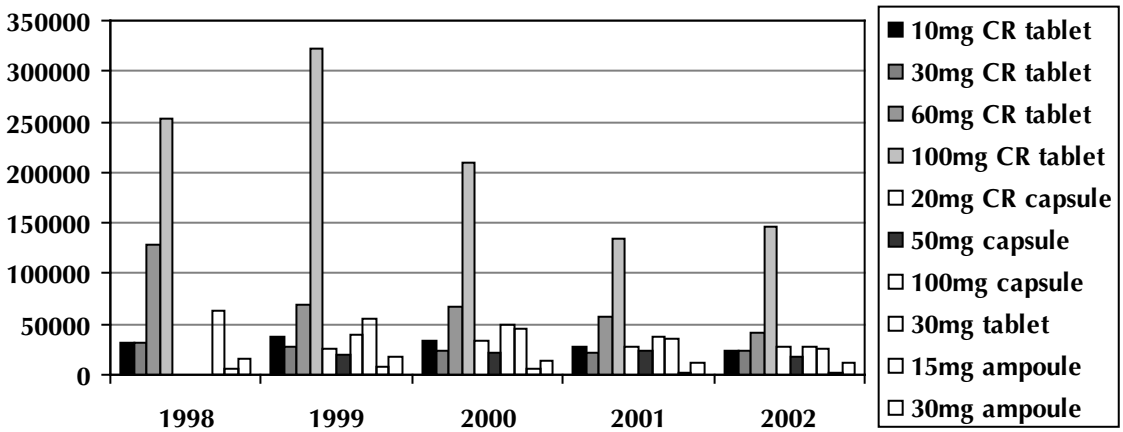


Source: DUSC, Pharmaceutical Benefits Branch, Health Access and Financing Division, Commonwealth Department of Health and Aging.

The Drug Use Monitoring System (DRUMS) of the Therapeutic Goods Administration records the consumption of narcotic analgesics and pharmacotherapies in each jurisdiction, and the consumption patterns of forms of morphine sulphate in the NT from 1998 to 2002 are depicted in Figure 15. There was a rise in the consumption of most forms from 1998 to 1999, in particular the

30mg, 60mg and 100mg controlled release tablets, followed by a decline over the next three years. A similar pattern was evident in the 15mg and 30mg ampoules. The 1998 consumption details for the capsules were not available, but there was a rise in the 20mg, 50mg and 100mg capsules from 1999 to 2000 and then a steady decline over the next two years.

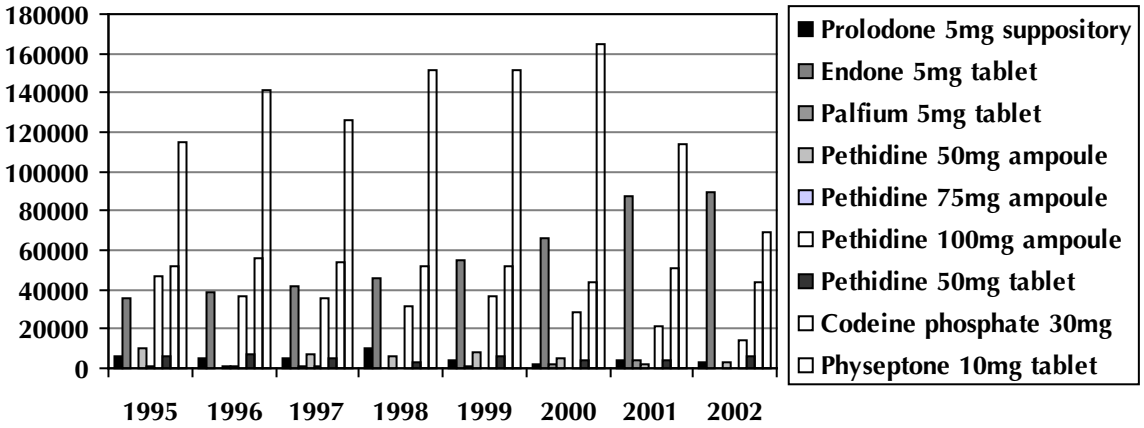
Figure 15: Consumption of various forms of morphine in the NT, 1998-2002



Source: DRUMS, The Treaties and Monitoring Team, Office of Chemical safety, Therapeutic Goods Administration.

The consumption patterns for other narcotic analgesics are presented in Figure 16 and the most striking aspect is the consistent rise in consumption of the oxycodone Endone™ 5mg tablets since 1996. This has been accompanied by a reduction in the consumption of the oxycodone Prolodone™ 5mg. Since 1995 there has been a steady decline in the consumption in all forms of Pethidine™, particularly the 100mg ampoules. Consumption of the dextromoramide bitartrate Palfium™ rose to a peak in 2001 and then dropped dramatically in 2002. Codeine phosphate consumption levels were fairly steady except for a drop in both 2000 and 2002. The methadone Physeptone™ 10mg rose in consumption from 1995 to 2000 and then fell sharply in both 2001 and 2002.

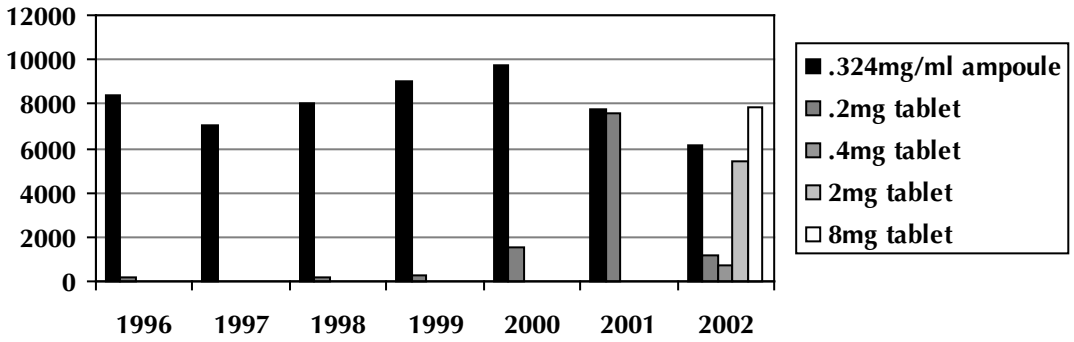
Figure 16: Consumption of various narcotic analgesics in the NT, 1998-2002



Source: DRUMS, The Treaties and Monitoring Team, Office of Chemical Safety, Therapeutic Goods Administration.

Figure 17 depicts the consumption of buprenorphine in the NT from 1996 to 2002 and it is evident that consumption of the .324mg/ml ampoules rose slightly from 1996 to 2000 and then declined in the next two years. Consumption of the .2mg tablets increased from 1996 to 2001 and then dropped dramatically in 2002. Consumption figures for the .4mg, 2mg and 8mg tablets was only available for 2001 and there was a noticeable rise in 2002 from the very low levels of consumption in 2001, coinciding with the introduction of opiate pharmacotherapy programs in the NT.

Figure 17: Consumption of buprenorphine in the NT, 1996-2002



Source: DRUMS, The Treaties and Monitoring Team, Office of Chemical safety, Therapeutic Goods Administration.

Crime and police activity

Table 46 depicts all drug offences by category in the NT from 2001/02 to 2003/04 (until March 31 2004). The majority of drug offences in all years related to use and/or possession of illicit drugs. Prescription drug offences involve prescription drug fraud such as altering or forging a prescription or the supply of prescription drugs without a valid prescription. The offences fall under the *Misuse of Drugs Act* and the *Poisons and Dangerous Drugs Act.* In all years prescription drug offences were very low.

Table 46: Drug offences by category in the NT, 2001-2003.

	2001/2	2002/3	2003/4*
Import or export illicit drugs	6	4	1
Deal/traffic illicit drugs – non commercial	139	169	101
Deal/traffic illicit drugs – commercial	45	42	29
Manufacture/cultivate illicit drugs – non commercial	65	39	19
Manufacture/cultivate illicit drugs – commercial	15	12	3
Possess and/or use illicit drugs	244	235	131
Other drug-related offences	41	51	26
Prescription drug offences	7	3	0
Total	**562**	**555**	**310**

*Year to date at 31 March 2004.

Source: Integrated Justice Information System, Northern Territory Department of Justice.

The IDRS collects information on self-reported criminal activity in the month before the survey, and these data from 2000 to 2003 are presented in Table 47.

Table 47: PWID self-reported criminal activity last month, Darwin and Australia, 2000-04.

	2000[a, b]		2001[c,d]		2002[e,f]		2003[g,h]	
Criminal history	**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**	**NT**	**Aus**
Any crime	**35**	**54**	**33**	**52**	**42**	**55**	**28**	**49**
Any property crime	8	19	12	20	14	26	9	22
Any violent crime	2	7	3	9	12	8	5	7
Any drug dealing	30	41	24	39	31	38	20	34
Any fraud	12	12	5	9	13	10	3	6
Arrested last 12 months	**28**	**47**	**32**	**44**	**22**	**43**	**18**	**39**
– property crime	39	na	34	39	21	40	45	na
– dealing/trafficking	14	na	5	9	4	7	5	na
– use/possession	10	na	7	16	21	26	5	na
– violent crime	na	na	12	14	21	18	10	na
Ever been to prison	**46**	**43**	**51**	**44**	**46**	**46**	**48**	**43**

[a]O'Reilly & Rysavy, 2001; [b]Topp et al., 2001; [c]O'Reilly, 2002a; [d]Topp et al., 2002; [e]Duquemin & Gray, 2003; [f]Breen et al., 2003; [g]Breen et al., 2004; [h]Moon, 2004.

PWID in Darwin consistently reported less involvement in any crime than Australian PWID in all years and the differences are particularly evident in the lower rates of property and violent crime and drug dealing. Darwin PWID were also less likely than Australian PWID to be arrested in the previous year, and the available data on arrest offences from 2001 and 2002 indicate slightly fewer Darwin PWID were arrested for use and/or possession and property crime.

As part of its annual client snapshots the NTAHC collects information on the number of clients that had been imprisoned in the NT in the previous six months (Table 48) and from 1999-2002 close to one in ten had been imprisoned. The rate dropped to 7% in 2003. In 2001 just under half of the imprisonments were drug-related but in 2002 and 2003 over half were drug-related.

Table 48: Imprisonment in the last six months among NSP clients, 1999-2003.

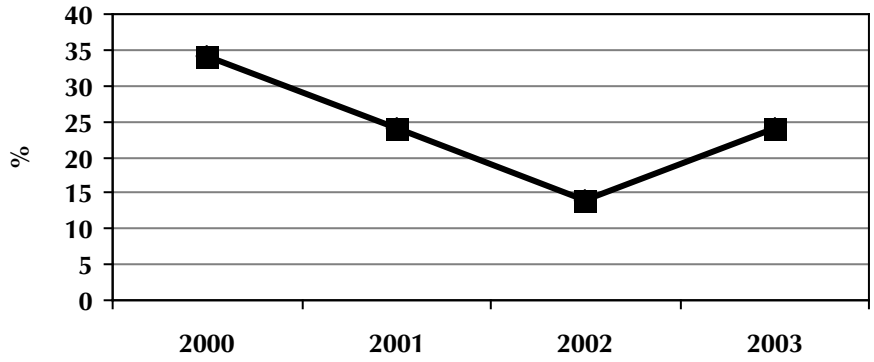
	1999[a]	2000[b]	2001[c]	2002[c]	2003[d]
Prison last 6 months (%)	11	14	12	14	7
Drug-related offence (n)	na	na	5 (5)	9 (13)	5 (6)
Total sample	104	86	101	143	114

[a]Roberts, 1999; [b]Gee, 2000; [b]Gee, 2001, [c]Gee, 2002; [d]NTAHC, 2003.

Health

The IDRS also collected data on the number of PWID currently in drug treatment, and the information for the Darwin samples from 2000 to 2003 are presented in Figure 18. There was a dramatic drop in participation in drug treatment from 2000 to 2003 (34% : 14%) but the rate increased to 24% in 2003. It is noteworthy that the only treatment in which PWID were participating in 2003 was a pharmacotherapy program.

Figure 18: Proportion of IDRS sample in drug treatment, Darwin 2000-2003 (%)

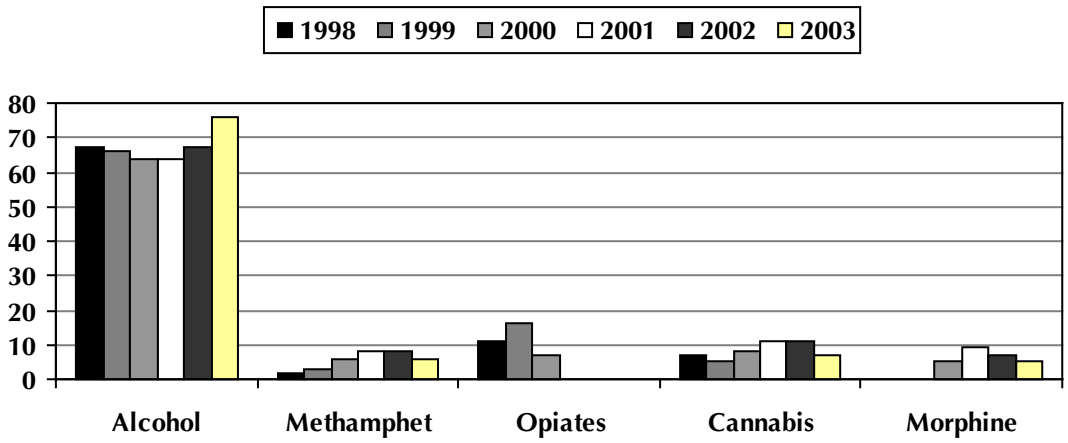


Sources: O'Reilly & Rysavy, 2001; O'Reilly, 2002; Duquemin & Gray, 2003; Moon, 2004.

In the 2001/02 financial year there were no clients registered with public providers of methadone or correctional facilities recorded in the annual census 30 June of the National Pharmacotherapy Statistics, Commonwealth Department of Health and Aging, and only three with private providers. These three people were collecting their doses at pharmacies. In the same year there were 16 people registered with private providers of buprenorphine and two with public providers were collecting their doses at pharmacies. In December 2003 there were 88 people participating in the Opiate Pharmacotherapy Program and 40 were on buprenorphine and 48 methadone. Of the buprenorphine clients, 10 were located in Alice Springs and the remaining 30 in Darwin. Forty of the methadone clients were in Darwin and the rest were in Alice Springs. These totals do not include people with private providers or in correctional facilities, as this information was unavailable at the time.

The Alcohol and Other Drug Program, NT Department of Health and Community Service, collects client information from treatment services in the NT (AODTS). The proportion of treatment episodes for various principle drugs of concern from 1998 to 2003 is displayed in Figure 19. The vast majority of episodes are for alcohol in all years. There was a steady rise in the proportion of episodes for methamphetamine until 2002, then a decline in 2003. The proportion of episodes for morphine have been declining since 2001.

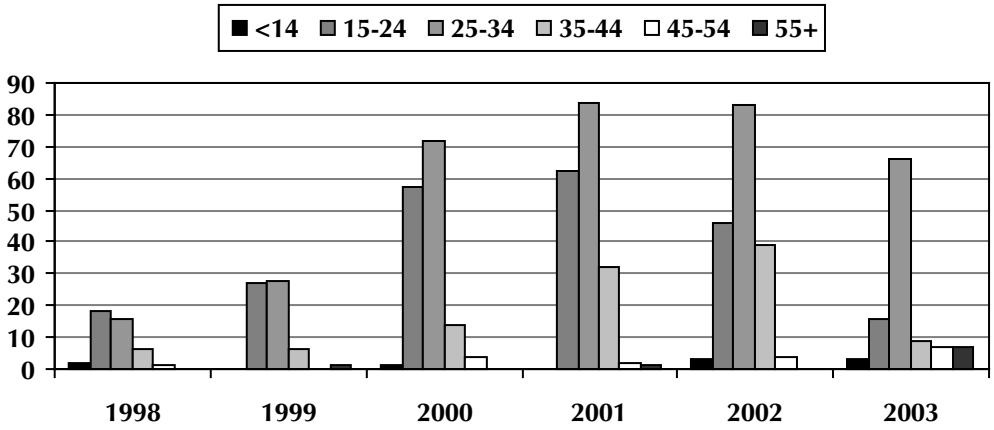
Figure 19: Principal drug of concern of admissions to treatment agencies in the NT, 1998-2003 (%)



Source: Alcohol and Other Drugs Treatment Services (AODTS), NT Department of Health and Community Services.
Note: Morphine not coded until 2000, prior to that recorded under Opiates.

Figure 20 indicates a steady rise in methamphetamine episodes in the NT treatment services among 25-34 and 35-44 year olds until 2002, followed by a decline in 2003. Episodes among 15-24 year olds increased until 2001 and have declined in both 2002 and 2003.

Figure 20: Age by methamphetamine episodes at treatment agencies in the NT, 1998-2003

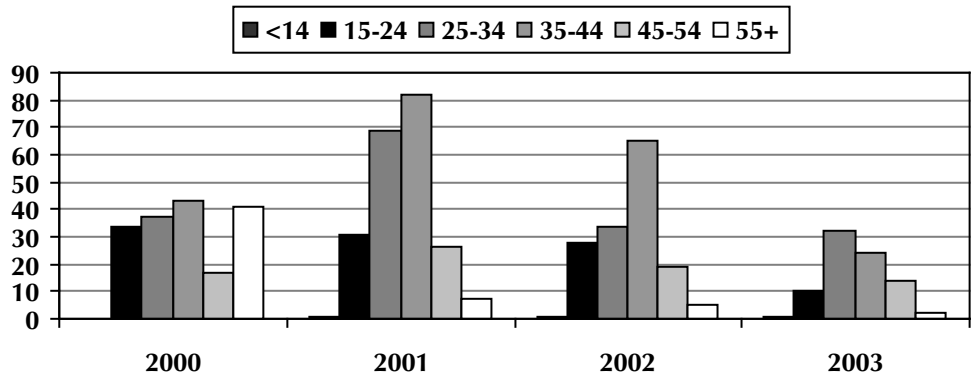


Source: AODTS, NT Department of Health and Community Services.

In contrast, morphine episodes among 25-34, 35-44 and 45-54 year olds increased from 2000 to 2001 but have declined in the following years (Figure 21). The number of episodes among 15-24 year olds was relatively stable from 2000 to 2003 and then declined in 2003.

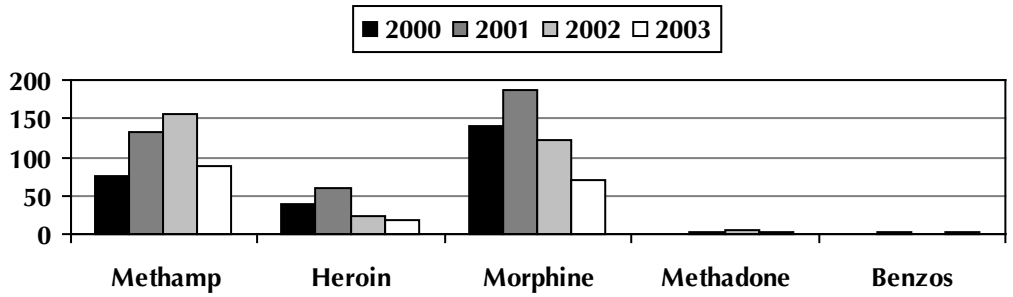
Figure 22 displays the number of episodes for principal drug of concern among people who injected drugs from 2000 to 2003 and there was an evident rise in methamphetamine from 2000 to 2002, and a decline in 2003. In contrast, heroin and morphine episodes among injecting users have been declining since 2001. Episodes for methadone and benzodiazepines are very low in each year.

Figure 21: Age by morphine episodes at treatment agencies in the NT, 1998-2003



Source: AODTS, NT Department of Health and Community Services.

Figure 22: Principal drug of concern episodes by injecting users at treatment agencies in the NT, 2000-2003 (%)



Source: AODTS, NT Department of Health and Community Services.

Table 49 presents PWID principal drug of concern episodes by Indigenous status and gender from 2000 to 2003. Heroin, morphine and methamphetamine episodes in all years were higher among males than females and among non-Indigenous than Indigenous. Indigenous injectors were predominantly accessing for amphetamine and morphine, whereas non-Indigenous episodes for morphine were higher than for methamphetamine in 2000 and 2001. This pattern was reversed in 2002 and continued in 2003 with more methamphetamine than morphine episodes. This latter pattern is also evident among males and females.

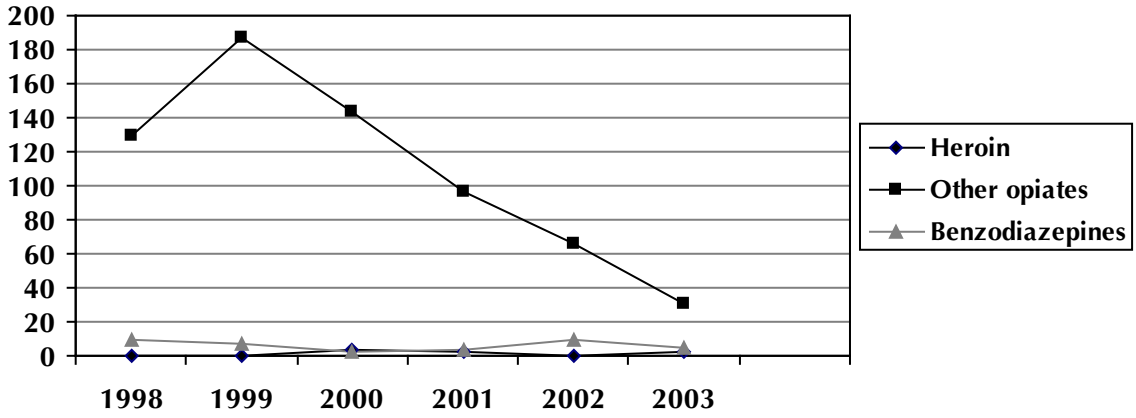
Table 49: PWID drug treatment episodes in the NT 2000-2003, by gender and Indigenous status.

	Indigenous	Non-Indigen	Male	Female
2000				
Heroin	2	38	29	11
Morphine	13	126	105	34
Methadone	0	0	0	0
Methamphetamine	19	56	46	29
Benzodiazepines	0	0	0	0
2001				
Heroin	8	51	42	17
Morphine	35	154	135	54
Methadone	0	2	2	0
Methamphetamine	26	107	98	35
Benzodiazepines	1	1	1	1
2002				
Heroin	3	21	15	9
Morphine	13	109	98	24
Methadone	1	3	4	0
Methamphetamine	38	117	99	56
Benzodiazepines	0	1	1	0
2003				
Heroin	4	14	15	3
Morphine	17	53	56	14
Methadone	0	2	2	0
Methamphetamine	15	74	61	28
Benzodiazepines	0	2	2	0

Source: AODTS, NT Department of Health and Community Services.

The number of people participating in detoxification and/or withdrawal at detoxification services in the NT from 1998 is presented in Figure 23, and it is evident there has been a marked reduction in numbers since 1999. This is principally due to a marked reduction in the numbers presenting for opiate (other than heroin) detoxification/withdrawal at the Darwin service from 2000 to 2003 (186 to 30). Before July 2002 a residential service was available at the Darwin Detoxification Unit. This was replaced with the Darwin Withdrawal Service, which is a non-residential outpatient withdrawal management service. The numbers for heroin and benzodiazepines have been consistently low in all years.

Figure 23: Episodes of detoxification/withdrawal and main drug of concern in the NT, 1998-2003



Alcohol and Other Drugs Treatment Services, Northern Territory Department of Health and Community Services.

NT hospital separations from 2000/01 to 2002/03 for opioids conditions classified according to the ICD 10 are located in Table 50 and there were very few separations for psychotic or mental disorder, withdrawal delirium or acute intoxication. Separations for opioid dependence were similar in 2000/01 and 2001/02 but dropped in 2002/03. Separations for harmful use rose from 2000/01 to 2001/02 and remained steady in 2002/03.

Table 50: Hospital separations for opioids in the NT, 2000/01-2002/03.

	00/01	01/02	02/03
Acute intoxication	0	0	2
Harmful use	8	19	17
Dependence	35	36	28
Withdrawal	12	10	6
Withdrawal delirium	0	1	2
Psychotic disorder	2	0	0
Mental disorder	2	0	0

Source: NT Department of Health and Community Services.

Table 51 indicates hospital separations for acute intoxication, mental disorder and withdrawal associated with poly-drug use were low from 2000/01 to 20002/03. Separations for harmful use have risen over the three year period, from 70 in 2000/01 to 89 in 2002/03. Psychotic disorders associated with poly-drug use rose from 39 in 2000/01 to 52 the following year but then dropped to 43 in 2002/03. Separations for withdrawal have been relatively stable.

Table 51: Hospital separations for poly-drug use in the NT, 2000/01-2002/03.

	00/01	01/02	02/03
Acute intoxication	6	7	6
Harmful use	70	86	89
Dependence	20	17	21
Withdrawal	5	3	3
Psychotic disorder	39	52	43
Mental disorder	3	1	0

Source: NT Department of Health and Community Services.

NT hospital separations for drug poisoning indicate those associated with morphine/codeine and unspecified narcotics have risen from 2000/01 to 2002/03 (Table 52). Separations for methadone, synthetic narcotics and cannabis have remained very low.

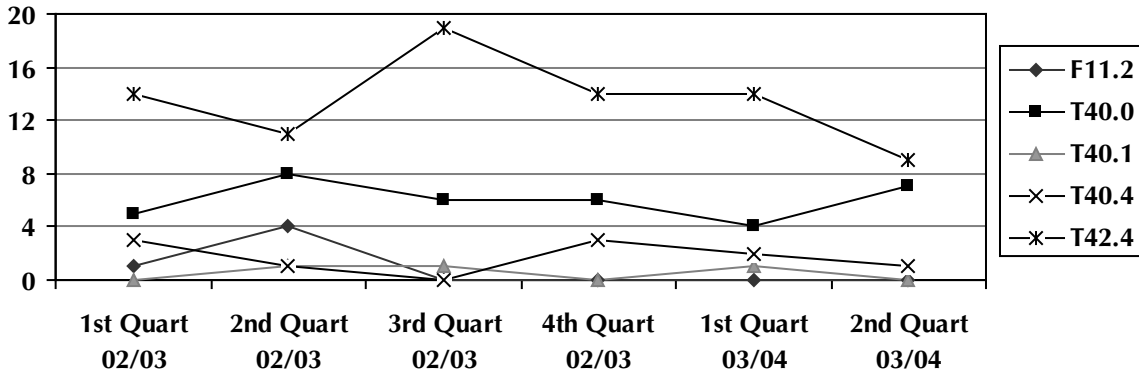
Table 52: Hospital separations for poisoning in the NT, 2000/01-2002/03.

	00/01	01/02	02/03
Codeine/morphine	13	19	20
Methadone	3	2	2
Synthetic narcotics	1	1	1
Unspecified narcotics	1	3	7
Cannabis	2	2	3

Source: NT Department of Health and Community Services.

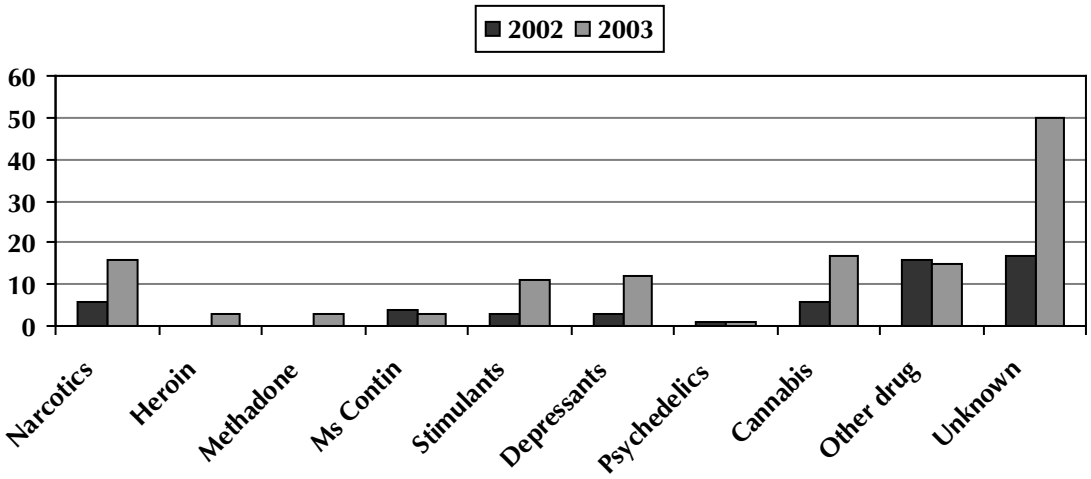
Emergency Department attendances at all NT hospitals for selected drug-related diagnoses are displayed in Figure 24. The attendances for opioid mental and behavioural disorders (ICD-10 code F11.2) remained fairly low in 20002/03 and 2003/04. Poisoning by opium (T40.0), heroin (T40.1) and synthetic narcotics (T40.4) were also fairly stable over the 18 month period. Benzodiazepine poisoning (T42.4) rose in the January to March quarter of 2002/03 but then declined to original levels over the next two quarters. There were no recorded poisonings by morphine, methadone or codeine.

Figure 24: Emergency department attendances in NT hospitals for drug-related diagnoses, July 2002-December 2004



Ambulance attendances for narcotics, stimulants, depressants, cannabis and unknown drug or substance misuse have increased in the Darwin region from 2002 to 2003 (Figure 25). The callout rates for most other drugs were low and unchanged over both years.

Figure 25: Ambulance drug-related callouts in Darwin, NT from 2002-2003



Source: St John Ambulance Australian (NT).

Note: Other Drug excludes substances such as petrol, glues, aerosols and also kava.

Summary

Use trends

The Australian Needle Syringe Program data indicate a steady decline in the proportion of clients last injecting heroin over the six-year period from 1996-2000. This was initially accompanied by a rise in the proportion last injecting morphine but from 1998 onwards this proportion declined and there was a rise in the proportion last injecting methamphetamine. The NTAHC data show that among Greater Darwin NSP clients, morphine and methamphetamine were the drugs most likely to be injected in 2002/03 and 2003/04. A drop in numbers of those last injecting morphine (50.2% : 44.1%) was accompanied by a slight rise in those last injecting methamphetamine (39.2% : 41.5%), benzodiazepines (0.8% : 1.5%) or methadone (3.2% : 4.8%). NTAHC annual client snapshot data from 1999 to 2003 indicated an increase in clients reporting methamphetamine as the last drug injected and a decline in those last injecting morphine or heroin. The proportion last

injecting methamphetamine and stating this was the preferred drug were fairly similar from 1999 to 2002, when a discrepancy occurred with a lower proportion preferring the drug than actually last using it. In contrast, until 2003, there was always a higher proportion of people nominating heroin as the preferred drug than last injecting it, suggesting a lack of availability of this drug.

IDRS annual data among Darwin PWID from 2000 to 2003 indicates that from 2000 to 2001 the proportion of PWID who had injected morphine rose but then remained relatively stable. The proportion injecting heroin dropped steadily over the four years, while the proportion injecting benzodiazepines and Physeptone™ increased. In the month preceding the IDRS survey, there was a steady rise from 2000 to 2003 in the proportion of PWID most often injecting morphine and a concomitant reduction in the proportion most often injecting heroin. The proportion most often injecting methamphetamine dropped from 2001 to 2002 but returned to original levels in 2004. The proportion mostly injecting methadone has remained relatively steady.

Prescribing trends

Pharmaceutical Benefits Branch data on the number of benzodiazepine scripts in the NT from 2001 to 2003 show alprazolam, bromozapam, clonazepam and flunitrazepam prescription numbers have been fairly low and remained steady. A decline in nitrazepam prescriptions from 2001 to 2002 was maintained in 2003. Oxazepam prescriptions declined slightly in 2002 but rose back to 2001 levels in 2003. Both temazepam and diazepam prescriptions dropped notably in 2002 and remained low in 2003. DRUMS data for NT consumption of forms of morphine sulphate from 1998 to 2002 show a rise in consumption of most forms from 1998 to 1999, in particular the 30mg, 60mg and 100mg controlled release tablets, followed by a decline over the next three years. A similar pattern was evident for the 15mg and 30mg ampoules. There was also a notable rise in the 20mg, 50mg and 100mg capsules from 1999 to 2000 followed by a steady decline over the next two years. For other narcotic analgesics, there was a striking and consistent rise in consumption of the oxycodone Endone™ 5mg tablets since 1996, accompanied by a reduction in the oxycodone Prolodone™ 5mg consumption. Since 1995 there has been a steady decline in the consumption in all forms of Pethidine™, particularly the 100mg ampoules. Consumption of the dextromoramide bitartrate Palfium™ rose to a peak in 2001 and then dropped dramatically in 2002. Codeine phosphate consumption levels were fairly steady except for a drop in both 2000 and 2002. The methadone Physeptone™ 10mg rose in consumption from 1995 to 2000 and then fell sharply in both 2001 and 2002. Consumption of .324mg/ml buprenorphine ampoules rose slightly from 1996 to 2000 and then declined in the next two years. Consumption of .2mg tablets increased from 1996 to 2001 and then dropped dramatically in 2002. Consumption figures for the .4mg, 2mg and 8mg tablets were only available for 2001 and 2001 and there was a noticeable rise in 2002 from the very low levels of consumption in 2001, coinciding with the introduction of opiate pharmacotherapy programs in the NT.

Crime and police activity

Integrated Justice Information System data for 2001/02 to 2003/04 (until March 31 2004) indicate the majority of NT drug offences in all years related to use and/or possession of illicit drugs. Prescription drug offences involving prescription drug fraud were very low in all years. IDRS data on self-reported criminal activity from 2000 to 2003 demonstrated Darwin PWID consistently reported lower involvement in any crime than Australian PWID across all years. The differences are particularly evident in the lower rates of property and violent crime and drug dealing. Darwin PWID were also less likely than Australian PWID to have been arrested in the previous year, and available data on arrest offences for 2001 and 2002 indicate slightly fewer Darwin PWID arrested for use/possession and property crime. NTAHC 1999-2002 data on clients indicated one in ten had been imprisoned and the rate dropped to 7% in 2003. In 2001 just under half of these imprisonments were drug-related, but in 2002 and 2003 over half were drug-related.

Health

IDRS data show a dramatic drop in participation in drug treatment in Darwin IDRS samples from 2000 to 2003 (34% : 14%) but the rate increased to 24% in 2004, when the only treatment PWID were participating in was a pharmacotherapy program. In the 2001/02 financial year, no clients were registered with public providers of methadone or correctional facilities in the national pharmacotherapy statistics database and only three with private providers. Sixteen were registered with private providers of buprenorphine and two with public providers. By December 2003, 88 people were in the Opiate Pharmacotherapy Program (40 in buprenorphine and 48 in methadone). Ten buprenorphine clients were Alice Springs-based and 30 were in Darwin. Forty methadone clients were in Darwin and the rest in Alice Springs. These totals do not include people with private providers or in correctional facilities.

NT Alcohol and Other Drug Treatment Services data show the vast majority of treatment episodes in all years are for alcohol. A steady rise in methamphetamine episodes occurred until 2002, then declined in 2003. This involved a steady rise in methamphetamine episodes among 25-34 and 35-44 year olds until 2002, followed by a decline in 2003. Episodes among 15-24 year olds increased until 2001 and declined in both 2002 and 2003. Overall, episodes for morphine have been declining since 2001. However, morphine episodes among 25-34, 35-44 and 45-54 year olds increased from 2000 to 2001 before declining in the following years. Episodes among 15-24 year olds were relatively stable from 2000 to 2003 and then declined in 2003. Among people who injected drugs, episodes relating to methamphetamine as the principal drug of concern rose from 2000 to 2002 and declined in 2003. In contrast, heroin and morphine episodes have been declining since 2001. Episodes for methadone and benzodiazepines are very low in each year. Heroin, morphine and methamphetamine episodes were higher among males than females and among non-Indigenous than Indigenous in all years. Indigenous injectors were predominantly accessing services for methamphetamine and morphine issues, whereas non-Indigenous injectors were presenting for morphine issues at higher levels than for methamphetamine issues in 2000 and 2001. This pattern was reversed in 2002 and continued in 2003, when there were more methamphetamine than morphine episodes. This latter pattern is also evident among males and females.

There has been a marked reduction in the number of people participating in detoxification and/or withdrawal at detoxification services in the NT since 1999. This was principally due to a noticeable reduction in the numbers presenting for opiate (other than heroin) detoxification/withdrawal at the Darwin service from 2000 to 2003 (186 to 30). A residential service available at the Darwin Detoxification Unit was replaced in July 2002 with a non-residential outpatient withdrawal management service, the Darwin Withdrawal Services. Numbers for heroin and benzodiazepines detoxification/withdrawal have been consistently low in all years.

NT hospital separations from 2000/01 to 2002/03 for opioid conditions show very few separations for psychotic or mental disorder, withdrawal delirium or acute intoxication. Separations for opioid dependence were similar in 2000/01 and 2001/02 but dropped in 2002/03. Separations for harmful use rose from 2000/01 to 2001/02 and remained steady in 2002/03. Hospital separations for acute intoxication, mental disorder and withdrawal associated with poly-drug use were low from 2000/01 to 2002/03. Separations for harmful use rose over the three-year period, from 70 in 2000/1 to 89 in 2002/03. Psychotic disorders associated with poly-drug use rose from 39 in 2000/01 to 52 the following year but then dropped to 43 in 2002/03. Separations for withdrawal have remained relatively stable. Separations for drug poisoning indicate those separations associated with morphine/codeine and unspecified narcotics have risen from 2000/01 to 2002/03. Separations for methadone, synthetic narcotics and cannabis have remained very low.

Emergency Department attendances for opioid mental and behavioural disorders remained fairly low in 2002/03 and 2003/04. Attendances for poisoning by opium, heroin and synthetic narcotics were also fairly stable. Benzodiazepine poisoning attendances rose in the January to March quarter of 2002/03 but then declined to original levels over the next two quarters. There were no recorded poisonings by morphine, methadone or codeine. Ambulance attendances for narcotics, stimulants, depressants, cannabis and unknown drug or substance misuse have increased in the Darwin region from 2002 to 2003. Callout rates for most other drugs were low and unchanged over both years.

Stage four: Survey of people who inject drugs

Overview of the sample of PWID

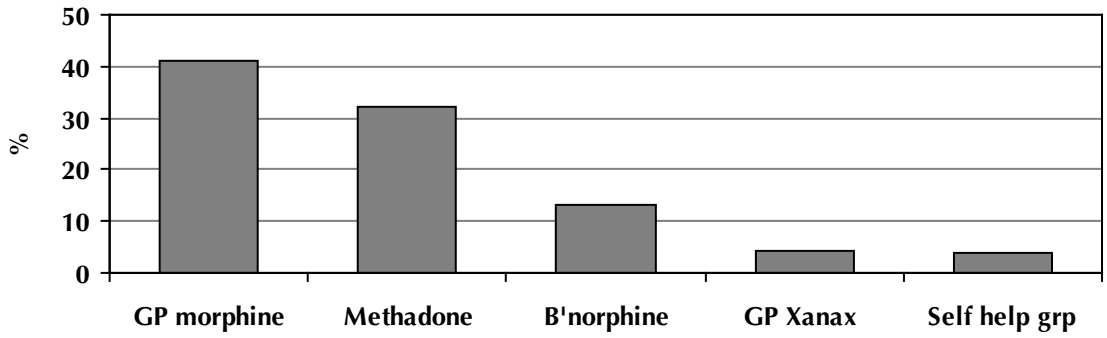
A sample of 50 PWID reported on past and current drug use patterns and related issues, and results are summarized according to the major drug groups. Sample demographics are presented in Table 53.

Table 53: Demographic characteristics of the PWID sample.

Sample characteristics		**(n=50)**
Mean age (years)		37.6 (range 22-55) median 37
Sex (% male)		74
Ethnicity (%)		
English speaking background		100
Indigenous		12
Place of Residence (%)*		
Own house/flat		86
Parents/family house/flat		4
Boarding house/hostel		6
Hotel		4
Employment (%)		
Not employed		84
Full time		6
Part time/casual		10
School education (mean years)		10 (range 6-12)
Post school education/training (%)		
None		52
Trade/technical		38
University/college		10
Income sources last fortnight		
Wage/salary	16%	$671.25 (range $60-1400)
Pension/allowance/benefit	88%	$426.05 (range $100-850)
Criminal activity	4%	$5,150 (range $300-$10,000)
Dealing	4%	$375.00 (range $100-$1,000)
Loans/gifts family and/or friends	6%	$126.67 (range $20-$300)
Sex work	2%	$400.00 (range $400-$400)
Mean income all sources		**$748.91 (range 0-10,780)**
Prison history (%)		58

The majority of the PWID sample was male (74%) and the mean age was 37.6 years (range 22-55). All the PWID stated English as their main language and 12% identified as Indigenous. The majority lived in a house or flat, were unemployed, had an average secondary education level of Year 10 and half had not attended any post-secondary courses. In terms of recent drug treatment history, 40% of PWID had accessed pharmacotherapy programs (20% methadone and 20% buprenorphine) in the last six months and another 20% had accessed prescription morphine from a doctor. Only 4% had accessed either drug counselling or 4% detoxification. The majority (68%) had not accessed any drug treatment in the last six months. Figure 26 indicates almost half of the sample (46%) reported they were currently in drug treatment and among these the most common forms accessed were the GP prescribed morphine (41%) followed by the pharmacotherapies methadone (32%) and buprenorphine (13%). PWID had been in treatment for less than a month up to 21 years, with the mean length of time 38.4 months (median 18 months).

Figure 26: Current treatment types (n=27)



Drug use history of the PWID

PWID indicated the drugs used in the last six months (other than benzodiazepines and pharmaceutical opiates), if intravenous use had occurred and the number of days used (Table 54). The most common drugs taken (but not injected) were cannabis (78.0%; mean of 100 days), methamphetamine (62%; mean of 41 days) and alcohol (52%; mean of 48 days). The drug most likely to be injected in the last six months was methamphetamine, with 61.2% of the sample injecting it for an average of 39 days (median 4). The other drug likely to be injected was heroin for 36 days on average (median 3). Cannabis and anti-depressants were the drugs most likely to be used on a daily or near daily basis.

Table 54: Drug use by PWID sample in the last six months (n=50).

		Total days[1]			Total days[1]	
	Used %	Mean	Median	IV %	Mean	Median
Heroin	22	40	3	30	36	3
Homebake	6	3	2	6	3	2
Methamphetamine	62	41	6	61	39	4
Pharm stimulants	14	53	2	12	79	24
Cocaine	4	4	4	0	0	0
Hallucinogens	8	0	0	0	2	2
Ecstasy	22	4	3	8	1	0
Alcohol	52	48	7	0		
Cannabis	78	101	100	-		
Antidepressants	18	146	180	0	0	0
Inhalants	2	1	1	-		

[1] Among those who injected or used drug class in last six months.

Table 25 indicates the majority of PWID stated heroin was the preferred drug (44%), followed by morphine (24%), methamphetamine (12%) and other opiates (8%). In contrast, 80% of the PWID had most often injected morphine in the last month and no PWID had most injected heroin. The next two most injected drugs were methamphetamine and buprenorphine (8% and 4%). Of those nominating morphine as preferred drug, 75% indicated the preferred form was MS Contin™ and the remainder Kapanol™. One in eight also stated MS Contin™ was the form most often injected in the last month. No PWID reported benzodiazepines as their drug of choice but one PWID stating this drug type had been injected most last month and diazepam (generic) was the form used.

Table 55: Drug preferences versus actual usage, n=50 (%).

Drug Class	Preferred drug	Injected most last month
Heroin	44	-
Morphine	24	80
Methadone	4	2
Methamphetamine	12	8
Benzodiazepines	-	2
Buprenorphine	-	4
Cannabis	6	-
Cocaine	4	-
Other opiates	8	-
Alcohol	2	2
Morphine & methamphetamine	-	2
Did not inject last month	na	2

From Table 55 it can be seen there are some discrepancies between the preferred drug and the drug used most last month, particularly in relation to heroin and morphine, and the main reasons for using a drug other than the preferred drug (generally morphine rather than heroin) were availability (59%), the drug used most was not injectable (cannabis and alcohol) or because of the preferred drug's purity (6%).

The PWID reported on the reason they could not obtain the drug used most in the last month the last time they tried to access it. The majority (42%) said lack of availability had prevented them from obtaining the drug, 8% stated they could not obtain a prescription from a GP, another 8% said it was a combination of price and availability and 6% indicated it was the price of the drug. When asked to provide details of what action they took, fourteen PWID stated they never experienced problems obtaining the drug and six of these were prescribed morphine. Six PWID indicated that morphine was usually easy to obtain and a phone call or asking around usually resulted in quick success.

> *I can almost always get MS Contin™. Occasionally, less than once a year, there is none about because the person you expected to have it was cut off. Then you just ask around.*

> *I can almost always get MS Contin™. Very occasionally, I get Kapanol™ or Anamorph™ instead from some dealer.*

A friend didn't pick up because he was cut off by his GP. Another friend had Anamorph™ so I bought that. I just made one phone call.

I accidentally destroyed one and so I used more than I should have and ran out early. I borrowed some. Got it on credit from an acquaintance for a day or two.

Seventeen PWID reported they substituted other drugs for the one used most and for some this was to ease withdrawal. The drugs most commonly mentioned as substitutes were morphine, benzodiazepines, methadone and methamphetamine.

I got pissed off. I think I ended up getting speed instead or alcohol. I'm not meant to drink because the hospital reckons I've got pancreatitis.

The guy wasn't around. I felt stressed, cramps like I was hanging out. I spent all day looking for him and that night scored some speed which was stupid because I'm trying to cut down on speed.

Normally it's easy to get. I couldn't get speed as my preferred drug so I tried to get morph from a friend but he'd used up his script. I drank some alcohol at a party instead.

I used other drugs: pot, Valium™ and alcohol.

Eleven indicated they were forced to go into withdrawal and some *hung out* for a day or more.

The dealer was murdered. There was a police investigation. Everyone went really cagey. There was none around.

I had no money so I hung out for a day or so. If I get paid or can get credit it is OK. I know people who still do credit so it's OK if I am desperate.

I hung out until it was available. My script ran out. Sometimes I borrow one or two from a friend and pay back with tablets from my script. But this time I couldn't borrow any from my friend. I hung out for a couple of days until I got paid and could get some.

I organized some from a dealer and went to meet him but he said I had to wait until the next day. He had sold all of his because we were late. This was a one-off spot. The meeting place always changes. I was a bit paranoid and waited until the next day.

PWID indicated the drug they substituted the last time they could not obtain the drug used most (Table 56). Over a quarter (28%) indicated they did not use anything else, while 18% used morphine (33.3% MS Contin™, 44.4% Kapanol™ and 22.2% Anamorph™) and 10% benzodiazepines (40% Valium™ and 20% each for Serepax™, Hypnodorm™ and Serepax™/ Normison™). Almost two in five had never had the experience of not obtaining the drug used most, usually because they had regular prescriptions.

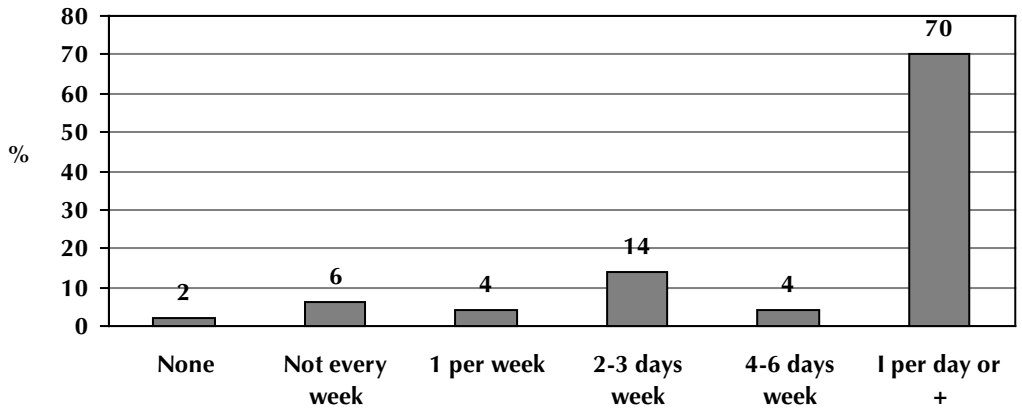
Table 56: First and second drug substitutes (%).

Drug class	First substitute
Heroin	2
Morphine	18
Methadone syrup	2
Physeptone	4
Methamphetamine	6
Benzodiazepines	10
Other opiates	1
Cannabis	4
Alcohol	6
Nothing	28
Drug never been unavailable	18

Frequency of injecting last month

In the previous month, 70% of PWID injected at least once a day and 18% more than weekly but not every day (Figure 27). The vast majority usually injected in a private home (94%) in the previous month but a small proportion (2%) injected wherever was possible. Only 2% most often injected in a car.

Figure 27: Frequency of IV drug use in the month before the survey (%)



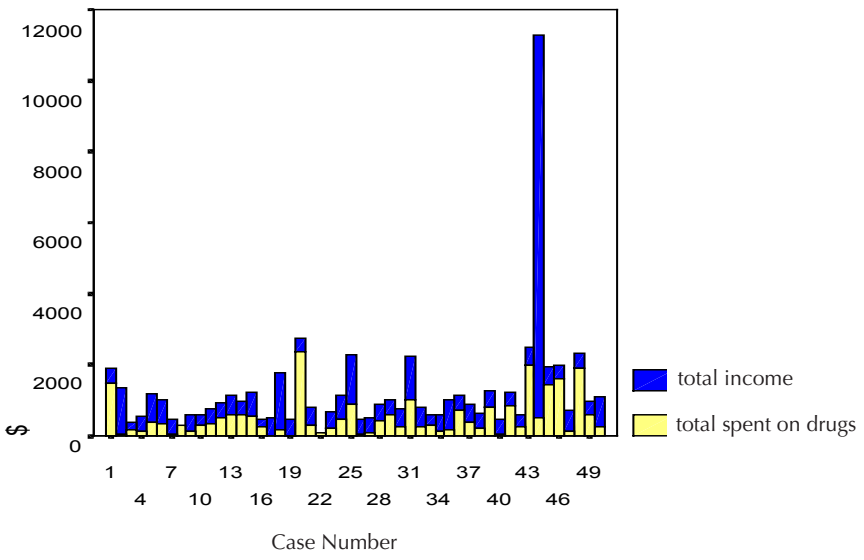
Income and drug expenditure

All 50 PWID spent money on drugs in the fortnight before the survey (one PWID refused to divulge amounts spent). Table 57 presents the total and mean amounts spent and the majority of PWID had bought morphine with an average expenditure of $458.34, totaling $16,958.60 for the fortnight. The next highest mean expenditures were on methadone ($153.75), methamphetamine ($142.60) and cannabis ($114.29). In all, the total amount spent on drugs in the last fortnight was $25,521.40, averaging $521.46 per PWID for the fortnight. The average income for the same period was $748.91. When total drug expenditure for the fortnight was subtracted from total income from all sources for each PWID for the same period, 37.5% had a drug expenditure exceeding total income (Figure 28).

Table 57: Expenditure on drugs in the fortnight before the survey (n=49).

Drug	%	Expenditure	Mean Expenditure	Range
Morphine	75.5	$16,958.60	$458.34	$100-2000
Methadone (illicit)	8.2	$615.00	$153.75	$50-400
Methamphetamine	20.4	$1,426.00	$142.60	$50-300
Cannabis	42.8	$2,400.00	$114.29	$10-300
Heroin	4.1	$175.00	$87.50	$75-100
Tobacco	78.0	$2,787.00	$71.46	$20-200
Methadone (licit)	2.0	$70.00	$70.00	0
Buprenorphine (licit)	6.1	$105.00	$58.33	$35-70
Benzodiazepines	16.3	$453.60	$56.70	$3.60-200
Alcohol	22.4	$494.00	$44.91	$5-100
Other opiates	4.0	$30.00	$15.00	0
Antidepressants	2.0	$7.20	$7.20	0
	Total expenditure	$25,521.40		

Figure 28: Total income minus total drug expenditure in the previous fortnight (n=48)



Recent benzodiazepine use

Routes of administration and forms used

In the last six months, 30% of the PWID sample had used licit benzodiazepines orally for an average of 69 days (range 1-180), while only 4% had injected them from licit sources (mean of 35 days, range 10-60). All reported they usually obtained the benzodiazepines from a doctor for real symptoms. Illicit benzodiazepines were taken orally by 38% of PWID (mean of 16 days, range 2-180) and 28% had injected illicit benzodiazepines for an average of 43 days (range 2-170). Sources of illicit benzodiazepines were gifts (40%, 26% usual source), buying from a friend (22%, 18% usual) or dealer (8%, 4% usual), swapping (8%) and borrowing (2%). PWID also reported on forms of benzodiazepines used and routes of administration for each form (Table 58). The most common forms used were Valium™ (44%), Serapax™ (18%). Hypnodorm™ (18%) and Xanax™ (18%) and these were also the forms with the highest proportion of PWID injecting them.

Table 58: Route of benzodiazepine administration and source last 6 months.

	% oral	% IV
Alprazolam (gen)	2	2
Antenex	4	0
Catapress	2	2
Ducene	4	2
Euhypnos 10	6	4
Euhypnos 20	8	6
Hypnodorm	18	14
Kalma	6	6
Mogodon	12	4
Murelax	8	2
Normison 10T	4	2
Normison 10C	8	4
Normison 20C	12	10
Oxypam	2	2
Rivotril	6	2
Serapax	18	8
Stillnox	2	2
Temaze 10C	10	4
Temaze 20C	16	14
Temaze 10T	4	0
Valium	44	44
Valpam	2	0
Xanax	18	12

Supply, availability and market changes

Just over a third (34%) of PWID had tried to access benzodiazepines from a GP in the previous six months. Of these, one PWID was unsuccessful, eight obtained a prescription from one doctor, six from two doctors and one PWID from three doctors. Four indicated a doctor had refused to provide a prescription, one stated two doctors had refused and another PWID said three doctors

had refused to provide a prescription. No PWID had tried to access benzodiazepines from the Internet in the last six months. Those PWID who had used benzodiazepines from licit sources (60%) were asked how easy or difficult it was to obtain the gel capsules and tablets (Table 59).

Table 59: Ease of obtaining benzodiazepines from licit sources (n=30).

	% Gel capsules	% Tablets
Availability		
Did not get/request	53.3	6.7
Very easy	0	26.7
Easy	6.7	40.0
Difficult	13.3	20.0
Very difficult	26.7	6.7
Change availability		
Did not get/request	60.0	6.7
Stable	0	66.7
Easier	0	0
More difficult	40.0	26.7

The majority of PWID who had used licit benzodiazepines (53.3%) had not tried or been able to access capsules from a doctor and indicated that it was either difficult (13.3%) or very difficult (26.7%) to obtain capsules from a GP. All that had obtained them stated it had become much more difficult in the last six months. Seven PWID commented on availability of prescriptions and only one of these indicated the gel capsules were easy to obtain. This PWID indicated the GP would not provide another script if the PWID ran out early and a contract prevented doctor-shopping. The other five PWID reported doctors were reluctant to write prescriptions for capsules, particularly if they suspected it was drug related.

> *The doctor doesn't like giving them. I have to talk the doctor into it with things like sleep and anxiety. I have to specifically ask and have a good reason. I can only get them from my own GP who trusts me. Other GPs won't give them.*

> *Since people have started losing the tips of their fingers the doctors have really cracked down.*

In contrast, PWID reported benzodiazepine tablets were easy (40%) or very easy (26.7%) to obtain and 66.7% thought the availability from doctors had not changed in the last six months. Fifteen PWID provided more details about the availability of benzodiazepines and, of these, four commented about some difficulty in obtaining tablets, with doctors not liking to write scripts or only writing short-term scripts. Another nine PWID indicated they had one doctor they had known for some time and the prescription was for legitimate health reasons.

> *I have a good GP who trusts me not to abuse them. I've been on benzodiazepines for medical reasons for 20 years on and off. The doctor knows I need it when I need it and I have medical records.*

> *I see a GP each month and he knows my health problems.*

One PWID indicated it was easier to obtain the tablets than the capsules because doctors did not think the tablets will be injected, another reported that the doctor had to provide what was wanted because the PWID sold the GP ecstasy and the remaining PWID indicated how some doctor-shopping can occur.

> *I explain my history, tell the doctor what medication I am on. I take doctors letters and say I need a new script. The doctor has a chat. He gives me a rap on the drug. I do not have to tell him a story.*

The PWID were then asked to describe their experiences the last time they tried to access benzodiazepines from a GP. Twenty five PWID had not tried to access these drugs and of these one stated they were terrible drugs, another rarely used benzodiazepines and obtained them from friends and the other PWID did not try because of being known as a drug user. Five PWID accessed a GP but were refused a script. Two were withdrawing from morphine and trying to obtain benzodiazepines to manage the symptoms, one was suffering anxiety, another was recovering from methamphetamine induced mental health issues and the remaining PWID claimed to have insomnia.

> *I was hanging out from morphine. I waited all day to see a doctor. I said I wasn't sleeping. The doctor would not give me Valium™ (he cut me off morphine last year). I was desperate and I walked to a friend's place (from Casuarina to Karama) and he gave me some Temaze™. I stayed at his place. It was still a bad night.*

> *It was a long time ago. There's no point trying. GPs refuse even if have a valid reason. I get insomnia but I'm labeled as a junkie and can't get past the receptionist. I did have script a while back for insomnia. I did play up a bit with the benzodiazepines but that's not a reason to get blocked forever, especially if I need them for a medical reason. It's discrimination. Everyone is entitled to get any of these benzodiazepines if they want them. They're schedule 4 and everyone can get them: your aunt, sister, brother could just go in and get them for insomnia. It's discrimination not to give them to me.*

> *I probably tried 12 months ago. Wasn't successful. About 8-9 months ago in Melbourne I was put on Valium™ because I was sick from Ice and put in the nut house. I got myself out. I was told they don't prescribe that stuff. I just gave up. I didn't want to be bothered about it so I just got on instead.*

Another three PWID were able to obtain a script but were told not to return and of these one was provided with one short-term prescription for Valium™ to manage morphine withdrawal and another was on antidepressants. One reported the doctor would not prescribe benzodiazepines for insomnia and the last PWID obtained a script to cope with the death of a family member but used all the tablets within two days. The GP refused to provide another prescription.

> *The doctor gave me a big lecture and told me I can't come back for more. I needed them because the antidepressants I am on make me wide awake and I can't sleep or relax. I still need them from time to time but I can't get them and I am too buggered during the day many times due to lack of sleep.*

> *I was coming down off morph. I wanted to manage the withdrawal. The GP wrote one script for Serepax™ 20mg, two per day and said don't come back. It helped with withdrawal. I got through the tabs quick, in a couple of days. It was too short to manage withdrawal. So I got morphine. I haven't bothered since.*

The remaining seventeen PWID were able to access prescription benzodiazepine and of these ten were on regular prescriptions and the other seven accessed single prescriptions to manage morphine withdrawal, anxiety or insomnia.

> *I book in a week before I need the script. It is for sleeping problems. The GP is usually open to giving them. I had one unsuccessful attempt where the GP was trying to give me Tramal™ instead of Valium™. I told him he could shove it up his arse and went somewhere else. I go to the pharmacy every two days and get the dose. They won't give all the pills because I had a bad experience. It's so I don't waste myself.*

> *I couldn't sleep. I was going in to get my monthly script of MS Contin™ and the GP asked me if I wanted MS Mono™ to help me sleep. I said no. The GP then asked if I wanted benzodiazepines and offered me 20mg Temaze™ capsules. I said no because they can be injected. I take care of myself and my health is important. I hear your veins can stick together if you inject footies. I said I just want 10mg tablets. I swallowed the first four at the bus stop. I had a bottle of 25. I don't know what happened. I must have taken them all because the bottle was empty next day. I haven't used them since. I don't like losing my memory.*

> *Before I was anxious because they may think I am spinning shit. If I can't see the usual doctor it's bad. Last time, I said I lost the box. This was a yarn. So now I am on a daily dose. I felt good about this as I am less stressed.*

> *Two years ago. I wanted to stop using morphine. I was hanging out. A friend sent me in to a doctor who was known to be writing morphine. I wanted morphine. He was losing his license so he gave me a script for Valium™ and Serepax™ to manage withdrawal and said to come back in a month. I shared the script with my partner, as usual. It didn't stop withdrawal, just made me more comfortable.*

> *I went for my usual appointment every three months. I discussed what was going on. They are for panic attacks. I don't tell him I inject them. He carefully looks at days between prescribing. It is supposed to last 75 days. He wrote the script, which I filled straight away at the chemist, who looks down his nose at me. Sometimes he tells me he hasn't got them when I'm sure he has.*

> *I felt I needed some benzos. I go off the rails and like a binge. My doctor knows my history and I explained I was feeling anxious. I filled it straight away. The chemist gave me no problems. I used it straight away. I didn't source any other drugs.*

Recent benzodiazepine users also commented on the price and availability of benzodiazepines from illicit sources in the previous six months (Table 60). The majority of those who had sourced illicit benzodiazepine gel capsules thought they were difficult to obtain and slightly more PWID thought they were more difficult to obtain than remaining stable in availability. Most thought the price of gel capsules was stable and only a small proportion thought the price had increased or fluctuated. In contrast, the majority of recent benzodiazepine users thought the tablets were easy to obtain. The majority also thought both availability and price were stable.

Table 60: Price, availability and sources of illicit benzodiazepines (n=50).

	% Gel capsules	% Tablets
Change in price		
Don't know	66	66
Increasing	2	2
Stable	28	32
Fluctuating	2	0
Availability		
Did not get/request	70	62
Very easy	0	0
Easy	6	26
Difficult	18	8
Very difficult	8	2
Change availability		
Did not get/request	66	64
Stable	16	22
Easier	0	2
More difficult	18	10
Fluctuates	0	2
Other drugs sold by source		
Don't know	12	
Sell no other drugs	80	
Heroin	0	
Methadone	6	
Other opiates	0	
Methamphetamine	8	
LSD	0	
Ecstasy	2	
Benzodiazepines	4	
Cannabis	10	
Inhalants	0	
Morphine	16	
Level of dealing		
Don't know	4	
Friend selling script	16	
Friend giving away excess script	4	
Friend swapping script for drugs	6	
Friend giving drugs for goods/services	2	
User selling to fund own use	2	
Small time dealer	6	
Large scale supplier	0	
No illicit use last 6 month	60	

The large majority (80%) indicated no other drugs were sold by their usual source of illicit benzodiazepines. Those that provided information most often nominated morphine, cannabis methamphetamine and methadone. When asked about the level of dealing of their usual source of benzodiazepines, the majority reported the usual source was friends selling scripts. The next most

common sources were friends swapping benzodiazepine prescriptions/drugs for other drugs and a user selling to fund drug use. None of the benzodiazepine users had accessed these drugs from the Internet and did not know how easy or difficult it was to access benzodiazepines from this source.

Seventeen PWID provided details about the availability of benzodiazepine gel capsules on the streets and four reported they were not available, with one of these stating the GPs were not prescribing them. Nine PWID indicated the gel capsules were less available or fluctuated in availability and this was mainly attributed to doctors not prescribing them.

> *There are less about. There's not as much doctor-shopping. Fewer GPs are giving them out. There's not as many GPs bulk billing so you've got to come up with the money.*

> *They don't seem to sell them or trade them as much anymore, or the doctors don't prescribe them as much. I know people who try to get gel capsules but come back from the doctors with tablets.*

> *Not many doctors are writing so there's not much around. You have to spend longer looking for them.*

> *They're not around all the time. They are more available at some times than others. I don't really look for them – they are just there and I get them.*

Another three PWID indicated gel capsules were easy to obtain as someone always had them and availability relied on knowing someone with a prescription. One PWID reported they were impossible to obtain if there were no acquaintances with prescriptions. The remaining PWID did not search for gel capsules and only accessed them from a friend when suffering from insomnia.

Eighteen people also discussed benzodiazepine tablet availability and five reported they were harder to obtain or unavailable because the GPs were not prescribing them. Seven PWID reported they did not look for benzodiazepines and use appeared to be opportunistic.

> *I'm not hunting it down. I'm an opportunist not a seeker. I use what's available.*

> *Several older people who know I have a drug habit usually offer me benzodiazepines.*

Another six thought the tablets were readily available and four of these had a regular supply because they knew people who were prescribed benzodiazepine tablets.

> *I know a number of people who regularly get scripts that I can get freebies off.*

> *They think people don't shoot them up so doctors are writing – there are more. There's been an increase in Xanax™ use.*

PWID were then asked to describe their experience the last time they tried to access illicit benzodiazepines. Twenty four PWID stated they had never tried benzodiazepines and one could not remember. Another twelve reported they do not seek out benzodiazepines but used them because the opportunity was there.

> *I was at a mate's place. We were using morphine and alcohol. He offered me some Valium™ and we both swallowed it. It had an amazing effect: I slept like a baby.*

> *I was talking to a friend during the day and they said they had some they didn't like. During the day it played on my mind. In the evening I went to their place and asked if I could have them. They gave them to me. I took them home and took half that night and smoked ganja.*

Three years ago my housemate had script for Temazepam™ 20s gel capsules. He was injecting them. I thought I'd try and see what all the fuss was about. It clogged the needle and made my arm burn. I just stick to morphine, it's better, or heroin if it was around.

I just contact associates. Friends are not really friends in this scene. I just see them, bump into them or contact them and get what I want. I don't really hunt for these drugs. If they are there then I will get them.

Seven PWID reported obtaining benzodiazepines to help them to relax or sleep and the benzodiazepines were sourced from friends or acquaintances.

I told a friend I can't get it off the doctor. My friend offered five Temazepam™ for nothing. I gave some gunja in exchange anyway. I wanted it to help me sleep at night and relax.

My friend rang me up and said someone he knew had a whole deck of Normison™ 20s for sale and did I want to go halves? I always take them when I can get them so I said yes. My friend came over and we drove to Ludmilla. The guy wasn't there so we drove to his girlfriend's house. He was there. We bought it and went home. I used some that night to send me to sleep. Otherwise I have to drink too much.

The remaining seven PWID accessed benzodiazepines illicitly to manage morphine withdrawal or to have in stock in case they needed to manage withdrawal in the future. Of these, four did not purchase the benzodiazepines and the other three had contacts to arrange a purchase.

I was at home and they visited. They asked if I needed any and I thought they would be useful if my partner was hanging out from morphine. When he does he gets violent and steals my clothes and other things of mine to sell.

I couldn't get on morphine and I was frightened I was going to get sick. I knew who might have them, I asked around and payed for them. I took them back home. I always use at home because I have no veins and it takes a while. After that, I was able to go out and search for morphine for the next day.

I didn't try to get it, someone came over to my place and said they had some. They needed money to buy morphine. I bought some to use next time I was hanging out.

PWID were then asked to comment on any market changes they had observed in relation to benzodiazepines in the last 12 months. Almost two thirds (64%) did not know if there had been any changes in the market for the benzodiazepine they used most, while 26% reported changes had taken place. Table 61 summarizes PWID responses to a number of factors associated with the benzodiazepine market. Almost one in five PWID indicated there had been a change in availability of benzodiazepines from GPs and of these 10 PWID indicated it was much harder to obtain prescriptions because GPs were refusing to prescribe or only writing short-term ones. Only one PWID stated it was easier to obtain benzodiazepines from GPs. Eighteen percent also thought there had been changes in the supply on the streets, with 10 PWID indicating it was more difficult because GPs were not prescribing. Two PWID thought it was easy to obtain benzodiazepines on the streets. Only one PWID thought the price had risen a small amount. Both PWID reporting a change in time to score indicated it took longer and one mentioned it was necessary to talk to a lot more people to find someone with a prescription. For one PWID this also meant more time travelling. Three PWID indicated drug substitution was taking place as benzodiazepines became harder to obtain. One commented that Hypnodorm™ was being substituted for Normison™ gel capsules. One PWID was using benzodiazepines less and cannabis more while the third one did not specify the drugs that were substituted.

Table 61: Changes in the benzodiazepine market in the last year (%).

Changes observed and effects	Yes	Don't know
Availability from doctors	18	78
Availability on streets	18	78
Price	2	86
Time to score	4	84
Who/where score from	0	84
Travel to score	2	84
Police activity	0	82
Drug use	6	80
Rorting	2	80
Scamming	4	80
Method of supply	2	80
Sex work	0	84
Relationships/community	4	80
Financial	2	80
Employment	2	80
Health	4	80
Treatment	0	80
Accommodation	2	80
Other	0	84

One PWID commented there was some more rorting, stating it was *conning* a person into providing money or drugs in anticipation of deriving some benefit then not following through on the agreement. Two PWID indicated they had engaged in some more scamming. The one PWID reporting on changes in method of supply indicated it was necessary to now wait six months to a year before returning to a GP to ask for benzodiazepines. Two PWID indicated there had been changes in relationships, with one stating overuse of Xanax™ had caused a relationship breakdown. One PWID had stopped looking for work, another had less money and a third needed to find cheaper accommodation.

Eighteen PWID provided additional comments on benzodiazepines. Eleven PWID commented on the negative consequences of benzodiazepine use, particularly in relation to memory loss, aggression, crime, overdose and vein damage associated with intravenous use.

> *I know a few "working girls" who use very heavily and do a lot of damage to their lives.*

> *Benzos turn people into gibbering idiots. Anyone using benzos is not a friend of mine. They think they have turned into God. They turn into liars and thieves. They'll steal anything, even stupid things like biros. You have to pat them down after being with them. They have blackouts, think they are invisible, shoplift because stuff's in front of them. Just blithering idiots. Don't know what they're doing. It's terrible stuff.*

> *At Christmas I took six 2mg Rivotril and had a blackout. I did a robbery. Everyone that night who took them went to jail. People are alert but like sleepwalkers. It makes you do bad things. I've never done robberies before.*

Four PWID said they only used benzodiazepines for legitimate reasons to treat insomnia, one stated benzodiazepines should be prescribed for morphine withdrawal and the remaining PWID said doctors would not prescribe benzodiazepines for anxiety because of a prescribed Ritalin program.

Recent pharmaceutical opiate use

Morphine: Routes of administration and forms used

In the last six months, only one PWID had used licit morphine orally for two days, while 30% had injected morphine from licit sources (mean of 157 days, range 2-180). Almost all (87%) reported they usually obtained the morphine from a doctor for real symptoms. Illicit morphine had been taken orally by only two PWID, one for two days and the other for 180 days and 86% had injected illicit morphine for an average of 101 days (range 1-180). Sources of illicit morphine were gifts (14%, 8% usual source), buying from a friend (8%, 30% usual) or dealer (6%, 42% usual), swapping (18%) and borrowing (10%). PWID also reported on forms of morphine used and routes of administration for each form (Table 62). The most common forms used were MS Contin™ 100mg (78%), Kapanol™ 100mg (64%) and MS Contin™ 60mg (52%) and these were also the forms with the highest proportion of PWID injecting them.

Table 62: Pharmaceutical morphine forms used in the last 6 months (%).

	Oral use	IV use
Anamorph 30mg	32	28
Kapanol 20mg C	14	14
Kapanol 50mg C	30	30
Kapanol 100mg C	64	64
MS Contin 5mg	2	2
MS Contin 10mg	6	6
MS Contin 15mg	4	2
MS Contin 30mg	26	24
MS Contin 60mg	52	50
MS Contin 100mg	78	78
MS Contin 200mg	6	6
Morphalgin 5mg	2	1
Ordine oral liquid	2	2

Morphine: Supply, availability and market changes

Just over a third (34%) of PWID had tried to access morphine from a GP in the previous six months. Of these, two could not obtain a script, 82% obtained a prescription from just one doctor and one PWID was provided prescriptions by five GPs. Two indicated a doctor had refused to provide a prescription, one stated two doctors had refused, another two indicated three GPs had declined a prescription and the remaining PWID had tried to obtain a script from 10 GPs. No PWID had tried to access morphine from the Internet in the last six months. Those PWID who had used morphine from licit sources (32%) were asked how easy or difficult it was to obtain morphine (Table 63).

Table 63: Ease of obtaining morphine from licit sources (n=17).

	%
Availability	
Very easy	31.3
Easy	31.3
Difficult	12.5
Very difficult	25.0
Change availability	
Stable	62.5
Easier	6.3
More difficult	31.3

Sixteen PWID commented on access to prescription morphine and ten of these indicated they were long term patients with a regular prescription. Four stated the morphine was for pain management. The other six PWID indicated it was very difficult, if not impossible, to obtain licit morphine.

> *Over the last few years GPs have been hammered by every man and his dog so GPs are keen to put people on Physeptone™ or methadone or people who don't have a very good excuse get cut off completely.*

When asked to describe their experiences the last time they had accessed a GP for morphine, 24 PWID stated they had not tried to obtain it. Twelve PWID reported their GPs were prescribing morphine for pain management and some had been attending the same GP for many years.

> *I get MS Contin™ for an old leg injury. I tell him every time that it is still hurting – it's not. I tell him I swallow the morph but I inject it.*

> *I see my doctor monthly for pain management. I have been seeing him for four years. I had a neuroma four years ago. I told the doctor I was still suffering pain. I didn't tell him I inject. He gave me a script. The chemist is meant to give it to me weekly, but depending on what chemist is on I get ten days worth or a months. I got monthly this time. They actually smile now after four years. I buy another fifteen every month and use at the end of the month.*

> *I had a very bad accident in 1991. I've had 14 operations since then otherwise I would be a cripple. I was on methadone for the first 3-4 years and given Physeptone™ for pain. I got too sick so the doctors tried various other drugs like Endone™ and Tramal™ but none really worked for the pain. Finally, the doctors at the Pain Clinic settled on morphine. I was on 500mg of Kapanol™ a day. When the HIC clamped down and my doctor went on maternity leave I saw another doctor at the clinic. He immediately cut me be back 50mg less everyday. That was really hard. He took me down to 250mg. I'm OK now. But I nearly got cut off because of other people doctor-shopping and the like and the HIC investigating. I pick up every second day so I always have it. It used to be monthly but if it's there you might use it.*

Another eight PWID had either tried to source morphine for pain management but had been refused a prescription on the last occasion or had their regular prescription cancelled.

I had two doctors who gave me morph for pain relief. I'd go once a month for script. I had regular doctor's appointments. I got cut off two years ago when the contracts and things were introduced. I will see a pain specialist to get into a pain clinic. Since I got cut off I've been buying on the streets. I've been financially disadvantaged.

I couldn't score morph and I heard there was a new doctor at this practice in Palmerston. I have a big habit and I didn't want to get sick and there's a two-week wait at the methadone program. I caught the bus out there. I didn't get the new doctor. I told the doctor who knew me my leg was hurting from an infection. He gave me a one-month script and told me not to come back, to go to pain clinic. They just make you wait. I filled the script and used it for a week and sold some. I don't need to doctor-shop as I usually know plenty of people. I have a reputation with the doctors.

I was suffering back pain and pain in my leg because of muscle compartment syndrome due to morphine use. Thirteen hours lying still put me in hospital for three weeks. My normal doctor knows about this. I made an appointment after I got out of hospital and asked if he could prescribe S8s. He said he couldn't. We tried anti-inflammatory drugs and another medicine to reduce nerve activity, but they didn't work. Next we tried Tramal™ 100s and they worked to a certain degree. I was still suffering pain so I bought some morph from a dealer. That stopped the pain.

The remaining six PWID had tried to obtain morphine from a GP because they could not obtain any from the usual black market sources or were attempting to withdraw from morphine.

I was hanging out from morph. I thought the doctor would give me a morphine script because he had before. He refused morphine. I asked if he would give me a Valium™ script to help me sleep. I told the doctor I was using morph for back pain. He gave me a script for temazepam. I filled the script and injected at a friend's place. It kept me from being too sick to look for morph. That night I scored some Anamorph™ from a friend with a script and was all right.

I went to a doctor to get morphine. I'd smashed 4 bottles of methadone at home. The chemist closed. I had no methadone so I went to a doctor. He refused to give a script but gave me one from his drawer. I felt pissed off. But was happy that I wasn't going to be sick.

Recent morphine users also commented on the price and availability of morphine from illicit sources in the previous six months (Table 64). The majority of those who had source illicit morphine thought they were easy (28%) or very easy (38%) to obtain and stable in availability in the last six months. Three quarters of the PWID (76%) also reported the price had remained stable. When asked about drugs sold by their usual supplier, 40% stated their usual source did not sell any other drugs. The other drugs sold were likely to be methamphetamine, benzodiazepines and cannabis. Almost two in five of the sample did not have contact with dealers because they bought morphine from friends who had prescriptions.

Table 64: Price, availability and sources of illicit morphine (n=50).

	%
Change in price	
Don't know	16
Increasing	6
Stable	76
Fluctuating	2

Table 64 continued.

	%
Availability	
Did not get/request	16
Very easy	28
Easy	38
Difficult	16
Very difficult	2
Change availability	
Did not get/request	16
Stable	52
Easier	4
More difficult	18
Fluctuates	10
Other drugs sold by source	
Don't know	12
Sell no other drugs	40
Methadone	8
Other opiates	4
Methamphetamine	18
Benzodiazepines	16
Cannabis	16
Morphine	14
Level of dealing	
Don't know	2
Friend selling script	30
Friend giving away excess script	2
User selling to fund own use	18
Small time dealer	28
Large scale supplier	0
No illicit use last 6 months	20

Forty three PWID provided details about the availability of morphine on the streets and of these 31 indicated there was usually plenty of morphine around and it was easy to obtain from friends with scripts or other reliable sources.

> *I have been around for a while and know lots of users. We share info around, let each other know who's got a script, who's selling.*

> *I have a friend – my usual speed dealer – with a script. I call him or visit. When he doesn't have any speed to sell me, he gives me morphine. I don't know where he gets it from. I don't ask.*

> *I know a fair few people that are getting scripts, including drunks who don't even take them and sell them for piss money.*

> *It's generally available. I always succeed. I know people, have contacts so I can get it even if takes two or three phone calls.*

The other twelve PWID thought it had become somewhat more difficult to obtain morphine because fewer people were selling, the price had risen and there was a fluctuating market related to monthly prescribing.

> *It fluctuates and depends on the time of the month and what people have done with their script – if they overused or sold too much.*

The PWID were then asked to describe their experiences the last time they tried to obtain morphine from illicit sources and eleven had not tried to obtain it. Six had used their opiate prescription before they were due for another script and tried to access morphine from friends either by purchasing it or obtaining tablets on credit.

> *I was at home. I needed morph because I had used up my Physeptone™ script and was going to be sick. I rang a friend who gets it from a doctor. They didn't have any. I had to go to find someone else at their house. They were really out of it and I 'borrowed' some MS Contin™ 60s. I cut my hand getting through their window. I just could not face being sick. I have a lot of relationship problems (domestic violence) and I just couldn't face them without morphine.*

> *I was getting sick so I called my friend. I used at her place and stayed the night. I don't search. I get tablets for credit. I have a friend on pain management. If I overuse my own script or spill or spoil some then I borrow 1-2 from him until I get my script and then pay him back. We do it for each other. There's no money involved. Just friends helping each other out if we run short. I never sell tablets from my script.*

Two other PWID stated they had not been able to access any methamphetamine so they had purchased morphine instead. Another seven PWID described how they normally obtained morphine from friends or acquaintances on morphine prescriptions and would arrange a purchase when the friend/acquaintance had the prescription dispensed.

> *I know a lot of people with scripts. Some of them don't even use. I rang up one of them and went around to his place. He sold me his whole script of Anamorph™. I do this about every two months with this one and I know three others. They do it for grog money. He's a piss-head and I have no respect for him.*

> *I always go to my friend's place. He calls me to let me know he's been to the doctor. I went there, he had filled his script, I bought 4 greys. No drama, no hassle.*

The remaining 23 PWID described various means of regular purchase from dealers, ranging from phone calls, regular visits by the dealer or visiting certain houses or locations.

> *I was seen and was offered basically. I won't go running around looking because I get cranky. I'll hang around where I know people will be. No real troubles scoring like this. If you don't go looking for it, it will come to you. Easiest thing to do is sit around and wait for it.*

> *I go and find them. I usually get it straight away. Some days it's harder. There's rorts and rip offs as greed increases. Dealers are tighter than GPs. There's no credit with tabs anymore. You need money now. That makes it harder as you have to get the money somehow.*

I caught a bus to Malak, went to one house but no one was home. I walked to another house in Jingili. He didn't have any. While I was there another friend looking to buy showed up. He gave me a lift to a phone box. He rang someone else, he drove us both there and we both bought. He dropped me home and I injected. I stayed at home the rest of the day.

They know I want it when they have it. They came around to my place on pension day and I bought some. I used it at home straight away and stayed at home. It makes the pain go away.

I felt like getting stoned. I had a day off. It had crossed my mind the day before. I saw my dealer the day before and he said he had some, and did I want it? I said I did. The next day I went round to his place. He's a friend as well as a dealer. We sat around and talked for a while. I went home and injected. I had a few cones and watched a video. I knew I could afford that amount of money without it affecting my finances.

PWID were then asked to comment on any changes in the morphine market in the last 12 months. Just over half (52%) had not noticed any changes, 20% did not know if there had been any changes and 28% thought there had been some changes. Table 65 summarizes PWID responses to a number of factors associated with the morphine market. Only 16% thought it had become harder to obtain morphine from GPs and, of these, five stated people were no longer being prescribed morphine or GPs were under pressure to terminate morphine contracts. Only one PWID stated it was easier as more people were selling diverted prescription morphine. Twenty four percent of PWID indicated there had also been changes in the supply on the streets, with 10 PWID indicating it was more difficult because GPs were not prescribing, two reporting that it was easier to obtain morphine and the remaining PWID stating it fluctuated according to the time of the month. Three PWID thought the price had risen slightly and seven PWID stated it took longer to obtain or they had to make more phone calls. For five PWID this also meant more time travelling from suburb to suburb as it was necessary to sometimes go to three or four houses rather than just one or two. Three PWID indicated there had been a change in police activity and one of these people indicated the police were doing more drug busts, particularly of Indigenous people. The other person stated police were watching houses, apprehending people after they left and sending them back to the house to buy so the police could have firm evidence of an actual sale. One PWID said there was more rorting with decreased availability and another two reported there was more crime, notably people being assaulted and robbed and pharmacy break-ins.

Table 65: Changes in the morphine market in the last year (%).

Changes observed and effects	Yes	Don't know
Availability from doctors	16	56
Availability on streets	24	44
Price	6	46
Time to score	14	48
Who/where score from	2	50
Travel to score	8	50
Police activity	4	48
Drug use	2	50
Rorting	2	50
Scamming	0	52

Table 65 continued.

Changes observed and effects	Yes	Don't know
Method of supply	2	50
Sex work	2	54
Relationships/community	2	54
Financial	0	54
Employment	0	54
Health	4	52
Treatment	0	54
Accommodation	0	54
Other	2	52

Twelve PWID provided additional comments on morphine and six of these related to drug preferences. One PWID said morphine was a poor substitute for methamphetamine but did assist with sleep. Others preferred Kapanol™ to MS Contin™ or Physeptone™, heroin or OxyContin™ to morphine. Of the remaining PWID two commented nothing had changed and another two indicated that GPs had cut a number of people off morphine so there must have been many on morphine who should not have been. One suggested daily morphine pick-up as a solution to some of the issues.

> *MS Contin™ – they could stamp it out in one fell swoop by cutting it off and putting everyone on daily pickup. That would be a good thing, it would reduce the bullshit of people who get them and don't need them and just sell them for entertainment money. They play God and I hardly get enough to get through.*

Finally, one lamented the closing of the residential detoxification service in Darwin and wait lists for pharmacotherapies.

> *It's a shame they shut down residential detox. People got nowhere to detox or cut down. It was a good service. Silly, home detox. The methadone program has a 2-week wait but I want help now. Anything can happen in two weeks. You get sent away and get depression and neck yourself because you're not getting any help. You go because you want help!*

Pharmacotherapies: Routes of administration and forms used

In the last six months, 36% of the PWID had used a licit pharmacotherapy orally for an average of 86 days (range 5-180), while only 12% had injected a pharmacotherapy from licit sources (mean of 106 days, range 7-180). Almost all (94.7%) usually obtained pharmacotherapies for real symptoms. Illicit pharmacotherapies had been taken orally by 16% of PWID for an average of 27 days (range 1-180) and 28% had injected illicit pharmacotherapies for an average of 19 days (range 1-150). Usual sources of illicit pharmacotherapies were gifts (10% usual source), buying from a friend (18%) or dealer (2%), swapping (2%) and borrowing (2%). PWID also reported on forms of pharmacotherapies used and routes of administration for each form (Table 66). The most common forms used orally were methadone syrup (32%), Subutex™ 0.8mg (14%) and Subutex™ 0.2mg (12%), while Physeptone™ 10mg was the pharmacotherapy most likely to be injected.

Table 66: Pharmacotherapies used in the last 6 months (%).

	Oral use	IV use
Methadone syrup	32	12
Physeptone 10mg tablets	5	28
Subutex 0.2mg	12	4
Subutex 0.8mg	14	10
Temgesic	0	0

Methadone: Supply, availability and market changes

Physeptone™ had been used orally by 5% of the PWID and intravenously by 28% in the last six months (Table 66). One in ten (10%) of PWID had tried to access Physeptone™ from a GP in the previous six months. Of these, two could not obtain a script, two obtained prescriptions from only one GP and another PWID accessed Physeptone™ from two GPs. Four PWID indicated no GPs had refused a prescription and one had been refused by one GP. No one had tried to access Physeptone™ from the Internet in the last six months. The three PWID who had used Physeptone™ from licit sources were asked how easy or difficult it was to obtain morphine (Table 67). Two PWID said it was very easy and they indicated they had been seeing the same GP for some time on a regular basis and had a good relationship with their doctor. The other PWID thought it was difficult and had been cut off but managed to secure another prescription.

Table 67: Ease of obtaining Physeptone™ from licit sources (n=3).

	n
Availability	
Very easy	2
Easy	0
Difficult	1
Very difficult	0
Change availability	
Stable	2
Easier	0
More difficult	1

All PWID were asked to describe their experiences the last time they tried to access Physeptone™ from licit sources and 88% (n=44) had not tried to obtain it from a doctor. Three PWID had successfully obtained a script and two of these had been seeing the same doctor on a monthly basis for eight years for pain management or for multiple issues. The other PWID had requested morphine but was provided with Physeptone™ instead.

> *I see him every month. I had used scripts and wanted to get another one. I had a bad back and if I didn't have Physeptone™ and methadone I would be in pain and use too much morphine from the street. I'd get sick. Then I would have to rort and steal. I had an appointment. They didn't keep me waiting. The doctor asked me how I was doing, what*

was going on. I told him some things but not how much morph because he'd stop giving the script. I pick up 5 days at once so I don't overuse and run out. No hassles at the chemist. Then I went home, stored the stuff, used, felt better.

I wanted morph, but he gave me Physeptone™. I thought I'd try it. I didn't like it and stopped after two months and went back to morph.

The remaining three PWID were unsuccessful in their attempt to obtain a prescription and two of these wanted Physeptone™ instead of methadone syrup and the third was attempting to withdraw from morphine.

I wanted to get off morphine and go back down south. I made an appointment. I didn't have the $50 I needed for the appointment so I didn't go. I used morphine and it stopped me feeling bad. I couldn't risk the $50 – maybe he wouldn't give me the script and then I wouldn't be able to buy morph.

I tried to get a Physeptone™ script from the methadone program doctor when I left the program. I wanted to get a script so I didn't have to go to chemists everyday. It's humiliating and it could potentially cost me my job. He wouldn't give me a script – gave me a Valium™ script instead. I hate Valium™. I was pissed-off. It's typical of the methadone program not to trust you or care what you think. I didn't fill the script. I scored morph from my friends.

The PWID also provided information on the price and availability of Physeptone™ from illicit sources in the previous six months (Table 68). Of those who had accessed it illicitly, a third thought they were easy to obtain and the other two thirds thought availability was difficult and the majority considered availability and price to be stable in the previous six months.

Table 68: Price, availability and sources of illicit Physeptone™ (n=50).

	%
Change in price	
Don't know	80
Stable	20
Availability	
Did not get/request	70
Easy	10
Difficult	10
Very difficult	8
Don't know	2
Change availability	
Did not get/request	70
Stable	22
Easier	2
More difficult	6

Table 68 continued.

	%
Other drugs sold by source	
Don't know	10
Sell no other drugs	8
Benzodiazepines	2
Cannabis	2
Morphine	8
Do not have a dealer	68
Level of dealing	
Don't know	6
Friend selling script	12
Friend giving away excess script	4
Friend swapping for other drugs	2
User selling to fund own use	2
Small time dealer	4
No illicit use last 6 months	70

The majority stated they did not have a dealer and the only drugs mentioned as available from usual sources of Physeptone™ were benzodiazepines, cannabis and morphine. When asked about drugs sold by their usual supplier, 60% stated the main sources were friends selling, giving away or swapping parts of their own prescriptions.

Fourteen PWID commented on changes in illicit Physeptone™ availability and five indicated it was readily available because they knew people who were being prescribed it. Another seven indicated Physeptone™ was not readily available and three of these attributed this to GPs not writing as many prescriptions. Of the remaining PWID said it was simply a matter of going to the usual source and paying for it, another had been offered Physeptone™ and the last PWID commented that it was cheap at $10 a tablet. When asked to describe their experiences the last time they tried to access Physeptone™ illicitly, 25 said they had not tried to access it and seven stated that there was very little around. The 18 who had sourced Physeptone™ either obtained it from friends who had prescriptions (n=15) or they purchased it from dealers.

> *I was hanging out and found the dealer and haggled about price. I asked for credit, was refused. However, I managed to get $20. Got tablets.*

> *I was hanging out for morph. I couldn't get morph because I had no money. Friends had a script. I got Physeptone™ to help me with the hanging out. It works for about 48 hours. It will hold me for 2 days and stops me hanging out. It may be better than benzodiazepines. They make you tired and you sleep. With Physeptone™ you can still do what want. It held me until I got money to get morph.*

> *Last time he gave me his script and I filled it for him. I swapped two greys for a deck of Physeptone™. I wanted it because it lasts longer and I can get more done. I injected it at home and then went out and did the things I needed to do.*

In the previous six months 12% (n=8) of the PWID had tried to access the methadone program and 16% (n=8) were already in the program. All PWID were asked the reasons why they had tried to access the program or not. Of the 43 that responded, two indicated they were on the program, one did not use opiates, another was happy with prescribed Physeptone™ and nine were on

prescription morphine. Five of the PWID on morphine stated it was for pain management, one reported it was a psychiatrist-managed morphine reduction program and another stated he had heard *horror stories* about the methadone program in Darwin. Eight PWID commented that they did not need to access a methadone program because they were happy with their level of opiate use and were not experiencing problems or they would use another drug if they wanted to stop, particularly benzodiazepines and alcohol.

> *I don't have a habit. I use once or twice a week if I can find it and afford it for back pain. I also like injecting. It's better pain relief.*

Three PWID were on the buprenorphine program (Subutex™) and one of these did not like methadone and thought it should be banned and the others had not had methadone but indicated they would never use it. Seven PWID were not interested in accessing methadone because they did not want to stop drug use, thought the methadone program was problematic or preferred other forms of treatment.

> *I'm not interested. I've heard too many bad stories about chemical handcuffs. They can't go anywhere or do anything because they have to pick up.*

> *I don't want it recorded. I want to stay out of the system. You never know where your name ends up.*

> *I didn't want it. I saw it as doubling my addiction.*

Twelve PWID reported they been in a methadone program at some point and did not like it. All stated they would not join a methadone program again.

> *I was on it four months and then chose to detox. It was the hardest thing in my life, worse than getting of morph. Never again. It's better to detox with no methadone. It ruins people's lives. The wait list is big. You can't get on when you want to and wait three weeks or more to see a GP. And then they dose you up slowly.*

> *I was on and left. I didn't want to be seen taking it every day at the chemist and be unable to visit family interstate.*

> *I was on it 2 years in Sydney. I'd never go on it again. It's very hard to get off. It was eight weeks before I slept.*

> *You never get off methadone. I know people on meth programs for 30 years. You don't do anything without it. The withdrawal is very bad. You are bound to it because you have to pick up every day.*

> *I was on it 3-4 years ago. It made me too sick. I changed to various painkillers then onto morph at the pain clinic.*

Over a third of the sample (36%) had used methadone syrup in the last six months, 32% orally and 12% intravenously (see Table 66). These people provided information on the price and availability of methadone syrup from illicit sources (Table 69). Of those who had accessed illicit methadone syrup, the majority thought it was easy to obtain and both availability and price had remained stable in the last six months. Methamphetamine, benzodiazepines, morphine and cannabis were the drugs most often nominated as being sold by their usual source of illicit methadone syrup. The main sources of illicit methadone syrup were friends selling, swapping or giving away their own methadone syrup.

Table 69: Price, availability and sources of illicit methadone syrup (n=18).

	%
Change in price	
Don't know	55.6
Stable	44.4
Availability	
Did not get/request	50.0
Easy	33.3
Difficult	11.1
Don't know	5.6
Change availability	
Did not get/request	50.0
Stable	44.4
Easier	5.6
Other drugs sold by source	
Don't know	2.0
Sell no other drugs	13.3
Heroin	6.3
Methadone	6.3
Other opiates	6.3
Methamphetamine	12.5
LSD	6.3
Ecstasy	6.3
Benzodiazepines	12.5
Cannabis	18.8
Morphine	18.8
Inhalants	6.3
Level of dealing	
Don't know	4
Friend selling script	8
Friend giving away excess script	4
Friend swapping for other drugs	2
Small time dealer	2
No illicit use last 6 months	80

Eight PWID commented on recent changes in the market for methadone syrup and all indicated that it was mainly available at the weekends or sourced from pick-up doses from friends. The PWID were then asked to describe their experiences the last time they tried to access illicit methadone and 44 had not tried to access illicit methadone syrup. Of the six that had accessed illicit methadone, most obtained it from friends and three were using it as a substitute for morphine.

> *I didn't need it but I was out and I went past the chemist. I saw someone I knew was on the program and I knew they would have a take-away. I had some Physeptone™ and a pick. We usually share if the other one needs it so I said "Do you want some physep?" She said "No I just got my 'done, do you have a pick?" I shared the takeaway. I got about a third of it. I didn't give her any Physeptone™ but she knows I have it if she needs it.*

I was looking for morph, but I couldn't find it. Someone sold me a methadone takeaway. It fixed me for two days.

I wanted to have a break from morphine to keep my tolerance down and keep it within my financial limits. I talked to my friend on the program to make sure no one else had claimed the takeaway. She usually sells among us so she can score morph in exchange. I paid street price for it when we met. I went home and stashed it for later use.

Buprenorphine: Routes of administration and forms used

In the last six months, Subutex™ 0.2mg was used orally by 12% of the PWID and intravenously by 4% (see Table 66 above). The 0.8mg Subutex™ was taken orally by 14% and injected by 10%. No one reported using Temgesic™. No one had tried to access buprenorphine on the Internet. Only 10% (n=5) of PWID had tried to join the buprenorphine program in the last six months and all PWID were asked their reasons for accessing or not accessing the buprenorphine program. Of the 43 PWID responding, two did not know what buprenorphine was, seven were already using buprenorphine, one did not use opiates, five were on methadone and eight were on prescribed morphine for pain management. Twelve PWID were not interested in a buprenorphine program either because they did not think their level of use was problematic or they were not interested in any type of pharmacotherapy. The remaining nine PWID had tried buprenorphine, did not like it and stated clearly they would not use it again.

It physically shot me. Sick, weight loss. It was really bad. Same thing happened to a friend. Really skinny.

I did quick withdrawal once. The pharmacotherapy program in the NT is crap, shit. There's so many hoops you have to jump through. It's really hard to get onto program. Lots of tests and assessments. Long wait list and a long time to even see a GP. It's too hard to get on.

Buprenorphine: Supply, availability and market changes

Just 18% (n=9) of the sample had used buprenorphine and these people provided information on the price and availability of buprenorphine from illicit sources (Table 70). There were insufficient numbers to extract any meaningful information on patterns and trends of illicit buprenorphine use. Most of the PWID who had used illicit buprenorphine did not know the level of dealing of their usual source and the main sources were friends selling their takeaway buprenorphine.

Table 70: Price, availability and sources of illicit buprenorphine (n=18).

	n
Change in price	
Don't know	7
Stable	2
Availability	
Did not get/request	5
Easy	1
Difficult	1
Don't know	2

Table 70 continued.

	n
Change availability	
Did not get/request	7
Stable	2
Other drugs sold by source	
Don't know	3
Sell no other drugs	1
No illicit use last 6 months	88
Level of dealing	
Don't know	4
Friend selling takeaway	2

Only two PWID discussed their experiences the last time they tried to access illicit buprenorphine. One was provided some buprenorphine in exchange for services and stated it prevented him for *hanging out* for 12 hours. The other had a daily routine of collecting buprenorphine.

> *It is now part of my routine. I wake up a bit achy with stomach cramps. I go and see him before breakfast. I bring it back and inject it at my home. Then I don't have to worry about it all day. I try to keep busy and stay out of the house, to keep my mind off speed. My day is more organized now. I can manage rent, bills, food budgeting. I am in my own furnished flat. I'm much better off.*

PWID were then asked to comment on any changes in the pharmacotherapy market in the last 12 months. Only four PWID thought there had been some changes in the last six months, 16% did not think the market had changed and the remaining 76% did not know. Table 71 summarizes PWID reported changes in the pharmacotherapy market. Three PWID reported a change in availability on the streets and while two of these thought there was very little available, the other thought more was available because more people were now on pharmacotherapies and selling takeaway doses. The same PWID reported a change in rorting, method of supply and financial changes. These changes related to commencing a pharmacotherapy but not taking the takeaway doses (the PWID hated the drug) and selling them to obtain money to buy other drugs.

Table 71: Changes in the pharmacotherapy market in the last year (%).

Changes observed and effects	Yes	Don't know
Availability on streets	6	92
Rorting	2	94
Method of supply	2	94
Financial	2	94

Eight PWID provided additional comments on pharmacotherapies and all of these related to difficulties and complaints about the pharmacotherapy programs in Darwin. These PWID discussed issues previously mentioned in this section: lack of trust, humiliation, the difficulties of daily pick up waiting lists and the highly addictive nature of methadone.

If methadone wasn't so hard to get off more people would do it. It's just swapping one addiction for another and it's more hassle than scoring morph. It's humiliating. People do it because they're desperate, not because they think it's a good option.

I didn't like going to the doctor at the methadone program every month. They always made it seem like they didn't believe you and belittle you and make you feel you had to lie.

Methadone is not a good idea because it is highly addictive and hard to come off. I hear good reports about buprenorphine, but I don't hear about opiate users coming off opiates by using buprenorphine.

I can't get Physeptone™ because everyone else stuffs it up for people like me. So I have to be on methadone because I can't get Physeptone™ from a GP. With methadone, I can't sleep in or organize my life because of the daily pick up. It is stressful and I've just about had it. I feel like killing myself sometimes because I just can't take it any more. Psychologically and physically, it makes a big difference not to have to pick up every day. Just to sleep in for one morning would be great and ease the stress.

Other pharmaceutical opiates: Routes of administration and forms used

In the last six months, only six PWID had orally used licit pharmaceutical opiates (other than morphine) and the average number of days used was 34 (range 7-90). Three PWID had injected licit pharmaceutical opiates for an average of 3 days (range 1-5). All six PWID reported they usually obtained the opiates from a doctor for real symptoms. Illicit pharmaceutical opiates had been taken orally by only two PWID for one and two days, and eight had injected them for an average of 26 days (range 1-135). Sources of illicit pharmaceutical opiates were gifts (n=5 usual source), buying from a friend (n=1) or dealer (n=2 usual source) and swapping (n=1). PWID also reported on forms of pharmaceutical opiates used and routes of administration for each form (Table 72). The most common forms used were OxyContin™ 80mg and Tramal™ 50mg, and OxyContin™ was the form with the highest proportion injecting it.

Table 72: Pharmaceutical opiate forms used in the last 6 months (n).

	% Oral use	% IV use
Codeine phosphate	0	0
Palfium	0	0
Dilaudid 2mg, 4mg or 8mg	0	0
MS Mono 30, 60, 90 or 100mg	0	0
Proloadone suppositories	0	0
Endone 5mg	1	1
OxyContin 20mg	2	2
OxyContin 40mg	1	1
OxyContin 80mg	5	5
OxyNorm (10mg or 20mg)	0	0
Pethidine 50mg	1	1
Durogesic	0	0
Fentanyl IV liquid	0	0

Table 72 continued.

	% Oral use	% IV use
Tramal 50mg	6	2
Tramal 100mg	1	1
Zydol 50mg	0	0

Only four PWID had tried to access pharmaceutical opiates (other than morphine) from a GP in the previous six months and two had obtained prescriptions from one GP, one PWID from two GPs and the remaining PWID from four GPs. No one was refused a script in the last six months and none had tried to access these opiates from the Internet. Those PWID who had used pharmaceutical opiates from licit sources (n=6) were asked how easy or difficult it was to obtain them (Table 73).

Table 73: Ease of obtaining pharmaceutical opiates other than morphine from licit sources (n=6).

	n
Availability	
Didn't request/get	1
Very easy	1
Easy	4
Change availability	
Didn't request/get	1
Stable	5

Three PWID said the GPs were providing the opiates for pain management, one reported it was simply a matter of reporting what the problem was, one did not ask for the opiates and the remaining PWID was provided with Tramal™ rather than OxyContin™. When the PWID were asked to describe their experiences the last time they tried to access pharmaceutical opiates from licit sources, 44 reported they had not tried to obtain these opiates, two had tried to obtain morphine but were given other pharmaceutical opiates instead and four had obtained pharmaceutical opiates for pain relief.

> *I was cut off methadone. I went to a doctor looking for morph. The doctor would only give me Tramal™ for my back pain. I took 4 and then the rest of the packet over the next few days. I didn't look for morph from another doctor because I knew it would be hard. Now I'm just buying on street.*

> *I was withdrawing from morphine and went back to the doctor who had prescribed morphine earlier that year. The doctor gave me 4 OxyContin™ 80mg tablets and said don't come back. They stopped me feeling sick. I injected them as soon as I came out of the surgery and went home.*

Other opiates: Supply, availability and market changes

The PWID were asked to report on availability of illicit pharmaceutical opiates and these data are presented in Table 74. There were insufficient numbers to extract any meaningful information on patterns and trends of illicit pharmaceutical opiate availability. Those who had accessed it tended

to obtain it from friends rather than dealers. Five PWID commented on illicit pharmaceutical opiate availability and one had easy access because of contacts on prescriptions, another two stated these drugs were available because GPs had not started to cut back on prescribing and there was a demand on the black market, and the remaining two reported these drugs were not readily available. When asked to describe their last experience of accessing pharmaceutical opiates illicitly, 44 PWID said they had never tried. Of the remaining six, only one had specifically been looking for pharmaceutical opiates and had a supplier. The other five were either given the drug or bought it because there was no morphine available.

Table 74: Price, availability and sources of illicit pharmaceutical opiates (n=50).

	%
Change in price	
Don't know	90
Stable	10
Availability	
Did not get/request	82
Very easy	2
Easy	4
Difficult	2
Very difficult	2
Don't know	6
Change availability	
Did not get/request	88
Stable	8
More difficult	4
Other drugs sold by source	
Don't know	6
Sell no other drugs	2
Methamphetamine	2
Morphine	6
Do not have a dealer	80
Level of dealing	
Don't know	4
Friend selling their script	2
Friend giving away script	4
Small time dealer	4
No illicit use last 6 months	86

I bought some morph from a friend and he threw in a Tramal™ he had. I mixed it with the Anamorph™ but it didn't do anything. I wouldn't buy it. Maybe if you were a casual user it would be OK but not with my habit (300-400mg/day morphine).

I wanted to buy morph. I rang up one of my contacts. He said he had OxyContin™ and asked if I wanted to try it. I swapped it for half meth takeaway. It was OK, but why bother when you can get morph?

I have one OxyContin™ supplier. He came around to my place because he had filled his script. I bought 4 OxyContin™ 80s. He left. I injected and read a book and enjoyed being able to lie down without pain.

PWID were then asked to comment on any changes in the pharmaceutical opiate market in the last 12 months. Only three PWID thought there had been some changes in the last six months and two of these indicated the only change was in availability. One thought there was more illicit OxyContin™ available and the other PWID had two friends who had obtained regular prescriptions for back pain. These friends wanted to swap the pharmaceutical opiate for Anamorph™. No other changes were reported. When asked if they had any other comments to make, one PWID stated OxyContin™ was good because it did not result in the tingling associated with injecting morphine, and relieved pain. The other three commented on availability and the likelihood of increased use of these drugs.

We'll probably see more OxyContin™ as doctors get squeezed about morph.

It won't take over from Anamorph™, MS Contin™ or Kapanol™ because people don't like it. They only get it because the doctor won't give them any morphine.

Drug-related behaviour

Intoxication

The PWID reported on intoxication in the last month and the drugs involved and these data are presented in Table 75. Over two thirds (68%) admitted to being intoxicated and having been told they had exhibited uncharacteristic behaviour on average five times during the month (range 1-20). Morphine and cannabis were the drugs PWID were most likely to have used to intoxication, followed by methamphetamine and benzodiazepines.

Table 75: Drugs involved in intoxication in the previous month (n=34).

	% Yes*	Form/s
Methamphetamine	23.5	
Cannabis	32.4	
Alcohol	17.6	
Heroin	2.9	
Methadone	17.6	
Morphine	55.9	Anamorph 2; Kapanol 1; MS Contin 16
Other opiates	2.9	
Benzodiazepines	23.5	Xanax/Hypnodorm 2; Serepax/Valium 1; Hypnodorm, Serepax, Xanax, Valium Temazepam 1

*Of those reporting being intoxicated.

Those who had been intoxicated and been told they displayed uncharacteristic behaviour (n=16) were asked to describe this behaviour. Four PWID said they had become very relaxed and sleepy and one of these commented that it was similar to being drunk.

Fall asleep. Don't know what's going one. It's like being drunk. It can alter the personality. Some are nicer, some are nastier, some do kleptomania.

Another four PWID reported increased aggression and some engaged in physical violence.

> *Amphetamines made me snap. I feel like I am a vampire, the incredible hulk. Punched then threw the microwave. I was dragged out by police. I don't shoplift on benzos. I have a good tolerance.*

> *I was cranky, snappy, and saying aggressive things to my partner. After having a Serepax™ I was cruel to my cat. I felt remorseful, so I had another cone.*

> *I'm more aggro when people try to talk to me and I am off somewhere else. It is irritating to be brought back. I lost my temper and punched my girlfriend.*

Another three PWID said they had become involved in illegal behaviour such as unlicensed driving and theft.

> *I got caught shoplifting. I paid for some goods and had some others which I think I'd forgotten about. I don't normally shoplift but I was really out of it. I don't remember the event. I was caught and had to go to court. I was fined and it's more financial pressure.*

Of the remaining four PWID, one had a blackout and could not remember the events of the night before. This caused a level of concern. Another moved into a flat with his girlfriend after seven years living in the long grass (being homeless), another was loud and obnoxious from alcohol and the remaining PWID reported he was banned from using benzodiazepines in his shared flat.

> *I was dribbling rubbish to my flatmate, burned holes in sheets with a cigarette, fell down and slept on the floor. My flatmate has banned the injection of benzos – can only swallow them.*

Shoplifting

PWID were asked to report whether they had engaged in shoplifting in the last month and the reasons for engaging in this behaviour. From Table 76 it can be seen that 70% reported no involvement in shoplifting but 18% committed such theft less than once a week and 8% did so on a daily basis.

Table 76: Frequency of self-reported shoplifting in the last month (n=50).

Frequency	**%**
None	70
Less than once a week	18
Once a week	2
More than once a week (not daily)	2
Daily	8

When asked to explain the reasons behind such behaviour, 16 PWID provided comment. The majority (n=10) generally stated they needed to obtain food and other essential items such as clothing and bathroom products.

> *It's financial. I don't like it but there's less guilt if I think it's a big company and insured. I get meat, things I need. Food and essentials only.*

When you spend as much as me on a habit there's nothing left for food, shampoo, etc, so I have to steal.

I needed chocolate at the movies. I don't think it matters but I was so out of it I didn't care. It doesn't matter if you don't get caught. I only take small stuff like chocolate, chewing gum and drinks.

Another three PWID specifically engaged in shoplifting to obtain goods to sell or swap for drugs.

I steal four times a day to get goods to sell for MS Contin™. I take orders. People tell me what they want and I take the goods back to them. It's not like me. I don't like this sort of behaviour. Shops are insured so it's not personal.

Of the remaining three, two stated they would never normally engage in shoplifting but had been on benzodiazepines at the time. The last PWID believed Woolworth's owed him money because of a connection with the New York mafia and drug dealers murdering his dog.

Property crime

Only 6% of the PWID reported any involvement in property theft in the previous month and 4% committed this type of theft less than once a week (Table 77). When asked the reasons for committing property theft, one indicated it was for money, two reported it was to obtain goods for drugs and, interestingly, one did not consider shoplifting for food as property theft.

It's a big moral no-no for me. Big shops can afford it, they are insured, they don't notice until stocktaking so it is safe to take stuff to Cash Converters.

I needed the money for morph. I only steal DVDs and they are cheap for people to replace.

I don't steal. As a kid I was branded as a thief and I have stopped. I only steal pain killers (Panadol) and food out of necessity.

Table 77: Frequency of self-reported property theft in the last month (n=50).

Frequency	%
None	94
Less than once a week	4
Once a week	2
More than once a week (not daily)	0
Daily	0

Dealing, swapping and services for drugs

Eighteen percent of the sample reported selling drugs to someone in the last month and 10% did so once a week (Table 78). Four PWID reported they sold drugs in order to make money to buy drugs, one stated it was to replace money spent on drugs and the remaining three PWID said it was for financial reasons.

For money to live on, a supplementary income. I don't pay for drugs. I see it as a bit more money to live on.

Table 78: Frequency of self-reported sale of drugs in the last month (n=50).

Frequency	%
None	82
Less than once a week	4
Once a week	10
More than once a week (not daily)	2
Daily	2

Swapping of drugs was much more common than selling drugs and 36% of the PWID had swapped drugs in the last month (Table 79). Seven PWID reporting swapping was preferable because it was possible to do a better deal.

> *I swapped some morphine for some speed – it's all right as long as it works in your favour! You have to catch them when you have something they want.*

> *Sometimes I have no money. Sometimes I have drugs and they don't. I get double the price by swapping. It's a better deal doing it this way. I get much more.*

> *Opportunity. If I've got extra pot I swap for something else. I get more for it than I paid.*

Table 79: Frequency of self-reported swapping of drugs in the last month (n=50).

Frequency	%
None	64
Less than once a week	18
Once a week	8
More than once a week (not daily)	10
Daily	0

The remaining PWID generally indicated it was a way of obtaining the drug wanted or of managing if supplies ran short.

> *It's like a borrowing system up here: I don't need the cash, I need the drugs back. I can't afford to sell my drug, but I'll lend it.*

> *It is a good way to get what you want. I swapped two sleepers for a bag of ganja.*

> *I swapped meth takeaway for OxyContin™. I usually sell it and get morph.*

One in five PWID reported providing services (legal) in exchange for drugs in the past month and 10% did so weekly or less (Table 80). Five PWID said it was a way of bypassing money and another reported it was easier than stealing.

> *I can bypass money. I don't need money. I do a favour or something and get the drug without having to get the money together.*

Table 80: Frequency of self-reported legal services in exchange for drugs last month (n=50).

Frequency	%
None	80
Less than once a week	10
Once a week	4
More than once a week (not daily)	4
Daily	2

Providing illegal services in exchange was reported to be less prevalent than legal ones in the previous month and 12% said they had provided some type of illegal service for drugs (Table 81). Three PWID said they were just doing it to obtain money for drugs and the other PWID commented that people stand on different moral grounds.

Table 81: Frequency of self-reported illegal service in exchange for drugs last month (n=50).

Frequency	%
None	88
Less than once a week	4
Once a week	4
More than once a week (not daily)	4
Daily	2

PWID reported how often they had provided goods in exchange for drugs in the last month and 20% indicated thay had engaged in this process (Table 82). Two PWID had swapped one of their personal items, such as a DVD player, for drugs and three indicated they swapped stolen goods for drugs.

> *I swapped stolen DVDs for cannabis. DVDs are cheap and insured. It's better than robbing people [i.e. assault].*

> *I swapped DVDs for morph. I don't usually do it.*

Table 82: Frequency of self-reported exchange of goods for drugs last month (n=50).

Frequency	% Yes
None	80
Less than once a week	10
Once a week	10
More than once a week (not daily)	0
Daily	0

PWID were asked if they had sold goods to obtain drugs in the last month and 8% reported they had less than once a week, 2% once a week and another 2% more than once a week but not every day (Table 83). Seven PWID made comment on this behaviour and viewed it as a means of obtaining drugs. Some of the goods were stolen.

You need either money or drugs, not goods.

It's a way of bypassing a lack of money. Most goods are stolen originally.

Table 83: Frequency of self-reported selling of goods for drugs last month (n=50).

Frequency	% Yes
None	88
Less than once a week	8
Once a week	2
More than once a week (not daily)	2
Daily	0

Fraud

The prevalence of self-reported fraud was very low among the PWID, with only 4% stating they had engaged in any fraud in the last month (Table 84). One PWID admitted to stealing credit cards and fraudulently using them. This PWID felt good when this enabled drugs to be purchased. Four PWID reported that it was too risky now and not as easy as it was years ago to commit fraud, particularly social security fraud.

Table 84: Frequency of self-reported fraud last month (n=50).

Frequency	% Yes
None	96
Less than once a week	2
Once a week	2
More than once a week (not daily)	0
Daily	0

PWID were also asked how often they had engaged in rorting and scamming in the previous month and 12% stated that had done rorting (all less than once a week) and 12% had engaged in scamming (10% once a week). Eleven PWID provided definitions of rorting and while one said methadone takeaway doses were a rort the other PWID provided two broad definitions: ripping someone off for drugs or money or Centrelink fraud.

You rip someone off – such as fake money mingled into real money. It's the same as scamming. I don't do it any more. People would get killed in Sydney for the sort of things they do here.

Social security fraud, claiming for two people. It's not worth it.

An example is an emergency payment from Centrelink. You do it to get drugs if the opportunity is there.

Rorting is the same as scamming. It's ripping someone off for drugs or related to drugs.

Five PWID said scamming was the same as rorting but two PWID provided examples of scamming that did not fall into the two broad definitions above.

At Westpac I had two cards. When the machine goes down (once a day at varying times) it will let you overdraw. I needed food and drugs. It's not a good thing – it screws up your credit and you have debt hanging over you.

There's a bank scam on Sunday nights. The line goes down. You can get $50 or go to the shop and get $200 worth of food.

Violent crime

The prevalence of self-reported violent crime in the last month was very low, with only 2% reporting engaging in such crime once a week (Table 85) and no reasons were given for committing violent crime.

Table 85: Frequency of self-reported violent crime last month (n=50).

Frequency	% Yes
None	98
Less than once a week	0
Once a week	2
More than once a week (not daily)	0
Daily	0

Drug driving

The majority of PWID (60%) reporting driving under the influence of drugs in the last month and 42% did so on a daily or near daily basis (Table 86). Fourteen PWID reported they drove out of necessity and while four thought the drug/s may affect their driving, the other ten thought they were not affected or only drove after using some drugs but not after using others.

I am under the influence of drugs but I am reasonably functional so it is not dangerous.

If I have to get someone and as long as I am not totally out of it. I'm only on methadone and prescribed pills.

It's a necessity. I can drive safer on pot than speed so I don't drive after speed. I only use benzos to sleep so don't drive.

It was pretty cool because I took my time. Actually it was the car that was the problem, not me. The steering was wobbly.

Table 86: Frequency of self-reported drug driving (n=50).

Frequency	%
None	40
Less than once a week	12
Once a week	6
More than once a week (not daily)	20
Daily	22

Another eleven PWID believed the drugs did not affect their driving, many claiming using the drug brought them up to a normal level.

> *It doesn't affect me. It brings my reflexes and functioning up to normal. It's dangerous if I don't have it.*

> *I need to get to work. Drugs bring me up to normal. I drive better on drugs than hanging out. It's less safe if I have no drugs. I don't drive if I'm feeling smashed or nodding off.*

> *There is no danger. I am a safe driver when high. You get used to it – it is safer than speeding to your dealer when you are hanging out.*

> *I'm always on speed. I use every day. I don't feel out of it or intoxicated.*

> *I need to drive to work. My ability to drive isn't impaired. I use morphine to get back to being normal, not to get high.*

Associations between illegal activity, demographics and drug use

Spearman's rho correlations were conducted to test for any significant correlations between demographic variables, recent drug use and illegal activity in the previous month. A total crime score was calculated by summation of variables examining self-reported crime in the last month: shoplifting, property theft, selling drugs, illegal services for drugs, selling goods for drugs, fraud and violent crime. There were no significant correlations between involvement in illegal activity and any of the demographic variables. However, the total crime score was significantly correlated with the number of days of methamphetamine (rho = .435, p = .002), ecstasy (rho = .402, p = .004) and cannabis use (rho = .420, p = .002) in the last six months. The differential between total income from all sources in the last fortnight and expenditure on licit and illicit drugs in the same time period was not significantly correlated with the total crime score or any drug-related behaviour other than selling drugs in the last month (rho = .286, p = .049).

Spearman's rho correlations were also performed to test the association between the number of days of drug use in the last six months and drug-related behaviour in the last month. The number of days of methamphetamine use was significantly correlated with selling drugs (rho = .388, p = .006), providing services for drugs (rho = .406, p = .004), exchanging goods for drugs (rho = .433, p = .002) and selling goods for drugs (.384, p = .006). Similarly, days of cannabis use was significantly associated with selling drugs (rho = .294, p = .038), providing service for drugs (rho = .441, p = .001), exchanging goods for drugs (rho = .328, p = .02) and selling goods for drugs (rho = .328, p = .02). There was a significant association between days of ecstasy use and selling goods for drugs (rho = .294, p = .046).

The number of days of oral use of benzodiazepines from licit sources was significantly correlated with shoplifting (rho = .330, p = .018) and providing services for drugs (rho = .386, p = .006), while days of IV licit benzodiazepine use was significantly correlated with selling goods for drugs (rho = .527, p = 0). The total number of days of oral use of illicitly sourced benzodiazepines demonstrated a significant correlation with shoplifting (rho = .343, p =.015) and providing services for goods (rho = .386, p = .006). Days of intravenous use of illicit morphine showed a significant correlation with property theft (rho = .311, p = .028) and swapping drugs (rho = .324, p = .022).

Summary

Sample characteristics, drug use history & recent drug use

The sample of PWID was predominantly male (74%), non-Indigenous (88%), with an average age of 37.6 years, educated to Year 10 level, generally unemployed (84%) with the main income sourced from Centrelink (88%) with a mean income from all sources of $748.91 in the previous fortnight. Just over half had completed some post-secondary education and 58% had a prison history. Only a third (32%) had participated in any drug treatment in the previous six months, mainly methadone or buprenorphine pharmacotherapies (40%) or prescription morphine from a doctor (20%). Of the 46% currently in treatment, most (41%) said they were on prescribed morphine. Length of treatment varied from less than a month to up to 21 years, with a median length of 18 months.

In the last six months, 78% of the sample had used (but not injected) cannabis on a near daily basis, 62% methamphetamine, 52% alcohol, and 22% heroin. The majority of PWID (61.2%) had injected methamphetamine for an average of 39 days and 29.7% had injected heroin for a mean of 36 days. In the previous month, 70% injected at least once a day and 18% more than weekly but not daily and the majority (94%) injected in a private residence. The majority (44%) stated heroin was the preferred drug, 24% nominated morphine and 12% methamphetamine. However, 80% had most often injected morphine in the last month. The majority of PWID who had not most often used their preferred drug in the last month (predominantly heroin) stated this was due to lack of availability. Of the PWID who could not access the drug most used last time they tried to obtain it, substitution of another drug was most often mentioned as the action taken and the drugs mentioned were morphine, benzodiazepines, methadone and methamphetamine. If the most used drug was unavailable, 28% said they would not use anything else, 18% indicated MS Contin™, Kapanol™ or Anamorph™, and 10.9% said benzodiazepines, mainly Valium™. All PWID had bought drugs in the last fortnight and most had bought morphine (75.5%) with a mean expenditure of $458.34 and tobacco (78%), with a mean expenditure of $71.46. Methamphetamine was purchased by 42% for an average of $142.50. The total amount spent on drugs in the fortnight was $25,521.40, averaging $521.46 per PWID, and 37.5% of PWID had spent more on drugs than their income for the fortnight.

Recent benzodiazepine use

In the last six months, 30% of PWID had used licit benzodiazepines for an average of 69 days, but only 4% had injected them (mean of 35 days). All reported accessing a GP with genuine symptoms as the main source. In contrast, 38% had used illicit benzodiazepines orally for a mean of 16 days and 28% had injected them for an average of 43 days. Usual main sources were gifts (40%) and buying from a friend (22%) or dealers (8%). The benzodiazepine forms most often used orally were Valium™, Serepax™, Xanax™ and Hypnodorm™ while those most often injected were Valium™, Temaze™ 20mg capsules, Hypnodorm™ and Xanax™.

In the previous six months, 34% had tried to access benzodiazepines from a GP and, of these, eight obtained a prescription from one GP, six from two GPs and one from three GPs. Four had been refused a prescription by one GP, one from two GPs and one from three GPs. Half of PWID

thought gel capsules were difficult or very difficult to obtain from a GP, while 66.7% thought the tablets were easy or very easy to obtain. When asked to describe their last experience of trying to access benzodiazepines from a GP, twenty-five said they had not tried, five failed, three obtained a prescription but were told not to return and 17 obtained prescriptions. Of the latter, ten were on regular prescriptions and seven obtained a short-term script to manage morphine withdrawal. The majority of those who had sourced illicit benzodiazepine capsules in the last six months thought they were difficult or very difficult to obtain and had become more so. Most thought the price was stable. Tablets were seen as easy to obtain and availability and price were stable. The majority (80%) said their usual source of illicit benzodiazepines did not sell other drugs, but others mostly nominated sale of morphine, cannabis and methamphetamine. Two in every five sourced benzodiazepines from friends selling their scripts and 15% either swapped their script for other drugs or 15% bought from a small time dealer. Seventeen PWID commented on the availability of gel capsules and tablets and four said the gel caps were unavailable and nine stated they were less available mainly because GPs were not prescribing them. Six people said the tablets were readily available while five thought the tablets were harder to obtain and seven commented they did not look for benzodiazepines and use was opportunistic. PWID reported their experience the last time they tried to access illicit benzodiazepines. Twenty four stated they had not tried and 12 indicated they did not seek out benzodiazepines but would use them if the opportunity arose. Those seeking benzodiazepines mainly wanted them to assist with relaxation or sleep or to manage morphine withdrawal. Two thirds of PWID did not know if there had been any changes in the benzodiazepine market in the last 12 months and 18% said there had been a change in supply from GPs and on the black market.

Recent morphine use

In the last six months licit morphine was more often injected than used orally (30% : 2%). Injecting was more likely to occur on a daily basis (mean 157 days) and oral use weekly. The majority (87%) stated they obtained morphine from a GP for genuine symptoms. Illicit morphine had been used orally by two PWID for 180 days and 86% had injected illicit morphine for an average of 101 days. The most commonly injected forms were MS Contin™ 100mg (78%), MS Contin™ 60mg (50%) and Kapanol™ 100mg (64%). Usual sources of illicit morphine were gifts (8%), buying from a friend (30%) or dealer (2%), swapping (18%) and borrowing (10%).

In the previous six months, 34% had tried to access morphine from a GP and of these 82% obtained a prescription from just one GP and one PWID was prescribed morphine by five GPs. One had been refused a prescription by two GPs, two by three GPs and one by ten GPs. Almost two thirds (62.6%) of PWID thought licit morphine was easy or very easy to obtain and availability was stable in the last six months. When asked to describe their last experience of trying to access morphine from a GP, 24 said they had not tried, 12 were on morphine for pain management and eight had been refused a prescription for pain management or their GP ceased prescribing morphine, and six had unsuccessfully tried to obtain it because they could not access illicit morphine. The majority (66%) who had sourced illicit morphine in the last six months thought it was easy or very easy to obtain and availability and price were stable. Two in every five said their usual source of illicit morphine did not sell other drugs, but others mostly nominated methamphetamine, benzodiazepines, morphine and cannabis. Over a third (37%) sourced morphine from friends selling their scripts, 35% purchased from small time dealers and 22% from user dealers. Forty-three PWID commented on the availability of morphine and 31 indicated there was plenty around and it was easy to obtain from friends with prescriptions or other reliable sources. The other 12 thought it had become more difficult to obtain morphine as fewer people were selling, the price had risen and the market fluctuated according to monthly prescription dispensing. PWID reported their experience the last time they tried to access illicit morphine and 11 stated they had not tried, six had overused their prescription and run short and accessed

morphine from friends, two purchased morphine because methamphetamine was unavailable, seven had an arrangement with friends with regular prescriptions and 23 usually rang a dealer. Just over half (52%) of PWID had not noticed any changes in the morphine market, 20% did not know if there had been any changes and 28% thought the changes were a reduction in availability from GPs and on the black market and more time spent scoring.

Recent use of pharmacotherapies

In the last six months, licit pharmacotherapies were more often used orally than injected (36% : 12%). Oral administration tended to average more than weekly but not daily (mean 86 days) while injecting was more likely to occur on a near daily basis (mean 106 days). Almost all (94.7%) reported they obtained pharmacotherapies for genuine symptoms. Illicit pharmacotherapies had been taken orally by 16% of the sample (mean of 27 days) and 28% had injected them (mean of 19 days). Usual sources of illicit pharmacotherapies were gifts (10%) and buying from a friend (18%) or dealer (2%). The most common forms used orally were methadone syrup (32%), Subutex™ .8mg (14%) and .2mg (12%) and Physeptone™ 10mg was the type most often injected.

In the previous six months, 5% of the PWID had used Physeptone™ orally and 28% had used it intravenously. One in ten had tried to access Physeptone™ from a GP and one could not obtain a prescription, two were provided prescriptions from one GP and one from two GPs. Two PWID who had used licit Physeptone™ said it was very easy to obtain and stable and one said it was difficult and becoming more difficult. When asked to describe their last experience of trying to access Physeptone™ from a GP, 88% said they had never tried, 6% had obtained a script and two of these were on regular prescriptions. Three PWID had failed and the reasons for wanting Physeptone™ were to use instead of methadone syrup or to withdraw from morphine. The majority (60%) who had sourced illicit Physeptone™ in the last six months thought it was difficult or very difficult but availability and price had been stable. A third said their usual source of illicit Physeptone™ did not sell other drugs, but others mostly nominated morphine. Two in every five sourced Physeptone™ from friends selling their scripts, 13% obtained it as a gift from friends and 13% from small time dealers. Fourteen PWID commented on the availability of Physeptone™ and five indicated it was readily available because they knew people with prescriptions. Another seven thought it was not readily available mainly because GPs were not prescribing it as much. PWID reported their experience the last time they tried to access illicit Physeptone™ and 25 said they had never tried, seven said there was little around and 18 obtained it from friends with prescriptions or rang a dealer.

PWID provided comment on reasons for accessing or not accessing the methadone program and the majority of those responding stated they were on prescription morphine, were content with their level of morphine use or did not want to stop using morphine. In the last six months 36% of the PWID had used methadone syrup, 32% orally and 12% intravenously. The majority of those who had used methadone syrup said it was very easy to obtain and stable in both availability and price. Methamphetamine, benzodiazepines, morphine and cannabis were the drugs most often thought to be sold by their usual source of methadone syrup. The main sources of methadone syrup were friends selling, swapping or giving away their own doses. Eight PWID commented on market characteristics and all stated it was mainly available at the weekend or sourced from pick up doses of friends. Forty four PWID had never tried to access illicit methadone syrup, and the six who had all obtained it from friends and three used it as a substitute for morphine. PWID provided comment on reasons for accessing or not accessing the buprenorphine program and the majority of those responding were not interested in changing their drug use or using any type of pharmacotherapy or had tried buprenorphine and did not like it. In the last six months 36% of the PWID had used Subutex™, 12% orally and 4% intravenously. Only nine PWID had used illicit buprenorphine and there was insufficient information to determine if any changes in price or

availability had occurred. PWID commented on market changes in pharmacotherapies and 16% did not think there had been any changes, 76% did not know if there had been and most of the 16% who thought there was a change indicated it was in greater availability on the black market.

Recent pharmaceutical opiate use

In the last six months only six PWID had used licit pharmaceutical opiates (other than morphine) and the average number of days used was 34. Three had injected them for an average of three days. All six stated they obtained pharmaceutical opiates from a GP for genuine reasons. Illicit pharmaceutical opiates had been used orally by two PWID for one and two days and eight had injected illicit pharmaceutical opiates for an average of 26 days. The most common forms used were OxyContin™ 80mg and Tramal™ 50mg. Usual sources of illicit pharmaceutical opiates were gifts (n=5), buying from a friend (n=1) or dealer (n=2) and swapping (n=1).

In the previous six months, four PWID had tried to access pharmaceutical opiates from a GP and two had obtained a prescription from just one GP and one from two GPs and one from four GPs. Most thought licit pharmaceutical opiates were easy to obtain and availability was stable in the last six months. When asked to describe their last experience of trying to access morphine from a GP, 44 PWID said they had not tried, two had tried to obtain morphine but were given other pharmaceutical opiates instead and four had accessed them for pain relief. There were insufficient numbers to determine any meaningful trends in availability. One in three said their usual source of illicit pharmaceutical opiates sold morphine and the usual sources were friends selling scripts, friends giving away scripts and small time dealers. Forty-three PWID commented on the availability of pharmaceutical opiates and only three PWID thought there had been any change, with one stating there was more OxyContin™ available and the other two reporting increased availability because they were now obtaining regular prescriptions for pain.

Drug-related behaviour last month

Over two thirds (68%) of the sample had been intoxicated on drugs in the last month and had been informed they displayed uncharacteristic behaviour on average five times. Drugs used to intoxication were most likely to be morphine and cannabis. Behaviours described were relaxation and sleep, aggression and illegal behaviour such as drug driving and theft. Almost a third (30%) had committed shoplifting in the last month, 18% less than weekly and 8% on a daily basis. The most common reason was needing for food and essential items. Only 6% reported committing any property crime and 4% did so less than once a week for money to obtain goods for drugs and food. The majority did not report participation in selling drugs (82%), but 10% did so once a week mostly to make money to buy drugs. Swapping drugs was more common (36%) and 18% swapped less than once a week, 8% once a week and the remaining 10% more than once a week, usually to obtain the desired drug. Legal services were provided for drugs by 20% of PWID and 10% did this less than once a week, usually to bypass using money. Only 12% provided illegal services for drugs, usually to obtain money for drugs. Goods were exchanged for drugs by 20% of PWID and 10% did this less than once a week or once a week and some of these goods were stolen. Goods were sold to obtain drugs by 12% of the sample and 8% did this less than once a week, usually to obtain money for drugs. The majority (88%) had not done any rorting in the last month and 12% did it once a week. It was usually described as ripping someone off. The same proportion had engaged in scamming and 10% said they did this once a week. It was generally considered to be the same as rorting. The vast majority (96%) said they had not engaged in fraud and 2% committed it less than once a week or once a week. Violent crime was committed by only 2% of the PWID and it was usually done more than once a week. The majority (60%) reported driving under the influence of drugs in the last month, 42% did so on a daily or near daily basis and 28% said they did so out of necessity. Two in every five did not think it affected their ability to drive.

Associations between illegal activity, demographics and drug use

There were no significant correlations between demographic variables or recent drug use and illegal activity in the previous month. Total criminal involvement score was significantly correlated with the number of days of methamphetamine, cannabis and ecstasy use in the last six months. The differential between total income from all sources in the last fortnight and expenditure on licit and illicit drugs in the same time period was not significantly correlated with the total crime score or any drug-related behaviour other than selling drugs in the last month. The number of days of methamphetamine and cannabis use were both significantly correlated with selling drugs, providing services for drugs, exchanging goods for drugs and selling goods for drugs. There was a significant association between days of ecstasy use and selling goods for drugs. The number of days of oral use of benzodiazepines from licit sources was significantly correlated with shoplifting and providing services for drugs, while days of intravenous use of licit benzodiazepines was significantly correlated with selling goods for drugs. The total number of days of oral use of illicitly sourced benzodiazepines correlated significantly with shoplifting and providing services for goods. Days of intravenous use of illicit morphine showed a significant correlation with property crime and swapping drugs.

Stage four: In-depth key informant interviews

Drugs used most: Types, patterns of use and impact on services

Pharmaceutical opiates

Of the 29 Key Informants (KI) participating, 10 indicated the morphine sulphate MS Contin™ was the pharmaceutical opiate most used. KI most often mentioned the 100mg tablet, particularly among injecting users and the 60mg tablet was more commonly used than the 200mg tablet. The 30mg tablet was not often mentioned. Another 11 KI indicated it was MS Contin™ plus some Kapanol™ and another six included Anamorph™ but MS Contin™ was invariably listed as the main form. One KI stated Kapanol™ was the least preferred because of the problems associated with injecting this form of morphine sulphate. The remaining three indicated it was any form of morphine, whatever was available at the time. Morphine sulphate was thought to be mostly sourced from GPs (n=6), from GPs and the street or friends(6), street/friends only (n=1), stolen or combination of all sources (n=1). Seven KI commented on other forms of pharmaceutical opiates, with three stating there appeared to be an increase in OxyContin™, particularly the 60mg and 100mg forms. One of these KI indicated some users preferred OxyContin™ to morphine sulphate because there was not the tingle associated with injection of morphine sulphate. Two pharmacists indicated they were selling quite a lot of Mersyndol™, and the other forms mentioned were Pethidine™ (n=1), Ordine™ (n=2), OxyNorm™ (n=1) and codeine phosphate (n=2).

When asked to provide information on the people most likely to use pharmaceutical opiates, a broad range of responses were provided, possibly a result of the variety of services and professions represented among the KI. Two KI said it was impossible to define as use was across a broad range of people. Twelve other KI thought it was mostly an older group predominated by males aged over 30 years who would have initially been using heroin and then accessed morphine from GPs when heroin became difficult to obtain. Another six KI stated it was mostly younger people in their late teens and early twenties and they used the drugs primarily for the drug effect because there was easy access from GPs and the street and, over time, some had become opiate dependent. Several KI stated that a lot of older people with some kind of chronic pain either became opiate users through pain management or were previously illicit drug users who found that opiates dealt with their pain. Those people are still around and that weights the average age of users to the older level. Three KI stated dependent users were more likely to be males with a low level of education,

generally unemployed and often having a history of involvement with the criminal justice system. The remaining seven KI making comments about who uses and why mentioned pain as a key factor in pharmaceutical opiate use and some expressed doubt about the legitimacy of the claims of chronic pain amongst some of those using morphine.

KI were asked to comment on any distinctive patterns of pharmaceutical opiate use and one KI commented that most people were poly-drug users. Three KI noted some perceived changes in people using pharmaceutical opiates. One of these KI suggested the cohort of opiate users from the 1980s and 1990s was being replaced by a younger group using a broader range of drugs, not just opiates. Likewise, one KI stated there was no clear distinction between opiate and methamphetamine users and this may be due to a lack of good quality methamphetamine. Another KI believed there was a larger percent of people using both amphetamine-type substances as well as morphine and they used drugs for the intoxicating effect and were not concerned about the type of drug. The remaining KI reported an increase in use of morphine sourced from palliative care among Indigenous people in the last 12 months. It was thought to be a replacement for alcohol. Five KI indicated that their clients were generally regular users and mostly administering intravenously, at least once a day. Finally, one KI reported seeing a range of methamphetamine users who were young, male, Indigenous poly-drug users and this demographic was not apparent among opiate users.

Morphine was considered to be a primary rather than a supplemental drug by ten KI and another seven stated it was primary because it was used instead of heroin due to a lack of heroin availability. Some KI stated some methamphetamine users might use morphine to try and come down from being up, and developing a liking for it as a result. Younger recreational users were viewed as less fixed in their drug of choice than the older users. One KI commented that it was not a primary drug among their client group but was sometimes used to come down from methamphetamine.

KI were asked to provide comment on the impact of pharmaceutical opiates on their work. Two stated there was no impact and another commented it was easier with morphine as it was pure and there were less overdoses than in markets dominated by heroin. One informant reported people presenting with injuries resulting from incorrect injecting procedures and this necessitated making an assessment about whether hospital admission was required, knowing that if such a recommendation was made people often refused to be admitted because they thought doctors would recommend amputating the affected areas. Police key informants indicated pharmaceutical opiates had very little impact on their work because under the *Misuse of Drugs Act* it is not an offence to have morphine tablets in possession without a script. The ambulance service reported quite a marked impact because attendance generally did not have a police presence. This increased the amount of time at callouts when there were difficult patients. Often the ambulance service would be recalled to an overdose within a short space of time after administering Narcan™. This has been overcome by administering both IVI (slow acting) and IMI (rapid acting) Naloxone™. Clients also often had very severe injection-related secondary infections. There were also attendances for people with badly lacerated hands and arms resulting from break and enter crimes to obtain money for morphine. The ambulance service also commented that the service was often caught in the middle in situations where a person has become irrational and aggressive when withdrawing from morphine (resulting from the GP refusing to supply a prescription because of a broken contract or the person trying to alter a script). The family may not want to assist and if the person does not meet psychiatric services criteria the ambulance service is left in a difficult position.

Pharmacist KI made comments about some of the issues associated with dispensing pharmaceutical opiates. One indicated the pharmacy would dispense to people previously seen and it was preferable if they had a contract arrangement between the pharmacy, the GP and the

client. Dispensing to those on contract could either be of the entire script or by pick up every day or second day. New clients with scripts for pharmaceutical opiates, particularly MS Contin™ and Kapanol™ were treated with a degree of suspicion and the person would be checked against the contract list from the DH&CS Poisons and Pharmacy Branch. If the person is found to be on a contract with another pharmacy then they are referred there. Sometimes people on contracts would arrive early but the pharmacy had a strict policy that all changes to the arrangements of a contract must be approved by the GP. The pharmacist indicated they were often hassled by people wanting early pick-ups or with post-dated scripts and this could be particularly stressful for female pharmacists working after hours. Another pharmacist preferred a contract with a GP but would still dispense non-contract Schedule 8 according to the prescriptions. Sometimes this pharmacist would attempt to encourage people not to obtain the full supply, given how many of the supplied drugs appear to be stolen from the person they are supplied to. Sometimes people seeking morphine without scripts reported their scripts had been stolen in a burglary but this pharmacist insists that people report to the police and then see their GP. A third pharmacist occasionally refused to dispense if it was believed the person was not suffering from pain. In these instances, it was easier to inform the person that the pharmacy did not stock the requested drugs. Some situations have become verbally aggressive with tantrums and quite a lot of yelling and screaming. This type of commotion is undesirable in a pharmacy. Occasionally the pharmacist and staff have felt threatened and at risk.

KI were asked to describe any typical or distinct cases in the last year and one KI reported two distinctive patterns of pathways to dependency. One was accessing the health system for chronic pain, becoming dependent on morphine and then receiving no assistance to deal with the dependency by reducing the dose to lower levels or to cease use. The other pathway was recreational use and this would progress to dependent use in some people. In order to maintain their usual daily dose such people would need to trade goods for tablets or commit crime to obtain money for drugs. Another commented on the impact of the removal of one particular GP's prescribing licence close to a year ago. The KI believed this GP was treating 40 patients with morphine at the time. The sudden disruption to prescription had a marked effect on the 40 patients and some moved to other locations, including other jurisdictions, to access GPs. Others suffered immediate opiate withdrawal or bought morphine on the black market and experienced considerable financial difficulty because they were paying $60 for a tablet rather than $3.70 for a prescription. The ambulance service commented that in urban areas patients with long-term back injuries or in palliative care who are prescribed opiates are demanding more painkillers during attendances. In remote areas there are sporadic or infrequent palliative care visits and patients are often provided with months of supplies. On one occasion a sports bag full of morphine was discovered at an emergency callout.

Only nine KI provided information on geographical variations in availability of pharmaceutical opiates and five informants reported access was readily available, although one said the price would be higher in rural and remote regions. Two KI thought it was easier to obtain pharmaceutical opiates in Darwin than Alice Springs, another two thought availability was the same in Darwin and Alice Springs but more difficult in Katherine and Tennant Creek.

Benzodiazepines

Twenty two KI reported on the main forms of benzodiazepines used and who was using them. Eight stated there were no particular forms preferred and people simply used whatever was available. The main forms reported were temazepam (n=8), particularly Normison™ and diazepam such as Valium™ (n=10). Some KI also mentioned Euhypnos™ (n=4) and Hypnodorm™ (n=2). One informant commented that people still tended to want the benzodiazepines that would cause the most damage if injected, despite the safe injecting education currently being conducted. Only one KI mentioned Mogodon™, Alapam™, Xanax™ and Rhohypnol™. The main sources of all

benzodiazepines were thought to be prescriptions (11), friends (n=3) and on the street through trading and swapping (n=3). Three pharmacists commented on dispensing trends and one stated the most popular benzodiazepines were the temazepam capsules but the pharmacy no longer stocked these drugs. This pharmacist thought other forms had potential to be diverted, particularly Euhypnos™ 20mg capsules and any Normison™ capsules. Another pharmacist stated there was a big demand for diazepam and also temazepam capsules, but the demand for temazepam had declined since it became supplied only in tablet form. There had also been a reduction in demand for flunitrazepam and there were few prescriptions for Hypnodorm™. The third pharmacist also confirmed that temazepam was very popular, particularly Euhypnos™ 20mg capsules. This pharmacist often felt uncomfortable dispensing because he thought they were being accessed for misuse.

Twenty one KI provided information on who was most likely to use benzodiazepines and the main reasons for use. Six KI believed there was a wide range of users and the reasons mentioned were sleep problems and anxiety management. Three informants thought older people mostly used benzodiazepines for sleep problems and one believed these people were more likely to be legitimate users. Two other informants noted that benzodiazepines were used by women in their mid thirties and older and one stated it was a drug of concern among this group. Twelve KI linked benzodiazepine use to other drug use, particularly withdrawing from opiates (n=4), substitution for morphine when it was unavailable (n=4) or to potentiate the effects of morphine (n=1). One of these KI also commented that it was common for people who no longer used opiates to engage in heavy use of benzodiazepines and/or alcohol. This KI also reported benzodiazepine use by people on methadone to potentiate the effects of the methadone. Of the remaining four KI, two reported benzodiazepines being used by methamphetamine users to manage coming down from methamphetamine. One of these KI also commented that benzodiazepines might be used after a weekend of taking party drugs. The other two KI stated young people used benzodiazepines socially, particularly at parties.

The majority of KI believed benzodiazepines were not a primary drug and that there would be only a handful of people who would nominate benzodiazepines as the drug of choice. Most KI thought benzodiazepines were a substitute for opiates (n=8) or methamphetamine (n=1), used to potentiate morphine (n=2) or methadone (n=3), or taken to manage coming down from methamphetamine (n=2). Two KI thought they were used by recreational drug users, some of whom were thought to use anything that was available.

Three KI did not think benzodiazepines impacted on their work. One KI commented that benzodiazepine users tended to be the *messier* clients in terms of their behaviour. They often would have difficulty grasping simple concepts or actions and management tended to become complex and involved, thus requiring more time and energy. They also tended to fall asleep, be forgetful and lose concentration easily. This KI thought they should not be driving, operating machinery or doing anything that had potential dangers associated with it. They seemed to be less self-aware and less able to detect that they were behaviourally and cognitively impaired. Another KI, when discussing this *messiness* associated with benzodiazepine use, described a client who would use benzodiazepines to intoxication, become involved in arguments and fights, be evicted from the refuge and become homeless. The person would then engage in a slow struggle to organize his life and drug use and then repeat the cycle after using benzodiazepines again. A similar cyclic pattern was reported by a KI with a client who primarily used alcohol but would also use benzodiazepines. The service would slowly reduce the benzodiazepine consumption and the client would seem stable for a few days. Then she would access another GP and start the cycle over again. This KI commented it was easy for this client to access benzodiazepines from other doctors despite her own GP raising concerns about her use.

The ambulance service stated they would be called out for ongoing psychiatric issues involving benzodiazepine use. They stated benzodiazepine use clouds people's judgement, making it difficult to obtain clear and rational answers to necessary questions or decisions. Benzodiazepine users also tended to confuse the ambulance staff uniform with that of the police. A general practitioner stated he had lost two clients from complications relating to intravenous benzodiazepine use. There had been initial loss of limbs and then infection complications.

Two pharmacists discussed the impact of benzodiazepines on their work. One pharmacist said one option with suspicious prescriptions or suspected non-medical use was to refuse to dispense it, but that did not solve the problem as the customer would go to another pharmacy. When the GP was contacted it was obvious the person has been doctor-shopping. This pharmacist would either refuse to dispense or feel uncomfortable dispensing scripts to the same person from one to five times per week and believed word of mouth about the pharmacy not dispensing would mean people would stop coming to the pharmacy. In attempts to have multiple scripts filled some customers would create stories. One customer claimed to be travelling to Brisbane for two weeks to attend her mother's funeral and wanted a considerable quantity of oxazepam and Duramine™. The customer was provided with some oxazepam and told no more could be obtained before a certain date. The next weekend she returned and said she was leaving the following week. She returned to the pharmacy that week as well requesting more oxazepam. The other pharmacist stated new customers were checked to see if they had a contract arrangement with another pharmacy. If so they are referred to that pharmacy. A distinct case at one pharmacy was a person presenting with a repeat prescription for Xanax™ that had been dispensed the previous day. The customer claimed the tablets had been stolen. The pharmacist reported this situation occurs frequently. The pharmacist stated that unless the GP contacts or there is a stolen goods report from the police, the drugs would not be dispensed. Another KI commented that in the last three months two males had presented to detoxify from Valium™ and there had been no such instances in the twenty months the KI had been working at the detoxification service in Alice Springs. Both people were referred from mental health and were suffering from extreme anxiety.

Seven KI reported there was little or no intravenous administration of benzodiazepines and another commented it had declined with the removal of the temazepam gel capsules. Two KI reported it was difficult to determine how many people were injecting benzodiazepines and one thought the rate was higher than people reported. Another of these KI stated people accessed the service with cellulitis and black and dead extremities and benzodiazepines were suspected; however, the injuries could result from injecting morphine incorrectly. Another two KI commented that temazepam gel capsule injecting was popular no matter how much health information was provided on injection-related problems and that injection of tablets may also be occurring.

Only three KI commented on geographic variation in availability and two thought benzodiazepines were easy to obtain through prescription in any location but the other KI thought they were more difficult to obtain in Alice Springs than Darwin.

Methadone

Two KI did not think there was any diversion of methadone syrup into the black market. One of these KI explained that the methadone program was tightly controlled, people had to attend on a daily basis and only obtained takeaway doses on the weekend. The methadone program was still in its infancy in the NT and the success of the program would need to be determined before taking the next step of introducing takeaway doses. However, another twelve KI reported there was some diversion of takeaway doses to the black market and people purchasing some methadone from the black market. One KI said people would sell or exchange their takeaway dose in order to obtain another drug. Three KI also reported a small proportion of people on the program were accessing injecting equipment to inject methadone syrup. One of these KI claimed they were not injecting

other drugs to top up but needed to inject to prevent them from vomiting the methadone syrup if it was taken orally. Another three KI did not believe intravenous use was occurring. One KI reported diversion of the methadone tablets Physeptone™. One pharmacist stated there were not a lot of prescriptions for Physeptone™.

A broad range of people were on the methadone program or using methadone accessed illicitly and those on the program were thought to be opiate users who were trying to obtain stability in their lives (n=3) or people who could not access morphine (n=4). One KI stated some morphine users obtain black market methadone so they can self-detoxify at home and another said illicit methadone was not used recreationally. Five KI stated methadone was not the preferred drug of those using and their preference was for other opiates like heroin or morphine.

Only two KI commented on the impact of methadone on their work. One stated methadone users on the program – as a condition of their parole – would miss appointments or change appointments and generally did not have the self-motivation to change their behaviour. Self-referred clients were more motivated toward behaviour change. One pharmacist stated that there were problems at times with people accessing doses at the pharmacy. Clients would be coming in at weekends or busy times and the clients or other people would attempt to distract staff so the dose could be tipped into a cup. The pharmacy had to introduce a dedicated dosing area and have vigilant staff present.

Only one KI provided an example of a distinctive case involving a successful outcome with a very chaotic dependent opiate user. The client had been involved in the pharmacotherapy program when it was first implemented and there were regular reports of the person vomiting red cordial to pretend he was vomiting his dose. The person claimed to have chronic pain, was using about 400-500mg of MS Contin™ a day, engaged in GP shopping and was generally running amok. He was placed on a very high dose of methadone and responded very well to this and counselling. He has been on the program for 18 months and has reduced his dose from 165 ml to 150 ml and stabilized his lifestyle. Topping up with morphine has ceased and the person has also stopped using cannabis. This client was provided with as much methadone as he wanted so he did not need to top up.

Buprenorphine

Five KI did not believe there was any diversion of buprenorphine to the black market because of the controls on the pharmacotherapy programs and because of daily dosing. One KI thought the tablets were not suitable for diversion because people did not obtain a high from the drug. The other four KI reported some diversion of buprenorphine. Two KI thought those people likely to be accessing buprenorphine as a pharmacotherapy were people with a long history of heroin use and one of these KI said none of their clients had accessed the buprenorphine program because there was still plenty of MS Contin™ available. Four other KI believed those on the program were primarily opiate users who wanted to withdraw or detoxify (n=2) or could not access morphine and accessed illicit buprenorphine to prevent opiate withdrawal. Another KI commented that initially there was a demand for buprenorphine but those users who missed the euphoria associated with opiates tried to switch over to methadone. Two KI did not think there was any intravenous use of buprenorphine and another two reported clients had tried to inject the drug. One KI elaborated that this was principally after the pharmacotherapies were implemented.

Doctor-shopping

Pharmaceutical opiates

Nine KI thought doctor-shopping was still occurring for morphine, particularly for MS Contin™ and one of these informants thought the practice was quite extensive. One KI said there were more females than males doctor-shopping. Another KI stated that despite the claims by the Poisons and Pharmacy Branch that doctor-shopping could not occur in Darwin, they had clients who admitted to currently doctor-shopping. A small number of these clients claimed they needed to because they did not receive a sufficient dose of methadone syrup on the methadone program. There was also mention by one KI of people accessing prescription opiates locally and also obtaining repeat prescriptions from another GP in southern states.

In contrast, the majority of KI (n=16) thought there may be some doctor-shopping but it had become more difficult and would continue to be difficult. One KI elaborated that doctor-shopping had decreased in the last two years because of the processes put in place and liaison between all parties involved, such as prescribers, pharmacists and users. In the past the KI said the agency could have told clients seeking pharmaceutical opiates which doctors to access because many of the Palmerston clients accessed one GP, and clients in Casuarina all seemed to attend more than one GP. A general practitioner commented there were a very small number of doctors willing to prescribe at any level but generally GPs did not prescribe medications so they could be diverted into a black market. Despite what the government thought, doctors prescribe for what they believe to be legitimate medical reasons. There were possibly a few new doctors and registrars who will prescribe morphine readily but they soon become suspicious and stop doing so. GPs were hesitant to prescribe because of what was described as a legacy prevailing from the previous government and the Health Insurance Commission's clampdown on doctor-shopping. This GP had tried to convince people to access the pharmacotherapy programs while remaining under GP care but was finding most people were reticent to do so. One pharmacist reported that over time it was possible to determine who was legitimately using medication and who was not. In the past there were certain doctors who prescribed readily and pharmacists could refuse to dispense any of those opiate prescriptions. However, there were certain pharmacists who would dispense prescriptions for certain doctors. Another pharmacist reported that most customers only see two GPs, one for the contract Schedule 8 opiate prescription and the other for other health matters.

The majority of KI indicated the type of pharmaceutical opiates particularly sought after were morphine sulphates such as MS Contin™ and Kapanol™ and one KI stated it had become harder to access these forms. Another KI indicated that other types of synthetic opiates may be easier to obtain because they were not as well known or not viewed as drugs that would be used illicitly (unlike morphine sulphate). Three KI thought it was not easier to obtain one type of pharmaceutical opiate than another.

People accessing pharmaceutical opiates from GPs were invariably described as claiming to be in chronic pain (n=5) because a GP would not prescribe morphine for any other condition. Some KI (n=5) thought people may have had a pre-existing medical condition involving pain and they started using opiates or they would exaggerate the symptoms to obtain them. Once they had built up rapport with the GP they would claim the medication was not sufficient to manage the pain. One KI thought people did not inform their GP that they were using morphine intravenously in case the GP stopped prescribing. Another KI believed some pain patients would present early for a regular prescription and construct a believable story about why they needed the prescription early. They may have overused their script or diverted some tablets but would not inform their GPs of this.

The other eleven KI who discussed how people obtained opiates from GPs thought people were accessing for non-legitimate reasons and were skilled in knowing how to demonstrate pain symptoms in order to access morphine. People would also swap stories with each other about what works well and what does not and many have learned to use the language that a GP needs to hear in order to prescribe. Two KI thought GPs were very busy and pressed for time and sometimes do not research a person's medical history. Another KI thought it was not possible for GPs to closely monitor everybody, but in the long term people will expose themselves if they are not genuine. Once GPs have people coming in early with stories about lost prescriptions or theft of drugs they will stop prescribing. According to one KI some clients had appeared too knowledgeable about opiates and some GPs became suspicious and stopped prescribing. The less experienced GPs might be less able to detect non-genuine patients. One KI also pointed out there was a time lag involved with updating contract lists and GPs receiving them. Although one KI had never heard of anyone obtaining a prescription from a GP by saying *I am an addict*, two other KI believed people did obtain morphine from GPs for opiate dependency.

When asked about the proportion of prescribed pharmaceutical opiates that were diverted, two KI did not think any was diverted if they were obtained from a GP. If people were opiate dependent they would need the entire prescription for personal use. One of these KI elaborated that people obtaining prescribed morphine for $3.70 are unlikely to on-sell as they may have to buy back on the black market at $60 a tablet the next week. People preferred to obtain a sufficient dose from the GP and not access the black market.

Seven KI indicated the majority of the drugs were for personal use and a proportion of prescribed users diverted some of their script to the black market or friends. Two of the KI thought many of those with prescription morphine would be dependent and would need the prescription drugs for their own use. Another two explained the diversion was a source of income for obtaining drugs or to assist financially. One of these KI believed 90% of those diverting do not work and have no income other than social security or the pension and the money from diverting was used as additional income support. Only one KI thought pharmaceutical opiates were diverted through theft, break and enter or assault and robbery of people with prescription drugs.

A number of non-opiate users were also involved in diversion of pharmaceutical opiates. Three KI reported there was a small number of people who did not use drugs but accessed morphine from GPs. It was purely a commercial enterprize and it was believed they made a considerable amount of money. Another KI thought there was a subsection that uses methamphetamine and diverted pharmaceutical opiates to trade for other drugs. Another three KI discussed non-drug using stand-over merchants who would obtain prescription drugs from prescribed users to on-sell. These people usually waited for prescriptions to be dispensed and then used threats, intimidation or violence to obtain the drugs. One pharmacist stated some of these people stand in the line at pharmacies to see what prescriptions are being put in. If they see or hear that a prescription is for MS Contin™ they wait outside.

The KI were asked to describe what could be put in place to make prescribers' roles easier and to limit the diversion of pharmaceutical opiates. One KI said there had been discussion of an online database for clients but this had not progressed. The Poisons and Pharmacy Branch mail out a list of who is receiving what type of opiate medication but the KI said it was often a couple weeks out of date and he was unsure how much attention pharmacists and GPs paid to the list. Consequently, there is potential for someone to spend a week engaging in excessive doctor-shopping even if GPs were prescribing responsibly. Four KI reported there was a need for an online database in which every time a prescription for certain scheduled medications was written for every client it could be entered and go to a central database. Another KI thought information needed to be linked up beyond pharmacists and GPs because agencies had to be very careful which GPs they

referred clients to because the GPs might prescribe all sorts of drugs. According to one KI such online databases needed to be implemented at more than just a jurisdictional level because it was thought people were being prescribed interstate or online over the Internet.

A range of other options were suggested, such as daily pick up from pharmacies, random urine tests to ensure people are complying with their prescriptions, one or two pharmacies to act as depots for Schedule 8 drugs and care plans involving GPs, pharmacists, service providers and other health professionals. One KI thought it may be possible to have stricter criteria regarding the prescribing of opiates but this may disadvantage legitimate patients. Finally, one KI thought the best solution was to make pharmaceutical opiates more available because the more difficult it became to obtain a prescription, the more likely it is the drugs will be diverted for on-selling. If a drug becomes very restricted then the black market becomes active, the price rises and this creates more drug-related crime. This KI cited trials in Europe where it was claimed many countries had encountered success with government prescribed drugs and decriminalisation of drugs for personal use. Black market dealing had subsided and the lack of discrimination meant people were healthier because they were more likely to access services.

Benzodiazepines

When asked about the extent of doctor-shopping for benzodiazepines, six KI thought there was a considerable amount of undetected doctor-shopping occurring, particularly for temazepam and diazepam. Another was of the same view and thought GPs were not as alert to doctor-shopping for these drugs as they were for pharmaceutical opiates. Another six thought there was some doctor-shopping for temazepam and diazepam but not as much as for morphine. Four KI thought there had been a reduction in doctor-shopping for benzodiazepines in the last two to three years, particularly for temazepam. KI were asked if it was easier to doctor-shop for some types of benzodiazepines than others and four thought it was easy for all types. Two other KI thought it depended on the type, and people were more likely to doctor-shop for benzodiazepines that were harder to access, such as temazepam. GPs might be willing to write a prescription for diazepam but less likely to write for Normison™ 20mg capsules. Strategies mentioned as used by clients to obtain benzodiazepines from GPs included false names, accessing a number of GPs, presenting with sleep, anxiety or pain issues, the last of which two KI thought was very strange. KI generally thought people obtained benzodiazepines for personal use (n=4) and only a minority of people would share or swap these drugs with friends (n=5). KI did not think there was much selling of benzodiazepines.

KI were asked to discuss what measures could be put in place to reduce doctor-shopping and diversion of benzodiazepines. One KI thought that GP knowledge was generally excellent but there may need to be further education of GPs about benzodiazepines. However, this would need to be via another GP because GPs are not inclined to listen to anyone else. On-going education would need to be tailored to time constraints and conducted through the Top End Division of General Practice (TEDGP), which was seen as a credible source of information. GPs needed to be reminded of the dangers associated with benzodiazepine use and encouraged to use alternate types of medications or strategies for people complaining about sleep disorders. Another KI also indicated there needed to be more use of alternative strategies for sleep and anxiety disorders. It was also suggested by one GP that the Schedule 4 and 8 drugs could both be monitored in the same fashion as Schedule 8 drugs. One KI suggested there could be checking via Medicare records if all prescribing was done through Medicare. Finally one KI thought computerized prescription pads made it harder to steal prescriptions.

Drug trading, exchanging and swapping

Pharmaceutical opiates

Fifteen KI provided information on pharmaceutical opiate trading. Of these eight believed there was a considerable amount of exchanging of drugs without any money involved and that this occurred more than trading with money. One KI elaborated that there was a strong barter economy operating, with people exchanging services for morphine, such as doing mechanical repair work, acting as a taxi service and providing sexual favours. This KI thought this type of system would be even stronger in the methamphetamine subculture. People did not want to pay taxes and, given they were already labelled as criminals, they would readily engage in a barter economy. Another KI believed there was a society of drug users who felt they were *in this together* and morphine users did not like to see other morphine users in a position where they were unable to secure the drug, so they would sometimes provide friends with tablets in credit to tide them over if the person did not have any money. A third KI said those that did engage in some on-selling did so within a specific group of people because selling outside this group would attract too much attention. In contrast, five KI believed there was more on-selling than exchanging. Of these, three commented there were no large scale dealers and few professional dealers. It was an activity among those using the drug to obtain money to fund their drug use and generally occurred on a tablet basis and very occasionally on a script basis. The remaining KI thought those with prescribed morphine would be more likely to on-sell from the prescription but those without a prescription would participate more often in an exchange system.

KI provided information on the types of people that would be trading pharmaceutical opiates and one KI thought a wide variety of people would participate in exchange and on-selling. Two KI thought sharing tended to occur among couples, particularly if only one had a prescription. One of these KI was of the opinion that the male would look after the female in exchange for morphine and this was not in any way related to sexual favours. Another nine KI thought exchanging, sharing and trading of morphine generally occurred among a group of friends. Within the established social group someone might provide another member with morphine on loan because they know the person will be obtaining their regular script the following week. Two KI also indicated there were issues involved with participating in the morphine black market so people preferred to trade within established social groups. Once a person was known for on-selling they could expect to have people arriving on their regular prescription day trying to pressure the person into trading some of the prescription. It can become quite confrontational and one of these KI reported someone was stabbed last year in such a situation.

Six other KI believed dealers were the main suppliers of morphine and one KI stated there were some small scale dealers who were selling prescription opiates to fund their own drug use, plus dealers that operated as a business and were not specialized opiate dealers but methamphetamine and opiates were their bread and butter. These dealers would not use drugs or only occasionally use a small amount of methamphetamine. Two Alice Springs KI reported that the majority of the morphine came in via backpackers and dealers sourcing it by illegal means. There appeared to be an underground movement of dealers coming in from southern states. This was thought to be a new phenomenon because there were only a few local dealers when heroin was available in Alice Springs and none of the big players from the southern jurisdictions. Information from police and other sources suggested there had been a change and reports of someone disappearing were interpreted as something going on.

Benzodiazepines

Fifteen KI provided information on benzodiazepine trading and two did not think there was much occurring and another three suspected some occurred but did not have any evidence to confirm this. According to four KI it was unlikely people would be selling benzodiazepines because they were very easy to obtain on prescription. It was more likely that people would be sharing or swapping them among friends with little if any organized dealing. Two of these KI did not believe benzodiazepines were of much value for trading. A prescription of Rhohypnol™ or Xanax™ may have some value and could possibly be swapped or sold but it was unlikely diazepam was worth anything at all on the black market. A variety of people were thought to engage in swapping and/or trading, from recreational to dependent drug users. Two thought those with prescriptions would be less likely to trade and another believed young recreational users had a culture of swapping drugs.

Methadone

Three KI did not think there was any evidence to suggest a trade in methadone syrup and one of these opined that it was not possible with the strict controls in place with the pharmacotherapy program. However, the other 11 KI providing comment believed there was a small amount of trading in methadone syrup and Physeptone™ methadone tablets and that this occurred mainly among peer groups. There was some exchange and swapping as well as on-selling. One KI indicated there was a limit to the level of trade in methadone that could occur, as those on the methadone program only obtained one takeaway dose a week and Physeptone™ prescribing tended to be single short term prescriptions rather than on-going prescribing. According to another KI there were still some people being prescribed Physeptone™ and the level of prescribing was much higher than in other jurisdictions. Physeptone™ had been an alternative opiate for some time and was used in an informal opiate substitution program. However, it was believed a Physeptone™ black market like that for morphine had not developed because opiate users did not seem to like injecting Physeptone™. There was not the same *buzz* as obtained with morphine.

Buprenorphine

Twelve KI commented on buprenorphine trading and five did not think there was any trading occurring, with two explaining the pharmacotherapy program was very tightly controlled. The remaining seven KI thought there may be some very low level trading among friends but less so than for methadone. There was thought to be a limit as to how much could be diverted because of the daily dosing and takeaway doses only being provided at the weekend. Additionally, one KI thought the demand would be very low because dependent opiate users did not become sufficiently *stoned* on buprenorphine. It might ease withdrawal and possibly be used by someone who could not obtain opiates or needed to abstain for a period of time.

Illegal activity

Pharmaceutical opiates

All 29 KI discussed the relationship between the availability of pharmaceutical opiates and crime. One KI thought there was no clear nexus between opiate use and crime because the market was relatively small. If dependent users were unemployed and needed money to purchase drugs then they may commit crime but there was no clear correlation. This KI thought it could be the same as other drugs but did not elaborate any further. Five other KI did not think such a nexus existed because some opiate users had a criminal history as juveniles prior to initiation into drug use. One of these KI thought some people had a social background where crime was an option to cope if finances were limited, while other people accessed a range of other options. Another stated the transition into dependent use would exacerbate their criminal activity. The most common crimes were property offences, such as shoplifting, break and enter and occasional armed robberies.

Property crimes ranged from theft of items such as DVDs from supermarkets to far more ambitious robberies like the break-in to the Office of Crime Prevention and theft of computers. There was also some fraud associated with credit card theft. One of these KI indicated there were a lot of people in custody for violent offences such as assaults and armed robberies, such as pharmacy hold ups.

In contrast, twelve KI believed that use of opiates was associated with crime, particularly among dependent users to obtain funds to support their dependency. One of these KI thought a proportion of opiate users would be regularly engaging in some property crime and dealing to support their opiate dependency, but markedly less among those using pharmaceutical opiates than in southern capitals where heroin was the main opiate. Another thought those accessing illicit pharmaceutical opiates might commit some crime, such as property theft and fraud, to obtain money to buy drugs. Three other KI specifically mentioned involvement in illegal trade of morphine though diversion and on-selling. According to another KI, there tended to be more *devious* behaviour and manipulation than crime such as theft among opiate users and that, in general, crime was more prevalent among methamphetamine users. Dependent opiate users may engage in a degree of illegal activity but it was more likely to be distributing drugs rather than criminal activity such as robbery or break and entries. In line with this, another KI thought dependent opiate users were more likely to engage in crime when they were *hanging out* because they are more desperate and had to find a means to obtain either the money or the desired drug. This informant believed people in these states were more likely to engage in assault and/or robbery. The informant believed the greater the dependency and desperation the greater the lengths gone to to acquire drugs. However, this informant clarified that many dependent morphine users did not engage in any crime and many would try other solutions before contemplating crime.

In all, seven KI thought pharmaceutical opiate availability resulted in a reduction in crime because people had a steady and affordable supply of opiates on prescription. A supply of prescription morphine meant people were less likely to mix with drug users for the purpose of accessing drugs and they did not need to access supply networks. This lessened the contact with other people engaging in criminal activity. Additionally, people would not need to engage in property crime or drug dealing and other victimless crime. Three of these KI reported that if people were unable to source prescription morphine then they would be forced to purchase on the black market where MS Contin™ tablets cost $60. This would place them in great financial difficulty and some might resort to illegal behaviour to obtain either the money or the drug. Reductions in availability were thought to increase the price and thus increase the level of criminal behaviour. One informant reported there had been an increase in violent crime, such as pharmacy break and enters , with the reduction in the availability of morphine. People were finding it more difficult to access prescriptions for morphine so were accessing the black market where morphine was sourced from diversion of locally prescribed morphine and supplies from southern states. Two pharmacists reported an increase in targeting of pharmacies, particularly day and night pharmacies that are not in shopping centres and those known to be dispensing Schedule 8 drugs and benzodiazepines. One of these pharmacists said that 10 years ago the idea of a pharmacy being held up was unheard of but the incidence had been increasing. Apparently some of the people committing the hold ups have been intoxicated at the time so they were not difficult to apprehend.

The remaining three KI reported that people using pharmaceutical opiates were generally targets for assault and robbery. People would be assaulted after having their prescription dispensed and have the entire supply stolen and some of this occurred in the vicinity of pharmacies. One pharmacist reported having two customers who had been assaulted and the only item taken was their medication. Another pharmacist had heard that there was selling of prescription drugs in nearby car parks. A third pharmacist knew at least half a dozen customers who had reported their homes had been broken into and their prescription drugs stolen.

Key informants were asked to describe the circumstances or specific crimes associated with pharmaceutical opiates. As mentioned above, some KI (n=8) thought pharmaceutical opiate users became victims of crime and were assaulted and/or robbed for these drugs, particularly morphine. One of these KI commented that there was little violence associated with procurement when there were a large number of prescriptions being dispensed. Another reported that a reduction in the availability of prescription morphine had resulted in the murders of two elderly people for morphine in the last year. The other commonly mentioned crimes were property crime (n=12) such as shoplifting and break and enter, fraud (n=5), drug dealing (n=3), illegal sex work (n=3), violent crime (n=2) and social security fraud (n=1). Two KI clarified that the level of criminal involvement among opiate users was less than for other drugs such as methamphetamine or alcohol. Desperation associated with *hanging out* was commonly mentioned as a circumstance in which pharmaceutical opiate users would engage in illegal activity and three KI said that when dependent users were in this state they might engage in opportunistic crime rather than planned, organized criminal activity. Another KI thought younger users were more likely to engage in break and enters into residential premises than long term users, who were more *streetwise* and more likely to break into businesses.

KI were asked the degree to which organized crime was involved in the pharmaceutical opiate trade and six said there was no organized criminal element. One of these stated that the most organized it had become was people acting as a middle person and selling another person's prescription. In contrast, one KI said the majority of dealers were involved in organized crime and another three said there was less organized crime involved in the pharmaceutical opiate trade than there was with methamphetamine or heroin, mainly because most of the trade was principally operating through user dealers. Another two KI reported that the pharmaceutical opiate trade did not involve organized crime in the traditional sense of organized crime networks but some of it was organized along the lines of a *cottage industry*. It was thought that organized criminals had their *fingers in a lot of pies* but the pharmaceutical trade was not very profitable.

Benzodiazepines

When asked about the relationship between benzodiazepine availability and crime, three KI said benzodiazepine availability had no impact on crime. Of these KI, one further commented that diversion of benzodiazepines was a crime but if this diversion prevented people from withdrawing it might actually reduce crime to some extent but could generate other problems. Two KI thought the easy availability of prescription benzodiazepines may be associated with a reduction in crime. One of these KI said people did not have to resort to crime to obtain the drugs on the black market and the other commented that the drugs were very cheap and easy to obtain so people did not report in engaging in crime to procure benzodiazepines. Three KI thought a reduction in availability could lead to an increase in crime as reported for pharmaceutical opiates. Another KI did not think benzodiazepines were associated with crime among older drug users, but there may be some crime among younger users to obtain benzodiazepines. Three other KI did not believe benzodiazepines were associated with any specific crimes.

Seven KI specifically discussed uncharacteristic behaviour associated with benzodiazepine use. According to one, Rhohypnol™ had been associated with certain crimes and recently Hypnodorm™ had been problematic in that a lot of crimes had been committed *under absentia*. This KI stated that people *blacked out* and could not remember what they had done and some had no previous involvement in criminal activity. Following administration of the drug, people would initially become sleepy and then move into a mobile trance-like state. Another KI echoed a similar pattern whereby benzodiazepines had caused problems for some people who were primarily opiate users through behaving badly or engaging in property crime while intoxicated. They tended to act impulsively and might break into premises and steal goods of little value. Such impulsive

acts had resulted in some people being apprehended at the scene of the crime and they claimed to have no memory of the incidents. Another KI mentioned that injecting temazepam capsules in large doses resulted in dis-inhibition and related the story of one client who went to a pharmacy and placed four cans of hairspray into a pocket. The client then requested Panadol™ and paid for that item. The pharmacist queried the four cans of hairspray and the client later claimed to have no memory of taking them. This informant stated pharmacists had related other stories about people being intoxicated on benzodiazepines and shoplifting because they thought they were invisible. Uncharacteristic behaviour was also reported among groups of people who were not injecting drug users, such as *housewives* (n=2) and one KI stated this behaviour was associated with attempts to reduce or stop benzodiazepine use without fully understanding the nature of benzodiazepine withdrawal and the dangers associated with it. This KI said their world would *implode,* as they did not realize it required two to three months of dose reduction if the daily dose of diazepam was 50 to 60mg. This KI thought there was a lack of knowledge in the community and the issue required exploration. Two other KI commented that benzodiazepine intoxication was associated with aggression, violence and assault. In contrast, two KI believed the claims of benzodiazepine intoxication – uncharacteristic behaviour and memory loss – were a myth. One opined that it was far more likely that people taking large doses of benzodiazepines simply go into a *black out sleep* and their friends construct stories to fill in the span of lost memory.

When asked about the level of organized crime involvement in the benzodiazepine trade, four KI said there was no involvement and one reported a small proportion involved organized crime. Another two reported it was similar to the morphine trade, with the organization resembling a cottage industry rather than the traditional concept of organized crime.

Methadone

Eight KI commented on methadone availability and crime and six of these believed that people on the methadone program would be engaged in less crime than those accessing illicit morphine on the black market. One commented that there was documented evidence demonstrating methadone maintenance programs were associated with reduced criminal activity. Two KI discussed the stability that methadone maintenance provided in terms of accommodation, the ability to maintain employment, the opportunity to deal with psychosocial issues associated with drug use, to learn new methods of coping with everyday stress and work on damaged relationships. People on the methadone program were also reported to be free of the anxiety associated with obtaining a daily dose of morphine and they did not need to devote most of their time searching for the drug. One KI thought some people might miss their criminal life, the enjoyable aspects of drug use and their peer group, and could relapse into their old lifestyle. Another KI commented that it was unfortunate there was a long waiting list, up to eight weeks, to access the methadone program. Two KI mentioned illicit methadone and did not believe it was associated with criminal activity and one commented that engaging in crime to procure illicit methadone was unheard of. The only crime specifically associated with methadone was the theft of takeaway doses of methadone syrup (n=2). However, this was thought to be at a lower level than for morphine, as those committing the theft would only obtain a maximum of two doses of methadone syrup. One KI thought this type of theft was less likely to occur at community pharmacies than other locations.

Buprenorphine

Only eight KI commented on buprenorphine availability and crime and, of these, six were unsure if buprenorphine availability was associated with crime and two of these stated the program was in its infancy and it was too early to determine the impact. The remaining three KI thought people on the buprenorphine program would be involved in less criminal activity, particularly property crime associated with procurement of drugs.

Policing prescription drugs

Pharmaceutical opiates

Twenty KI discussed the impact of police activity on pharmaceutical opiate supply and availability and, of these, three did not think police activity had any impact. Two KI thought there had been an increase in activity related to the diversion and sale of prescription opiates and admissions of carrying injecting equipment for administration of drugs. One of these KI also thought there had been more drug raids and busts. Another KI thought police activity simply drove drug use underground and that police activity did not have an impact on drug use and, in fact, it may have contributed to an increase in high level crime such as assault for tablet theft and pharmacy robberies. This KI thought that if police activity resulted in a reduction in availability then the price would rise and people would become more violent in order to obtain the drugs they thought they needed.

The remaining 14 KI believed that the police were not interested in pharmaceutical opiates, that the level of crime associated with these drugs was very low or that the police were quite powerless to impact on supply and availability. One KI believed the police were not concerned if there was minimal crime involved and another thought they were more concerned with major crime involving illicit drugs. Pharmaceutical opiates were a health issue, according to one KI, and even though the black market was of concern and quite overt in areas of Darwin the police resources were stretched and this was a lesser priority because of the small scale nature of pharmaceutical opiates and associated crime in comparison to illicit drugs. Another three KI commented that the police were not interested in morphine because possession and procurement were too difficult to prosecute and one of these noted that it was almost impossible to prove a person possessing morphine did not have a valid prescription. Additionally, there was the belief that the quantities involved with morphine were minimal compared to investigating large quantities of illicit drugs such as methamphetamine. Policing was more likely to be associated with investigating offences relating to obtaining money to purchase morphine. One of these KI stated it was quite different to heroin in that it was not illegal to have a large quantity of morphine and police would need evidence of sale of the drugs in order to successfully prosecute. Alternatively, they would need to apprehend a person engaged in break and entering and demonstrate a clear link back to morphine use.

One law enforcement KI provided confirmation of these views by stating that it was an offence to supply morphine but not to be in possession of it, even without a prescription. The manufacture of morphine was controlled and legal and the drug was not dangerous unless misused. There was less chance of overdosing on morphine than on other illicit opiates. These factors also applied to benzodiazepines. With the current level of resourcing, law enforcement had to prioritise work, and morphine was of low priority unless something unusual occurred. Morphine was thought to be associated with *lower scale* illicit activity. Another law enforcement KI reinforced this view by stating that it was very hard for law enforcement to have an impact because possession of morphine without a prescription is not an offence under the *Misuse of Drugs Act*. They must prove illegal acquisition through the point of sale and that was very difficult. Pharmaceutical opiates were considered a significantly smaller issue than illicit drugs. Methamphetamine and ecstasy use was continuing to grow and this was an area where law enforcement could have an impact. According to another law enforcement KI, illicit drugs such as methamphetamine were a priority but the illegal trade in MS Contin™ was important. However, prioritizing relied on the quality of intelligence received. If the intelligence was good in relation to morphine then the police would be able to target the illicit trade with a degree of success. In such cases the police would act as they do on good intelligence in regard to any drug. The remaining law enforcement KI stated police tried to impact on diverted pharmaceutical opiates but they did not know if they were having an impact because of uncertainty about the extent of the issue. Finally, one KI thought

police had a role in diversion away from custody into treatment and this was a good goal. The pre-court diversion program was considered a worthy notion but police needed information, education and knowledge to effectively engage in the program. This informant thought the DH&CS would conduct the education and training required.

Key informants were asked what have historically been the benefits and unanticipated outcomes of policing efforts in relation to pharmaceutical opiates. One KI said there had not been any benefits at all, policing efforts were only an annoyance to users and did not have any impact all. Another seven KI said the police had not directed efforts into pharmaceutical opiates and one of these thought any efforts should be directed at dealers not drug users. According to another one of these KI, law enforcement were mainly concerned with methamphetamine and cannabis because there is so little heroin available. This KI thought there had been some *pitiful* apprehensions relating to cannabis and that it was ludicrous to expend large amounts of money on convictions for two to three grams of cannabis. The informant added that law enforcement had been focussed on outlawed motorcycle clubs for a number of years and this had resulted in a degree of disruption in the supply of methamphetamine. The unintended result of this was people using other drugs such as morphine when their usual supply of methamphetamine was unavailable.

One KI thought that police had traditionally only targeted small time dealers but they now needed to identify and target large scale dealers in order to have an impact. According to another KI, the police had made a shift from targeting users to targeting dealers because morphine was not an illicit substance. This informant stated the police were focussed on targeted operations towards supply and that was their most effective strategy. Another KI claimed people did not think the Drug House laws were effective and they had not impacted on the level of use or resulted in any more apprehensions of dealers.

The drug diversion program was thought by one KI to be a good harm minimization initiative but it was limited because it was only for people with no criminal record. This KI also stated the police were attempting to establish a method for detecting driving while intoxicated by drugs and this was a positive endeavour on the part of the police. Another KI reported a number of positive aspects to police behaviour particularly their attendance at overdoses. This KI reported the police assisted people rather than charging them with an offence and this was very beneficial because this left open the option of encouraging the person to enter a treatment program. Being charged, convicted and then completing a jail term did not address dependency issues and it would be a negative and inappropriate response to drug use. Finally, one KI thought police engaged in very good liaison with DH&CS in regard to drug issues and this was beneficial to both parties.

Benzodiazepines

Fourteen KI commented on policing of benzodiazepines and the benefits or unanticipated outcomes of such policing, and ten stated the police had not targeted benzodiazepines and three added that policing would have no impact at all. Of the remaining four KI, three said the police could not really impact on benzodiazepines for the same reasons they were somewhat powerless with other legal drugs like morphine, and the other KI stated people using benzodiazepines would be affected when driving but the police did not have the means to determine the level of intoxication as they do with alcohol.

Law enforcement KI were asked to indicate what would make policing of pharmaceutical products easier. One KI was unsure, another stated morphine was not really an issue for police and according to a third KI the role of the role of law enforcement was to enforce the *Misuse of Drugs Act* and pharmaceuticals were not covered by that act. Legislating to make possession of pharmaceuticals unlawful without a prescription was suggested by another law enforcement KI with the proviso that this may prove to be labour intensive for police and not reap many benefits

in the long term. There had been a lot of resources directed to combat pharmaceutical opiates, according to one law enforcement informant, but they were still a problem and would remain so. The task was very difficult and the role of law enforcement was primarily to engage in supply control by disrupting the activity of the people who supply, import and distribute drugs. It was claimed by some KI that the police do not target the users but they could enter into partnerships with community groups and the DH&CS in an attempt to reduce the demand for drugs through education. The final KI thought the HIC had played a very important role in reducing consumption of morphine in the NT and this had been achieved through removing S8 authorities, Medicare provider numbers and PBS from some prescribers. This informant thought the HIC and law enforcement had not cooperated as well in other jurisdictions when compared to the NT. There was a consistent good liaison point between law enforcement in the NT and the HIC.

Benefits and costs of pharmaceutical availability

Pharmaceutical opiate availability

KI were asked to discuss the benefits and risks of easy and difficult availability of pharmaceutical opiates and three thought there were no benefits because of the many potential ramifications of opiate use, including dependency. The majority reported a number of benefits associated with the availability of pharmaceutical opiates and these included reduced crime (n=9), a stable lifestyle and greater productivity (n=8), better health through regular access to GPs and other health professionals (n=6), removal of the black market (n=3), lower risk of overdoses when compared to illicit drugs (5) and improved finances (n=1).

A number of KI elaborated on these perceived benefits. The eight KI who mentioned stable lifestyles thought people would be able to regulate their lives and manage a prescribed dose and therefore function on a normal basis. If morphine was prescribed then people who used the drug would be more productive because they could work rather than being forced to spend a considerable amount of time, often on a daily basis, procuring morphine. One KI stated that many opiate users have reported that if they could use morphine every day without crime and without going to prison they would *live happily ever after*. This KI thought that if prescribed morphine was used with support networks then there was the possibility of promoting change and there were more important issues than what type of opiate people are using and the source of these opiates. Four KI thought controlled use of morphine would be a more appropriate treatment for many opiate users than pharmacotherapies such as methadone. One of these KI reported a number of clients had stated a morphine program would be more suited to their needs than a methadone program and that many of the people on the methadone program would prefer a morphine program. It was much more expensive for people to access the methadone program (about $140 per month) than to obtain a monthly prescription of morphine for $3.70. Another of these KI believed there needed to be some creativity in response to morphine because people will continue to use opiates and only some people will respond to methadone. This KI stated that in years of working with clients only a handful had indicated methadone was the preferred opiate. A number of people were reported to be exiting the methadone program and using morphine again because they do not like methadone. According to this KI, if people were content using morphine, or even heroin, it was time to be creative and cease being so *closed minded* and punishing users. There needed to be a radical shift from the *prohibitionist style of thinking*. The fourth KI indicated that methadone was far more difficult to withdraw from than morphine and because morphine withdrawal was less intense than heroin withdrawal, for years GPs in Darwin were unofficially putting people on morphine for opiate dependency (by diagnosing for pain) and these people were doing very well for years under this arrangement. The government was aware of the situation but chose to *turn a blind eye* because there were no other treatment options such as pharmacotherapies.

Of the eight KI reporting on reductions in crime with easy availability of prescription opiates, one commented that the crime associated with morphine dependency was minimal compared to heroin dependency, which could cost the user hundreds of dollars a day, resulting in a lot of serious crime. Three other of these KI stated that people would not have to access the black market and therefore not be forced to engage in property crime and dealing to obtain money to purchase drugs. A fourth stated that when morphine had become very difficult to obtain for a period of time, the crime rate rose considerably among dependent users.

The health gains reported by KI included a lower risk of overdose because each tablet was a known dose of an uncut drug with known effects. If people used the correct procedures for mixing, filtering and injecting they would minimize the potential harms associated with intravenous use of non-injectable drugs. The other main gains were through regular access to and management by the GP who prescribed morphine. Such a default maintenance program would enable better management of dependency because effective GPs would be able to identify if a person was developing dependency or becoming more dependent and provide information and advice about maintaining the dose at a certain level or implementing a safe, managed dose reduction. People would also be linked into other health and treatment services.

The problems KI identified with easy availability of pharmaceutical opiates included more opportunity for standover tactics (n=1), greater involvement of organized crime (n=1), diversion and a more active black market (n=5), misuse, over-prescription and dependency (n=8), an increase in opiate use (n=2), injection of non-injectable drugs and injection-related health issues increasing (n=2), more opiate overdoses (n=1), use as a *magic bullet* to address socially created problems (n=1) and a financial strain on the health care system (n=2). Two KI thought some of these risks could be minimized by appropriate controls, and one suggested contracts and liaison between doctors, pharmacists and the DH&CS. The other KI stated there were already parameters for prescribing opiates and these would not be removed to allow opiates to be readily available to anyone who wanted them.

Some KI elaborated on dependency issues and one commented that some people would be dependent on medication that they did not necessarily need. Some people may initially require medicated pain management but there would be a tendency for people to remain on medication rather than access other methods for managing pain, such as meditation and physiotherapy to strengthen certain areas of the body. Another said the risk of over prescription was of drug use going out of control. This KI thought GPs seemed willing to over prescribe and comply with patient demands for more morphine and suspected that historically it was GP prescribing practices that had established the morphine using market in Darwin. The more the GPs prescribed the more it was available illicitly. Another KI discussed the risk of using medication rather than addressing the problems that contributed to the transition to problematic use, such as depression, any past sexual assault, and self-esteem issues. It was imperative to look at the whole picture rather than just prescribing medication, including pharmacotherapies.

Of those commenting on the financial burden to the community, one remarked that governments should not be paying for people with opiate dependency unless they were on an authorized pharmacotherapy program. Another stated that it cost well over $50 to dispense 20 MS Contin™ 100mg tablets while Physeptone™ was $3-5 for the same quantity. This KI equated this to providing an alcohol dependent person with top label scotch rather than a cheap wine that would have the same effect, and opiate dependent people should not have such a choice. One of the KI commenting on diversion discussed the saleable nature of pharmaceutical opiates as single tablets. He thought MS Contin™ was roughly $1 per milligram and if a script for 20 MS Contin™ 100mg cost $3.80 on a concession card then there was a very good return on investment.

Only four KI commented on the benefits of poor availability of pharmaceutical opiates and one of these said there were no benefits at all. Another thought that it was politically beneficial for the NT government to reduce the number of morphine prescriptions because politicians needed to be seen as *tough on drugs* because this was equated with being tough on crime. The general public were *brainwashed* into believing moral reasoning that drug users are virtue deficient and immoral persons. From that stance the public would approve government actions to reduce the supply of pharmaceutical opiates but those people who understood the nature of dependence would not see any real benefits in reducing availability because it was punishing people for victimless crimes. A KI employed in government stated the aim was to stop the supply of prescription morphine to opiate dependent people and attempt to enlist all those people into the methadone and buprenorphine programs. Morphine would not be readily available and this was perceived as a desirable outcome because the methadone and buprenorphine program would be readily available and it was viewed as the appropriate treatment for people with dependency issues. The fourth KI commented that the taxpayers would save a considerable amount of money if opiate dependent people were on methadone or buprenorphine rather than morphine.

The key risks reported with poor availability of pharmaceutical opiates were an increase in crime (6), notably property and violent crime, drug dealing, assault and theft to procure morphine, an expansion of the black market involving more diversion of drugs (5), drug substitution (6), legitimate users being disadvantaged (n=3) and the potential for the establishment of a heroin market (n=4). Of the six KI who thought crime would increase, five stated there would be more violence in the diversion and procurement of opiates. One informant explained that people would go to greater lengths to divert the available prescription morphine and this could result in more assaults and theft. There was already prescription drug theft, including theft of scripts that have already been stolen, and this type of behaviour would escalate. There may be more intimidation of people with prescriptions and this may involve violence associated with the sale or theft of the script, including violence resulting from dealers trying to source the drug. Other types of crimes mentioned by KI were more pharmacy break and enters and murder.

In terms of drug substitution, one KI remarked it was a question of what drugs were being considered. Another KI thought people would engage in more high risk desperate behaviours in order to achieve the same effect and this would include substitution of other drugs like benzodiazepines. This would result in a range of drug-related harms. Benzodiazepines and methamphetamine were mentioned as substitute drugs by two other KI and a third thought there would be a shift to another slow release opiate such as OxyContin™ or Endone™. Another KI added there was a large established morphine market and if morphine became restricted in availability there were not the resources to place all opiate dependent people on pharmacotherapy programs. Even if resources were available, such programs only appealed to certain people. There was not a dedicated Pain Clinic for those people who are serious about managing their chronic pain rather than being concerned with maintaining their opiate use, and according to one KI these people would be seriously disadvantaged. Another KI echoed this by stating the majority of people with prescription morphine were legitimate users. This KI discussed the arrangements that have been put in place to register people after they have been prescribed opiates for a month and place them on a contract. There were a number of chronic pain patients who were unhappy with these measures and, according to this KI, they felt like they were being treated like criminals. This KI was concerned there were suggestions about making people go to pharmacies every day to pick up their daily dose because this would make it draconian for the pharmacists and very difficult for chronic pain patients themselves.

There was also discussion about the establishment of a heroin market if morphine became very difficult to obtain. One KI stated that people would try to obtain heroin rather than benzodiazepines because benzodiazepines were basically a means of taking a day or two off

opiates, not a primary substitute. Another also believed the demand would remain and opiate users would do whatever they could to source the preferred opiate and this would allow the heroin trade to return to Darwin. This KI explained that the availability of pharmaceutical opiates like morphine was critical in order to prevent the heroin market from developing and flourishing. A third KI thought there was the possibility that a larger black market could result in importation of morphine from Asia where it is considerably cheaper.

The informants were asked to describe experiences of substantial changes in pharmaceutical opiates and one KI reported there was a lot of heroin available in Darwin in the 1980s but the supply appeared to have dried up in the early 1990s. This is when the KI witnessed the major shift from heroin to morphine. The use of morphine continued to rise and peaked in 1999. This resulted in the HIC investigation, doctor-shopping seminars, media interest, TEDGP Schedule 8 meetings, working parties, increased pressure on GPs to reduce the number of scripts, the Illicit Drug Task Force and so forth. However, the KI was of the opinion that this had not translated into a change in availability and price and this did not make any sense. The KI felt sure that there must be morphine being brought to Darwin from southern states.

Another KI commented on the shift in drug use over time and said 16 years ago there was minimal use of pharmaceutical drugs. Alcohol was the main drug until about 10 to 13 years ago when more people from southern states came to the NT and brought with them various drugs. People started to use cannabis as well as alcohol and then a range of other drugs. Another informant reported there was more morphine availability prior to the HIC investigation five years ago and there had been an increase in methamphetamine use since that time. This KI believed there was currently more methamphetamine and ecstasy coming into the NT and, as opiate use declined, methamphetamine use increased. There was more harm associated with methamphetamine use because of its illicit status, unknown purity and high variability in purity, and dependence being associated with strong psychological effects. This KI said the change had resulted in people shifting from an affordable, pure supply of pharmaceutical drugs to *street* drugs. The only other change noted was a reduction in overdoses and the ambulance service recorded a reduction in overdose callouts in the last year.

Benzodiazepine availability

A number of KI thought there were no benefits attached to easy availability of benzodiazepines (n=4) and the remainder thought benzodiazepines were beneficial in managing supervised withdrawal (n=5), as a short term medication for sleep disorders (n=1) and for drug users to access to deal with opiate withdrawal or to tide them over until they obtained morphine (n=2). One KI stated that it was appropriate to prescribe benzodiazepines for four to five days to re-establish a sleep pattern but prescribing for long periods would result in over prescription and dependency. Another KI said some controls needed to be put in place to curb the supply of benzodiazepines associated with drug-related harm such as temazepam capsules. A third KI thought diazepam should be readily available so that opiate dependent people could access these to deal with short periods without morphine because they would substitute other drugs if benzodiazepines were also unavailable.

The risks reported to be associated with easy availability of benzodiazepines were using medication rather than dealing with underlying health and social issues (n=6), dependence and withdrawal (n=7), poly-drug use and overdose (n=3), injection-related harm (n=2), aggression and violence resulting from poly-drug use (n=1), date rape (n=1) and diversion to the black market (n=1). One KI thought some health professionals and others believed it was easy to work with people using a medical model and if medication was the first solution chosen then underlying issues would not be addressed. The drugs may make people more manageable and compliant but there is not the exploration of why a person is feeling anxious or having trouble sleeping.

This KI thought the supply of medication without attention to underlying issues was a disservice to clients and the community in general. Another KI also thought there needed to be a shift from clinical treatment of health issues like insomnia with benzodiazepines to an examination of other therapies. The problem with prescribing benzodiazepine for ongoing conditions was the risk of dependency and the dangerous nature of benzodiazepine withdrawal. One KI thought benzodiazepines were treated too lightly despite the withdrawal being far more difficult than that for opiates and could be associated with a variety of issues such as panic, anxiety, convulsions, seizures and other major problems.

Two KI commented on the benefits of poor availability of benzodiazepines and one simply said it would be positive and the other thought restriction of certain forms would reduce injection-related harm. Of the four KI commenting on the risks of poor availability of benzodiazepines, one said there were none, another thought drug substitution would occur and a third thought legitimate clients would be disadvantaged. The fourth KI did not think anyone would engage in crime to obtain benzodiazepines and they would still be available for legitimate medical conditions like insomnia. None of the KI had experienced a substantial change in benzodiazepine availability.

Methadone

KI were asked to discuss the benefits of easy availability of methadone and two stated there were no benefits. One of these KI explained that not everyone wanted to be on a long-term program and if they wanted to cease drug use they needed to access treatment options quickly rather than wait a couple of months as they currently do with the existing pharmacotherapy programs. The reported benefits were stability in life and increased productivity (n=6), improved health (n=4), reductions in crime (n=4), improved relationships with family and others (n=2), dealing with dependency in an alternative way (n=3) cost savings to the community (n=2) and a reduction in diversion of pharmaceuticals to the black market (n=2). One KI commented that it is a drug using society and methadone is just another drug, so there were not any problems in prescribing methadone. Three other KI thought that although methadone maintained opiate dependency it did prevent people from using other drugs like morphine and heroin.

A KI employed in the public service stated the government was introducing legislation to introduce specific controls for prescribing of pharmaceutical opiates and the pharmacotherapy programs would be expanded to absorb opiate dependent people who were currently being prescribed morphine. This process would take some time, as there needed to be a considerable amount of education conducted and people would need to adjust to the new system. Another KI thought the methadone program was long overdue and had been a political football for too long. People could shift from morphine to methadone and stay on methadone if need be because stabilization was more important than reduction. This KI thought anyone had the capacity to develop a drug problem and people needed a chance to bring order back into their lives. One pharmacist stated that it was particularly important to be welcoming and non-judgemental when people commenced on the program because it would be very difficult for people on the first pick-up and they may be anxious about negative attitudes and not being treated well. This pharmacist was uncertain whether community pharmacies were the most suitable place for dispensing pharmacotherapies because many did not have a private area for dosing. This KI thought the program needed to be expanded because it was not appropriate to have a waiting list. It was important *to strike while the iron is hot*. Two other KI thought the programs needed to be easier to access so the waiting list could be reduced. One commented that the programs needed to be modified so that people could make full use of them, such as providing a range of regimes to suit various lifestyles.

Two KI discussed the cost benefit ratio and one explained there was a large reduction in cost with pharmacotherapies because the programs were not expensive, whereas governments currently spend an inordinate amount of money investigating crime, convicting people of drug

offences and keeping them in correctional facilities. When asked about the risks associated with easy availability of methadone, 8 KI thought it was a medical treatment that did not deal with problematic drug use and its underlying causes, two stated it was expensive for opiate users, three thought some diversion may occur and another two stated the current program was very restrictive for those wanting to access it. One KI commenting on the negative aspects of methadone program stated it did not create productive drug users but resulted in useless *zombies*. Methadone was viewed as more *addictive* than opiates such as morphine and heroin, the withdrawal was more intense and it took longer to cease use. Three KI saw this as a distinct disadvantage of methadone compared to morphine. One stated opiate dependent people could be on morphine and slowly reduce the dose without the side effects of methadone. A number of KI thought methadone was simply drug substitution because there was no long term non-residential support provided in the NT. Of these, KI thought that simple drug substitution viewed drug use as a disease and it prolonged the problem rather than addressed it. One thought it was of no value in terms of people changing their lifestyle and was only useful for people who had hit *rock bottom* and no longer had the capacity to manage their drug use and health. In such circumstances it could save lives but only in the sense of keeping people alive a little bit longer. The lack of coupling with other treatment options was also mentioned by two KI as a disadvantage of readily available methadone. According to one KI, clients did not speak highly of methadone because it destroyed their teeth, the dose could make them *dowdy* most of the time and, because they could not obtain more than a few takeaway doses in advance, people were very limited in lifestyle and mobility. This KI said it was a lower form of heroin and clients may be happy that they are not on heroin but they are not happy to be on methadone. GPs were not viewed as suitable for managing pharmacotherapies and one KI stated they were too busy to deal with all the issues or were not aware of associated issues and generally did not conduct substitution well.

Two KI believed the expense associated with methadone was a disincentive for many opiate dependent people. People accessing methadone from pharmacies were charged about $5 or $6 per dose while daily pick up of opiates such as morphine cost $1. This amounted to quite a substantial difference over a fortnight, $70 for methadone as opposed to $14 for opiates. Additionally, those not accessing their prescribed opiates on a daily basis generally paid about $3.80 per month if they had a concession card.

None of the KI offered any benefits associated with poor availability of methadone and one KI said the risks associated with poor availability were related to the current methadone program. People had to collect their daily dose at the hospital between 10 and 12 in the morning. If they were employed or had other commitments then they could not access their dose. For some people it was impossible for them to access the service because of the restricted times for pick up. None of the KI discussed any substantial changes in methadone availability.

Buprenorphine

When asked to comment on the benefits of easy availability of buprenorphine, nine KI said the benefits were the same as for methadone, with the ability to create a stable lifestyle, a reduction in the cost to the community because they were using pharmacotherapies rather than morphine, fewer were in the criminal justice system, there was less diversion and misuse and improved health and well being. As with the methadone program, two KI said there needed to be a reduction in the waiting list and the program needed to be more flexible to allow for a range of regimes tailored to different lifestyles. Some KI mentioned additional benefits and one of these said those on buprenorphine were more committed to the program than those on methadone because of the risks involved with its use. Another commented that the longer half-life of buprenorphine allowed for greater long-term control and 50% of clients could be stabilized on alternate day doses. One KI thought prescribers preferred buprenorphine to methadone and this may be because methadone withdrawal was very difficult and people had severe side-effects, and according to another KI,

buprenorphine was more flexible in the regimes possible than methadone. Another two KI thought buprenorphine was a less desirable drug, particularly because people did not experience a *high* and so there was less diversion than with methadone.

Most KI reported the same problems associated with easy availability of buprenorphine as methadone and these were the daily pick-up and restricted pick-up times, the long wait list, lack of flexibility in regimes, the cost to people accessing the program and the program not being coupled to a range of support services and therefore acting as drug substitution rather than addressing underlying issues. One KI provided additional comment on drug users' perspectives of the buprenorphine program. Initially people were reported to be quite impressed but now that some have heard about the way in which the buprenorphine program operates they are not interested. Some clients stated that the seven day rapid detox resulted in them being too straight too quickly and they could not change their lives in a week. Another KI commented that it was inappropriate for GPs to be conducting rapid detoxification with buprenorphine, as they did not have the time to have enough contact with the detoxifying person to deal with the array of issues involved. The only problems with poor availability of buprenorphine mentioned were restriction to the daily pick-up on the program and the narrow windows of time for pick-up each day.

Appropriate responses to prescription drugs

Pharmaceutical opiates

KI described a variety of measures that could be adopted to respond to pharmaceutical opiates and these included treating it as a health rather than a law enforcement issue (6), less prescribing and improved treatment options (n=6), harm minimization primarily focused on prescribed morphine for opiate dependent people (n=4), removal of criminal sanctions (n=3), daily pick-up of morphine from chemists (n=2), community education on the health and social consequences of drug use (n=4), drug testing for pilots and drivers and safe injecting facilities (n=1) and partnerships between police, courts, treatment agencies and other key stakeholders.

The KI stating opiate use needed to be addressed from a health perspective thought there needed to be a more bipartisan approach to drug issues rather than an interdiction policing perspective. There needed to more resourcing of health services dealing with drug-related harm. This would also entail ensuring treatment providers have skills and knowledge to assist people who seek treatment. GPs also needed to have the appropriate skills and knowledge to manage opiate dependency effectively. One KI stressed that compulsory treatment (the coerced approach) must be demonstrated to be effective before adoption. There were barriers to treatment and another KI stressed that words such as access and equity need to have meaning rather than just be merely rhetorical. Treatment services also need to provide an appropriate range of treatment options and adopt a holistic approach. This KI further elaborated that if the government was serious about addressing drug-related harm there would be psychiatric and accommodation services and a whole range of support services including after care to meet the various needs of people and effective case management. Another KI commented that the justice system already has penalties for suppliers and dealers and these did not need to be strengthened or enlarged in scope. Efforts should be centred on the treatment and health aspects of drug use rather than on the justice system. According to one other KI it was frustrating that there were plenty of ideas in government but a lack of resourcing, coordination and cross agency collaboration.

The three KI that wanted to see the removal of criminal sanctions for drug use said there would always be people using drugs because of what drugs could offer them. If people wanted to change their opiate use, the criminal justice system would serve them better by placing people in the community with appropriate support, rather than imposing a custodial sentence which was more expensive than providing a community-based alternative. Pain relief drugs always have a base

number of people using them illegally. Another KI did not believe any of the criminal sanctions had impacted on drug use and punitive measures were ineffective and have been demonstrated to be of little value in the past. Social support measures were lacking because there was too much money spent on policing rather than treatment options.

Of the five KI mentioning a harm minimization approach, three thought it would be appropriate to place opiate dependent people on a morphine maintenance program. One stated this would reduce the demand for morphine because people would access it from the program and supply would be reduced on the black market. Another KI thought this would provide opportunities to work with people on health and well being and provide education and training. Additionally, people would not be accessing black market morphine, resulting in a reduction in crime and other drug-related harm. The third KI added that access through a maintenance program may encourage some people to use orally rather then intravenously.

The KI that considered the focus should be on reducing the supply of prescription morphine thought prescribing needed to be tightened up and opiate dependent people diverted into treatment programs. One KI stated MS Contin™ should only be available for intractable pain and/or terminal pain treatment. One law enforcement KI thought there were a lot of people prescribed pharmaceutical opiates because of genuine need but there did need to be some improvements in assessment prior to prescribing pharmaceutical opiates. This could entail people being assessed by more than one GP and consensus reached about the most appropriate treatment. There was need for research in this area. This KI added that if more restrictions were going to be imposed on prescribing there needed to be a well thought through overlaying treatment program implemented if harm minimization was a serious concern. If this was not done effectively there would be an increase in heroin use, and so far it has been the case of the lesser of two evils: the use of pharmaceutical opiates has been more acceptable than heroin and the illicit trade. Three other KI thought the most appropriate treatment was a pharmacotherapy and the methadone and buprenorphine programs needed to be expanded. Two KI suggested daily pick-up or alternate day pick-up of opiate medication from a pharmacy, although there was uncertainty about the burden this may place on pharmacies and the risk of break and enters. There was also the issue of how those without transport or not residing in urban areas would access pick-ups.

KI were asked if there were any changes in the pharmaceutical opiate market that had not already been discussed and one said the restrictions on prescribing practices had resulted in more substitution of non-opiates such as methamphetamine-type stimulants. Another claimed this had led to a dramatic decrease in the quantity of opiates diverted to the black market. However, another KI questioned this because the Illicit Drug Reporting System (IDRS) indicated no obvious correlation between the level of morphine prescribing and use of morphine among the IDRS samples. Some PWID in the IDRS reported it is a little harder to obtain morphine but there is no apparent reduction in level of use despite the marked drop in prescribing since 1999. The KI was puzzled by these inconsistencies. He had heard from law enforcement personnel and GPs that pharmaceutical opiates were being imported from southern jurisdictions but was not sure if this was accurate.

One law enforcement KI said there was a greater prevalence of higher grades of cannabis and methamphetamine, and the effects on people tended to be worse for the whole of society as compared to pharmaceutical opiates. Cannabis and methamphetamine were more associated with antisocial behaviour and general criminal activity. Another law enforcement informant reported heroin was scarce in Alice Springs and becoming less common. It was rare in search warrants and few people mentioned it any more. One pharmacist made comment on other over the counter Schedule 2 drugs like Mersyndol™ and Ducene™. There had been a noticeable rise in Mersyndol™ sales and they were at a level that could be considered problematic. However, there is no system in place to record and monitor the sale of these drugs. There were serious

health issues associated with Mersyndol™ because if a person is taking a lot of the drug then there is consumption of paracetamol plus codeine. The pharmacist thought some people must be consuming more than the maximum recommended dose of eight paracetamol tablets a day and would be damaging their livers, kidneys and other organs. Pseudoephedrine was highly problematic and people were manufacturing methamphetamine from them despite various measures that have been introduced.

Benzodiazepines

Three KI thought the most appropriate response to benzodiazepines would be to restrict the supply, particularly of certain forms, and to implement a monitoring system. According to one KI there were enough alternative therapies for people who were experiencing difficulty sleeping or have anxiety problems and there was no legitimate reason to use them. This KI thought the most appropriate response would be to remove these pharmaceuticals completely. Another KI said some GPs already include benzodiazepines in their contracts with patients and it would be a good idea to expand all contracts to include benzodiazepines. Another KI thought that there was an alternative to restricting supply and this would entail appropriate education about benzodiazepines for both prescribers and patients. There also needed to be education of GPs about how and why people use benzodiazepines, how this relates to illicit drug markets, how and why people access the illicit market, poly-drug use and overdose. Six other KI thought education was the most appropriate response. This would need to be extended to the whole community and needed to include information on psychoactive properties and effects, poly-drug use, overdose, health effects from long term use and misuse, and warnings about operating machinery and driving. With respect to this last issue, one KI said the ambulance service witnessed a lot of trauma from benzodiazepine use that did not appear in statistics. Although one KI thought education was the most appropriate response, it would be very difficult as there were very few good drug and alcohol educators.

The only change noted in the benzodiazepine market in the past 12 months was the removal of the temazepam gel capsules, and two KI reported this had resulted in positive outcomes. There were fewer reports of people running amok on temazepam. However, the ambulance service reported that people had been injecting other drugs that were similar in appearance since the removal of the gel capsules and some looked like adrenaline capsules. Another informant also said people were switching from the temazepam gel capsules to Doxylamine™.

Methadone

Three KI made comment about appropriate responses to methadone and one thought there was a need for professional training of people involved in the methadone programs, including formal training in counselling. Another said there needed to a holistic approach adopted by the program and the third thought it was important to educate clients about the possible health effects, the risks of poly-drug use and the implementation of regular follow up with counselling. The only recent change in the methadone market was a large increase in the use of diverted Physeptone™ in those PWID participating in the IDRS, but this was not reflected in the data on prescription numbers. There were also reports of diverted methadone syrup and this was reflected in an increase in illicit use of methadone syrup in IDRS samples.

Buprenorphine

As for buprenorphine, three KI stated there needed to be professional training of people working in the pharmacotherapy programs, including formal training in counselling and a holistic approach adopted. Two other KI wanted more education, particularly of users about the risks of injecting, and of agencies and the ambulance service on the use of buprenorphine and its effects. There were no reported changes in the buprenorphine market in the last year.

Data and information systems

Information systems and enhancing understanding of prescription drug use

KI were asked to comment on how existing information systems could enhance understanding of illicit markets for benzodiazepines and pharmaceutical opiates. One KI thought information systems were important but there needed to be caution around the fine line between surveillance and increasing regulations within society. Another KI believed the IDRS was interesting and for one agency information was better than it had been, but there was insufficient time to keep abreast of links, trends and research material. This KI thought an email system with updates of key material from information systems and research would be valuable, particularly if it specifically related to the NT. Much of the information received was national or international and this did not always have great utility in the field. Such a system would need to be customized for delivery to remote areas of the NT. Another KI agreed that more information needed to be sent out to organizations, particularly on benzodiazepines because the focus had traditionally been on opiates. Such an information flow would need to be electronic, not paper-based. Another KI thought a good system of information delivery could assist in educating the relevant people, including politicians. According to one KI in correctional services, data systems needed to be coupled with community awareness and the figures should not be presented in isolation or in a sensationalist manner for political purposes. It would be useful to receive broader snapshots of the drug use trends and issues outside corrections. This informant also thought there should be formal evaluations of all service providers working with drug users, and these results should be made available to determine if service provision is meeting needs and providing what is required to address the issues. It would also enable more appropriate referrals.

Three KI commented on the difficulty in obtaining pertinent data, particularly from GPs and government departments. One stated it was very difficult to obtain data from GPs and even harder from other government agencies because they would charge a fee. This particular KI said the agency did not have a budget to pay for data requests or to obtain assessments from a private GP. Another KI questioned whether such information systems existed and, if they did, there needed to be a commitment, generally from government, to regularly interrogate the data and extract information that would be useful. This needed to be a standard practice and the information needed to be distributed widely. This KI suspected the relevant data was not collected, so the government needed to examine ways to reliably collect information that would be useful. This may take some time because it would need to be established what needed to be known and how and what to collect to provide this information. The third KI thought a new data system was necessary and the DH&CS did not appear to understand what they are actually doing with the current system because the system seemed to change regularly. Additionally, the data was not readily available.

Another three KI commented on the monitoring system for Schedule 8 contracts and prescriptions. One pharmacist thought the Poisons and Pharmacy Branch provided good information through a contract list that was circulated; however, it was paper-based and they did not have instant access to amendments to the list. An on-line system was necessary. Two other KI also thought this would be a major improvement and one suggested the information technology would be easy to implement to allow automatic programming and downloading.

The ambulance service thought intelligence from big police busts kept hospitals and the service aware of changes in drug use patterns and allowed better preparation for responses to overdoses. Two police key informants commented on information systems and one thought there needed to be better liaison and information sharing with those prescribing the drugs but there were difficulties because of the confidentiality in the GP and patient relationship. There needed to be a balanced approach to prevent discrimination. Generally this KI thought there was good liaison, and information could be obtained and shared if necessary. Another law enforcement KI did not

think general duties police were dealing with or recording offences that occurred directly as a result of illegal use of pharmaceuticals. It was unlikely that they were because the only way to find out would be to ask people if they were using pharmaceutical opiates illicitly and the response would be no.

Changes required to information systems

When asked about what changes needed to occur to information systems to improve understanding of illicit use of prescription drugs, one KI thought information needed to be frequently reported to appropriate agencies if there was a genuine need and agencies should also regularly share information. The ambulance service already did this but it was important to establish a common format and data set. Data that are required by a particular agency should be recorded by all agencies as it did not involve much extra time to record extra data items. If this happened there would be greater mutual benefit than currently existed.

Six KI were critical of the DH&CS Alcohol and Other Drug Program treatment service database. One KI described it as an *absolute joke* because it lacked consistency and was inaccurate. Despite the National Minimum Dataset compliance requirements, this KI did not believe there was any reliability in data coming from the database. Additionally, the KI did not think it would be used for anything constructive because there was no access to the information and agencies were only provided with short quarterly summary reports, which were described as *notoriously unreliable*. This KI recommended a major overhaul of the system and serious thought given to implementation and use of the system. The KI added that the Department of Justice Integrated Justice Information System could provide some useful data as well as monitoring. In a similar vein, another KI commented that the AODP treatment service system needed to be replaced with a new system similar to the Alcohol and Drug Information System that operated in Victoria. This system was fully computerized, alerted data entry people to errors and the data is transferred electronically from the treatment agencies to the health department, which then provides reports on activities, types of drugs used, contacts with services and information from other sources such as police seizures data. There is also the possibility of obtaining continuous updates so the information can be collated on agency computer systems. An agency KI reported they needed more access to the information collected by AODP and to receive reports that are interpreted with some meaning. AODP provided only minimal information on activities and trends and many aspects of drug use were never reported back to agencies. Another KI thought the data items needed to better reflect drug use behaviour. There was also only one choice for drug of concern but the reality was that there was rarely just one principal drug. Although there was an option for poly-drug use, the drugs involved were not specified. This KI thought the data distort reality and the dataset needed to move away from the concept of a hierarchy of drugs. The need to shift from thinking there was a main drug was also mentioned by another KI, who also thought the data is not reliably collected. This KI also commented that resources needed to be put into using the data constructively because there was no point in collecting it if it was not going to be utilized. Mention was also made of the limited range of options for recording illicit use of drugs in hospital datasets. According to one KI, there was a lot of data available of value but it was detrimental if it was in the wrong hands. The informant explained that if some reports were sent to the Commissioner of Police there would be all sorts of *crazy laws* enacted that would negatively impact on those using drugs and society in general.

Pharmacists thought that they were hindered to some degree because they could not share information because of the *Privacy Act*. Previously, when they suspected someone with a prescription they would ring other pharmacies in the area, and if they found the person presented there as well they would not dispense to the person. They were now only allowed to divulge information to another pharmacist in life threatening situations. One pharmacist thought there was a need for a national patient database that GPs could access before prescribing morphine. This KI

also noted that they filled in data sheets but did not receive a comprehensive view of the situation locally or even for the whole of the NT. The system was paper-based and no information was sent back. If the information was recorded electronically then at least the pharmacies would be able to collate information and gain some understanding of how successful various programs were and feed that information back to clients. Another pharmacist also thought the information collected should be available to the police, probation and parole officers and other health professionals.

One law enforcement KI thought access to the prescribing information on Schedule 8 drugs was very important. Currently police can only access such information if they satisfy Justice that it is really needed. If someone has a large quantity of morphine tablets they cannot approach a GP to find out how many the person has been prescribed. They need to obtain a search warrant to access the GP records. Another law enforcement KI said there was a police intranet database that was updated monthly with seizure information and street intelligence to provide trends on prices, types of drugs, amounts and so forth and it was very useful.

Information systems and research needs on emerging trends

One KI thought it would be useful if treatment agencies provided information to GPs, pharmacists and the police on emergent behaviours, new drugs, emerging issues and best practice. Another two KI thought research needed to be conducted on trends in designer drugs, particularly among young people. One KI believed the IDRS should be continued but must be removed from DH&CS because it was akin to having *a shark in a swimming pool*. This informant was certain that certain information would be diluted, if not deleted, from any report from the NT because of political sensitivities. One KI reported increasing prevalence of illicit use of drugs among Indigenous people but that there was still a *head in the sand* attitude to this on the part of governments. There was a need for research to inform the development of prevention programs, otherwise in ten to twenty years there would be many injecting drug users in remote communities. Another KI thought it was time to conduct some research on alcohol because of the problems associated with this drug. The focus on illicit drugs had resulted in alcohol being neglected and allowed to create havoc in the community. The remaining KI thought there needed to be sound outcome studies for treatment providers, clinical audits of GPs and regular forums of key stakeholders.

Other comments

When asked if there were any other comments, KI made a variety of statements. Alice Springs needed a NSP, that more peer education of both users and also user education of service providers was required, a residential withdrawal service was needed because people were not using the home detoxification for a range of reasons, the AODP program was a waste, a dual diagnosis service was crucial for people who were referred back and forth between mental health and treatment services and a counselling service for young people was necessary.

Summary

The twenty nine KI were unanimous in their belief that the morphine sulphate MS Contin™ was the pharmaceutical opiate most used, particularly the 100mg tablet. KI also indicated there was some use of Kapanol™ and Anamorph™. Morphine sulphate was thought to be a primary rather than supplemental drug and usually sourced from GPs, the black market and friends. Some KI thought there had been an increase in other forms of pharmaceutical opiates, mainly OxyContin™. A broad range of people used pharmaceutical opiates and many users would describe their use as pain-related. There were indications of poly-drug use and a blurring of the distinction between opiate and methamphetamine users. The types of impact on KI work were fewer overdoses than with drugs like heroin and injection-related harms. Law enforcement KI stated pharmaceutical opiates had very little impact on their work because under the *Misuse of Drugs Act* it is not an offence to have morphine tablets in possession without a script. Pharmacists

said there were some issues in dispensing pharmaceutical opiates, mainly verifying authenticity of prescriptions, checking for doctor-shopping and breaches of contracts, demands for early pick-ups and the potential for aggressive and hostile situations. In terms of geographical variations in availability of pharmaceutical opiates, most KI reported access was readily available, but the price was higher in rural and remote regions.

The main forms of benzodiazepines used were reported to be temazepam, particularly Normison™ and Valium™. Some KI also mentioned Euhypnos™ and Hypnodorm™. The main sources were prescriptions and friends. KI reported a range of people used benzodiazepines and the main reasons for use were to manage sleep problems and anxiety. A number of KI linked benzodiazepine use to other drug use, particularly withdrawing from opiates, substitution for morphine when it was unavailable, to potentiate the effects of morphine or managing the come down from methamphetamine. The majority of KI did not think benzodiazepines were primary drugs and there would only be a handful of people who would nominate benzodiazepines as the drug of choice. Some people were injecting benzodiazepines. The reported impacts on work were chaotic behaviour, forgetfulness and poor concentration, involvement in arguments and fights while intoxicated and similar issues to pharmaceutical opiates at pharmacies. Benzodiazepines were thought to be easy to obtain through prescription in any location.

Most KI reported there was some diversion of takeaway methadone doses and a small proportion of people injecting the methadone syrup. There was also some diversion of the methadone tablets Physeptone™. Methadone was not the preferred drug of those using it as the preference was for opiates like heroin or morphine. Some KI also thought there was some diversion of buprenorphine to the black market. Only one KI reported intravenous use of this drug.

Nine KI thought doctor-shopping was still occurring for morphine, particularly for MS Contin™ but the majority believed it had become more difficult since measures were put in place to curtail it. Those accessing pharmaceutical opiates from GPs were invariably described as claiming to be in chronic pain and some KI thought a number of people were accessing for non-legitimate reasons. The estimates of the proportion of prescriptions that were diverted ranged from none to a small proportion for financial gain. Non-opiate users were also thought to be involved in diversion of pharmaceutical opiates. An online database for clients was suggested to make prescribers' roles easier and to limit the diversion of pharmaceutical opiates. Other measures included daily pick up from pharmacies, random urine tests to ensure medication compliance, pharmacy depots for Schedule 8 drugs and care plans.

A number of KI thought there was a considerable amount of undetected doctor-shopping for temazepam and diazepam, although there had been a reduction in doctor-shopping for temazepam. Strategies mentioned to obtain benzodiazepines from GPs included false names, accessing a number of GPs and presenting with sleep, anxiety or pain issues. KI generally thought people obtained benzodiazepines for personal use and only a minority of people would share or swap these drugs with friends. KI did not think there was much selling of benzodiazepines. Measures proposed to limit doctor-shopping and diversion of benzodiazepines were education of GPs, greater use of alternative strategies for sleep and anxiety disorders and a monitoring system like that for Schedule 8 drugs.

KI reported there was a considerable amount of exchanging of pharmaceutical opiates without any money involved and that this occurred more than trading with money. Exchanging, sharing and trading of morphine were thought to occur among groups of friends. Those on-selling tended to do so within a specific group of people because selling outside this group would attract too much attention. There did not appear to be large-scale dealers or few professional dealers that operated as a business and these were not specialized opiate dealers. Two Alice Springs KI reported that the

majority of the morphine came in via backpackers and dealers sourcing it by illegal means. There appeared to be an underground movement of dealers coming from southern states and this was reported as a new phenomenon.

While some KI did not think there was much benzodiazepine trading occurring, others suggested it was unlikely because they were very easy to obtain on prescription. It was more likely that people would be sharing or swapping them among friends and little if any organized dealing. It was believed a small amount of trading occurred in methadone syrup and the methadone tablets Physeptone™ and that this occurred mainly among social groups. There was some exchange and swapping as well as on-selling. A small amount of trading in buprenorphine among friends was reported and there was a belief the demand was low.

When discussing the relationship between the availability of pharmaceutical opiates and crime, some KI did not think a nexus existed because some opiate users had a criminal history as juveniles prior to initiation into drug use. The transition into dependent use would exacerbate criminal activity amongst these people. In contrast, twelve KI believed that use of opiates was associated with crime, particularly among dependent users to obtain funds to support their dependency. The crimes most often mentioned were property crime, such as shoplifting and break and enter, the occasional armed robbery, fraud and drug dealing. Another seven KI thought pharmaceutical opiate availability resulted in less crime and this lessened the contact with people engaged in criminal activity. Additionally, people would not need to commit property crime and drug dealing to purchase morphine at high prices on the black market. Reductions in availability would increase the price and the level of criminal behaviour. Opiate users were also mentioned as victims of crime because those with prescriptions could be targets for assault and robbery. Most KI did not think organized crime was involved in the pharmaceutical opiate trade, but law enforcement KI indicated there was some organization but not in the traditional sense of organized crime networks.

Most KI did not think there was a relationship between benzodiazepine availability and crime while two thought the easy availability of prescription benzodiazepines may be associated with a reduction in crime and a reduction in availability could lead to an increase in crime, as reported for pharmaceutical opiates. Seven KI specifically discussed illegal behaviour associated with benzodiazepine intoxication and people claiming to have no memory of events. Some clients had acted impulsively and broke into premises to steal goods that were of little value. There were also reports of people intoxicated on benzodiazepines shoplifting because they thought they were invisible. Intoxication was also associated with aggression, violence and assault. Most KI said there was no organized crime involvement in the benzodiazepine trade.

Eight KI commented on methadone availability and crime and six thought people on the methadone program would be engaged in less crime than those accessing illicit morphine. Two KI discussed the stability that methadone maintenance provided in terms of accommodation, the ability to maintain employment, the opportunity to deal with psychosocial issues associated with drug use and to learn new coping skills. Those commenting on buprenorphine availability and crime were unsure if there was an association because the program was only two years old.

Twenty KI discussed the impact of police activity on pharmaceutical opiate supply and availability and the majority believed the police were not interested in pharmaceutical opiates, that the level of crime associated with these drugs was very low or that the police were quite powerless to impact on supply. Pharmaceutical opiates were a health issue and even though the black market was of concern, the law enforcement KI stated it was an offence to supply morphine but not to be in possession of it, even without a prescription. The police must prove illegal acquisition through the point of sale and that was very difficult. With current resources, law enforcement had to prioritise work, and morphine was of low priority because it was thought to be associated

with *lower scale* illicit activity and a significantly smaller issue than illicit drugs. Most KI said the police had not directed efforts into pharmaceutical opiates and law enforcement were mainly concerned with methamphetamine and cannabis because there is so little heroin available. Fourteen KI commented on policing of benzodiazepines and ten stated the police had not targeted benzodiazepines and three added that policing would have no impact at all, for the same reasons they were somewhat powerless with legal drugs like morphine.

KI were asked to discuss the benefits and risks of easy and difficult availability of pharmaceutical opiates and the majority reported reduced crime, a stable lifestyle and greater productivity, better health through regular access to GPs and other health professionals, removal of the black market, lower risk of overdoses and improved finances. The problems KI identified with easy availability of pharmaceutical opiates were more opportunities for standover tactics, greater involvement of organized crime, diversion and a more active black market, over-prescription and dependency, an increase in opiate use, injection of non-injectable drugs and injection-related issues, more opiate overdoses, use as a quick fix to address socially created problems and a financial strain on the health care system. The benefits of poor availability were political gain, more people entering the pharmacotherapy programs and a reduction in financial burden to taxpayers. The risks of poor availability were an increase in crime, an expansion of the black market, drug substitution, legitimate users being disadvantaged and the potential for the establishment of a heroin market.

A number of KI thought there were no benefits attached to easy availability of benzodiazepines and the remainder thought the drugs were beneficial for managing supervised withdrawal, as a short term medication for sleep disorders and for drug users to access to deal with opiate withdrawal or to tide them over until they obtained morphine. The risks reported to be associated with easy availability were using medication rather than dealing with underlying health and social issues, dependence and withdrawal, poly-drug use and overdose, injection-related harm, aggression and violence resulting from poly-drug use, date rape and diversion to the black market. Two KI commented on the benefits of poor availability of benzodiazepines and one simply said it would be positive and the other thought restriction of certain forms would reduce injection-related harm. Poor availability was associated with drug substitution and legitimate clients being disadvantaged.

The benefits of easy availability of methadone were stability in life and increased productivity, improved health, reductions in crime, improved relationships with family and others, dealing with dependency in an alternative way, cost savings to the community and a reduction in diversion of pharmaceuticals to the black market. Most KI thought the risks of easy availability were using a medical treatment that did not deal with problematic drug use and its underlying issues. Other risks mentioned were that it was expensive for opiate users and the restrictive nature of the current program. None of the KI offered any benefits associated with poor availability of methadone. Nine KI said the benefits and risks associated with availability of buprenorphine were similar to those reported for methadone.

KI described a variety of measures that could be adopted to respond to pharmaceutical opiates and these included treating it as a health issue rather than one of law enforcement, less prescribing and improved treatment options, harm minimization primarily focused on prescribed morphine for opiate dependent people, removal of criminal sanctions, daily pick up of morphine from chemists, community education on the health and social consequences of drug use, drug testing for pilots and drivers, safe injecting facilities and partnerships between police, courts, treatment agencies and other key stakeholders. Three KI thought the most appropriate response to benzodiazepines would be to restrict the supply, particularly of certain forms and to implement a monitoring system. There were enough alternative therapies for people who were experiencing difficulty sleeping or anxiety problems. A number of KI thought the most appropriate response would be educating GPs,

pharmacists, service providers and the community in general on the effects of benzodiazepines and harms associated with use. Only three KI made comment about appropriate responses to methadone and one recommended professional training of people involved in the methadone programs, including formal training in counselling. Others thought there was a need for a more holistic approach with methadone rather than drug substitution. Education on the possible health effects of methadone and regular follow up with counselling were also mentioned. The measures reported for buprenorphine were similar to those for methadone.

In terms of information systems, some KI commented that there needed to be an email system with updates from data and information systems and research, as this would assist in educating and informing relevant people. Mention was also made of the need for formal evaluations of all service providers working with drug users and these results should made public to determine if service provision is meeting needs and effectively addressing the issues. There were also reports of difficulty in accessing pertinent data, particularly from GPs and government departments and a lack of commitment from government to regularly interrogate the data, extract useful information and distribute it widely. Some KI also thought it was important to establish an online monitoring system for Schedule 8 contracts and prescriptions and one KI suggested a national patient database that GPs and others could access. A number of KI were critical of the DH&CS Alcohol and Other Drug Program treatment service database, describing it as inconsistent and unreliable. While some KI thought it needed a major overhaul, others suggested it be abandoned and replaced with a new electronic system. There were also concerns that it was not used constructively and there was a need to generate regular interpretive reports on activities, trends and aspects of drug use. There was also mention of the need to conduct research on patterns and trends in designer drugs, particularly among young people; illicit use of drugs among Indigenous people; and alcohol and alcohol-related harm because this area had been neglected due to focus on illicit drugs. One KI thought the IDRS was important but must be removed from DH&CS because sensitive information may be diluted or not reported because of political sensitivities.

Chapter four: Discussion

This discussion relates specifically to the NT component of this research and will take an overview perspective rather than engage in depth examination of all the results of the four studies. Additionally, it will focus on law enforcement interests and the implications of pharmaceutical opiate and benzodiazepine use for policing in particular.

Sample characteristics and recent drug use

Sample characteristics were similar in both PWID surveys and 43 of the 50 participants in the second survey had participated in the first survey. The only differences between the stage 2 and stage 4 surveys were a higher mean age (37.6 : 34.5 years), a slightly lower proportion of males (74% : 77%), a higher proportion unemployed (84% : 79%) or with a prison history (58% : 51%) in the stage 4 survey. In the stage 2 survey 59% injected at least once a day compared to 70% in the stage 4 survey and this was due to a marked reduction in the proportion reporting they injected more than weekly but not daily (36.5% : 18%). Recent drug use indicated more PWID in the stage 4 survey had injected heroin (30% : 20%) for a slightly higher mean number of days (36 : 33) in the last six months than in the first survey. In contrast, more PWID had injected methamphetamine (66% : 61%) in stage 2 than in stage 4, but the mean number of days was the same. In the stage 2 survey more PWID had used cannabis (78% : 59%) for a higher mean number of days (114 : 101). Use of alcohol was similar in both surveys.

Patterns and trends in pharmaceutical opiate use

Oral use of licit morphine in the last six months was higher in the stage 2 survey than the stage 4 one (13% : 2%), but more PWID had injected licit morphine in stage 4 (30% : 27%) for a higher mean number of days (157 : 140). More PWID in stage 2 had used illicit morphine orally (11% : 4%) or injected it (91% : 86%), but in stage 4 the mean number of days was higher (101 : 86). It is not possible to compare this pattern of morphine use to that of the NT IDRS samples because the IDRS does not disaggregate licit and illicit morphine in terms of routes of administration and days used. Additionally, analysis of the number of days used in the last six months in the IDRS samples since 2002 only includes the median number of days, and without the mean number of days it is difficult to determine any shift in the frequency of use.

The preferred drug of most PWID in both surveys was heroin, followed by morphine, but the drug injected most in the last month was morphine followed by methamphetamine in the first survey and methadone in the second. These results in combination with the indicator data confirm morphine as the most used opiate in the NT even though heroin is the most preferred drug. The proportion of PWID with morphine as the preferred drug was higher in the stage 4 survey than the stage 2 one (24% : 20%) and slightly fewer reporting a preference for heroin (44% : 50%). When asked in the stage 2 survey what drug they would substitute if the drug they used most the previous month was unavailable, almost a half nominated morphine and one in ten each nominated methadone, benzodiazepines or cannabis. In stage 4 they were asked what drug they substituted the last time they could not get the drug they used most and one quarter said they always obtained their drug, mainly because they were on prescription morphine. Almost a third reported no drug substitution. However, among those that did substitute, the most common drug was morphine, followed in descending order by benzodiazepines, methamphetamine, alcohol, cannabis, and methadone.

In terms of other pharmaceutical opiates, 7% of the stage 2 sample had orally used these drugs from licit sources in the last six months and the same proportion had injected them, compared to 12% oral and 6% injecting in the stage 4 survey. Similar proportions had illicitly used the drugs intravenously (17% ; 16%) but in stage 4 fewer had used them orally (11% : 4%). There is no clear evidence of a shift in pattern over the two surveys. In the six months before the stage 2 survey, 9% of the sample had swallowed illicit methadone syrup and 14% injected it. Illicit Physeptone™ was swallowed by 15% of the stage 2 sample and 34% used it intravenously. Close to one in ten had taken buprenorphine orally or intravenously. The proportions for the use for each of these pharmacotherapies is very similar to that reported in the 2003 NT IDRS sample (Moon, 2003). In the stage 4 survey, 36% of the sample had used a licit pharmacotherapy and 12% injected it. Illicit pharmacotherapies had been taken orally by 16% of the PWID and 28% had injected them. The pharmacotherapies involved were methadone syrup, Physeptone™ and buprenorphine and they were usually bought from friends or provided as gifts.

When the stage 2 survey PWID were asked if they had experienced any problems from opiate use in the last month, almost half had not experienced any problems as a direct consequence of morphine, methadone or buprenorphine use. The proportion reporting no problems associated with morphine use was much lower than in the NT 2003 IDRS sample. The most common problems experienced in the current research from morphine use were dependence, low motivation and feeling anxious, while for methadone it was dependence, relationship problems and feeling anxious. For those who had used buprenorphine the problems were low motivation, dependence, problems concentrating and feeling anxious. None of those using morphine had contact with police directly as a consequence of using morphine in the previous month and only one in twenty had been in criminal trouble or engaged in undetected criminal activity as a consequence of using morphine.

The majority of morphine users sourced their drug from known individuals, such as GPs or friends, at a relatively standard price. In most cases each instance of acquiring the drug was a regular, pre-planned behaviour that involved very little or no searching or of setting out speculatively to meet an unknown dealer. Similarly, in most instances a particular drug type and form was sought and, if it was unavailable, the majority of users would seek a similar form or go without rather than substitute another drug type. The large majority would administer the drug in a private home. This meant that patterns of sourcing and use were relatively stable and most users generally did not have contact with unknown people or situations. There was also a well developed barter system operating within some groups and tablets were a form of currency whereby goods could be swapped for morphine tablets, other drugs swapped for tablets or tablets borrowed and re-paid with tablets.

However, there were a proportion of PWID who accessed methamphetamine, and the crossover between opiates and methamphetamine cannot be clearly delineated. The data from this research indicates it was one of the possible substitute drugs if morphine was unavailable. A reduction in prescribing of morphine and a resultant drop in diversion to the illicit trade may result in a proportion of morphine users accessing methamphetamine and, therefore, shift the pattern of sourcing from primarily among a friendship group to exploring access through unknown dealers and more organized networks that are thought to exist in the trade for illicit drugs. The quality and price of illicit drugs such as methamphetamine are far more unpredictable than for pharmaceuticals and varying purity levels pose health risks for novice and less experienced users. Other associated risks are entering into credit arrangements with unknown people, resulting in the potential for coercion and opportunistic crimes to obtain the money to purchase illicit drugs without the barter system that operated with their morphine usual supply.

Patterns and trends in benzodiazepine use

In the stage 2 survey, only 6.9% of the PWID stated benzodiazepines were the preferred drug, 7% had injected them most in the last month and 5% had used these drugs most often in the preceding month. However, in the second survey none of the PWID nominated benzodiazepines as the preferred drug and only 2% had injected them most in the last month. A greater proportion of PWID in the stage 2 survey compared to the stage 4 survey had used licit benzodiazepines orally (43% : 30%) or injected them (37% : 4%) in the last six months. The mean number of days of injecting licit benzodiazepines was much lower in the stage 4 survey (35 : 66 days). Similarly, a higher proportion of the stage 2 participants had orally used illicit benzodiazepines (48% : 38%) or injected them (40% : 28%) and the average number of days of injecting use was very similar. The results indicate a decline in oral and intravenous use both licit and illicit benzodiazepines in the four month period. The results cannot be directly compared to the NT IDRS samples to determine trends in benzodiazepine use as the IDRS does not disaggregate licit and illicit benzodiazepines in terms of routes of administration and days used.

Many morphine users were occasional or supplemental users of benzodiazepines, but there were comparatively few users who were solely or primarily users of benzodiazepines. This was also the opinion of the KI involved in this research. In the stage 4 survey PWID stated what drug they had used the last time they could not obtain the drug used most, and benzodiazepines were nominated most after morphine. Benzodiazepines tended to be used to self-manage opiate withdrawal, to potentiate the effects of morphine and to assist in the come down from methamphetamine. Another important type of use was as either a prescribed or self-administered treatment for the conditions for which benzodiazepines are medically indicated, such as insomnia or anxiety. The illicit acquisition of benzodiazepines was usually from friends or acquaintances and the drugs were provided as gifts, swapped for other drugs or purchased at relatively low prices. Acquisition appeared to be less regular and pre-planned than for morphine and people obtained the drugs opportunistically from their usual drug source.

Almost half of the PWID who had used benzodiazepines in the last month reported they had not experienced any problems directly related to its use. The most often reported problems were blackouts and memory loss, followed by problems concentrating, low motivation and aggression. The proportion reporting no problems associated with benzodiazepine was similar to that in the NT 2003 IDRS sample. One in ten had also experienced contact with the police directly resulting from benzodiazepine use and some had incurred criminal trouble. One in ten had also engaged in criminal activity that was not detected by law enforcement.

One purpose morphine users made of benzodiazepines was to manage morphine withdrawal if they were having difficulty sourcing morphine, or wished to reduce their morphine dose. For this reason it is possible that if the morphine supply was further reduced or became less predictable for morphine users, this type of drug substitution or remedial use of benzodiazepines by people who were primarily seeking morphine might increase.

Prescription drugs, health and treatment

In the stage 2 survey more PWID had accessed treatment in the last six months than in the stage 4 survey (44% : 32%) and there were also higher proportions in the first survey that had accessed the methadone program (40% : 20%), counselling (15% : 4%) and buprenorphine (24% : 20%). In contrast, more PWID in the stage 4 survey reported they were on prescription morphine (20% : 9%). The proportion of people stating they were currently in treatment was higher in the second survey than the first (46% : 33%) and of those in treatment there was a noticeable reduction in

those reporting they were currently in the methadone (50% : 33%) or buprenorphine programs (25% : 13%) or counselling (15% : 0%). There was a concomitant increase in the proportion stating they were currently on prescribed morphine (41% : 16%). This change may reflect a variation in the response options for this question in stage 4. In stage 2 there was not a response option called 'prescribed morphine' but a number of PWID spontaneously provided this response. When queried, they believed this to be a valid form of drug treatment and, therefore, it was listed as an option in the second survey. It is difficult to determine the degree to which this altered the response pattern.

Longer term trends from secondary data sources indicate the proportion of the NT IDRS samples reporting they were currently in treatment dropped from 34% in 2000 to just 14% in 2002 (O'Reilly, 2002; Duquemin & Gray, 2003). In 2003 the proportion rose to 24% but all respondents were in a pharmacotherapy program (Moon, 2004). There were higher proportions currently in treatment in both surveys of the current research than in the 2003 IDRS sample, but there is a similar pattern in regard to PWID accessing pharmacotherapies and morphine as opposed to other forms of treatment. The NT IDRS samples reveal a shifting pattern of service utilization over time. In February 2000 the Opiate Withdrawal Management Program was implemented and 29% of the IDRS sample that year reported they were on methadone and the other treatment forms most commonly reported were drug counselling (15%) and residential treatment (12%) (O'Reilly & Rysavy, 2001). In 2001 the proportion on methadone rose to 54%, but there was a slight decrease in those in counselling (12%) and none were in a residential drug treatment. However, 21% spontaneously reported they were on prescription morphine as a treatment (O'Reilly, 2002). This was the only year in which the NT IDRS elicited responses on prescription morphine as a form of treatment. In the 2002 sample 50% were on methadone and 36% on a morphine reduction program (Duquemin & Gray, 2003) and, as stated above, in 2003 all those in treatment were in a pharmacotherapy program. In September 2002 the NT introduced pharmacotherapy maintenance programs and this may partly explain the shift toward this type of treatment. However, the AODPTS data indicate a decline in episodes of treatment with morphine as the principal drug of concern since 1998 and episodes among injecting users also display a decline for both heroin and morphine since 2001. The number of episodes for opiate (principally morphine) detoxication/ withdrawal shows a marked decline since 1999, from 186 episodes to just 34 in 2003. The service underwent a major restructure in 2002 but the declines were clearly evident prior to this service modification.

Overall, the results of this and other research in the NT suggests the need to examine service utilization from a number of perspectives and the role of non-pharmacotherapy forms of treatment, either as full treatment in themselves or as adjuncts to pharmacotherapy. This is particularly important given 93% of people in the stage 4 survey stated they would not use methadone because they were on prescribed opiates and did not want to shift to methadone or they would not access methadone because of stories they had heard or beliefs they held such as it being the equivalent of *chemical handcuffs*. Almost one in three had been on methadone at some point in time and would not use it again and a quarter was not interested because they were unconcerned with their drug use. Both those surveyed and the KI expressed additional concerns about pharmacotherapy programs not being suitable or not meeting the needs of many PWID, and these centred on long waiting lists, not providing proper medical care, inflexibility with limited dosing regimes and a restrictive medical model focus rather than a holistic approach where drug substitution would be coupled to a range of support services, both short and long term. Additionally, the cost of the pharmacotherapy programs was reported by both users and the KI as an issue, particularly for those on prescribed morphine. The pharmacotherapy programs currently cost about $170 per month when dispensed from a chemist, whereas a monthly visit for a prescription to a GP who does not even bulk bill will cost considerably less.

The NT is currently considering legislation to introduce specific controls on the prescribing of pharmaceutical opiates and one KI stated the pharmacotherapy programs would be expanded to absorb opiate dependent people. The aim would be to transfer those on prescription morphine to the pharmacotherapy programs. However, as one GP in this study opined, patients were very reticent about transferring to the methadone program. A marked reduction in the supply of prescription morphine would impact differentially among morphine users. Those with occasional use, or mild to moderate dependence would have more options in responding to reduced availability. Some might not use while others may find it easier to reduce consumption, move into a treatment program, use differently or use other drugs. A reduced supply can refine the market in that it can remove the less dependent, but it can also produce a more dedicated drug use lifestyle among those who feel unable to cut down. It is evident that few of the opiate users surveyed in this research would enter treatment programs, particularly pharmacotherapies, because the majority thought drugs such as methadone to be far less desirable than continued use of morphine. Most morphine users prefer heroin to morphine, but appear to find morphine a reasonable substitute in a market with poor heroin availability. It is possible that if morphine became much less available, some opiate users might access pharmacotherapy drugs as an alternative, but it would appear from the current research that many would seek the next preferred substitutes, which were benzodiazepines, other opiates, cannabis, alcohol and methamphetamine. In the stage 2 survey, only 1% said they would access a pharmacotherapy if there was a marked reduction in availability of pharmaceutical opiates, while a third indicated they would substitute other drugs, such as benzodiazepines, other opiates, alcohol, cannabis and methamphetamine. The benefits of morphine use as reported by participants in the stage 2 survey resemble self-medication. A third indicated morphine provided pain relief and, therefore, a better quality of life and one quarter reported it reduced stress and anxiety and facilitated improved sleep. Decreased access to morphine and increased use of licit drugs such as alcohol for self-medication may result in an increase in alcohol-related harm to the community, particularly that associated with intoxication: such as public nuisance, drink driving and assault.

There are additional concerns in regard to measures to restrict the prescription of pharmaceutical opiates such as morphine. There is a delicate balance that must be maintained to ensure those with legitimate need are not adversely affected by such measures. Although a reduction in prescribing could possibly reduce use, it could also impede access to medically necessary treatment. There is evidence that regulatory controls, particularly monitoring systems, have the potential to make providers more conservative or cautious and to alter their prescribing behaviours, through such measures as reducing the number of prescriptions for monitored drugs or substituting non-monitored drugs. This can indirectly result in a negative impact on patient care (Wastila & Bishop, 1996; Simoni-Wastila & Tomkins, 2001). It can also produce pressure on GPs to detect and respond to suspected misuse or diversion and this has potential to negatively impact on service rapport, trust and full disclosure of difficulties. This can result in people not returning to the GP for on-going care. Additionally, those people with a history (past or present) of opiate dependency are also at risk of not obtaining the treatment for valid conditions (Cook, Sefcik & Stetina, 2004). One KI cited research on European trials of government prescribed drugs and decriminalization of drugs for personal use. The resultant lowered marginalisation and stigmatisation of prescribees was claimed to result in improved health outcomes through greater access to services. Most KI and some users identified health benefits from the use of legal rather than illegal drugs. These benefits included a reduction in marginalisation through access to health professionals without the social and legal complications of being identified as a drug user, and this contact allowed for other drug use, health and well-being issues to be assessed and managed. Another benefit stemmed from the regulated purity and dose of pharmaceutical drugs and the reduced risk of overdose and contamination through cutting agents.

Both Australian and overseas research demonstrates a strong association between crime, particularly property crime, and illicit heroin use (Stevenson & Forsythe, 1998; Kaye & Darke, 2000). Conversely, it also highlights concomitant reductions in opiate-related crime when appropriately resourced and targeted methadone maintenance treatment programs are provided (Hall, 1996; Parker & Kirby, 1996; Bell, 1997; Mattick, Hay, Chan & Hall, 1997; van Beusekom & Iguchi, 2001; Lind, Chen, Weatherburn & Mattick, 2004). The NT is uniquely positioned with its opiate market dominated by the use of morphine rather than illicit heroin. Government could harness opportunity from this situation by shifting from a policy approach dominated by supply control to one focussed on harm reduction and implement a pharmacotherapy program involving the use of prescription morphine, which may act as a suitable substitute for methadone, overcoming some of the issues associated with the structure and requirements of the current pharmacotherapy programs. There is some evidence that users are able to stabilise their use over a long time frame if they have a regular and affordable supply, such as when a user is prescribed morphine. Importantly, there is evidence for less involvement in crime among those people accessing prescription morphine as indicated by the significant inverse relationship between the number of days of prescription morphine use in the previous six months and total criminal involvement in the stage 2 user survey. In the stage 4 survey only the number of days of *illicit* morphine use was associated with property crime and swapping drugs, and there were no significant correlations between days of licit morphine use and any of the variables assessing self-reported illegal activity. There is already exploration of the use of morphine in treatment programs with the trials of a new high dose methadone detoxification protocol with transfer to morphine for several weeks. This is followed by a reduction program of sublingual buprenorphine before a Naltrexone implant for maintenance of an opiate free lifestyle (Reece, 2004). For those wishing a maintenance program rather than abstinence, a safe injectable form of morphine could be developed and trialed as a similar but alternative pharmacotherapy to injectable diamorphine (heroin), which has been used successfully in Swiss trials and in the UK. A study of clients' perceptions of this form of maintenance treatment (diamorphine) indicated users accessing the program most often reported doing so to obtain a pure form of an opiate with a known dose, to improve relationships with family and to avoid contact with the police and the criminal justice system (Sell & Kador, 2004). Many of the clients cited advantages of being on injectable diamorphine as opposed to injectable methadone.

Most of the injecting users and KI (including law enforcement personnel) surveyed in the current study thought some form of treatment was preferable to progression through the criminal justice system. The possession of prescription drugs, even without a prescription, is not illegal and those using them are less likely than illicit drug users to come into contact with the criminal justice system through use or supply. Users can also seek or be diverted to various interventions without being labelled as an illicit drug user. Many KI thought this was a desirable goal, which could be achieved in part through an appropriate diversion system. There are benefits inherent in co-operative arrangements between courts, police, health and treatment providers to divert people into the health sector, and these obviously include better health and social outcomes. There would be less strain on the justice system resources, particularly in relation to the difficulties associated with policing prescription drugs and prescription drug-related crime.

The rate of benzodiazepine injection remains an area of concern and was highlighted by both PWID in both surveys and KI in this research. There appeared to be a drop in the prevalence of injecting in the four months between the two surveys and further monitoring would be required to determine if this is an emergent trend. The NT IDRS samples indicate a noticeable rise in benzodiazepine injecting from 2000 to 2003, with only one in ten PWID injecting benzodiazepines in the six months prior to the survey in 2000 compared to 30% in 2003. There was also a rise in the median number of days of use but the IDRS does not disaggregate days of IV use and days of oral use. There have been concerted efforts by a wide variety of health

services, treatment agencies and drug user groups to educate injecting users about the risks associated with injection of benzodiazepines. There has also been the removal of the temazepam gel capsules from the market. Despite all these efforts, the proportion in the NT IDRS samples injecting benzodiazepines has increased and this clearly demonstrates the need for a re-thinking of measures to reduce benzodiazepine injecting. Such a re-think would also need to consider users' motivations and drug market forces, particularly availability of other opiates, in addition to traditional approaches, such as health promotion initiatives.

The first survey of injecting users in this research indicated a noteworthy level of self-medication with benzodiazepines particularly for anxiety and sleep disorders. There are potentially serious health and well-being implications from non-medically supervised use of these drugs. Benzodiazepines can impair memory functions, specifically the ability to learn and retain new information, and produce amnesia for recent events (Ashton 2000; Ashton, 2002) and it is not yet established whether long-term use results in permanent cognitive or neurological damage. Non-medical use of benzodiazepines can also result in anxiety, insomnia and depression and thus paradoxically produce the conditions for which some people claim to be self-treating with these drugs (Ashton, 2002). The drugs may provide initial relief from anxiety symptoms but in the longer term they can impair psychological adjustment to trauma and inhibit alternative coping strategies. The drugs can also aggravate pre-existing depression and precipitate self-harm. Finally, benzodiazepines can impair the ability to feel pleasure or pain or to empathize with others – termed emotional anaesthesia (Ashton, 2000) – and this has implications for an increased disregard for the negative legal, criminal or interpersonal consequences that may follow from an individual's behaviour (e.g. uncharacteristic shoplifting, higher or more unrestrained levels of interpersonal violence). There is clearly a need to educate people who use benzodiazepines about the risks associated with use, but also of health practitioners and the general community on the short and long terms effects of these drugs.

In the stage 2 survey only 3% of PWID reported experiencing an overdose in the previous month and this was similar to the proportion in the 2003 NT IDRS. Overall, the NT IDRS demonstrated a decrease over time from two in five in 2000 to one in a hundred in 2003. There was a very low rate of morphine or benzodiazepine overdose in the previous six months and none of the sample had been administered Narcan™ in the year before the survey. The low rates of overdose are supported by information on NT hospital separations that indicate only two separations for opioid acute intoxication in the 2002/03 financial year. Emergency Department attendances also display a very low rate for opioid poisoning and ambulance callouts indicate a decrease in morphine-related callouts from 2002 to 2003. St John Ambulance KI also reported a reduction in ambulance callouts for overdoses in the previous year partly due to introducing a combination of short- and long-acting Narcan™ administration to reduce double call-out rates. There was only one issue for the ambulance service in relation to prescription drug use that had implications for law enforcement: the service expressed an interest in the police being able to assist at callouts where there was disinhibition and problem behaviour but people did not meet current psychiatric admission criteria. There appeared to be a need for safe custody such as a residential or overnight space for people withdrawing. The police could assist ambulance officers through their skills in dealing with unpredictable and aggressive behaviour. Refresher courses would need to be provided regularly to police officers and include information on emergent drugs and associated behaviour.

Prescription drugs and crime

Comparisons of self-reported criminal activity in the previous month indicate more of those in the stage 2 survey had engaged in any property crime than in stage 4 and slightly more had been dealing drugs. The proportions reporting involvement in any of these crimes were generally similar to the NT IDRS sample in 2003, which in turn were lower than the national IDRS sample. In stage 4 the information on illegal behaviour was expanded to include a variety of drug-related behaviour. The inclusion of shoplifting as a separate category resulted in one in three PWID reporting they had done this in the previous month yet only 6% reported they had committed property crime. Two in every five said they had sold drugs but almost 40% had engaged in swapping drugs and two in five had provided services for drugs or exchanged goods for drugs. Some of these goods appeared to be stolen, according to some comments made by individual PWID. The stage 2 survey explored the impact of drug use and problems associated with its use and those who had used benzodiazepines were more likely to be aggressive than those using morphine, methadone or buprenorphine. Benzodiazepine use was also associated with more contact with police, criminal trouble and uncharged criminal behaviour.

In stage 2 none of the demographic variables, drug used most in the last month or recent drug use were correlated with total self-reported criminal involvement in the previous month, except for the number of days methamphetamines or licit morphine had been used in the last six months. The greater the number of days of methamphetamine use, the greater the self reported criminal involvement. However, an inverse relation was evident with licit morphine use: the greater the number of days used, the less the criminal involvement. The numbers of days of methamphetamine, cannabis or illicit benzodiazepine use were also positively correlated to drug dealing in the previous month. In the stage 4 survey total self-reported criminal involvement was only significantly correlated with the total number of days of methamphetamine, cannabis and ecstasy use in the last six months. This lends support to the proposition that illicit drug use may be more associated with crime than licit pharmaceutical drug use. Additionally, in stage 4, days of methamphetamine or cannabis use were significantly associated with selling drugs, providing services for drugs, exchanging goods for drugs and selling goods for drugs. Days of illicit and licit benzodiazepine use were correlated with shoplifting and providing services for drugs, and days of illicit morphine was correlated with property crime and swapping drugs. Licit morphine use was not significantly associated with any of the self-reported illegal activity, providing further support for less criminal involvement with licit opiate use.

Most users of pharmaceutical drugs did not see drug-related illegal activity examined in this research as a desirable option or one that was a regular planned behaviour, with three exceptions. The first exception was driving while intoxicated. Most of the users felt that their driving was unimpaired by their use of pharmaceutical drugs. On the other hand, the ambulance service suggested there was trauma caused by prescription drug misuse that went unreported. In the case of road trauma, this may be because of the legal status of these drugs and the lack of established legal limits for driving such as there are for alcohol. Law enforcement personnel thought that most users injected at a home, which is consistent with the findings of the Stage 2 and 4 surveys, and they would not be driving while intoxicated. However, Stage 4 survey findings indicate the majority of users had reported driving while under the influence of drugs. It may be that they do in fact use at home but not necessarily remain there. This indicates the need for research into driving impairment associated with various prescribed drugs, development of legal limits and an education campaign aimed at any people using these drugs. The second exception was the selling, swapping and other exchange of drugs, which many PWID saw as a means of trading without money, obtaining more than they would if a monetary system was involved or avoiding illegal behaviour. The third exception was shoplifting. Most users reported some shoplifting in the past month, and indicated they did so out of necessity to obtain food or other essential items not

directly linked to their drug use. Users who shoplifted for food or other essential items generally did so because of lack of money to purchase them. This suggests that lowering the percentage of their income that users spent on pharmaceutical drugs (either by decreasing the cost of the drugs to users on stable doses, reducing the demand, reducing the supply without increasing the cost or increasing the income of users on stable doses) may reduce this sort of crime. Another possibility might be to include training in budgeting skills as part of interventions for users charged with property crime.

There was a significant correlation between the number of days of licit benzodiazepine use and shoplifting and providing services for drugs, and days of illicit use with shoplifting, drug dealing, selling goods for drugs and providing services for drugs. None of the other drugs used in the last six months were correlated with shoplifting, suggesting this is a specific area requiring more exploration. Some users and KI also reported benzodiazepines were associated with opportunistic crime such as shoplifting and other property crime while in a blackout state from intoxication. Aggression and violence were also thought to result from benzodiazepine intoxication. The survey findings and KI reports are consistent with the literature reporting an association between benzodiazepine use and shoplifting (Ashton, 2000). Other research reports a third of temazepam users took the drugs to provide the confidence to engage in criminal activity (Rubens & Morrison, 1992). Although users in the two samples in the current research did not specifically report this as a benefit of benzodiazepine use, it is an area worthy of further investigation. Reports of memory loss, blackouts, aggression and violence are also consistent with the literature indicating benzodiazepines are associated with mental disturbances such as memory loss, amnesia for recent events, antisocial behaviour, aggression, violence, chaotic behaviour linked to paranoia, and road traffic accidents (Ashton, 2002). An increase in the availability of benzodiazepines or an increase in their use, perhaps prompted by a reduction in the availability of morphine, may result in more property crime, particularly shoplifting, assault and misconduct resulting from intoxication.

Drug markets, policing and crime

The key aspect of the policing of pharmaceutical drugs is the licit status of drugs such as morphine and benzodiazepines. They do not fall under the *Misuse of Drugs Act* and law enforcement personnel stated their distribution and use was largely outside their area of responsibility. Although the black market in pharmaceutical opiates and benzodiazepines was of concern, the police could only impact on this area by obtaining evidence at the point of sale and they rarely received sufficient intelligence to gather such evidence. Additionally, the points of sale tended to be among groups of friends, thus limiting the ability of informants to infiltrate or access the type of intelligence required to conduct a successful investigation and prosecution. It was not in law enforcement interests, particularly in terms of their available resources, to act without good intelligence and the likelihood of a successful conviction. The majority of KI were of the same opinion and the users of pharmaceutical drugs themselves reported little evidence of any influence by the police on their distribution and use. While the acquisition of pharmaceutical drugs by users, especially morphine, is highly organised – in the sense of being a regular, planned behaviour involving networks of friends and other contacts and good knowledge of sources – law enforcement reported there was little evidence of involvement by organised criminal networks in the distribution of these drugs. Those involved in selling were described as being organized at cottage industry level even in the most organized form and were distinct from those using the drugs and engaged in some low level drug trade to supplement their income. This assessment was supported by the majority of KI and the users themselves.

Law enforcement KI stated the drugs most commonly associated with crime and drug-related policing were the illicit drugs methamphetamine and cannabis, and work in this area involved a considerable amount of time and resources. This was supported by information gathered in the various stages of this study, particularly the indicator data on drug-related offences. Many KI, including law enforcement personnel, believed that morphine use reduced crime in dependent opiate users, particularly the serious crime associated with heroin. KI and users reasoned that steady availability from a GP for a low price, as opposed to purchasing illicit morphine for high prices, meant people were not forced to engage in crime to obtain money to supplement their income. The current study provides support for this position. The stage 2 survey found a significant positive correlation between total involvement in crime in the preceding month and number of days of methamphetamine use and an inverse relationship between days of licit morphine use and criminal involvement. Days of methamphetamine, cannabis or illicit benzodiazepine use also displayed a significant positive correlation with drug dealing in the last month. Significant positive correlations between days of methamphetamine, cannabis and ecstasy use and various criminal activity in the previous month in the stage 4 survey strengthen support for the proposition that illicit drugs are more associated with crime than prescription drugs. The stage 4 survey also found the differential between total income in the last fortnight and expenditure on licit and illicit drugs in the same time was significantly correlated with selling drugs in the last month, as was the number of days of methamphetamine, cannabis and ecstasy use. Methamphetamine and cannabis also displayed significant associations with providing services for drugs, exchanging goods for drugs and selling goods for drugs. Benzodiazepine and pharmaceutical opiate use were not correlated with selling drugs, again providing further support to law enforcement claims that the illicit drugs are more associated with crime than prescription drugs, even when used illicitly. Other research demonstrates a significant association between income from illicit drug distribution and total crime committed, and the higher the income the more crime, particularly violent crime (Inciardi & Pottieger, 1994: Kinlock, O'Grady & Hanlon, 2003). A large number of individuals earning high amounts from illicit drug dealing are young males with an early onset of crime and marked violent tendencies.

At present, the supply of pharmaceutical drugs is diffuse. Users and KI report a large number of sources that each supply a small number of users. The legal status of these drugs allows for a large number of licit sources, and the prevalence of selling, swapping, or other non-monetary exchanges creates an even larger number of total sources with a stable and comparatively low base price. In order for the supply of these drugs to be profitably infiltrated by an organized criminal network, such a network would have to gain control of a large proportion of the local illicit market. It seems unlikely that such a network could achieve this given the number of local licit sources, unless it was able to bring in a sufficiently cheap supply from a non-local source to compete with the groups of friends and acquaintances trading with each other. There are some indications that non-local morphine may be coming into the NT. Two KI in Alice Springs reported that backpackers and dealers provided the majority of illicit morphine in the local market. There appeared to be a new phenomenon of an underground movement of dealers coming from southern states. Two Darwin KI thought some morphine was coming in from southern states but they did not have any evidence to support this claim as they were unaware of any interdiction of quantities of morphine. However, there are some puzzling aspects to the relationship between patterns of morphine use in the two user surveys in this research, the indicator data and the NT IDRS. The indicator data clearly demonstrate a reduction in consumption of all forms of morphine since the late 1990s. There has also been a reduction in doctor-shopping and in the dispensing of PBS and RPBS morphine prescriptions and KI reports of reduced availability. Despite this information, the majority of those using morphine in this research stated it was easy or very easy to obtain and price and availability were stable. The 2003 NT IDRS (Moon, 2004) notes the discrepancy between evidence demonstrating reduced licit availability and user reports of easy, stable availability. In the 2001 NT IDRS sample, 49% of those using morphine had used it daily and 68% had used it at least every

second day. In 2003, the NT IDRS reported 63% used morphine daily but provided no figures on those using at least every second day. The most recent NT IDRS sample in the NT indicated 56% of those using morphine did so daily and 69% used at least every alternate day. Overall, from these figures it would appear there was an overall increase in the proportion using every day but no change in those using at least every second day. This adds to the puzzle of why there is no consistency between indicator data on consumption and self-reports of consumption among those injecting drugs. It is unfortunate that the IDRS posed the problem but did not engage in detailed analyses of the use patterns to provide any insight into the puzzle. There are a number of possibilities that may play a role in balancing the equation. Consumption may have fallen among a section or sections of the population that do not cross into the population of people who inject drugs. Alternatively, the patterns of morphine use among those predominantly using morphine may have shifted but the IDRS has not engaged in the level of analysis or the type of analyses required to illuminate these changes. The third possibility is the importation of morphine from sources outside of the NT.

The limited role of policing in prescription drug markets as they currently exist suggests that if law enforcement wanted to have a greater impact on the illicit use of these drugs their legal status of possession would have to change in some way. One possibility would be to make possession without a valid script illegal. However, several KI pointed out the difficulties this could create without necessarily reducing illicit use and the potential it had to disadvantage people who were on prescriptions for genuine pain management. It is possible that a parallel black market in scripts could emerge alongside the black market in the drugs themselves. Additionally, law enforcement stated the availability of prescription morphine had protected Darwin and Alice Springs from heroin and organized criminal groups involved in the heroin trade. Some KI had indicated that morphine had acted as a heroin substitution program and some law enforcement KI thought it was a creative and socially acceptable solution to satisfy the demand for opiates when the heroin trade was disrupted. It resulted in significant harm reduction because users had a cheap source of opiates that were pure and of a known dose. They were also less marginalized, able to function better and had regular contact with GPs to address health and other issues. Other KI expressed similar views in the stage 4 interviews and many thought the continued pressure to reduce the prescribing of morphine could increase the price of morphine on the black market. There is research indicating that prohibition can drive up the price of drugs, and interventions such as crackdowns and interdiction can create short-term scarcity that leads to substantial price increases (Caulkins & Reuter, 1998). More importantly, many aspects of what is reported to be the drug problem, including drug-related crime, are driven by the value of the drug on the black market. Caulkins (1997) estimated approximately one sixth of drug-related crime and violence was due to directly to drug use and the remainder was primarily resulted from the drive to obtain money for drugs. About a third of this crime was described as *economic compulsive* and a half *systemic*. If the value of the drug could be reduced considerably, or in the case of morphine be available on prescription as part of a treatment program, then it is quite possible the incentives would be removed for a large proportion of drug-related crime.

Some KI thought further restricted availability of morphine could provide the conditions necessary to re-establish a heroin trade in Darwin and Alice Springs, the results of which would be more deteriorating health, corruption, organized crime and more crime in general, including possibly more violent crime. In the first survey in this research, two in five users reported they had injected heroin in the last six months but the average frequency of use was about once a week. In the second survey, one in three had injected heroin in the last six months but there was only a very small percentage that had used heroin most in the last month. Recent use of heroin was higher in the second survey than in the NT IDRS samples from 2000 to 2003, suggesting there may be an increase in the sporadic heroin supply in Darwin. Law enforcement personnel in Alice Springs

reported heroin was generally unavailable in that location and appeared to becoming even scarcer. However, there may be potential for a robust heroin market to develop and this is an area requiring monitoring and further investigation.

Methodological considerations

The adoption of an IDRS-style methodology in this research may have limited its capacity to capture the level of detail required to fully explore the interplay between prescription drugs and illegal activity. The IDRS is an appropriate methodology for capturing emergent trends and monitoring existing patterns and trends, but it is not designed to function as in-depth research. The current research may have better served the research questions by engaging in one rather than two user surveys as the time frames could not adequately allow for a monitoring role such as provided by the IDRS. The IDRS has demonstrated the utility of samples of injecting drug users as sentinels for patterns and trends in drug use, but they may not be the most suitable group for the examination of the interplay between prescription drugs and crime. There may be illicit users of pharmaceutical drugs who only use them orally and who do not emerge in injecting user samples. This is supported by KI reports of a wide variety of people using benzodiazepines and particular groups not included in this study, such as non-injecting users in general, people who use drugs recreationally and women aged in their thirties and forties. A shift from IDRS-style methodology would have allowed for inclusion of other groups into the sample and an alternative to the quantitative focus of the IDRS-modelled survey instruments. An area as complex as the drug/crime interplay requires greater elucidation of the social context and construction of drug use and crime, and it is important to balance the collection of essential quantitative data with qualitative research methods. It is possible to extract quantitative data from well-framed qualitative questions but it is impossible to extract qualitative information from quantitative questions. This is evident in sections of the current surveys of injecting drug users. For example, the first survey asked participants to report on the availability of various prescription drugs and the responses were collected through quantitative methods: five quantitative categories from very easy to very difficult. However, the question then arose to what exactly was meant by the terms easy or difficult given there was a licit source through GPs and a variety of illicit sources. As a result the second survey contained some additional questions asking participants to not only report on what they meant by terms such as easy or difficult but to also describe their last experience when attempting to access the drugs from both licit and illicit sources. This provided rich insight into their experiences and it also allowed for quantitative theme coding. The other advantage of qualitative methods, particularly the story telling approach, is serendipity and this is illustrated by a question in the stage 4 survey that quantitatively enquired whether the participants had accessed the methadone program in the last six months. If a qualitative probing into the reasons for a yes or no response had not followed this, the study would have missed the opportunity to collect the rich information it unearthed about behaviours outside this six months time frame and reasons for accessing or not accessing the available methadone program. Participants took the opportunity to comment not only on methadone itself, but also perceptions of their own drug use, previous experience of pharmacotherapies, beliefs about various pharmacotherapies and future intentions in regard to drug treatment. This information provided rich contextual detail for interpreting quantitative information gathered and its implications for future law enforcement and health interventions.

One survey rather than two would also have allowed the inclusion of case studies to examine in detail aspects of the information obtained through a survey. The two surveys did not capture sufficient information to look at the history of drug use or illegal behaviour and the past and present relationship between the two. The drug use history collected in the stage 2 survey was modelled on that in the IRDS for comparative purposes. However, it failed to capture some essential information, such as where a person's first use of opioids occurred and the relationship of

this to current NT trends and market demands. It is not possible to determine what proportion of the NT opiate using population are residents who shifted from interstate to reduce their exposure to a heroin market but still had to deal with their opiate use, particularly if they were dependent, and the proportion that developed their use in the NT and how many of these developed dependence. The proportions of each may have played a role in the shaping of the opiate market in the NT and may also continue to be influential. Targeted case studies could provide information on factors such as these and also provide some historical information on the formation of the opiate market in the NT and maintenance of morphine as the dominant opiate. There is evidence that the proportion first using morphine has changed over the lifespan of the IDRS. In 2000 none of the injecting users reported they had first injected morphine, but one in ten did in 2001 and 2002. There was little change in the proportion first injecting heroin. In the stage 2 survey of this research one in ten also had first injected morphine. However, this is the first drug injected not first use of opiates and it does not provide any detail on the pattern of opiate use between that occasion and the present.

The current study also made the same tacit assumption as the IDRS: that is, if for example a proportion of the sample accessed heroin there is the tacit assumption that it has been done locally and this constitutes a local market (albeit impoverished). This may not be a reasonable assumption in the NT compared to southern capital city opiate markets. Some people in the NT may access other markets for heroin, either by transportation or by visiting other jurisdictions (perhaps regularly) for quick trips or holidays. This would constitute a form of down-the-line trade from a distant market. The same situation may apply to morphine, particularly given the discrepancy between patterns of use and indicator data on NT prescribing and consumption. The assumption resulted in the omission of questions seeking information on local and external sources of prescription morphine for personal use and diverted morphine to supply the illicit market. This is an area that requires both additional research and monitoring.

Directions for future research

There is a focus in research on a recreational/dependency dichotomy rather than on levels of dependency and other patterns of use. For example, the Australian Institute of Criminology Drug Use Monitoring System reports on the relationship between dependence and crime among detainees in police cells (Makkai, 2002) and found dependent heroin, cocaine and amphetamine users accounted for 38% of arrests among detainees in the previous year. There appeared to be a strong association between drug use, dependency and arrest. Makkai (2002) queries if the association is spurious because the motives for offending and drug use might explain both phenomena. The results are obscured by the method of determining dependency, which was to ask the detainees if they thought they needed the drug or were dependent on it, rather than according to diagnostic measures of level of dependency. Arrest data may also disproportionately reflect the opportunistic or desperate drug user, the incompetent or the compulsive offender. Some drug-related crime may be opportunistic and not well planned or executed, particularly among the less criminally experienced drug users or relatively novice users, and this does not necessarily relate to whether they are drug-dependent or not. Neither offenders nor drug users are homogenous and their behaviour cannot simply be interpreted in the light of whether they are dependent or not. There is a need to recognize that the impact of factors that affect drug markets may vary according to the degree and longevity of dependence. At lower levels of dependence there may be a greater likelihood of people lowering consumption, thereby adjusting to changes in cost and availability and avoiding illegal behaviour. At higher levels, there may be an increased likelihood of resorting to more risky short-term solutions to acquiring and using needs, such as property crime or dealing for more organized, profit oriented interests. Other research also argues for a shift in research from the recreational/dependency dichotomy to a social context (Plumridge & Chetwynd, 1999)

and Simpson (2003) introduces the concept of persistent use in an examination of associations between drugs, crime and social environment among youth. There was evidence of crime among those who would have previously fallen into the recreational category, although young people did not consider some activities to be crime, such as supplying or swapping drugs. There was no demonstrated causal relationship between drugs and crime and, for many, criminal involvement preceded drug use, but recreational drug use became another consumption cost and crime was one means for some to fund leisure and pleasure costs. Nor is offending or drug use static, and point prevalence or restricted timeframe studies do not allow for exploration and understanding of the behaviours themselves, let alone the nature of any associations between drugs and crime and shifts in such patterns over time. A variety of factors can produce dynamics that change over time, such as the availability of drugs and the social context and social construction of illegal behaviour, drugs types, drug preferences and styles of use between and within cohorts. There is a need for quasi-longitudinal or longitudinal research incorporating qualitative methods in the tradition of ethnography to fully understand the complexity of the interplay between drugs and crime. Such research needs to be conducted with non-captive populations and include a much broader range of users than just those who inject drugs.

Criminological studies that track when people commence, persist with and cease drug use and offending indicate most offenders become involved in minor crime before experimenting and using illicit drugs (Weatherburn, 2001; Makkai, 2003; Gjeruldsen, Myrvang & Opjordsmoen, 2004). Illicit drug use appears to compound a pre-existing issue and result in higher levels of offending than may have occurred without use of illicit drugs. However, does this pattern hold for prescription drugs? A proportion of those with regular morphine use, for example, would be dependent, and among these would be some people who commenced using prescription morphine because of a genuine medical condition. There is another group who state they use morphine for pain management but possibly have a history of heroin use prior to morphine use. There are also those people who believe their morphine use is a form of drug treatment for opiate dependency and then there are those who are simply substituting morphine because heroin is unavailable. It may be highly inappropriate to generalize many of the findings of the illicit drugs and crime nexus literature to prescription drug use. Additionally, much of this literature examines captive populations and the findings from such groups may not be applicable to subsections of the opiate using population in locations like the NT. This lends further weight to the argument for further research into prescription drugs and crime. Such research needs to include studies drawing on qualitative methods and also longitudinal or quasi-longitudinal studies with cohorts that are not drawn solely from offenders or those in drug treatment. Such cohorts or samples would need to include those with pre-existing pain condition with and without prior opiate use and those with differing opiate use histories. Factors external to the individual are also critical, such as early childhood and adolescent experiences in the family and immediate social environment; education and access to labour markets given the link between high school participation and criminal activity (Chapman, Weatherburn, Kapuscinski, Chilvers & Roussel, 2002); social and cultural environment; lifestyle choices; and other factors that are not amenable to treatment.

It is possible to demonstrate an apparent causal link between drugs and crime when drug users are asked specific questions, such as providing reasons for their acts of property theft (Booth Davies, 1997). This potentially spurious causal relationship can be explained by people being predisposed by attributional styles to a functional explanation that minimizes personal responsibility and attributes causal agency to the drugs. This may be a cognitive strategy employed by people for whom drug use has resulted in some legal and other problems. The relationship did not hold when alternative means were utilized to elicit information and property crime did not have a different motivational basis than similar crime committed by those who were not drug users. In the current study attributional bias was evident in user perceptions of their likely behaviour versus that of others in the event of a changed drug market. When asked their likely course of action if morphine

availability became very restricted, one in three opiate users said it would not impact on them, another third reported they would substitute another drug and only one in ten said they would be involved in more crime. In contrast, they believed a third of their friends would engage in more crime. In terms of more readily available opiates, nearly two thirds said they would not use any more but almost half said their friends would. This indicates some form of actor/observer bias occurring in terms of beliefs about their own behaviour and beliefs about the behaviour of their friends in the same circumstances. However, these results do not conform to the normal concept of such a bias, whereby actors (those explaining their own behaviour) tend to attribute their own actions to situational requirements whereas observers (those explaining the behaviour of others) tend to attribute others' actions to personal dispositions (Booth Davis, 1997). Rather, there appears to be a tendency for the actors in the current study to attribute their own behaviour, in the case of increased availability of opiates, to their own effective control over their drug use, which would not be influenced by external factors or circumstances. Similarly, in a reduced opiate market they considered they would be less likely to engage in crime than their friends, and thus be less likely to be victims of this circumstance. This is predictable in the sense that labels of good may be attached to having personal qualities that can control drug use in spite of situational factors. Bad labels might be attached to losing control of drug use or committing crime and, therefore, modify the attributional style to maintain its functionality of protecting the individual from blame, thus creating a self-serving bias. Positive outcomes may be attributed to personal factors and in this research maintaining control of drug use in a market of ready availability may be thought of as a positive outcome, while engaging in crime in a reduced opiate market a negative one. There is clearly further scope to examine the utility of attributional bias, actor/observer bias and self-serving bias in the design of research examining drugs and crime and is also an area requiring investigation in its own right.

There are a number of other specific areas that are equally worthy of attention in further research into the interplay between prescription drugs and crime. Those using prescription morphine in an increasingly restricted opiate market may be at risk of being the targets for intimidation, stand-over tactics and threats and potentially the victims of crime through procurement of prescription drugs. This could entail intimidation or violence to persuade the person to sell their drugs or assault and robbery or murder. Both KI and users themselves reported these events were already taking place, including one or two murders, and there needs to be research conducted to examine the extent of such behaviour, the extent of cross over into non-drug using groups with prescription morphine and the likelihood of it increasing with reduced availability on the black market.

There is a discrepancy between the indicator data on morphine consumption trends demonstrating reduced licit availability and surveys of drug users indicating easy, stable availability of morphine. There may be subtle changes in usage patterns or a supply of morphine coming from sources outside the NT. The first possibility could be examined through existing data sets and the IDRS needs to interrogate its data to extract those people who have used morphine and detail patterns of licit and illicit morphine use over the preceding six months and attempt to determine relationships between usual source of morphine (licit and illicit), number of days used, perceptions of price, availability and so forth. Such analyses could determine, for example, if it is those people on prescription morphine who generally see availability as stable compared to those sourcing illicit morphine. Is the pattern of use stable amongst those on licit morphine and reduced among those using illicit morphine? There are a variety of such questions that could be answered from the IDRS samples and this information would assist in determining if further research is required to examine the discrepancy and inconsistencies.

At present in the NT, law enforcement appears to have effectively eliminated heroin from the illicit opiate market and not only reduced but also shifted a considerable amount of the cost associated with illicit opiate use from the criminal justice system to the Commonwealth health

system through prescriptions and Medicare. In the hypothetical case of future levels of illicit opiate use remaining stable despite reduced diversion of morphine to the black market (that is, heroin is used rather than morphine), the cost of illicit opiate use may increase overall justice and health costs and also shift the balance back to weighing more heavily on the criminal justice system than the health system. It is reasonable to assume the total cost of illicit opiate use to government as a whole may differ according to which opiate is used and which sectors bear the greater burden of the cost. This suggests that before any further measures are implemented to reduce the availability of morphine or to alter legal possession requirements, a cost benefit analysis is needed to examine total criminal justice and health costs in two scenarios: an opiate market dominated by licit and illicit morphine and one dominated by illicit heroin. The analysis would need to include costs and benefits to the community at large - for example, victims of crime compensation, stress and distress from drug-related crime and insurance premiums.

Studies in the United Kingdom indicate recreational use of benzodiazepines in order to achieve specific short-term altered states, often in combination with other drugs (Ashton, 2002). Three KI reported there was social use of benzodiazepines among young people and two of these stated young people particularly used them at parties. Another two said benzodiazepines would be used by recreational users as they will use whatever is available. There was also mention of benzodiazepines being used to come down from methamphetamine or after a weekend of taking party drugs. There is obviously a need for monitoring of any emergent trends in benzodiazepine use and more detailed research on the social context and social construction of benzodiazepine use, particularly as it relates to other drugs popular among young people, and the operation of benzodiazepines supply.

Research also needs to be conducted on ways in which to effectively target novice users entering the drug use scene, particularly with the aim of increasing age of first use of drugs or injecting drugs, particularly illicit drugs and also age of first crime. This is particularly important given the evidence suggesting that the younger the onset of criminal behaviour not involving drugs both predicts and is a risk factor for later offending, including more serious offending (Gordon, Kinlock & Battjes, 2004). Additionally, early onset of substance use is not only associated with substantially greater prevalence of dependence on substances such as alcohol, cannabis, heroin and more severe substance use problems, but also with increased delinquency and subsequent criminal behaviour, specifically violent crime and involvement in substance use and criminal environments (Makkai, 2002; Gordon, Kinlock & Battjes, 2004). Studies drawing on the general population, imprisoned populations and delinquent street youth indicate individuals who use drugs at an early age also tend to commit crime at an early age; therefore, those who commence both drug use and crime early in life are particularly at risk of serious problems later in life and offending at disproportionately higher rates of serious crimes regardless of dependency status (Gordon et al, 2004).

Conclusions

Law enforcement personnel thought pharmaceutical opiates and benzodiazepines had little impact on policing because they could not enforce the prescription tablet trade, involvement in crime was less than for illicit drugs and there was no perceived difference in policing if an offender was intoxicated with licit or illicit drugs. There was also the view that prescription morphine provided a level of protection against the re-emergence of a heroin trade and the prescription trade was associated with less drama between dealers and clients. Overall, the availability of prescription morphine was seen as a harm reduction measure whereby opiate users could access the drug from licit sources on a regular basis, have other health issues identified and addressed, and not engage in criminal activity to obtain the funds to purchase drugs in the illicit market. Previous and

future restrictions on morphine prescribing would shift more people into the illicit trade, leading to reduced health outcomes, increased crime and corruption. Further, restrictions would also result in drug substitution, including illicit drugs such as methamphetamine, not eradication of drug use. Some law enforcement personnel stated clearly that there was the need for morphine supply to occur under licit and appropriate regulated conditions. It was not always in the best interests of law enforcement to notify the Department of Health of increased morphine supply under present conditions because this increased the risk of even further tightening of prescribing practices, forcing more people into the illicit market and criminal involvement. It had potential to create new problems and place an additional burden on police resources. The findings from this research lend much weight to these perceptions of law enforcement personnel.

People using prescription drugs only tend to come in contact with police as a result of activities related directly or indirectly to sourcing money to purchase drugs, or activities related to intoxication, rather than as a result of possession or supply of the drugs. The majority of KI believed diversion of drug users into the health system was a preferable option to progression through the criminal justice system. This suggests that police may be well served by having alternative options to arrest and criminal charges, possibly through effective liaison with diversion programs and service providers. Overall, the response most mentioned by KI and users was that use of prescription drugs needs to be viewed as a health rather than criminal justice issue and that education about the use and effects of these drugs should be a priority for government, as well as funding of treatment and diversion options. Consumer education needed to be credible, balanced, accurate and impartial and a proportion of it needs to be specifically targeted at those likely to self-administer benzodiazepines to inform of the potential side-effects, overdose risks, the potential for dependence and specific signs of developing dependence among users.

At present, the NT is in a unique position in that it is the only jurisdiction where the illicit opiate market is dominated by morphine and where the users largely control distribution and use rather than organized criminal networks. This has resulted in gains for the health of users, emergency services and the criminal justice system and these are likely to endure at current levels if the opiate market continues to be dominated by pharmaceutical opiates rather than an illicit opiate such as heroin. Additional measures to reduce the supply of prescribed morphine in the NT may be undesirable given they could undermine many of current benefits and result in adverse consequences to health and law enforcement sectors, the users themselves and the general community. However, existing gains could be enhanced and additional ones achieved by making morphine available to users, including the option of a safely injectable form, through its incorporation into an expanded and restructured pharmacotherapy program, with regimes to allow for flexibility of lifestyle and long term support available to maximize the benefits of such pharmacotherapy programs.

References

ABS 2002 *Year Book Australia 2002: Crime and Justice Drug Offences*. Canberra: Australian Bureau of Statistics. http://www.abs.gov.au/Ausstats/abs@.nsf/94713ad44ff1425ca2568299192af2/4138db

ABS 2003 *Year Book Australia 2003: Crime and Justice Drug Offences*. Canberra: Australian Bureau of Statistics. http://www.abs.gov.au/Ausstats/abs@.nsf/94713ad445ff1425ca25682000192af2/069706

AIHW 2002 *2001 National Drug Strategy Household Survey: State and Territory supplement*. AIHW cat. No. PHE 37. Canberra: Australian Institute of Health and Welfare (Drug Statistics Series No. 10)

AIHW 2002 *Alcohol and other drug treatment services in Australia 2000-2001*. AIHW cat. No. HSE 22. Canberra: Australian Institute of Health and Welfare

Ashton, H. 2000 *Benzodiazepines: The still unfinished story.* Paper presented at Beat the Benzos Campaign Launch Conference, London, 1st November, http://www.benzo.org.ulk/ashtonspeech.htm

Ashton, H. 2002 *Benzodiazepine Abuse*. http://www.benzo,org.uk/ashbzab.htm

Bell, J. 1997 *Methadone and Property crime.* Second National Outlook Symposium: Violent Crime, Property Crime and Public Policy. Canberra, March.

Bertram, S. & O'Reilly, B. 1998 *Summary of the 1996 Australian Secondary School Alcohol and Drug Survey Northern Territory Findings.* Darwin: Territory Health Services

Booth Davis, J. 1997. *The Myth of Addiction*. Sydney: Harwood Academic Publishers

Breen, C., Degenhardt, L., Roxburgh, A., Bruno, R., Duquemin, A., Fetherston, J., Fischer, J., Jenkinson, R., Kinner, S., Longo, M. & Rushforth, C. 2003 *Australian Drug Trends 2002: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Monograph No 50. Sydney: National Drug and Alcohol Research Centre

Breen, C., Degenhardt, L., Roxburgh, A., Bruno, R., Fry, C., Duquemin, A., Fischer, J., Gray, B. & Jenkinson, R. C. 2003a *The impact of changes in the availability of publicly subsidized 10mg temazepam gel capsules in Australia.* NDARC Technical Report No 158. Sydney: National Drug and Alcohol Research Centre

Breen, C., Degenhardt, L., Roxburgh, A., Bruno, R., Fetherston, J., Jenkinson, R., Kinner, S., Moon, C., Proudfoot, P., Ward, J. & Weekly, J. 2004 *Australian Drug Trends 2003: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Monograph No 51. Sydney: National Drug and Alcohol Research Centre

Bruno, R. 2004 *Benzodiazepines and pharmaceutical opiates and their relationship to crime: An examination of illicit prescription drug markets in Hobart.* Melbourne: Turning Point Alcohol and Drug Centre (in press)

Cavenagh, S. *2001 NT Youth Survey Report*. Darwin: Office of Youth Affairs. http://www.youth.affairs.nt.gov.au/html/decision/survey.htm

Caulkins, J. P. 1997 Is crack cheaper than (powder) heroin? *Addiction, 92(11),* 1437 -1443.

Caulkins, J.P. & Reuter, P. 1998 What price data tells us about drug markets. *Journal of Drug Issues, 28(3),* 593-612.

Chapman, B., Weatherburn, D., Kapuscinski, C.A., Chilvers, M. & Roussel, S. 2002 Unemployment duration, schooling and property crime. *Contemporary Issues in Crime and Justice, Number 74*. Sydney: New South Wales Bureau of Crime Statistics and Research.

Cook, L., Sefcik, E. & Stetina, P. 2004 Pain management in the addicted population: A case study comparison of prescriptive practice. *Journal of Addictions Nursing, 15*, 11-14.

Degenhardt, L. 2002. *Opioid Overdose Deaths in Australia, 2001*. Sydney: National Drug and Alcohol Research Centre

Dobbin, M. 2001 *Temazepam Injecting in Victoria: Discussion Paper.* Melbourne: Department of Human Services Victoria.

Duquemin, A. & Gray, B. 2003 *Northern Territory Drug Trends 2002: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 151. Sydney: National Drug and Alcohol Research Centre

Fitzsimmons, G. & Cooper-Stanbury, M. 2000 1998 *National Drug Strategy Household Survey: State and Territory results*. AIHW cat. No. PHE26. Canberra: AIHW (Drug Statistic series No. 5)

Fry, C., Smith, B., Bruno, R., O'Reilly, B., Leibrick, F., Huxtable, R. & Chenhall, R. 2004 *Benzodiazepines and pharmaceutical opiates and their relationship to crime: An examination of illicit prescription drug markets in Melbourne, Hobart and Tasmania*. Melbourne: Turning Point Alcohol and Drug Centre (in press)

Gee, K. 2000 *Characteristics of NSP clients: Snapshot 5 October 2000*. Darwin: Northern Territory AIDS Council.

Gee, K. 2001 *Characteristics of NSP clients: Snapshot 6 April 2001. Darwin*: Northern Territory AIDS Council.

Gee, K. 2002 *Characteristics of NSP clients: Snapshot 8 February 2002*. Darwin: Northern Territory AIDS Council.

Gjeruldsen, S.R., Myrvang, B. & Opjordsmoen, S. 2004 Criminality in drug addicts: A follow up study over 25 years. *European Addiction Research, 10*, 49-55.

Gordon, M., Kinlock, T. & Battjes, R. 2004. Correlates of early substance use and crime among adolescents entering outpatient substance use treatment. *The American Journal of Drug and Alcohol Abuse,* 30(1), 39-59.

Gossop, M., Darke, S., Griffiths, P., Hando, J., Powis, B., Hall, W. & Strange, J. 1995 The Severity of Dependence Scale (SDS): Psychometric properties of the SDS in English and Australian samples of heroin, cocaine and amphetamine users. *Addiction, 90*, 607-614.

Hall, W. 1996 Methadone maintenance treatment as a crime control measure. *Crime and Justice Bulletin No 29. Sydney*: NSW Bureau of Crime Statistics and Research.

Health Insurance Commission 2000. http://www.hic.gov.au/CA2568D90003F3AF/page/Best+Practice- Doctor+Shopping?OpenDocument&1=65-Best+Practice~&2=55-Doctor+Shopping~&3=~

Hendy, S. 2002. Letter from Chief Health Officer, Department of Health and Community Services. http://www.henrypang.info/s8.htm

Hando, J. and Flaherty, B. 1993 *Procedure manual for the key informant study.* World Health Organization Initiative on Cocaine. Geneva: World Health Organization Programme on Substance use.

Inciardi, J.A. & Pottieger, A.E. 1994 Kids, crack and crime. *Journal of Drug Issues, 21*, 257-270.

Kaye S., & Darke S. 2000 A comparison of the harms associated with the injection of heroin and amphetamines. *Drug and Alcohol Review, 58*, 189-195.

Lind, B., Chen, S., Weatherburn, D. & Mattick R. 2004 The effectiveness of methadone maintenance treatment in controlling crime: An aggregate-level analysis. *Crime and Justice Statistics Issue Paper No 24*. Sydney: NSW Bureau of Crime Statistics and Research, 2004.

Jessen, J., O'Reilly, B. & Roberts, C. 2002 *Tertiary students and cannabis: Patterns of use and perceived impact on academic performance*. Darwin: Northern Territory University

Kinlock, T.W., O'Grady, K.E. & Hanlon, T.E. 2003 Prediction of the criminal activity of incarcerated drug-abusing offenders. *Journal of Drug Issues*, *26*, 897-920.

Lasoncz, I. 2001 *Drug Use Careers of Offenders: Northern Territory TOPLINE Results*. Australian Institute of Criminology Roundtable No 56, October 31, Darwin.

MacDonald, M. & Zhou, J. 2002. *Prevalence of HIV, HCV and injecting and sexual behaviour among IDU at Needle Syringe Programs: Australian NSP Survey National Data Report 1995-2001.* Sydney: National Centre in HIV Epidemiology and Clinical Research, University of New South Wales.

Makkai, Toni. 2002 Illicit drugs and crime, in A. Graycar, P Grabosky (Eds) *Cambridge Handbook of Australian Criminology*. Cambridge: Cambridge University Press, pp 110-124.

Makkai, T. 2003 Substance use, psychological distress and crime. *Medical Journal of Australia*, *179(8),* 399-400.

Mattick, R., Hay, A., Chan, J. & Hall, W. 1997 Methadone maintenance and drug-related crime. *Journal of Substance Abuse*, 9, 15-25.

Moon, C. 2004 *Northern Territory Drug Trends 2003: Findings from the Illicit Drug Reporting System (IDRS).* NDARC Technical Report No. 181. Sydney: National Drug and Alcohol Research Centre

NAP 2002a *Human Rights Emergency 1: 40 lives at risk as another treatment option removed from drug users. NAP calls on NT Chief Health Officer to Resign*. http://www.henrypang.info/s8.htm

NAP 2002b. *Human Rights Emergency* 2: *Urgent assistance required for Darwin opiate users. International Day of Action July 8th*. http://www.henrypang.info/s8.htm

NTAC 2002 Characteristics of NSP clients: Snapshot 9 October 2002. Darwin: Northern Territory AIDS Council.

NTAC 2003 Characteristics of NSP clients: Snapshot 10 Wet Season 2002. Darwin: Northern Territory AIDS Council.

NTAC 2003 Characteristics of NSP clients: Snapshot 11 Dry Season 2002. Darwin: Northern Territory AIDS Council.

Northern Territory Government 2003 *Poisons and Dangerous Drugs Act Strengthened*. http://www.nt.gov.au/ocm/media)releases/20030813_poisons.shtml

NTMC 22 2000 *Transcript of Proceedings of the Local Court of the Northern Territory in Darwin on 22 September 2000.* http://www.nt.gov.au/ntsc/doc/sentencing_remarks/0/2000/0/NS000950.html

NTSC 6 2002 *Transcript of Proceedings of the Supreme Court of the Northern Territory in Darwin on 10 January 2002*. http://www.nt.gov.au/ntsc/doc/sentencing_remarks/02/2002/0/20020/106.htm

52.NTSC 31 2000 *Transcript of Proceedings of the Supreme Court of the Northern Territory in Darwin on 22 May 2000*. http://www.nt.gov.au/ntsc/doc/sentencing_remarks/0/2000/0/NS000350.htm

Office of Crime Prevention 2002 *Northern Territory Quarterly Crime and Justice Statistics. Issue 1: September 2002*. Darwin: Northern Territory Government. http://www.nt.gov.au/justice/ocp/

Office of Crime Prevention 2003 *Northern Territory Quarterly Crime and Justice Statistics. Issue 2: December 2002*. Darwin: Northern Territory Government. http://www.nt.gov.au/justice/ocp/

Office of Crime Prevention 2003 *Northern Territory Quarterly Crime and Justice Statistics. Issue 3: March 2003*. Darwin: Northern Territory Government. http://www.nt.gov.au/justice/ocp/

O'Reilly, B. 2002a *Northern Territory Drug Trends 2001: Findings from the Illicit Drug Reporting System (IDRS).* NDARC Technical Report No. 137. Sydney: National Drug and Alcohol Research Centre

O'Reilly, B. 2002b *'Gutter Drugs': Benzodiazepine use by people who inject drugs in the Northern Territory*. Winter School in the Sun Conference, Brisbane, July

O'Reilly, B., Leibrick, F. & Chenhall, R. 2004 An exploration of the crime and policing implications of an illicit opiate market dominated by prescription morphine. 15th International Conference on the Reduction of Drug Related Harm, Melbourne, Australia, April. http://www.ihrn.com.au

O'Reilly, B., Jessen, J. & Roberts, C. 2003 *Tertiary students and substance use*. 4th International Conference on Young People and Drugs, Wellington, NZ, May.

O'Reilly, B. & Rysavy, 2001 *Northern Territory Drug Trends 2000: Findings from the Illicit Drug Reporting System (IDRS).* NDARC Technical Report No. 104. Sydney: National Drug and Alcohol Research Centre

O'Reilly, B. & Townsend, J. 1999 *Young People and Substance Use in the Northern Territory.* Darwin: Territory Health Services

Pang, H. 2002 *Response from Dr Henry Pang to letter 21 June 2002 from Chief Health Officer.* http://www.henrypang.info/s8.htm

Parker, H. & Kirby, P. 1996 Methadone Maintenance and Crime Reduction on Merseyside, Police Research Group. *Crime Detection and Prevention Series Paper 72. London*: Home Office Police Policy Directorate Police Research Group. http://www.homeoffice.gov.uk/rds/prgpdfs/cdp72bf.pdf

Plumridge, E. & Chetwynd, J. 1999 Identity and the social construction of risk: Injecting drug use. *Sociology and Health and Illness*, *2(3),* 329-334.

Poisons and Dangerous Drugs Act (NT) 1983.

Reece, S. 2004 *Rapid opioid detoxification*. ADCA Update Email Bulletin. Alcohol and Drug Council of Australia, Thursday 3rd June.

Roberts, C. 1998a *A snapshot of HINT Clients: Characteristics of Health for Injectors in the Northern Territory clients over a two week period*. Darwin: Northern Territory AIDS Council

Roberts, C. 1998b *Snapshot III: The 1998 Wet. Characteristics of Needle Exchange clients during the 1998 Wet season*. Darwin: Northern Territory AIDS Council

Ruben, S.M. & Morrison, C.L. 1992 Temazepam misuse in a group of injecting drug users. *British Journal of Addiction, 87*, 1387-1392.

Roberts, C. 1999 Snapshot IV: *The 1999 Wet. Characteristics of Needle Exchange clients during the 1999 Wet season*. Darwin: Northern Territory AIDS Council

Roberts, C. & Crofts, N. 2000 Hitting up in the Top End: characteristics of needle exchange clients in Darwin. *Australian and New Zealand Journal of Public Health, 24(1),* 82-85

Roberts, C. & Grant, S. (2001) *Northern Territory Hepatitis C, Injecting Drug Use and Needle and Syringe Program Needs Assessment.* Darwin: Department of Health and Community Services

Rysavy, P., O'Reilly, B. & Moon, C. 1999 *Northern Territory Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS).* NDARC Technical Report No. 81. Sydney: National Drug and Alcohol Research Centre

SCC 20214922 2003 *Transcript of Proceedings of the Supreme Court of the Northern Territory in Darwin on Wednesday 2 April 2003.* http://www.nt.gov.au/ntsc/doc/sentencing_remarks/Wade_02042003.htm

SCC 20209201 2003 *Transcript of Proceedings of the Supreme Court of the Northern Territory in Darwin on Friday 2 May 2003.* http://www.nt.gov.au/ntsc/doc/sentencing_remarks/wighton_030502.html

SCC 20106693 2003 *Transcript of Proceedings of the Supreme Court of the Northern Territory in Darwin on Friday 2 May 2003* http://www.nt.gov.au/ntsc/doc/sentencing_remarks/2003/05/benedelle_030502.html

Sell, L. & Zador, D. 2004. Patients prescribed injectable heroin or methadone – their opinions and experiences of treatment. *Addiction, 99*, 442-449.

Shand, F. & Mattick, R. *2001 Clients of treatment service agencies: May 2001 census findings.* Sydney: National Drug and Alcohol Research Centre

Simoni-Wastila, L. & Tomkins, C. 2002 Balancing diversion and control and medical necessity: The case of prescription drugs with abuse potential. *Substance Use & Misuse, 36*, 1275-1296.

Simpson, M. 2003 The relationship between drugs and crime: a puzzle inside an enigma. *International Journal of Drug Policy, 14*, 307-319.

Smith, B., Miller, P. & O'Keefe, B. 2004 *Benzodiazepines and pharmaceutical opiates and their relationship to crime: An examination of illicit prescription drug markets in Melbourne.* Melbourne: Turning Point Alcohol and Drug Centre

Stevenson, R. & Forsythe, L. 1998 *The stolen goods market in New South Wales*. Sydney: NSW Bureau of Crime Statistics and Research.

Topp, L, Darke, S., Bruno, R., Fry, C., Hargreaves, K., McAllister, R., O'Reilly, B. & Williams, P. 2001 *Australian Drug Trends 2000: Findings of the Illicit Drug Reporting System (IDRS).* NDARC Monograph No 47. Sydney: University of NSW

Topp, L, Kaye, S., Bruno, R., Longo, M., Williams, P., O'Reilly, B., Fry, C., Rose, G. & Darke, S. 2002 *Australian Drug Trends 2001: Findings of the Illicit Drug Reporting System (IDRS)*. NDARC Monograph No 48. Sydney: University of NSW

van Beusekom, I. & Iguchi, M. 2001 *A Review of Recent Advances in Knowledge About Methadone Maintenance Treatment*, RAND. http://www.rand.org/publications/MR/MR1396/

Wastila, L. & Bishop, C. 1996 The influence of multiple copy prescription programs an analgesic utilization. *Journal of Pharmaceutical Care and Pain Symptom Control, 4(3),* 3-19.

Weatherburn, D. 2001 What causes crime? *Contemporary Issues in Crime and Justice, Number 54*. Sydney: New South Wales Bureau of Crime Statistics and Research.

Appendix: Prioritizing NDLERF Research Questions

NDLERF Research Questions

		Not at all important	A Little Important	Moderately Important	Very Important	Extremely Important
1	Knowledge about the types of crimes committed by illicit drug users to obtain prescription drugs	0	1	3	4	1
2	Knowledge about the types of crimes committed by illicit drug users while under the influence of prescription drugs	0	1	4	3	1
3	Knowledge about the types of crimes committed by illicit drug users while withdrawing from prescription drugs	0	2	5	1	1
4	Knowledge about the routes of administration of prescription drugs by illicit drug users	1	2	3	3	0
5	Knowledge about the localities/settings targeted by people to obtain prescription drugs	0	1	2	5	1
6	Knowledge about the localities/settings targeted by people if committing crimes while under the influence of prescription drugs	0	0	4	3	2
7	Knowledge about groups other than illicit drug users who may be committing crimes to obtain prescription drugs	0	1	1	5	2
8	The implications of prescription drug misuse for police	0	1	1	5	2
9	The implications of prescription drug misuse for accident and emergency staff	1	0	1	4	3
10	The implications of prescription drug misuse for ambulance officers	1	0	1	3	4
11	The implications of prescription drug misuse for health/ youth workers	1	1	0	4	3
12	Knowledge about the types of benzodiazepines / pharmaceutical opiates targeted by the illicit market	0	0	3	6	0
13	Black market dealing patterns for benzodiazepines / pharmaceutical opiates in general illicit markets	0	0	3	3	3
14	Cost of types of benzodiazepines in the illicit market place	0	3	3	3	0
15	Cost of pharmaceutical opiates in the illicit market place	0	2	4	3	0
16	The potential impact of shifts in other parts of the illicit drug market on rates of benzodiazepine use	0	2	2	5	0
17	The potential impact of shifts in other parts of the illicit drug market on rates of pharmaceutical opiate use	0	2	1	6	0

		Not at all important	A Little Important	Moderately Important	Very Important	Extremely Important
18	Information about other drugs used by benzodiazepine users	0	0	7	2	0
19	Information about other drugs used by pharmaceutical opiate users	0	0	7	1	1
20	How benzodiazepines are obtained on the illicit market	0	0	3	3	3
21	How pharmaceutical opiates are obtained on the illicit market	0	0	3	3	3
22	Information about the extent and ease of Doctor-shopping to obtain benzodiazepines and pharmaceutical opiates	1	1	2	3	2
23	Information about current measures in place to identify individuals engaged in doctor-shopping	0	2	2	4	1
24	Information about the limitations of existing Health Insurance Commission (HIC) processes	0	4	2	1	2
25	Information about the potential impact of rescheduling of drugs by the PBS on misuse and associated crime	1	2	4	2	0
26	Enhanced surveillance measures to reduce doctor-shopping	0	3	4	2	0
27	Opportunities for the law enforcement sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opiates	0	1	2	2	4
28	Opportunities for the health sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opiates	0	1	1	4	3
29	Information about the factors contributing to the practice of inappropriate prescribing	0	2	2	4	1
30	Understanding of the impact that an increase in benzodiazepine / pharmaceutical opiate use might have on the rates of benzodiazepine / pharmaceutical opiate-related crime	0	1	2	6	0
31	Understanding of the impact that an increase in benzodiazepine / pharmaceutical opiate use might have on the extent and profile of crime in general	0	1	0	8	0
32	Knowledge about the impact on crime of more effective supply reduction of benzodiazepines and pharmaceutical opiates	0	1	1	6	1
33	Information about how existing data systems can be better used to enhance the understanding of the nature of the illicit benzodiazepine and pharmaceutical opiate market and its impact on crime	0	1	3	4	1

	Question Importance (Descending Based on Mean Score)	Sum	Mean	Median	Mode	Range
10	The implications of prescription drug misuse for ambulance officers	36	4.00	4	5	1-5
27	Opportunities for law enforcement sector to maximize impact on reducing supply of illicit benzodiazepines and pharmaceutical opiates	36	4.00	4	5	2-5
28	Opportunities for the health sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opiates	36	4.00	4	4	2-5
13	Black market dealing patterns for benzodiazepines / pharmaceutical opiates in general illicit markets	36	4.00	4	3[a]	3-5
20	How benzodiazepines are obtained on the illicit market	36	4.00	4	3[a]	3-5
21	How pharmaceutical opiates are obtained on the illicit market	36	4.00	4	3[a]	3-5
7	Knowledge about groups other than illicit drug users who may be committing crimes to obtain prescription drugs	35	3.89	4	4	2-5
8	The implications of prescription drug misuse for police	35	3.89	4	4	2-5
9	The implications of prescription drug misuse for accident and emergency staff	35	3.89	4	4	1-5
6	Knowledge about the localities/settings targeted by people if committing crimes while under the influence of prescription drugs	34	3.78	4	3	3-5
11	The implications of prescription drug misuse for health/ youth workers	34	3.78	4	4	1-5
31	Understanding of the impact that an increase in benzodiazepine / pharmaceutical opiate use might have on the extent and profile of crime in general	34	3.78	4	4	2-4
32	Knowledge about the impact on crime of more effective supply reduction of benzodiazepines and pharmaceutical opiates	34	3.78	4	4	2-5
5	Knowledge about the localities/settings targeted by people to obtain prescription drugs	33	3.67	4	4	2.5
12	Knowledge about the types of benzodiazepines / pharmaceutical opiates targeted by the illicit market	33	3.67	4	4	3-4
1	Knowledge about the types of crimes committed by illicit drug users to obtain prescription drugs	32	3.56	4	4	2-5
30	Understanding of the impact that an increase in benzodiazepine / pharmaceutical opiate use might have on the rates of benzodiazepine / pharmaceutical opiate-related crime	32	3.56	4	4	2-4
33	Information about how existing data systems can be better used to enhance the understanding of the nature of the illicit benzodiazepine and pharmaceutical opiate market and its impact on crime	32	3.56	4	4	2-5

	Question Importance (Descending Based on Mean Score)	Sum	Mean	Median	Mode	Range
17	The potential impact of shifts in other parts of the illicit drug market on rates of pharmaceutical opiate use	31	3.44	4	4	2-4
22	Information about the extent and ease of doctor-shopping to obtain benzodiazepines and pharmaceutical opiates	31	3.44	4	4	1-5
23	Information about current measures in place to identify individuals engaged in doctor-shopping	31	3.44	4	4	2-5
29	Information about the factors contributing to the practice of inappropriate prescribing	31	3.44	4	4	2-5
2	Knowledge about the types of crimes committed by illicit drug users while under the influence of prescription drugs	31	3.44	3	3	2-5
16	The potential impact of shifts in other parts of the illicit drug market on rates of benzodiazepine use	30	3.33	4	4	2-4
19	Information about other drugs used by pharmaceutical opiate users	30	3.33	3	3	3-5
18	Information about other drugs used by benzodiazepine users	29	3.22	3	3	3-4
3	Knowledge about the types of crimes committed by illicit drug users while withdrawing from prescription drugs	28	3.11	3	3	2-5
15	Cost of pharmaceutical opiates in the illicit market place	28	3.11	3	3	2-4
24	Information about the limitations of existing Health Insurance Commission (HIC) processes	28	3.11	3	2	2-5
14	Cost of types of benzodiazepines in the illicit market place	27	3.00	3	2[a]	2-4
4	Knowledge about the routes of administration of prescription drugs by illicit drug users	26	2.89	3	3[a]	1-4
26	Enhanced surveillance measures to reduce doctor-shopping	26	2.89	3	3	2-4
25	Information about the potential impact of rescheduling of drugs by the PBS on misuse and associated crime	25	2.78	3	3	1-4
24	Information about the limitations of existing Health Insurance Commission (HIC) processes	28	3.11	3	2	2-5