NDLERF

Benzodiazepine and pharmaceutical opioid misuse and their relationship to crime

VICTORIAN 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

VICTORIAN REPORT

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

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Abbreviations

ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information System
AIHW	Australian Institute of Health and Welfare
ANSP	Australian Needle and Syringe Program
APSU	AIDS Prevention and Support Unit
ATSI	Aboriginal/Torres Strait Islander
BT	Buprenorphine Treatment
CBD	Central Business District
CBO	Community Based Order
CDI	Chemical Drug Intelligence
Cf	Compared with
CI	Confidence interval
DHS	Department of Human Services
DRUMS	Drug Monitoring System
DUSC	Drug Utilisation Sub-Committee
HIC	Health Insurance Commission
ICO	Intensive Corrections Order
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug User/s
KI	Key Informants
LEAP	Law Enforcement Assessment Program
LGA	Local Government Area
MAS	Metropolitan Ambulance Service
MDID	Major Drug Investigation Division
MMT	Methadone Maintenance Treatment
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Fund
NDSHS	National Drug Strategy Household Survey
NH&MRC	National Health and Medical Research Council
NHS	National Health Survey
NSP	Needle and Syringe Program
NSW	New South Wales
NT	Northern Territory
ORA	Other Route of Administration
PBS	Pharmaceutical Benefits Scheme

PWID	People who inject drugs
Qld	Queensland
RFT	Request for tender
RPBS	Repatriation Pharmaceutical Benefits Scheme
SACACWG	South Australian Coalition Against Crime Working Group
sd	Standard Deviation
SDS	Severity of Dependence Scale
SHARPS	Southern Hepatitis/HIV/AIDS Resource and Prevention Service
SA	South Australia
Tas	Tasmania
VAED	Victorian Admitted Episodes Dataset
VDHS	Victorian Drug Household Survey
VDJ	Victorian Department of Justice
VEMD	Victorian Emergency Minimum Dataset
Vic	Victoria
VIFM	Victorian Institute of Forensic Medicine
WA	Western Australia
WRAP	Western Region AIDS & Hepatitis Prevention (now Health Works)
YTC	Youth Training Centre

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Executive summary

This report presents the findings of the major research project 'benzodiazepine and pharmaceutical opioid misuse and their relationship to crime', and is an examination of illicit prescription drug markets in Melbourne.

Background and rationale

The National Drug Law Enforcement Research Fund (NDLERF) sought tenders in 2002 for research to enhance law enforcement sector understanding of the structure and functioning of illicit drug markets in Australia. The request for tender (RFT 04/02) for which the current study was developed called for a focus on the impact of benzodiazepine and pharmaceutical opioid misuse on crime in Victoria, Tasmania and the Northern Territory. Available evidence at that time from sources such as the Illicit Drug Reporting System (IDRS) suggested that existing illicit prescription drug markets were consolidating in some major cities (e.g. Hobart and Darwin) and emerging in other cities (e.g. Melbourne) facilitated at least in part by the reduction in heroin supply which peaked between late 2000 – early 2001 (Topp et al. 2002). In fulfilment of its aim of performing a monitoring and early warning function, the IDRS was able to identify key issues with respect to benzodiazepine and pharmaceutical opioid diversion and misuse that require further investigation.

One important area of investigation that is indicated relates to the possible law enforcement implications of benzodiazepine and pharmaceutical opioid diversion and illicit use. There have been few Australian studies that have sought to investigate the nexus between prescribed pharmaceutical misuse and crime. While the precise nature of this relationship remains to be clarified, some indications exist from previous research into the illicit drugs-crime nexus that has suggested the following: people who misuse illicit drugs are more likely to have an arrest record or to report property crime than those who do not (Blumstein et al. 1986); frequency of property offending is positively correlated with extent of illicit drug use (Blumstein et al. 1986; Salmelainen 1995; Stevenson & Forsythe 1998); and violence and violent crime is typically employed by illicit drug manufacturers and distributors as a tool to support attempts to manipulate the market (Kleiman 1992). At this point the extent to which the broader illicit drugs and crime literature may assist in understanding prescription drugs and crime links is undetermined.

A second important area of investigation indicated relates to the health implications of benzodiazepine and pharmaceutical opioid diversion and use through injection. A large international literature exists on the public health implications of prescription pharmaceutical diversion and injecting, with reports from a number of countries concerning associations between misuse, significant health harms and dependence (Darke & Ross 2000). To date the literature has focused largely on health issues associated with benzodiazepine and pharmaceutical opioid diversion and use in illicit drug market settings. There is much less available data concerning the dimensions and characteristics of such illicit markets (for licit substances) or how law enforcement and public health concerns may intersect in these settings.

Evidence shows that illicit drug markets and patterns of illicit drug use may vary markedly between and within jurisdictions (Darke, Hall & Topp 2001; Fitzgerald, Hope & Dare 1999). It is reasonable, therefore, to predict that patterns of prescription pharmaceutical diversion and injection may also differ across settings. This needs to be better understood. A necessary step in devising appropriate responses around issues such as benzodiazepine and pharmaceutical opioid diversion and injection is to gather reliable local evidence regarding the nature and extent of the problem.

Stakeholder perspectives are also of core importance when the responses may necessitate incorporation of regulatory interventions. In this regard the current lack of understanding of a number of key issues of relevance to benzodiazepine and pharmaceutical opioid diversion and crime links reduces the capacity for developing informed interventions.

A comprehensive literature review was conducted in order to examine the following key issues of relevance to benzodiazepine and pharmaceutical opioid use and crime.

Drugs and crime nexus – literature on illicit drug markets and interpretive utility for the case of illicit markets for prescribed pharmaceuticals.

Drug trends in Australia – evidence, dimensions, monitoring statistics (e.g. use trends, prescribing trends, crime/police activity, health, drug market characteristics and pharmaceutical use).

Benzodiazepine and pharmaceutical opioid misuse and crime – types of crime, evidence, reasons, extent, etc. (e.g. robbery, prescription fraud, on-selling prescriptions, crimes committed under the influence).

Supply reduction and law enforcement impact – evidence of impact for users and for law enforcement and other frontline workers.

Appropriate interventions – responding to law enforcement and health impacts of the illicit benzodiazepine and pharmaceutical opioid markets and misuse.

One of the main aims of the Illicit Drug Reporting System has been to highlight issues that require further investigation through follow up specialist research in order to inform law enforcement and health sector policy and program responses to illicit drug use. Thus, the aim of this current research was to fulfil this second aim of the IDRS, by following up the identified emerging trend in illicit prescription drug use, and how that may impact on both criminal activity and health outcomes by examining the nexus between illicit prescription drug use, illicit prescription drug markets, crime and health harms. Clearly, there has been a deficit in such Australian research to date.

The increase in pharmaceutical-related crime has the potential to impact on the law enforcement sector through increased levels of theft from pharmacies and other suppliers, other methods of diversion of the drugs to the black market, crime committed whilst under the influence of the drugs or whilst withdrawing from them, and also the disinhibition ('Rambo effect') that is associated with benzodiazepine intoxication that may lead to violent behaviour and other types of crime.

Study purpose and aims

The purpose of this study was to contribute to law enforcement sector understanding of the relationship between benzodiazepine and pharmaceutical opioid misuse and crime in three select Australian jurisdictions (Victoria, Tasmania, Northern Territory) where there is evidence of illicit prescription pharmaceutical markets. This report focuses on the Victorian aspect of the study, and the broader findings are presented in the National Overview Report (Fry, Smith, Bruno, O'Keefe & Miller, in press). While the primary focus of the study remains on law enforcement interests in relation to licit and illicit benzodiazepine and pharmaceutical opioid markets, these are discussed in relation to the broader public health implications of supply reduction efforts in a harm minimisation framework.

The primary aims of the study therefore were to:

1. Gain a greater understanding of illicit benzodiazepine and pharmaceutical opioid market-place dimensions and characteristics.
2. Investigate the hypothesised relationship between benzodiazepine and pharmaceutical opioid misuse and crime.
3. Explore the implications for police and other frontline workers (e.g. accident and emergency staff, ambulance officers and health/youth workers) of emergent illicit markets for benzodiazepine and pharmaceutical opioids.
4. Consider appropriate interventions to address both the law enforcement and health impacts of benzodiazepine and pharmaceutical opioid misuse.

A secondary and broader aim of the research was to examine the nexus between prescribed pharmaceutical misuse, illicit prescription pharmaceutical markets, crime and health harms. An extensive set of research questions was developed by NDLERF and specified in the RFT 04/02 tender specifications under the four key themes of: market characteristics; diversion; links to crime; implications for police and other frontline workers; and interventions (these appear in Appendix A).

Methodology

The design for this study was based on that of the IDRS, and comprised a triangulation of methodologies: interviews with key informants (KI) recruited from law enforcement and health providers; interviews with people who inject drugs (PWID); and analysis of secondary data indicators relevant to prescription drugs use. The combination of methods of data collection was designed to maximise access to relevant information.

The study comprised four stages. The first stage was a comprehensive literature search and literature review, as well as surveys of 13 Victorian law enforcement KI, who provided their perspectives on the impacts of illicit prescription drug use on policing. Stage two was a survey of 102 PWID in five locations across the Melbourne metropolitan area, and Stage three was the collation and analysis of secondary data related to prescription drug use and crime in order to provide contextual information relevant to prescription drug use and crime statistics. Stage four consisted of a second survey of 50 Melbourne PWID, designed to serve a monitoring and confirmatory purpose, following the findings of Stage two. In-depth interviews with law enforcement and health KI were also designed to follow up on information collected in Stage one, and gather more qualitative, in-depth law enforcement and health-related perspectives.

Summary of Victorian findings

Main findings (Stage one, Law Enforcement Key Informant Interviews)

Market characteristics

- Thirteen KI participated. Most KI believed that heroin and methamphetamines were much more likely to be associated with crime than pharmaceutical opioids or benzodiazepines, with one informant linking both to burglaries and robberies.
- Most informants indicated they believed pharmaceutical drug use was dependent on heroin trends.

Diversion

- It is believed that prescription drugs are diverted to the black market via burglaries and pharmacy thefts, prescription forgeries, doctor-shopping and on-selling by users.

Links to crime

- llicit use of prescriptions drugs such as opioids and benzodiazepines is difficult to police, as the drugs themselves are legal when prescribed.

Implications for police and other frontline workers

- Policing issues were identified as drug driving, care of children, and management of intoxicated people.

Interventions

- It was reported that the drug diversion desk of the Major Drug Investigation Division was implementing a notification scheme in partnership with the Health Insurance Commission (HIC).

Main findings (Stage two, Survey of 102 people who inject drugs)

Over two-thirds of the sample (71%) was male, and the mean age was 32 years (range 18 - 50). More than half the participants lived in their own accommodation or with their parents, most of the remainder lived in boarding houses, shelters or hostels, while 8% had no fixed address. The sample had on average 9.6 years of education, and less than half (44%) had post-school qualifications. Most (92%) were unemployed, with 77% reporting their main source of income to be government benefits, and 15% reporting it was the proceeds of crime. More than half the sample (55%) was not in current drug treatment, while 21% were undertaking methadone maintenance treatment and 22% were in the buprenorphine program. Almost two-thirds (64%) had been imprisoned at some time in the past. The sample was similar in demographic characteristics and drug use history patterns to the most recent IDRS sample, with the main exception that a higher proportion of the current sample had injected benzodiazepines in the six months prior to the interview.

Market characteristics

- All participants had used benzodiazepines in the six months prior to the survey, and 45% reported they had injected the drugs, mainly temazepam (but also alprazolam and diazepam) in that time. Temazepam gel capsules were reportedly readily available in some areas of Melbourne, selling for between $5 and $30 each depending on size. The majority of participants believed that suppliers of benzodiazepines were users selling their own drugs or small-time dealers, but many reported that dealers sold other drugs such as heroin, methamphetamine, morphine and cannabis.
- Almost all participants had used opioids within the same time frame, and 85% had injected them. A large proportion (37%) had been in buprenorphine treatment and 29% had undergone methadone maintenance treatment in the previous six months.
- Most (78%) had used morphine, and 77% had injected it, with the most frequently used brands being Kapanol and MSContin . Morphine was preferred as it most closely approximates the effects of heroin, and is injected by boiling down and filtering the tablets/capsules. Morphine, in particular Kapanol capsules and MS Contin tablets, was reportedly readily available in most surveyed areas of Melbourne, selling for between $10 and $100 each

depending on size. The majority of participants believed that suppliers of morphine were users selling their own drugs or small-time dealers, but many reported that dealers sold other drugs such as methamphetamine and cannabis.

- Forty-one percent of the sample had also injected buprenorphine, and 32% of the sample had used illicit buprenorphine. Buprenorphine was reportedly readily available on the street in most surveyed areas of Melbourne for around $5 a dose. The majority of participants believed that suppliers of the drug were users sharing their own doses, but many reported that dealers sold other drugs such as methamphetamine and cannabis.
- Nine percent of the sample had injected methadone syrup, and 20% of the sample had used illicit methadone. Three percent said they had bought it a from dealer (for about one dollar per ml). Many reported that dealers sold other drugs such as heroin, methamphetamine and cannabis.
- Fifteen percent of the sample had injected other opioids (such as oxycodone, Panadeine forte and tramadol), with 20% of the sample reporting they had used illicitly acquired drugs, and one-quarter reporting they had been prescribed the drugs.
- The sample were predominantly poly drug users, whose drug of choice was heroin.
- There was a significant relationship between both heroin and methamphetamine use and illicit benzodiazepine injecting in the previous six months. Substantial proportions of participants who reported injecting benzodiazepines had also injected illicit buprenorphine, methadone and morphine in the same time period, and almost one-quarter of heroin users indicated that if heroin were not available they would substitute benzodiazepines for it.
- There was also a significant relationship between both heroin and methamphetamine use and illicit morphine injecting in the previous six months.
- Substantial proportions of participants who reported injecting morphine had also injected illicit buprenorphine, methadone and benzodiazepines in the same time period, and six heroin users indicated that if heroin were not available they would substitute morphine for it.

Diversion

- Eighty percent of participants had received the drugs via prescription, with 13% reporting they had faked symptoms to obtain them, and 85% of the sample reported visiting a number of doctors (up to 20) to acquire a prescription. Almost all participants (91%) had also acquired the drug illicitly, mostly as a 'gift' from a friend or other user, although almost one-third each had bought them from a dealer or a friend. Almost 10% had recently stolen benzodiazepines, and six percent had forged prescriptions (in both cases temazepam was the drug most likely to be the target, but alprazolam and diazepam were also nominated).
- Most respondents reporting opioids use reported it was obtained licitly (60% of the sample), with six percent reporting they had feigned symptoms to receive opioids. However, 61% reported they received opioids as a gift from a friend or other user, and 36% reported buying the drugs from a friend or a dealer. Three percent reported they had recently stolen opioids (mainly MS Contin tablets), all of who injected them.
- Almost all morphine users (97.5%) had acquired the drug illicitly. Thirty percent of participants had received the drugs via prescription in that time, with four percent reporting they had faked symptoms to obtain them, and many reporting visiting a number of doctors (up to 50) to acquire a prescription. More than half the sample (57%) had also acquired it as a 'gift' from a friend or other user, although around one-third each had bought them from a dealer or a friend.
- Almost half (45%) reported they had been prescribed buprenorphine in the previous six months, while 11% said they had received it as a gift, but no-one had bought it from a dealer.

A quarter of the sample had been prescribed methadone syrup and nine percent reported receiving it as a gift. The majority of participants believed that suppliers of methadone were users sharing their own take-away doses.

- More than one-quarter of participants (29%) reported stealing pharmaceutical drugs or prescriptions in the previous month, with nine percent reporting drug theft from a doctor's surgery (mainly temazepam and MS Contin), and three from a pharmacy, with opportunism the main reason cited for the behaviour. Seven participants reported they had forged a prescription in the previous month, mostly temazepam. More than one-third of the sample reported having their prescriptions or pharmaceuticals (temazepam and diazepam) stolen from them.

Links to crime

- Two-thirds of the sample reported they had been arrested in the previous year, with charges relating mainly to property crimes (37%), fraud (14%), violence (11%), possession and intoxicated driving (6% each). A high proportion of the criminal behaviour was attributed to drug use, frequently benzodiazepines, and to a lesser extent to methadone.
- Eleven percent of the sample reported recent contact with the police resulting from benzodiazepine use, while 24% reported having arguments. Benzodiazepines were blamed for aggressive behaviour (20%), getting into fights (13%) and getting into criminal trouble (12%), mainly property-related. These issues applied to a lesser extent to morphine.
- Fourteen percent of those using benzodiazepines reported the effects of the drugs had caused them to commit a crime, while 12% reported that withdrawal from the drugs had resulted in criminal behaviour. Four morphine users blamed effects of the drug for causing them to commit crime, and the same number attributed withdrawal from the drug for criminal behaviour. Other opioids were blamed by very few participants for criminal behaviour.
- Statistically, the main predictors of criminal involvement were age, frequency of heroin use, and frequency of illicit benzodiazepine use. Dependence on methadone (as measured by the Severity of Dependence Scale (SDS)) predicted a significantly lower likelihood of being involved in criminal behaviour. Higher dependence scores for benzodiazepines and morphine were related to committing crimes while intoxicated on the drugs, and higher dependence scores for benzodiazepines were related to committing crimes while withdrawing from them.
- Thirty-nine percent of participants reported they had driven a vehicle while under the influence of prescription drugs in the previous month, and more than one-quarter reported they had done so five or more times (up to 120 times).

Implications for police and other frontline workers

- Most participants had experienced some kind of injecting harms in the previous six months, mainly effects of a dirty hit, prominent scarring or bruising, and difficulty injecting, with many attributing their problems to having injected prescription drugs in that time. Nine percent reported they had experienced at least one overdose, with most attributed to heroin.
- Application of the SDS suggests that most participants may be dependent on benzodiazepines, morphine, methadone and/or buprenorphine.
- More than one-third of the sample reported experiencing memory loss or a blackout associated with benzodiazepines in the previous month, with several participants also attributing these symptoms to buprenorphine or methadone.
- A substantial number of participants had experienced social problems, such as relationship difficulties, anxiety, lack of motivation, or irritability in the previous month, which they attributed to pharmaceutical drugs.

Interventions

- There were conflicting reports about police activity targeting prescriptions drugs, with 38% reporting it had increased in the previous 12 months. Police activities included checking legitimacy of drugs on their person, and being arrested for having illicit prescription drugs. Five reported a higher police presence around chemists. Most (68%) did not consider that police activity had made it more difficult to access prescription drugs, but 16% thought it had.
- Other activity, such as GP or HIC crackdowns on prescribing practices and doctor-shopping were considered to have impacted on access to pharmaceuticals.
- These findings suggest that reducing supply of prescription drugs may have the effect of increasing heroin, methamphetamine or alternative pharmaceutical use. They also suggest that supply reduction may result in a situation where increased efforts are made to access regular supply of other less common drugs such as cocaine, and may also increase doctor-shopping, along with the involvement of large-scale dealing and criminal behaviour resulting from withdrawal syndrome and efforts to generate income to purchase drugs that are harder to obtain.

Main findings (Stage three, Secondary Data)

Market characteristics

- Prescribing of both benzodiazepines and morphine decreased in recent years according to Pharmaceutical Benefits Scheme (PBS)/Repatriation Pharmaceutical Benefits Scheme (RPBS) data. Lifetime and recent use of both drug classes have also declined in the general population according to the National Drug Strategy Household Surveys (Australian Institute of Health and Welfare (AIHW) 1998, 2001). PBS/RPBS unpublished data provided for 2003 also show that prescribed doses of methadone have decreased, especially in Victoria, where buprenorphine treatment (and prescribing trends) for drug dependence has seen high acceptance. In 2002, Victorian prescriptions for buprenorphine represented 48% of all prescriptions issued in Australia under the PBS/RPBS.
- The 2003 IDRS found that 80% of the sample had used benzodiazepines in the previous six months. The survey also found that 15% had injected them – a large decrease on the previous years, at 21% in 2002 and 40% in 2001. Overall, 69% reported they had injected benzodiazepines at some time. The most commonly used forms were diazepam, oxazepam, and temazepam. Almost half (45%) had obtained the drugs illicitly, and they were reportedly obtained through doctor-shopping or black-market street selling. Thirty-nine percent of the 2003 IDRS sample had injected morphine, compared with 51% in 2002 and 32% in 2001, and 83% reported they had used the drug at some time. Over 39% of the sample reported they had injected buprenorphine in the previous six months (Jenkinson, Miller & Fry 2004).

Diversion

- The majority of forged prescriptions in the state were for temazepam gel capsules, or for alterations from temazepam tablets to capsules (Dobbin 2001).

Links to crime

- Total pharmacy-related crime in Victoria showed a dramatic increase between 1998/99 and 2001/02, from 805 incidents in 1998/99 to 2,410 in 2001/02, according to Guild Insurance Limited (2003) data – the increase corresponding to the time around the HIC regulation of 10mg temazepam capsules.

- The number of people arrested for heroin-related offences fell in 2000/01 compared with 1999/00, whilst arrests for amphetamines and stimulant-related offences increased, probably reflecting the heroin drought.
- For the majority of benzodiazepine and pharmaceutical drug seizures, specific information regarding the generic forms or brand names are not currently recorded in the Australian Customs Service drug statistics database. Detections of the remaining drug categories are recorded in the generic categories of 'Other benzodiazepines' and 'Prescribed drugs'. The detections of drugs within these categories, especially 'Other benzodiazepines' and 'Prescribed drugs', has increased dramatically throughout that time.

Implications for police and other frontline workers

- There was a general trend for decreases in non-fatal ambulance attendances at benzodiazepine-related cases in Melbourne in recent years, with 2,896 recorded in the 2001/02 year, dropping to 1,711 in 2002/03, and with 678 recorded between July and September 2003. They remain at over 200 attendances per month however.
- The number of attendances at non-fatal morphine overdoses fluctuated in recent years. After peaking at 18 in October 2001, they showed a decrease at the end of the 2001/02 year (to n = 7), then increased to peak again at 19 in March 2003, before declining dramatically towards the second half of the year (data obtained in 2004 from the Melbourne Ambulance Service and Turning Point Alcohol and Drug Centre databases).
- Benzodiazepines were the most common drug identified in contributing, or incidental, to heroin-related deaths identified by the State Coroner's Office, at 71% in 2000, and 55% of all deaths between 1997-2001. Morphine-related cases remained constant between 1997 and 2001, peaking at 22% in 1999; however, morphine plus benzodiazepines comprised more than half of all deaths in recent years, reaching a high in 2001 (Wallington, Gerostamoulos & Drummer 2003).
- The number of temazepam-specific incidents contributing, or incidental, to heroin-related deaths increased from 6.4% in 1999 to 7.9% in 2000 to 20% in 2001 (Dobbin, 2001).

Main findings (Stage four, Survey of 50 people who inject drugs)

The sample was equivalent to the PWID sample from stage two, with 68% male, a mean age of 32 years and 88% unemployed. The sample identified that government benefits were the main source of income (mean = $361 per fortnight), followed by drug dealing (mean = $214) and begging/charity (mean = $160). Half the sample was not in current drug treatment, while 10% were in current Methadone Maintenance Treatment (MMT) and 36% were in the buprenorphine program. A couple of notable differences from the first sample were a smaller proportion with a prison history (42%), and the second sample had spent on average a substantially longer period of time in drug treatment programs (mean = 14.7 months).

Market characteristics

- Almost all (96%) of the sample had used heroin in the six months prior to the survey, while 90% had used benzodiazepines orally and 58% had injected them (which was 13% higher than stage two). The most common forms used were temazepam, diazepam, oxazepam and nitrazepam. Temazepam was the most commonly injected drug, but diazepam, alprazolam and oxazepam were also reportedly injected.
- Gel capsules were reportedly easier to acquire on the street than from a doctor, with 16% reporting they were easy or very easy to obtain that way, although tablets were easier, with 38% reporting that tablets were easy or very easy to obtain.

- PWID reported their benzodiazepine dealer was mainly a friend selling their own prescription (24%), a friend giving their prescription away (12%), or a user selling the drugs to fund their own use (12%). Just one reported buying the drugs from a small-time dealer or a dealer swapping drugs. Other drugs reportedly sold by benzodiazepine dealers included heroin (24%), cannabis (18%), methamphetamines (12%), and other benzodiazepines (20%).
- Seventy percent of the stage four sample had used morphine in the previous six months, which was similar to stage two, with 16% taking it orally, and 64% of the sample having injected it. MS Contin tablets and Kapanol capsules were the most frequently used forms (in stage four, more PWID had used MS Contin than Kapanol – the opposite of the stage two finding).
- A quarter of the sample reported morphine was easy or very easy to obtain on the street, but about the same proportion considered it was difficult or very difficult. As in stage two, most suppliers of morphine were friends selling their prescription (30% of the sample), or a friend giving away their drugs (10%), or a friend selling to fund their own use (6%). Only two reported buying morphine from a small-time dealer. Other drugs reportedly sold by dealers of morphine were heroin and cannabis (14% each of the sample), other morphine types or amphetamines (10% each), and benzodiazepines (4%). Twenty-two percent of the sample believed the morphine market had changed substantially in the previous six months, with 8% each reporting it had become more difficult to obtain and more expensive.
- Over half the participants had used prescribed pharmacotherapies in the previous six months, with 38% reporting they had used them illicitly, and these findings were similar to stage two. Buprenorphine was the most commonly used (either licitly or illicitly) by 50% of the sample, and had been prescribed to 36% of the sample. Methadone syrup had been used by 22% of the sample, all but two of who had a prescription. Almost half (40%) reported injecting pharmacotherapies, the same proportion had injected buprenorphine, and 6% had injected methadone syrup. Illicit and prescribed buprenorphine were both injected by 26% of the sample. Methadone was reportedly around one dollar per ml on the street, while buprenorphine tablets were between $5 and $20 each.
- Other opioids had been used by 46% of these PWID; namely, oxycodone, tramadol, codeine phosphate, and Panadeine forte . The use of oxycodone was much more frequent with this sample than the first sample. One reported forging a prescription. Eighteen percent of the sample reported opioids to be easy or very easy to obtain on the street, while 10% said it was difficult or very difficult. Two participants each reported their opioids dealers also sold heroin, amphetamines, and morphine, and one said they also sold benzodiazepines, and again most illicit users received the drugs from friends selling their prescription (29%) or a friend giving away their prescription (14%). One participant each received the drugs from a dealer swapping other drugs for them or from a small-time dealer selling them.

Diversion

- Three-quarters (74%) reported they had used legally acquired benzodiazepines in the previous six months (20% less than stage two), and 78% reported using illicit benzodiazepines. Forty percent of the sample reported they had feigned symptoms to obtain a prescription for benzodiazepines, substantially more than stage two, and reports of doctor-shopping were frequent, with up to 15 doctors approached in the previous six months. Most respondents reported that gel capsules were too difficult to obtain medically, but tablets were reportedly mostly easy or very easy to obtain.
- The pattern of illicit benzodiazepines was not dissimilar to stage two, with most obtained as a 'gift' (92% of all illicits), followed by buying from a friend (44%, higher than stage two), and buying from a dealer (31%). Few PWID reported stealing them (n = 2), or forging prescriptions (n = 1). The drugs were swapped for other drugs by 12% of the sample (n = 6).

- Similar to stage two, 62% of the sample had used illicitly acquired morphine, and 10% had obtained prescriptions. Most participants had not attempted to obtain morphine medically in the previous six months, considering it too difficult, but two had faked symptoms in an attempt to gain a prescription. There was some reported doctor-shopping, with eight respondents approaching up to 15 doctors for a prescription.
- As with benzodiazepines, the most common method of obtaining morphine illicitly was as a gift (84% of illicit morphine users), and then buying them from a friend (64.5%), or buying from a dealer (45%), and 16% reported swapping other drugs for them. No participants reported stealing the drugs or forging prescriptions
- For methadone syrup injectors, two were prescribed the drug and one obtained it illicitly. When pharmacotherapies were illicit, they were mostly a gift (67% of these users); otherwise they were bought from a friend (n = 3) or bought from a dealer (n = 3). Overwhelmingly, the drugs were obtained from other users giving away or selling their 'take-away' dose.
- More than half (56.5%) had been prescribed them (tramadol and Panadeine forte), and 61% had obtained them illicitly (oxycodone and codeine phosphate). Almost 30% of the sample had injected the drugs, mainly oxycodone (Oxycontin tablets), but also tramadol and codeine phosphate. Four participants (8%) had feigned symptoms to obtain opioids in the previous six months, and 28% altogether had attempted to obtain a prescription in that time. Some doctor-shopping was apparent, with up to 15 doctors approached for the drugs. Where the drugs were acquired on the street, it was mostly as a gift (64% of illicit opioids users), then from buying from a friend (36%), and from a dealer (21%).

Links to crime

- In terms of self-reported crime in the previous month in this sample, there were a few differences from stage two that suggest that the majority of property crimes committed by these PWID may be related to shoplifting.
- Twelve percent of participants reported having committed a crime involving violence in the previous month, with all reporting they had done so less often than once a week – the prevalence is less than stage two, but the frequency is higher. Most of these respondents (67%) indicated they had been intoxicated at the time of the offence, and the others reported they had been aggressive and started a fight. Offences included committing an assault during a bag-snatch, assaulting someone at the pub for no reason, assaulting a partner while on Valium, threatening someone to obtain temazepam from them, and attacking an ambulance officer and a police officer during a 'schizophrenic' attack.
- More than half of the sample (52%) reported dealing drugs in the previous month, slightly more than in stage two – about a third of these (31%) reported they did so less than once a week and 70% reported dealing once a week or more.
- Twelve percent of participants reported they committed some form of fraud in the previous month, although 34% also reported having 'rorted' to obtain drugs (rorting was defined as obtaining money or goods dishonestly but not through theft, e.g. 'ripping people off', begging, asking charities for money, faking symptoms to obtain prescriptions, telling lies). Over one-quarter also reported they had 'scammed' to obtain drugs (scamming was defined as similar to rorting).
- More than one-third of the sample (36%) reported they had driven while under the influence of illicitly used drugs in the month prior to the survey. Most of these respondents (56%) did so less than once a week, but 44% reported they did so once a week or more frequently.

Implications for police and other frontline workers

- Eight percent believed that a decrease in benzodiazepine availability had caused an increase in crime by motivating stealing in order to pay for the drugs, by directly influencing behaviour (by increasing confidence and risk-taking), and by increasing violence.
- The same proportion also believed that changes in the availability of the drugs had affected users' relationships, because of aggression, fighting, and family breakdowns, as well as affecting people financially with the drugs being more expensive on the street.
- Seventy percent of the sample reported they had behaved 'uncharacteristically' because of intoxication on drugs, and mostly blamed benzodiazepines (66%), heroin (38%), or a combination of the two (24% of the sample), and benzodiazepines combined with other drugs were blamed as well. Morphine (MS Contin and Kapanol) and buprenorphine were each blamed by 8% percent of the sample, and methadone syrup by 8%. Three participants taking benzodiazepines had also been using morphine, as had half of those taking buprenorphine.
- The behaviours described as uncharacteristic and drug-induced were 'aggressive/abuse/violent' (23% of those reporting such behaviour), 'criminal' (20%), 'high/silly/energetic' (20%). Two reported experiencing hallucinations while on benzodiazepines, and five participants reported blacking out or forgetting incidents they had been involved in whilst intoxicated on the drugs, such as car thefts, shoplifting, robbery or aggressive behaviour.
- Six respondents believed that benzodiazepines made it more likely they would commit criminal offences by lowering their inhibitions and increasing their confidence and feelings of 'invincibility'.

Interventions

- Twenty percent considered that benzodiazepines had become more difficult to obtain on the street in the previous 12 months, 18% reported doctors were becoming less willing to prescribe them, and 10% reported increasing police activity around the drugs, with police more likely to check PWID for them and check prescriptions.
- The general consensus was that there had not been any increase in police activity around morphine or other opioids on the street.

Main findings (Stage four, Health & Law Enforcement Key Informants Interviews)

Market characteristics

- Most of the 28 KI interviewed (n = 18 health workers, and n = 10 law enforcement personnel) reported heroin was the primary drug of choice for PWID using benzodiazepines and pharmaceutical opioids.
- It was considered benzodiazepines were primarily used by PWID to supplement heroin and increase its effects, rather than as a primary drug of choice. There were also reports that use of these drugs is fluid, with PWID alternating drugs according to availability, or their financial or health situation.
- In terms of opioids use, KI considered there was a combination of primary and supplemental use, with some PWID using pharmaceutical opioids, such as buprenorphine exclusively, and others topping up with heroin, although it was thought that people were less likely to top up the longer they were in the program.
- Law enforcement KI considered that trafficking in pharmaceuticals was more likely to occur in Melbourne's drug 'hot-spots', although they were doubtful about the existence of formal trafficking in buprenorphine, and believed that the drug was more likely to be a prescribed

dose shared by a patient. On the other hand, some KI reported a brisk street trade in buprenorphine. Similarly, some KI reported that the trade in benzodiazepines was reduced currently due to decreases in prescribing by doctors, but others disagreed with this.

- The general agreement seemed to be there was no organized crime element or organized black market in prescription drugs, with the possible exception of morphine, which is more difficult to obtain and therefore may be more valuable. It was agreed that dealing in these substances was more likely to comprise a disorganized system of trading, selling or sharing as part of a 'drug-sharing culture', rather than undertaken as a money-making activity. This was because most KI did not consider the rewards of selling the drugs to be great.

Diversion

- KI considered that most of the prescription drugs available emanated from prescribing doctors, although this may differ according to different drugs, with temazepam more likely to be obtained at street level, and morphine originating from patients on pain relief or friends and family members with a legitimate prescription.
- Thefts from pharmacies or distributors' or manufacturers' premises were mentioned as possible sources for the drugs, although it was considered these had reduced considerably over the past two years. The Internet was not seen as a viable source for prescription drugs.
- Doctor-shopping for both benzodiazepines and pharmaceutical opioids was considered to be rife, and relatively easy by some KI, and generally related to personal qualities of individual doctors (thinking they are doing the right thing, being known as 'easy' or 'soft', inexperienced or 'tired').
- On the other hand it was considered that temazepam was now more difficult to obtain this way because of the regulation of 10mg gel capsules.
- All agreed that doctor-shopping did not apply to methadone and buprenorphine.

Links to crime

- The common attitude about the relationship between specific drugs and criminal behaviour was that the use of benzodiazepines may mean people are more likely to commit crimes they had already planned on committing, for instance shoplifting, but with less inhibition.
- A sense of 'invincibility' was also associated with the use of benzodiazepines, with KI considering it may be a factor in committing crimes such as shoplifting and burglary, and also increasing the likelihood they will be caught.
- Opioids were considered more likely to reduce crime than increase it.
- Where crimes were seen to be related to benzodiazepines and pharmaceutical opioids, they were most likely to be shoplifting, property crime, and burglaries, as well as pharmacy-related crime, crimes of violence, and trafficking in the drugs.
- There was a perception that the lack of availability of drugs, including benzodiazepines and opioids, may also precipitate crime aimed at attempting to obtain them.

Implications for police and other frontline workers

- According to the KI, the most frequently used benzodiazepines were reportedly temazepam and diazepam. KI identified serious health issues resulting from benzodiazepine use, for instance vein damage, abscesses, amputations, dependence, poly drug use, and overdose.
- On the other hand benzodiazepines were considered useful for helping to manage withdrawal in drug dependent people.

- Law enforcement personnel mentioned the diversion of benzodiazepines to the black market because of their desirability.
- According to the KI the most frequently used opioids were reportedly buprenorphine, MS Contin and Kapanol . Overwhelmingly, pharmacological drug treatments were considered to be of utmost importance, and significantly improved the health and well-being of drug users, with flow-on effects to employment and housing, thereby leading to continuing stability.
- It was also considered that provision of drug treatments reduced crime as they reduced the need for substantial amounts of money for financing a habit.
- On the other hand, the cost of regular treatment could reportedly become prohibitive and may on occasion precipitate criminal activity. Law enforcement KI considered that the availability of pharmacotherapy treatments could disengage PWID from street supplies of heroin and may also help control heroin use, and diversion of the drugs was also seen as a problem.
- Overall, the responses of the stage four law enforcement KI were similar to those in stage two: prescription drugs were not really an issue for police, or were seen as more or less the same as other drugs, having in themselves a small impact on their work, and that there was little point in focusing on them until they become 'huge'. The drugs were not seen to be the problem that illicit substances such as heroin and amphetamines were, and were not linked with criminal behaviour or organised trafficking networks in the same way, and thus did not generate the same level of attention.
- Police considered that it was more useful to focus on trafficking in pharmaceuticals than on users, and mentioned the production of the Victorian Police manual *An investigation guide to pharmaceutical drug trafficking and use* (Victoria Police, 2004) for all stations as a great benefit in identifying drugs and laying charges where appropriate.

Interventions

- Most KI did not consider that police activity had an effect on the use of prescription drugs by PWID, but impacted more on illicit drugs. However, a few mentioned that police cautioning and diversion programs were having an impact on all drug use, and that police activity in shopping malls was making access to drugs (including pharmaceuticals) more difficult and reducing crime in those areas, although it was noted that trafficking became more covert in response.
- It was also mentioned that people in possession of benzodiazepines without a prescription were charged, and that such activities resulted in prescription drug use becoming more discrete, or that people may be more wary of presenting forged prescriptions.
- It was considered that the displacement of illicit drug trafficking to other areas as a result of police crackdowns on illicit drugs leads to an increase in the use of benzodiazepines, as the illicit drugs become more difficult to obtain.
- It was suggested that limiting prescribing of the drugs would reduce diversion, although it was also considered that most PWID obtained prescriptions for their own use rather than on-selling.
- It was also considered that tracking the prescriptions an individual has, more vigilance with prescription pads, crushing of buprenorphine in the pharmacy before administration, injectable buprenorphine delivered in the pharmacy, and more sharing of information between doctors about drugs preferred for diversion, would all be strategies that could effectively reduce diversion.
- Police considered that strategies that would assist them in policing pharmaceutical drug misuse included: restricting the source of benzodiazepines and pharmaceutical opioids; dispensing pharmacotherapies from 24 hour clinics; establishing pharmacies in a wider

area to reduce the numbers of people flocking to 'hot-spots'; the development of a system that tracked batches of benzodiazepines as they are produced, cross-matched with data on dispensing; provision of information to police about emerging problems; and regular updating of the manual *An investigation guide to pharmaceutical drug trafficking and use* (Victoria Police, 2004).

Implications

Market characteristics

This current study specifically sampled PWID who used illicit benzodiazepine and/or pharmaceutical opioids. The findings in the main confirmed most 2003 IDRS findings, with similar prevalence of recent injecting of morphine and buprenorphine, and a higher prevalence of recent benzodiazepine injection found among the current sample. There were substantial overlaps in drug usage, with most PWID being poly drug users. It must be kept in mind that sampling of the PWID participants targeted those who misuse any/all of these types of drugs, and therefore the findings cannot be generalised to broader PWID populations. Nevertheless, clearly there exists a demand for diverted prescription drugs.

Whilst temazepam has reportedly become more difficult to acquire, with most PWID considering it too difficult to obtain from a doctor, acquisition and use of the drug still continues, at least amongst some groups of PWID. These findings show that temazepam, morphine, and to a lesser extent buprenorphine, appear to have become established on the black market in Melbourne. These are reportedly not difficult to obtain, especially in the inner-city suburb of Footscray in the case of temazepam, and most areas for morphine and buprenorphine. Prescription drugs are seemingly chosen by PWID to increase the pharmacological effects of heroin, or as substitutes for heroin. They are considered to be of a consistent quality, reasonably priced and easy to acquire. However, several key informants also reported that the use of benzodiazepines is quite fluid, and that people will alternate between substances according to availability, health and financial situation, as well as a raft of other psycho-social factors. With regard to pharmaceutical opioids, key informants offered the suggestion that there is a blend of primary and supplemental use.

Benzodiazepines were reportedly acquired by these PWID mainly via friends and medical prescriptions, and through small-time dealers, with tablets selling for as little as one dollar, and gel capsules for between $5 and $30 each. PWID also tended to inject buprenorphine that they were prescribed, or shared others' doses. On the other hand, morphine tended to be acquired through friends or dealers, costing around $50 for 100mg. Respondents generally reported that dealers were other users with a prescription for sale, although there were frequent reports that many dealers sold other illicit drugs as well. There were some reports of prescription/prescription drugs thefts and doctor-shopping, which KI tended to believe were widespread.

The findings suggest, therefore, that the prescription drugs market in Melbourne – with the possible exception of morphine which is more expensive and less easy to acquire than benzodiazepines and buprenorphine – does not at this stage appear to be large-scale, but seems to be dominated by small-time dealers, users selling to fund their own use, and a diffuse network of users sharing their own prescription drugs and swapping drugs amongst themselves. These reported patterns of dealing and use suggest an opportunistic way that poly drug using PWID might adapt to, and manipulate available drugs for maximum effect, according to the availability, price, and consistency of illicit drugs on the market at any given time, balanced against the widespread availability and relatively low price, as well as the predictable quality, of prescription drugs.

Diversion

Diversion of prescription drugs was reportedly widespread, with most participants having received prescribed benzodiazepines and illicit benzodiazepines, and most having received illicit morphine. The use of diverted buprenorphine was widespread as well. Law enforcement KI considered the drugs mostly originated from medical prescriptions, but also may come from pharmacy burglaries, and thefts from drug distributors, although reportedly these had declined in the past 12 months. PWID reported swapping their prescribed drugs for illicit drugs (or vice versa), mainly benzodiazepines, with other users, as well as selling/giving away their prescribed drugs. Doctor-shopping for benzodiazepines was common, although most participants considered it was too difficult to obtain temazepam gel caps that way. There was also widespread doctor-shopping for morphine, although reportedly not very successfully. Thefts of prescribed drugs were reasonably frequent amongst PWID, but mainly related to benzodiazepines, rather than opioids.

The findings suggest that policing of prescription drugs is complicated by the fact that the drugs themselves are legal, even if their possession or use is not; thus it is difficult to determine when an infringement has been committed.

Links to crime

This study suggests that prescribed drugs may be related to crime in several ways: firstly via diversion of the drugs to the black market, either through diverting of legitimate prescriptions by giving them away, swapping them for other drugs or selling them, or via thefts of the drugs or forgeries of prescriptions; secondly, PWID reported they were more likely to commit criminal offences when they were intoxicated by prescription drugs, especially benzodiazepines, and to a lesser extent morphine.

Eleven percent of the first sample reported they had experienced contact with police because of their benzodiazepine use, and a high proportion of both samples of participants reported involvement in criminal activity, especially shoplifting, other property crimes, drug dealing, intoxicated driving, and to a lesser extent violence, and most blamed drugs for their offences.

Past research has suggested that benzodiazepines, through their psychopharmacological effects, may cause personality changes, disinhibition, and bizarre behaviour, as well as precipitating feelings of over-confidence and invincibility. This accords with these current findings, where a high proportion of participants reported that they had behaved uncharacteristically while on drugs, and frequently attributed such behaviour to benzodiazepines, either alone or in combination with other drugs. There were also reports of participants committing offences whilst intoxicated, but having no memory of the events the following day. Participants frequently reported feeling 'invisible', 'invincible' and more confident than usual, believing they could get away with behaviours they would not normally undertake.

The findings suggest that law enforcement KI assessment of the impacts of these drugs on behaviour may be underestimated when compared with PWID reports. It was found that the frequency of use of illicit benzodiazepines was related to the number of different kinds of criminal behaviours that respondents reported being involved in, and the degree of dependence on benzodiazepines was also related to whether a crime had been committed whilst intoxicated by, or withdrawing from, benzodiazepines. A relationship was also found for dependence on morphine and committing crime whilst intoxicated on the drug. The findings also suggest that dependence on methadone tends to reduce involvement in criminal behaviour, which is in accordance with previous findings that opioid use has not been directly associated with violence, and that methadone may mitigate against criminal behaviour.

A high proportion of these respondents reported dealing drugs, with a substantial proportion of their average income attributed to the activity. This suggests that they may be involved in a cycle of drug use and criminal activity that is related to an entrenched lifestyle, and possibly renders them more likely to offend, or to offend more frequently than if they were not using drugs. Alternatively, drug use and/or dependency may demand a higher income than can be attained legitimately.

When considered in their entirety, these findings do suggest a link between the use of prescription drugs and criminal behaviour: through changes in behaviour; self-reported offences attributed to the drugs by these PWID; the consideration that where dependency on a drug exists there is a need to maintain supply; and many of the drugs, in particular morphine and temazepam, are difficult to obtain and may be expensive and not affordable on a legitimate income (especially as the vast majority of the PWID gain most of their income from government benefits, begging and charity). Past research suggests that more serious and financially rewarding crimes tend to be committed by the heaviest drug users, and these participants tend to use a wide range of drugs frequently.

Implications for police and other frontline workers

The findings suggest PWID may be exhibiting many harms due to prescription drugs misuse. The main health harm attributed to prescription drugs by both previous research and PWID and KI in this study has been related to injecting, such as vein damage, thrombosis, 'dirty hits', scarring and infections, as well as dependence and overdose (especially when the drugs were combined with other drugs and/or alcohol). Almost two-thirds of these participants reported experiencing injection-related harms, and benzodiazepines and morphine were frequently blamed. KI also reported a relatively high incidence of sharing between partners, and there were reports that female drug users were sometimes coerced into undertaking sex work in order to make money to procure drugs for themselves and their partners.

In addition, law enforcement KI considered the availability of benzodiazepines on the black market to be driving diversion, and also suggested that inconsistencies in the dispensing of buprenorphine, such as not crushing the tablet on the spot – which then allows the drug to be diverted or injected – were a disadvantage of prescribing pharmaceutical opioids. KI also were concerned at the abuse of benzodiazepines, especially when used in conjunction with other drugs, and suggested that the 'easy' availability of benzodiazepines, and the prescribing of pharmaceutical opioids (e.g. buprenorphine) lead to harmful poly drug use.

The potential for a high prevalence of dependence on prescription drugs was also cause for concern. Two-thirds of these PWID recorded scores on the Severity of Dependence Scale (SDS) that suggest they may be dependent on benzodiazepines, morphine, buprenorphine, and/or methadone. High proportions reported negative consequences of using the drugs, such as: physical/health effects, overdose, volatile behaviour, and addiction (benzodiazepines); overdose/death, physical/health effects, and addiction (morphine); addiction, physical/health effects (methadone); injecting/health effects; and addiction (buprenorphine). Health KI reported the habit-forming nature of benzodiazepines was a potential negative consequence of their prescription, as well as injecting harms. They also contended prescription drugs overdose was a problem, especially with benzodiazepines when used with other drugs, and with methadone. Prescription drugs intoxication and withdrawal were also blamed by the PWID for social and relationship problems, anxiety, lack of motivation, and irritability.

Interventions

Police cautioning and diversion programs were considered to have an impact on all drug use, in that police activity in shopping malls was making access to drugs (including pharmaceuticals) more difficult, and was reducing crime. It was also considered this kind of police activity may reduce the incidence of forged prescriptions being presented. The production of the Victoria Police manual *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) for all stations was seen to benefit policing efforts, allowing officers to correctly identify pharmaceuticals and to lay charges where applicable. It was considered that wider distribution of this or a similar publication may be useful.

It was contended, however, that police 'crackdowns' may in fact result in more 'underground' activity, cause drug trafficking to become more covert in response, and/or lead to increases in the use of benzodiazepines, as the illicit drugs become more difficult to obtain. Another side effect of police activity cited was people sharing injecting equipment, injecting 'on the run' and in unsanitary conditions, increasing injecting harms considerably and also increasing the risks of overdose. Development of harm reduction practices around injecting pharmaceutical drugs was prioritised.

Police considered that other strategies that would assist them in policing pharmaceutical drug misuse included: restricting the sources of benzodiazepines and pharmaceutical opioids; dispensing pharmacotherapies from 24 hour clinics; establishing pharmacies in a wider area than currently to reduce the numbers of people flocking to 'hot-spots'; the development of a system that tracked batches of benzodiazepines as they are produced, cross-matched with data on dispensing; provision of information to police about emerging problems; and regular updating of the manual *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police, 2004).

Temazepam injecting seems to have declined since the HIC regulated prescribing of the 10mg gel capsules under the PBS/RPBS in 2001, and the cessation of production of all gel capsules that has now occurred may be expected to have a further impact. Findings from the current study – that temazepam and morphine were very difficult to acquire medically, and there is no point in trying to get them this way – suggest that prescribing practices have reduced access to the drugs, and have most likely discouraged doctor-shopping for them. Expanded interventions in prescribing practices were suggested by these findings. For instance, limiting prescribing of some drugs, such as benzodiazepines, may reduce diversion. One way of doing this that was suggested, and was indeed reported by some PWID, involves daily pick-up of enough of the drug to maintain a person for the next 24 hours. A method of tracking the prescriptions an individual has may help reduce diversion of prescription drugs, and many doctors (e.g. Kamien 2004) are looking forward to availability of the HIC prescription shoppers data base, replacing the doctor-shopper hot-line as a way of enabling better control of over-prescribing and doctor-shopping.

Other strategies suggested for reducing diversion included better vigilance with prescription pads, pharmacists calling police where forged prescriptions are presented, which often does not currently happen, crushing of buprenorphine in the pharmacy before administration (or administering a 'fizzy' form similar to Berocca), injectable buprenorphine delivered in the pharmacy, and more sharing of information between doctors and police about drugs preferred for diversion. It was also suggested that data-sharing between relevant authorities, such as pharmacies, doctor-shopping, and law enforcement, would be useful. Privacy is obviously an issue with these suggestions.

The findings suggest that a lack of supply could force both dependent and non-dependent benzodiazepine users to seek a more harmful replacement, thus causing a whole raft of new health and law enforcement problems. Health KI also considered that targeted and monitored benzodiazepines could be useful in a withdrawal treatment regime. In addition, health and law enforcement KI agreed that prescribing of pharmacological drug treatments were essential for the health and quality of life of drug users and for the reduction of crime. The reducing or waiving of costs of drug treatment programs was suggested in order to improve access to treatment as well as reduce the need for some people to commit crime. The findings suggest that diversion and maintenance of PWID into (affordable) treatment programs may have a positive effect on both health and law enforcement outcomes.

Summary

The current research has demonstrated clearly that misuse and injecting of benzodiazepines and pharmaceutical opioids, especially morphine and buprenorphine, has become entrenched among some groups of PWID in Melbourne. The findings suggest that the drugs are diverted to the black market and can be sold for considerable profit. The drugs may be diverted from legitimate prescriptions and prescribed doses, via doctor-shopping, or from forged prescriptions or stolen drugs. Prescription drugs appear to be relatively easy to obtain on the street, and seem to be available from a diffuse network of users, friends of users, dealers and suppliers, some of who also sell all kinds of illicit drugs. The findings also suggest criminal behaviour may be related to the dependence on, and the use of, prescription drugs; for instance shoplifting, property crime, drug dealing, violence and intoxicated driving. In addition, disinhibited, aggressive, and bizarre behaviour, and feelings of invincibility, were attributed to the drugs, in particular benzodiazepines. On the other hand, dependence on methadone may mitigate against the commission of crime. Besides criminal behaviour, other negative consequences of prescription drugs use were considered to be injecting harms, dependence and overdose, as well as social impacts such as relationship breakdown, effects on mood, anxiety and irritability. There were several potential interventions forwarded for consideration; for instance decreasing the costs of drug treatments, a more holistic approach to prescribing of drugs, close monitoring of PWID who are prescribed benzodiazepines, development of alternative forms of buprenorphine that cannot be diverted, keeping police and doctors up to date with prescribed drugs that are likely to be diverted, education of doctors and pharmacists about diversion of the drugs, and encouraging sharing of information between different bodies that produce data.

Chapter one: Introduction

The purpose of this report is to examine the possible association between diversion and use of prescription drugs by injecting drug users and criminal behaviour in Melbourne. The available evidence indicates that the diversion of prescription drugs, in particular benzodiazepines and pharmaceutical opioids onto the black market, and their subsequent misuse by people who inject drugs (PWID), is increasing (Breen et al. 2003a; Dietze & Fitzgerald 2002; Dobbin 1998; Dobbin 2001; Bruno & Fry 2001; Shand et al. 2003).

The reduction of global opium production and the fall in the value of the Australian dollar, together with police and customs activity, contributed to a well-documented marked decrease in the availability of heroin in some areas of Australia, including Victoria, at the end of 2000. The magnitude of this decrease was demonstrated by the 90% decrease in the number of heroin-related deaths identified by the Victorian State Coroner's Office in 2001, with 29 deaths identified to the end of July 2001, a substantial drop from the figures for 1999 (258) and 2000 (248) (Dobbin et al. 2003). The heroin 'drought' was linked with a major increase in the use of amphetamines and 'pills' (pharmaceutical drugs), including temazepam use and injection of the capsule contents (Miller, Fry & Dietze 2001). Miller, Fry and Dietze (2001) found that injecting drug users reported they used pharmaceutical drugs more often than previously, and many reported commencing injection of pharmaceuticals during the drought. Pharmaceuticals were reportedly easy to obtain and trafficked via friends and street suppliers.

Makkai and Payne (2003) have reported that criminological research on the links between drugs and crime have consistently found that most offenders have used illegal drugs, minor offending precedes drug use, and that offenders who are drug users are more likely to report higher rates of offending. It is generally believed that the use of illicit drugs is responsible for much of the crime recorded by police; however, there is no accurate estimate of the proportion of crime caused by various kinds of illicit drugs (Makkai 2002; Weatherburn et al. 2002). Weatherburn et al. (2002) argue that it is, therefore, impossible to determine priorities among drug use control programs or assess the weight assigned to preventing crime as opposed to other adverse effects of illicit drug consumption. Makkai (2003) and Makkai, McGregor and Wei (2003) thus argue that the relationship between drugs and crime is complex, with the phenomena varying according to types of offenders and drug users, and a number of environmental, situational and psychological factors. They therefore contend that policy development needs to take into account the multi-faceted nature of the problem.

There are several theories of the relationship between drug use and property crime, with the dominant being: 1. the 'enslavement model', in which it is held that drug-related offenders begin using drugs initially, and after becoming dependent are eventually drawn into crime to raise the financial wherewithal to finance their habit; 2. the 'criminality model', where the drug-related offenders are proposed to be involved in crime and other disorderly behaviour before using drugs, and as time passes they are increasingly enmeshed in deviancy including drug use; and 3. the 'escalation model', wherein the offender begins a criminal career first and becomes involved in drugs as part of their overall criminal lifestyle, eventually becoming dependent and thus needing more money to finance their habit, in the process their criminality becoming higher than it normally would have been (Makkai 2002).

In relation to violent crime, three models have also been forwarded in explanation. First, the 'psychomarcological model' argues that certain drugs may produce violent reactions in an individual. The second model, the 'economic compulsive model', argues that some drug users commit violent crimes, such as armed robberies, to support an expensive drug habit (Makkai 2002). The third model, the 'systemic violence model' describes the violence that occurs as a result of an individual playing their part within a system of drug use and distribution (Makkai 2002). In terms of the first model, the drugs most reported to be associated with violent crime are stimulants (Makkai 2002). While opioid intoxication has not been directly associated with violence (Makkai 2002), intoxication with benzodiazepines on the other hand has been implicated in uninhibited and even bizarre behaviour, as well as blamed for enabling individuals to undertake criminal acts and feel 'invincible' (Bonn & Bonn 1998; Dobbin 2001; Rall, 1992). Mood swings and irritability associated with the withdrawal syndrome from opioids may on the other hand lead to violence, with studies finding that some offenders use the drugs purposely to reduce their fear of committing a crime (Makkai 2002). Similarly, withdrawal from benzodiazepines is associated with severe mood swings, irritability, and personality changes (Marshall & Longnecker 1992; Rall 1992). Many benzodiazepines and pharmaceutical opioids are also likely to produce dependency in a regular user (Marshall & Longnecker 1992; Rall 1992).

The majority of research in Australia to date has found that heroin use is the most closely associated with criminal behaviour (Makkai, 2002), and no research has specifically addressed the links between prescription drugs and crime; however, the diversion of pharmaceutical drugs onto the black market may have a direct effect on the criminal behaviour of individuals who use them illicitly, in terms of a need to maintain supply where dependence on such a drug exists, as well as in psychopharmacological effects of intoxication and/or withdrawal from these drugs.

Review of relevant Victorian literature

Use of benzodiazepines by Victorian people who inject drugs

One hundred and fifty injecting drug users in each participating jurisdiction, including Melbourne, are surveyed annually via the national Illicit Drug Reporting System (IDRS) (Fry & Bruno 2002; Breen et al. 2003a; Shand et al. 2003). The purpose of the IDRS is to serve as a 'strategic early warning system, identifying emerging trends of local and national concern in illicit drug markets' (Breen et al. 2003a). Following the heroin drought, there was a recorded increase in benzodiazepine injection by PWID in the IDRS in Victoria, with the practice reportedly increasing from 19% of participants in 1999, to 36% in 2000 and 40% in 2001, as PWID opted for injecting mainly temazepam gel capsules (Fry & Miller 2002; Jenkinson, Fry & Miller 2003), although injection of other benzodiazepines such as Valium tablets was also recorded (e.g. Jenkinson, Miller & Fry 2004).

Key informants in the 2001 IDRS (Breen et al. 2002) reported that benzodiazepines were used either as a substitute when heroin was unavailable, or to enhance and supplement the effects of heroin or other drugs. Of particular concern is the injection of temazepam gel capsules, because of resulting vein damage from injecting, as well as the risk of overdose when used in combination with heroin (Dobbin 2002; Dobbin et al. 2003). Benzodiazepines were reportedly obtained through doctor-shopping, as well as black market street selling. Health harms associated with injection of drugs intended for oral use, and crimes associated with diverting the drugs to the black market, became widely reported (Dobbin 2002; Dobbin et al. 2003). Subsequent to these findings, two events occurred that could have been expected to result in reductions in the use and injection of benzodiazepines by PWID. First, the Victorian Department of Human Services (DHS) introduced the Temazepam Injection Prevention Initiative in November 2001 (Dobbin 2002) in order to reduce injecting of the gel capsules by educating prescribing doctors (Dobbin 2002).

Second, changes to the prescribing authority for 10mg temazepam capsules on the PBS followed in May 2002 (Breen et al. 2003b). A medical practitioner must now receive a PBS authority to issue a prescription for these preparations. Prescriptions for the 20mg capsules may still be issued privately, however (without PBS authority).

Following these initiatives, the Australian Crime Commission (2003) suggested that as heroin re-emerged in quantity in the Australian market, those who supplement their heroin use with pharmaceutical drugs would be likely to return to using heroin alone, thus resulting in a reduction in the use of pharmaceutical drugs. The 2002 IDRS subsequently reported a return of heroin supply, as well as a decrease in price. An increased number of people reported using heroin daily, although not to pre-2001 levels, a situation that stabilised in 2003 (Breen et al. 2004; Jenkinson, Miller & Fry 2004). PWID continued to use benzodiazepines, and also continued to inject them (Breen et al. 2003b; Kinner & Fisher 2002), with 73% of Victorian PWID in 2002 reporting benzodiazepine use in the previous six months, and 21% reportedly injecting the drugs (Jenkinson, Fry & Miller 2003). Whilst injection decreased to 15% of the PWID in 2003, 80% reported they used benzodiazepines (Jenkinson, Miller & Fry 2004). The benzodiazepines most commonly reported as having been used in the six months prior to the survey changed after the regulatory changes in 2001/02, with temazepam used by 6% (compared with 45% in 2001), diazepam used by 62% (compared with 38% in 2001), and oxazepam used by 14% (compared with 9% in 2001).

In March 2004 Sigma, the pharmaceutical company that manufactures temazepam gel capsules, discontinued their production and announced they were destroying all stocks (Dobbin 2004). This has completely removed the gel-cap formulation from Australia (Wilce 2004), a development which would be expected to impact use of these drugs eventually, depending on the extent of stock-piling that may have occurred by suppliers (Fry & Miller 2002).

Use of pharmaceutical opioids by Victorian people who inject drugs

Similar to trends for benzodiazepines, increased pharmaceutical opioids use and injection was reported following the heroin drought, with the majority of PWID participants in the Melbourne IDRS reporting that they obtained opioids illicitly (Jenkinson, Fry & Miller 2003). Further, notwithstanding an increase in heroin availability, levels of illicit use and injection of pharmaceutical opioids, such as morphine and buprenorphine, has not returned to pre-drought levels. For instance, in 2000, 49% of Victorian PWID in the IDRS reported using any opioid other than heroin (for instance, morphine, buprenorphine, methadone, other opioids) (this data was provided by Turning Point Alcohol and Drug Centre from an analysis they undertook in 2004). Use remained stable at 49% in 2001, but increased substantially to 63% in 2002, and in 2003 remained at 61% (Fry & Miller 2002; Breen et al. 2003a; Jenkinson, Miller & Fry 2004). The proportion of participants reportedly injecting any opioid in 2000 was 24%, increasing substantially to 36% in 2001 and increased again to 41.5% in 2003 (Fry & Miller 2002; Breen et al. 2003a; Jenkinson, Miller & Fry 2004).

Morphine

The IDRS only commenced collecting specific information about morphine use in 2001, therefore, a direct comparison of findings for morphine prior to that year is not possible, but an increase in use of the drug was recorded between 2001 (32%) and 2002 (51%), with a reduction again in 2003 (42%), although not to 2001 levels (Fry & Miller 2002; Breen et al. 2003a; Jenkinson, Miller & Fry 2004). Most participants reportedly using morphine also injected it, with the proportion of participants doing so in 2001 at 31%, increasing to 47% in 2002, and reducing slightly again in 2003 to 39% (Fry & Miller, 2002; Breen et al. 2003a; Jenkinson & Fry 2004). Furthermore, police key informants in the 2003 IDRS reported that they thought there had been substantial increases in morphine use in 2002-2003 (Jenkinson, Miller & Fry 2004).

The most commonly used brands of morphine in 2003 were reported to be MS Contin tablets (64%) and Kapanol capsules (25%), with prices reportedly ranging from $20 - $50 for a 100mg tablet or capsule. The majority of respondents in the 2003 IDRS reported that morphine was easy to very easy to obtain (65%), with 73% indicating that availability had been stable over the past six months, and most obtained morphine either from friends (62%) or from street dealers (19%) (Jenkinson, Miller & Fry 2004).

Pharmacotherapies

Illicit use of opioids prescribed for drug treatment, such as methadone syrup and tablets (Physeptone), and buprenorphine (Subutex), was also widespread, although use of the different drugs varied significantly between Australian jurisdictions (Kinner & Fischer 2002; Jenkinson, Miller & Fry 2004). For instance, whilst 24% of the respondents in the Victorian 2003 IDRS reported using licit methadone syrup in the previous six months, 12% of participants reported obtaining it illicitly, and two percent reportedly injected it. Rates of methadone syrup injecting was low in 2003 (3%), similar to 2002 (3%), and have consistently been much lower than in other states such as Tasmania and the Northern Territory (Breen et al. 2004; Jenkinson, Miller & Fry 2004). Some diversion of methadone syrup has been consistently reported, with a street price of approximately $1 for one ml (Jenkinson, Miller & Fry 2004). The use of Physeptone by Victorian IDRS PWID participants has not been widely reported to date, with only one participant each in 2003 reporting their licit and illicit use (Jenkinson, Miller & Fry 2004).

Illicit use and injecting of buprenorphine in Victoria reflects the rapid acceptance of the drug as a treatment protocol since its introduction in 2000, and its subsequent approval for listing on the PBS/RPBS in 2001 (Jenkinson, Miller & Fry 2004). Licit buprenorphine was reportedly used in the previous six months by 38% of the 2003 IDRS sample, while 32% of the participants reported they used it illicitly (Jenkinson, Miller & Fry 2004). Injection of buprenorphine was much more prevalent in Victoria than injection of methadone, with 39% of the 2003 IDRS sample reporting having used this route of administration in the previous six months, an increase on the 2002 rates of 33%. Jenkinson, Miller and Fry (2004) reported the high prevalence of buprenorphine injection to be of concern. A number of health harms, similar to those associated with temazepam injection, such as vein damage and infection, are associated with the drug's injection. In addition, diversion of the drug to the black market from treatment programs is reportedly widespread, with a dose reportedly selling for about $5 (Jenkinson, Miller & Fry 2004).

Other opioids

The use of other opioids has also been of concern, with over one-third (39%) of participants in the 2003 IDRS reporting they had used them in the previous six months, and 3% reporting they had injected them (Jenkinson, Miller & Fry 2004). The main types reportedly used by the PWID were Panadeine forte (75% of other opioids users), Mersyndol forte (9%), Oxycontin (5%), Pethidine (4%), Doloxon (4%), and Codeine Phosphate (2%).

Crimes associated with the diversion of prescription drugs

'The extent and intensity around drug diversion and licit sources to illicit use, in particular the forgery of prescriptions and thefts from pharmacies, indicates a very strong demand for the drugs' (Dobbin 2002: p. 14). The Victorian Department of Human Services (DHS) in 2002 reported there was a strong demand for temazepam capsules, which were trafficked for up to $100 per pack (Dobbin 2001). The department indicated that pharmacies appeared to have been targeted by thieves for capsules, and that pharmacists should be alert to methods of diversion, including forged prescriptions, theft of drugs from the counter or behind the counter, substitution with other drugs such as over-the-counter liquid-filled gelatine capsules containing psychoactive drugs such

as diphenhydramine, 'doctor-shopping' where a patient is acquiring prescriptions from different doctors, aggressive behaviour and intimidation wherein people may become aggressive if their expectation that the pharmacist will dispense capsules is not met, and inappropriate prescribing if a patient appears to be receiving greater quantities, or presents prescriptions more frequently, than appears reasonable (Dobbin 2001). The doctor-shoppers hotline that formerly recorded these activities has been discontinued, and data from the replacement program 'prescriber-shoppers' is yet to become available (Kamien 2004).

KI in the Victorian IDRS study from 2000 to 2003 also suggested that prescribed drugs were accessed by PWID through 'doctor-shopping' and black-market street-level selling (Fry & Miller 2002; Dobbin 2004; Jenkinson, Miller & Fry 2004). They further reported that temazepam was being exchanged for heroin by some dealers, and stockpiled, due to a reported fear that temazepam may soon be withdrawn from sale (Fry & Miller 2002; Jenkinson, Miller & Fry 2004).

Thefts of pharmaceutical drugs

Opioid-based products have rarely been the targets of pharmacy burglaries or ram-raids in Victoria, due to enhanced security measures (such as floor safes) utilised for the storage of such drugs (Australian Bureau of Criminal Intelligence 2002). Individuals with legal opioid prescriptions, however, have been assaulted or threatened for their prescribed opioids, such as morphine, methadone, or buprenorphine; the drugs may then be used by the assailant, or else diverted to the black market and trafficked or swapped for heroin (Jenkinson, Miller & Fry 2004).

Dobbin (2001) reported that many pharmacists have experienced pressure and intimidation for temazepam capsules, but the more serious consequences of the traffic of the capsules has been an escalation in the number of pharmacies experiencing robberies and break-ins, sometimes on multiple occasions. Aggressive and threatening behaviour has been widely reported by pharmacists and doctors and their staff, with temazepam capsules the main target of burglaries, ram-raids, stand-over attempts, and thefts of drugs and/or prescriptions and prescription pads. The Victorian DHS (2002) reported that 537 of Victoria's 1,200 pharmacies (45%) were burgled between January 1 and August 30, 2001 (see also ABCI 2002). In a number of pharmacies plate glass windows or doors were reportedly smashed, and quantities of temazepam capsules stolen, whilst temazepam tablets were left on the same shelf. In many cases, temazepam capsules were the only drugs stolen.

Guild Insurance Limited (2003) reported a large increase in the number of pharmacy break-ins where the thieves stole benzodiazepines, particularly temazepam capsules. Between 1998/99 and 2001/02 the financial loss to Guild Insurance Limited because of malicious damage, burglaries, armed hold-ups, and thefts more than quadrupled in Victoria, from $500,769 to $2,410,770, and Victorian claims accounted for more than one-half of all claims received Australia-wide in 2001/02 (from 26.7% of the total in 1999/00). (Guild Insurance Limited 2003).

Forged prescriptions

Forgery or alteration of prescriptions have been used to obtain benzodiazepines, particularly temazepam capsules (Dobbin 1998; Dobbin et al. 2003). Dobbin et al. (2003) found that in the six months to end of May 2001 there were 185 forged prescriptions reported. Benzodiazepines accounted for 135 (74%) of these items, and temazepam accounted for 85% of all benzodiazepines. There were no alterations or forgeries for tablets, and all forgeries nominating a dose form were for capsules, indicating an overwhelming preference for capsules. Dobbin (2001) reported how, in one forgery case, a brother and sister presented more than 300 forged prescriptions in the 3 months to the end of February 2001 at 77 different pharmacies using 30 different aliases. Pharmacies involved ranged across Melbourne. Forgeries were written on stolen

prescription stationery, some of which were stolen during burglaries. A possible additional 385 prescriptions remain undetected. More recently, a number of computer-generated forgeries have been detected for Normison 20mg capsules x 50 (Dobbin 2001).

Crimes committed by people who inject drugs

Jenkinson, Miller & Fry (2004) reported that 59% (n = 89) of Victorian PWID respondents in the 2003 IDRS reported engaging in some kind of criminal behaviour, such as property crime, dealing/ trafficking of drugs, fraud, and violent crime, in the preceding month. The overall findings were similar to the previous two years, which had seen a substantial increase from the figures in 2000, mainly due to reported increases in the frequency of committing property crimes. See Table 1.

Table 1. Reported criminal activity among injecting drug users in the month prior to the IDRS Survey, Victoria 2000, 2001, 2002 and 2003.

Percentage of Respondents				
Type of crime	**2000[a]**	**2001[b]**	**2002[b]**	**2003[b]**
Property crime	20	29	39	35
Dealing	34	37	41	40
Fraud	12	15	14	7
Violent crime	5	15	9	10
Any Crime	47	60	63	59

[a] Source: Fry & Miller (2002)

[b] Source: Jenkinson, Fry & Miller (2004)

These figures are typical of the findings available from studies conducted to date. While linking illicit drugs and crime in general the data do not establish relationships between specific drugs and particular types of crime. This is especially true regarding whether the use of specific prescription drugs is predictive of any types of crime.

Prescription drugs and criminal behaviour

To date, besides diversion strategies for acquiring and trafficking, there have been no direct studies of the links between pharmaceutical misuse and crime carried out in Victoria, or in Australia as a whole. However, it is clear that misuse of pharmaceutical drugs by PWID in Victoria and other Australian jurisdictions is an emerging issue. These PWID have also reported significant involvement in criminal activity in the past. In addition, amongst incarcerated individuals, drug users tend to commit more property crimes than non-users (Makkai 2002; Makkai & Payne 2003). Furthermore, there is evidence that there is widespread use of prescription drugs among the more serious youth offenders in Australia (SACACWG 2003). There is a complex relationship between drug use and crime, with more serious and rewarding crimes (financially speaking) tending to be committed by the heaviest users (SACACWG 2003). Furthermore, the effects of some benzodiazepines have been associated with bizarre uninhibited behaviour, personality changes, amnesia, criminal activity, and a sense of invulnerability and invincibility (e.g. Australian Crime Commission 2003; Bonn & Bonn 1998; Rall 1992). They could, therefore, be expected to precipitate criminal behaviours in some users.

Study rationale

The National Drug Law Enforcement Research Fund (NDLERF) sought tenders in 2002 for research to enhance law enforcement sector understanding of the structure and functioning of illicit drug markets in Australia. The request for tender for which the current study was developed (RFT 04/02) called for a focus on the impact of benzodiazepine and pharmaceutical opioid misuse on crime in Victoria, Tasmania and the Northern Territory. Available evidence at that time from sources such as the Illicit Drug Reporting System (IDRS) suggested that existing illicit prescription drug markets were consolidating in some major cities (e.g. Hobart and Darwin) and emerging in other cities (e.g. Melbourne) facilitated at least in part by the reduction in heroin supply which peaked between late 2000 - early 2001 (Topp et al. 2002). In fulfilment of its aim of performing a monitoring and early warning function, the IDRS was able to identify key issues with respect to benzodiazepine and pharmaceutical opioid diversion and misuse that require further investigation.

One important area of investigation that is indicated relates to the possible law enforcement implications of benzodiazepine and pharmaceutical opioid diversion and illicit use. There have been few Australian studies that have sought to investigate the nexus between prescribed pharmaceutical drug misuse and crime. While the precise nature of this relationship remains to be clarified, some indications exist from previous research into the illicit drugs-crime nexus that has suggested the following: people who misuse illicit drugs are more likely to have an arrest record or to report property crime than those who do not (Blumstein et al. 1986); frequency of property offending is positively correlated with extent of illicit drug use (Blumstein et al. 1986; Salmelainen 1995; Stevenson & Forsythe 1998); and violence and violent crime is typically employed by illicit drug manufacturers and distributors as a tool to support attempts to manipulate the market (Kleiman 1992). At this point the extent to which the broader illicit drugs and crime literature may assist in understanding prescription drugs and crime links is undetermined.

A second important area of investigation indicated relates to the health implications of benzodiazepine and pharmaceutical opioid diversion and use through injection. A large international literature exists on the public health implications of prescription pharmaceutical diversion and injecting, with reports from a number of countries concerning associations between misuse, significant health harms and dependence (Darke & Ross 2000). To date the literature has focused largely on health issues associated with benzodiazepine and pharmaceutical opioid diversion and use in illicit drug market settings. There is much less available data concerning the dimensions and characteristics of such illicit markets (for licit substances), or how law enforcement and public health concerns may intersect in these settings.

Evidence shows that illicit drug markets and patterns of illicit drug use may vary markedly between and within jurisdictions (Darke, Hall & Topp 2001; Fitzgerald, Hope & Dare 1999). It is reasonable, therefore, to predict that patterns of prescription pharmaceutical diversion and injection may also differ across settings. This needs to be better understood. A necessary step in devising appropriate responses around issues such as benzodiazepine and pharmaceutical opioid diversion and injection is to gather reliable local evidence regarding the nature and extent of the problem. Stakeholder perspectives are also of core importance when the responses may necessitate incorporation of regulatory interventions. In this regard the current lack of understanding of a number of key issues of relevance to benzodiazepine and pharmaceutical opioid diversion and crime links reduces the capacity for developing informed interventions.

A comprehensive literature review was conducted in order to examine the following key issues of relevance to benzodiazepine and pharmaceutical opioid use and crime:

Drugs and crime nexus – literature on illicit drug markets and interpretive utility for the case of illicit markets for prescribed pharmaceuticals.

Drug trends in Australia – evidence, dimensions, monitoring statistics (e.g. use trends, prescribing trends, crime/police activity, health, drug market characteristics and pharmaceutical use).

Benzodiazepine and pharmaceutical opioids misuse and crime – types of crime, evidence, reasons, extent, etc. (e.g. robbery, prescription fraud, on-selling prescriptions, crimes committed under the influence).

Supply reduction and law enforcement impact – evidence of impact for users and for law enforcement and other frontline workers.

Appropriate interventions – responding to law enforcement and health impacts of the illicit benzodiazepine and pharmaceutical opioid markets and misuse.

One of the main aims of the Illicit Drug Reporting System has been to highlight issues that require further investigation through follow up specialist research in order to inform law enforcement and health sector policy and program responses to illicit drug use. Thus, the aim of this current research was to fulfil this second aim of the IDRS, by following up the identified emerging trend in illicit prescription drug use, and how that may impact on both criminal activity and health outcomes, by examining the nexus between illicit prescription drug use, illicit prescription drug markets, crime and health harms. Clearly, there has been a deficit in such Australian research to date.

The increase in pharmaceutical-related crime has the potential to impact on the law enforcement sector through increased levels of theft from pharmacies and other suppliers, other methods of diversion of the drugs to the black market, crime committed whilst under the influence of the drugs or whilst withdrawing from them, and also the disinhibition ('Rambo effect') that is associated with benzodiazepine intoxication that may lead to violent behaviour and other types of crime.

Study purpose and aims

The purpose of this study was to contribute to law enforcement sector understanding of the relationship between benzodiazepine and pharmaceutical opioid misuse and crime in three select Australian jurisdictions (Victoria, Tasmania, Northern Territory) where there is evidence of illicit prescription pharmaceutical markets. This report focuses on the Victorian aspect of the study, and the broader findings are presented in the National Overview Report (Fry et al. in press). While the primary focus of the study remains on law enforcement interests in relation to licit and illicit benzodiazepine and pharmaceutical opioid markets, these are discussed in relation to the broader public health implications of supply reduction efforts in a harm minimisation framework.

The primary aims of the study therefore were to:

1. Gain a greater understanding of illicit benzodiazepine and pharmaceutical opioid market-place dimensions and characteristics.
2. Investigate the hypothesised relationship between benzodiazepine and pharmaceutical opioid misuse and crime.
3. Explore the implications for police and other frontline workers (e.g. accident and emergency staff, ambulance officers and health/youth workers) of emergent illicit markets for benzodiazepine and pharmaceutical opioids.
4. Consider appropriate interventions to address both the law enforcement and health impacts of benzodiazepine and pharmaceutical opioid misuse.

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

The primary aims of the research were forwarded in 25 research questions (Appendix A) and were further analysed by the research team, resulting in a final total of 33 questions pertaining to the key themes of links to crime, implications for frontline workers, diversion, market dimensions and characteristics and interventions. The prioritisation exercise with Victorian law enforcement personnel (n=13) revealed that this group expressed a wide interest in the questions and issues presented to them around benzodiazepines and pharmaceutical opioids, and how these relate to the key themes of links to crime, implications for frontline workers, diversion, market dimensions and characteristics and interventions. See Appendix B.

Chapter two: Methodology

Stage one: Key informant interviews

The purpose of Stage one of the study was to serve a formative function for the main body of the research through the combined methods of literature review and KI interviews. A total of 13 interviews were conducted with law enforcement personnel (n = 12 law enforcement personnel and n = 1 civilian Melbourne police employee) in July and August 2003. Stage one key informant interviews focused on participant experiences and perceptions of illicit benzodiazepine and prescribed opioid markets as well as the nature of operations, policing practices and nature of contacts. The KI were interviewed by phone or in person at their place of work, and asked a series of open-ended questions about local markets for benzodiazepines and pharmaceutical opioids, and methods of diversion of the drugs. They also discussed how the misuse of these drugs impacts on criminal activities and policing practices. Each interview was around an hour in length. KI were sent a copy of the interview schedule, project information, and a consent form to enable them to consider their suitability for participation. The interview schedule included questions about patterns of drug use, availability of drugs, links between various drugs and criminal behaviour and policing activity, as well as perspectives on controlling drugs, supply reduction, and harm minimisation strategies.

Nine informants stated their source of information was primarily from contact with either users or suppliers/manufacturers or both. Three informants sourced information from discussion with peers or the literature and one from the analysis of seized drugs. Eight informants were involved in investigation, two were involved in drug strategy, two were involved in the policy and operational management areas, and one in covert surveillance operations. The majority (11) of informants nominated heroin as the drug with which they had most contact. In addition to heroin, seven informants reported that they had frequent contact with cannabis, seven with methamphetamines and five commonly had contact with ecstasy. Other drugs mentioned were benzodiazepines (n = 4) and ketamine (n = 2).

Stage two: Survey of people who inject drugs

In recognition of the importance of people who inject drugs (PWID) as a source of sentinel data on the operation of drug markets and associated drug-related behaviours, a face-to-face survey of 102 PWID was conducted in Melbourne. The survey included core questions concerning: demographic details; drug use history and current benzodiazepine and pharmaceutical opioid patterns, as well as experiences while under the influence of drugs, sources of pharmaceuticals; market characteristics, recent involvement in criminal activity, health and other impacts of pharmaceutical opioid and benzodiazepine use; and perceptions of the potential impact of substantially changed availability of such products on the illicit market.

Participants were interviewed at needle and syringe program (NSP) premises in five Melbourne localities: Western Region AIDS & Hepatitis Prevention (WRAP), Footscray (n = 20); Youth Projects, Newmarket (n = 22); St. Kilda Crisis Centre, St. Kilda (n = 22); AIDS Prevention and Support Unit (APSU), Dandenong (n = 16); and Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Frankston (n = 22). The participants were recruited via the NSP and word of mouth. To be eligible for the study, participants were required to have been resident for at least 12 months in the Melbourne metropolitan area and not have spent a substantial period of time out of the area

(such as in prison or moved away), as well as be a regular illicit user of either benzodiazepines and/or pharmaceutical opioids. A criterion of at least 30% of the sample injecting these drugs was imposed, but this was met naturally, with the majority of participants reporting the practice.

Prior to conducting the interview, participants were fully informed of the contents of the questionnaire verbally and in writing, and their informed consent was obtained. In the interview, they were asked socio-demographic questions about themselves, about drug use, price, purity and availability of drugs, methods of obtaining drugs, and modes of diversion of prescription drugs into the illicit market. The participants were also asked about law enforcement activity, and the ways in which drugs may influence their behaviour, including involvement in criminal activity and contact with police and the criminal justice system. They were also asked about the impacts of drugs on their health.

The surveys averaged one hour in length, ranging from 40 minutes to two hours, and participants were reimbursed $30 each for their time and travel expenses. Ethics approval for this study was obtained from the Victorian Department of Human Services (DHS), Human Research Ethics Committee, and the Research Committee of the Victorian Police. Participants were treated in accordance with the National Health and Medical Research Council (NH&MRC) ethical guidelines for human research at all times. The interviewers assessed 48% of participants as not intoxicated during the interviews, with 41% assessed as intoxicated but coherent, and eight percent assessed as intoxicated and incoherent.

Stage three: Secondary indicator data – Victoria

A diverse range of secondary indicator data was sourced from Victorian law enforcement and health sectors, to provide an additional perspective on the issues under focus, and assist the study team in interpreting the relationships between crime and prescription pharmaceutical misuse. The sources included the following.

Use trends

- Every three years the National Drug Strategy Household Survey (NDSHS) 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 National Drug Strategy Household Surveys (AIHW 1995, 1998, 2001) are displayed in this report.

Prescribing trends

- Data for prescriptions issued under the Pharmaceutical Benefits Scheme (PBS/RPBS) for all benzodiazepines in Victoria and Australia are collated annually by the Drug Utilisation Sub-committee (DUSC) of the Pharmaceutical Benefits Branch. Relevant data for benzodiazepines prescribing in Victoria and Australia for the period 2000 - 2002 are presented here (Health Access and Financing Division, Australian Government Department of Health and Ageing, 2004)
- The Drug Use Monitoring System (DRUMS), part of the Treaties and Monitoring Team, Office of Chemical Safety, Therapeutic Goods Administration, records the total number of prescriptions for all pharmaceutical opioids, including morphine tablets and capsules, methadone, and buprenorphine issued under the PBS/RPBS. The data presented here refer to the period to 2002, extending back up to five years, depending on the drug and when it became available in Australia (DRUMS 2003).
- Annual National Pharmacotherapy statistics to June 30, 2002 (Australian Government Department of Health and Ageing, 2003), provided information about prescribing of methadone and buprenorphine by public and private prescribers in that year.

- Data relating to forgery or alteration of prescriptions for benzodiazepines, particularly temazepam capsules, have been sourced from Dobbin (2001).

Crime/police activity

- Each year Guild Insurance Limited collects data about pharmacy-related crimes, such as break-ins, burglaries, and thefts. The most recent data available relating to incidents and financial loss are displayed in this report, and report the four years to the end of June 2002 (Guild Insurance Limited 2003).
- Law enforcement data were extracted from the Law Enforcement Assessment Program (LEAP) database by the Victorian Police Statistical Services Division and were examined for trends in offences reported against Victorian pharmacies/chemists between 1998/99 and 2002/03, and for trends in prescription drug-related offences including possession, trafficking, driving-related offences and any other offences with prescription drug mentions.
- Victorian Department of Health Services provide data for arrests of people for drug-related offences (possession and trafficking), which are analysed by Turning Point Alcohol and Drug Centre for publication in the *Victorian Drug Statistics Handbook* (DHS, 2002). The most recent data available at the time of publication of this report, 2000-01, are presented here.
- Victorian Department of Justice (VDJ) collates Victorian Magistrate's Court data annually on the number of drug charges (consumer and provider) finalised by offence category, and these findings are presented in the *Victorian Drug Statistics Handbook* (Victorian Department of Human Services, 2002). The most recent data at the time of publication of this report, 1998/99 to 2000/01, are presented here.
- The Australian Customs Service collects data for seizures of illegal importation of drugs at Australian ports. For the majority of benzodiazepine and pharmaceutical drug seizures, specific information regarding the generic forms or brand names are not currently recorded in the Australian Customs Service drug statistics database. Detections of the remaining drug categories are recorded in the generic categories of 'Other benzodiazepines' and 'Prescribed drugs'. The data for 1999-2003 are presented here.
- The Chemical Drug Intelligence (CDI) Team at the Victoria Police Forensic Services Centre collates data on drugs seized by Victorian police annually as a result of a drug possession or drug trafficking charge. They supplied data for benzodiazepines and pharmaceutical opioids seized by police between 1998 and March 2004 (i.e. data where actual amount seized is specified).

Health

- A census of specialist alcohol and drug treatment agencies was conducted in May 2001, to examine the main drug problems cited by clients seeking treatment. The findings for Victoria, 2001, are presented here (Victorian Department of Human Services 2002).
- The Australian Needle and Syringe Program (ANSP) collates survey data on the prevalence of the last drug injected by Needle Syringe Program (NSP) clients across Australia. The findings for Victoria and Australia, for the two years 2000 and 2002, are presented here (Buddle, Zhou & MacDonald 2003).
- Direct Line provides 24-hour counselling information and referral for Victorians for any drug-related issue. Findings for responses through 2000/01 where benzodiazepines were mentioned are presented here (Victorian Department of Human Services 2002).
- The Victorian Emergency Minimum Dataset (VEMD) provided information on tissue and vascular harm cases presenting to emergency departments in Victoria, resulting from injection of temazepam from 1997 to the first quarter of 2001, and this is presented here (cited in Dobbin 2001.

- A database of Melbourne Metropolitan Ambulance Service (MAS) attendance at drug-related overdose incidents is maintained by Turning Point Alcohol and Drug Centre, and includes the monthly totals of non-fatal benzodiazepines overdoses, and non-fatal morphine overdoses, for May 2001 - April 2002, and May 2002 - June 2003 (excludes May - July 2001 and October 2002 - February 2003). The findings are presented here.
- The Victorian Department of Human Services maintains a database of admissions from private and public hospitals (the Victorian Admitted Episode Dataset, VAED). Turning Point Alcohol and Drug Centre conducts analyses on these data. A summary of the findings for opioid and benzodiazepines-related admissions for 2001/2002 is presented here.
- Cases of heroin-related deaths are identified by the Victorian Institute of Forensic Medicine (VIFM) and the State Coroner's Office in Victoria, and investigated using tissue samples and blood. Forensic toxicology screening for a range of drugs identified other drugs contributing or incidental to the deaths. Data for deaths including mentions of benzodiazepines, morphine and other opioids are presented here for the period 1997 - 2001 (Wallington, Gerostamoulos & Drummer 2002).
- Australian Bureau of Statistics (ABS) collects data annually from Medical Certificate Cause of Death submitted to each State and Territory's Registrar of Births, Deaths and Marriages, and from the National Coroner's Information System. Accidental opioid overdose deaths in Victoria (accidental deaths by opioids, including heroin, morphine, pethidine, methadone and codeine) are presented in this report (Degenhardt & Barker 2003).

Drug market characteristics and pharmaceutical use

- The Illicit Drug Reporting System (IDRS) is a national project designed to monitor emerging trends related to the use of opioids, methamphetamines, cocaine, cannabis, and other drugs (Jenkinson, Miller & Fry 2004). Each state undertakes surveys with a sentinel group of PWID, KI interviews with representatives of health and law enforcement organisations, and analysis of relevant secondary data. IDRS data for Victoria and Australia for 2001-2003 pertaining to opioid and benzodiazepine use are reviewed (Breen et al. 2004; Jenkinson, Miller & Fry 2004).

Stage four: Survey of people who inject drugs

The purpose of Stage four of the study was to facilitate interpretation of the data collected in the preceding study stages, and performs an added monitoring function through replication of core components of the Stage two user survey. A further series of face-to-face interviews were conducted with 50 regular pharmaceutical opioid or benzodiazepine injectors. The methodology for the Stage four IDU interviews was identical to Stage two. There were 50 IDU participants involved in the Stage four survey, and they were interviewed at the same locations, with the addition of Turning Point Alcohol and Drug Centre, Fitzroy. The number of participants at each site were: Western Region AIDS & Hepatitis Prevention (WRAP), Footscray (n = 9); Youth Projects, Newmarket (n = 14); St. Kilda Crisis Centre, St. Kilda (n = 9); AIDS Prevention and Support Unit (APSU), Dandenong (n = 6); Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Frankston (n = 10); and Turning Point Alcohol and Drug Centre, Fitzroy (n = 2). Eight (16%) Stage four participants had participated in Stage two. The Stage four questionnaire took on average 46 minutes to administer, with a range of 25 to 75 minutes. The majority of participants were assessed by the interviewer to be intoxicated, but still coherent (n = 36, 72%); however, almost a quarter was considered intoxicated and incoherent (n = 12, 24%), and only two (four percent) were thought not to be intoxicated.

Stage four: In-depth key informant interviews

In-depth qualitative KI interviews were also conducted with 28 experts and professionals across health and law enforcement sectors in order to examine the issues arising from the earlier research stages in greater depth. The methodology for the Stage four KI interviews was identical to Stage two. The KI pool consisted of 18 health workers, comprising NSP workers (n = 4), Community Education workers (n = 1), Drug Treatment workers (n = 2), User Group Representatives (n = 1), Outreach Workers (n = 2), Youth Outreach Workers (n = 3), Researchers (n = 1), Medical Practitioners (n = 3), Pharmacists (n = 1), and there were 10 Law Enforcement personnel. Participants were sent a copy of the questionnaire prior to interview (unless otherwise requested) to confirm eligibility for the study. Interviews were recorded and transcribed with interviewee consent. Interviews took an average of one hour to complete. As with most KI, experience was with benzodiazepines, buprenorphine and methadone, and responses to questions regarding pharmaceutical opioids usually related to the latter two drugs, unless specified.

Chapter three: Study findings

Stage one: Key informant interviews

KI were asked to provide information on their perceptions of which drugs were most commonly associated with crime, and which crimes were most typically associated with different drug types. They were also asked to provide information on the impacts of pharmaceutical opioids and benzodiazepine use on policing, and the impact of the drugs on licit and illicit drug markets. They were asked whether there had been any measures to reduce supply and availability of pharmaceutical drugs, how prescription drugs impact on other drug use, how law enforcement could impact on prescription drug use, appropriate harm minimisation approaches to prescription drug misuse, and any implications of effective supply reduction on use of these drugs. The responses were separated into themes, and the number of responses to each theme in each category was calculated.

Drugs most commonly associated with crime

KI were asked to state which drugs they thought were most commonly associated with crime. Table 2 shows that heroin, methamphetamines and cannabis were the most commonly nominated drugs.

Table 2. Drugs nominated by Melbourne law enforcement KI as most likely to be associated with crime (N = 13).

Drug/s	Identified by number of KI
Heroin	13
Methamphetamine	11
Methamphetamine (Ice)	5
Cannabis	7
Benzodiazepines	6
Amphetamine-type analogues	2
Pharmaceutical Opioids	1
Alcohol	2
Inhalants	1

Note: Number of responses exceeds total number of KI as multiple responses allowed.

Thirteen KI identified heroin as a drug associated with crime and 10 believed that it was the primary drug associated with crime (i.e. first drug mentioned). Crimes typically associated with heroin were home burglaries, robberies and trafficking. The impacts on policing were identified as a drain on manpower, increased demand for police response, and increased demand on police to decrease the presence of PWID from public view.

Eleven KI identified methamphetamine as a drug associated with crime and one KI identified methamphetamine as the primary drug associated with crime (i.e. first drug mentioned). Most informants did not differentiate between methamphetamine type, choosing to refer to them as a collective; however, five KI specifically mentioned 'ice' and its involvement in violent behaviour.

All informants in this group identified the typical crime as robbery. The major impact on policing as identified by these KI was an increase in abusive behaviour. Two KI identified typical crimes associated with methamphetamine powder (speed) and crystalline methamphetamine as 'chaotic crime', violence and armed robbery (one KI) and trafficking and culpable driving (second KI). The impact on policing was identified as more violence and increased utilisation of specialist squads (one respondent).

Seven KI provided information on cannabis and crime. Typical crimes were shoplifting and burglaries (identified by all seven respondents). Four KI observed that the impact on policing was as a drain on resources. Two felt that it had little impact on policing.

Two KI discussed amphetamine-type analogues and crime. The crimes generally associated with these drugs were use, possession and supply. One KI reported that the impact on policing was manpower and productivity and the other reported little impact at all.

Two KI identified alcohol as being linked with crime, citing it as the most prevalent. Crimes included family violence and drink driving. The impact on policing was identified as 'responses required for assaults, policing required around licensed venues, and breathalysing'.

Two KI identified benzodiazepines only as a replacement for heroin. Six KI identified benzodiazepines as being linked to crime, identifying culpable driving and drink spiking as the typical crimes, as well as burglaries, pharmacy break-ins, forged prescriptions and drug diversion. The impact for policing was identified as being similar to heroin for one KI, but minimal by most.

Only one KI identified pharmaceutical opioids as being linked with crime, although no type or brand was stipulated. Typical crimes were stated as being the same for benzodiazepines and heroin, i.e. home burglaries and robberies. While the impact on policing was reported as being minimal by most KI, two KI reported an increased demand for police response. See Table 3.

Pharmaceutical opioids

Diversion of pharmaceutical opioids to the illicit market

Table 3. KI information regarding diversion of pharmaceutical opioids onto the black market (N = 13).

Diversion method	Identified by number of KI
On-selling by user	6
Burglaries/stolen from pharmacies	4
Doctor-shopping	4
Prescription forgery	5

Note: Number of responses exceeds total number of KI as multiple responses allowed.

One KI reported that in 2001/02, Victoria Police Crime Statistics showed that of the approximately 1,200 pharmacies in Melbourne, roughly 720 had been burgled/robbed. While some robberies were reportedly pseudoephedrine-related, many were related to other drugs, particularly benzodiazepines and opioids.

Impact of illicit use of pharmaceutical opioids on policing

Nine KI did not identify any policing issues regarding the use of pharmaceutical opioids. It was reported that most use is not illegal, and, if it is, it's very difficult to prove. One KI stated the issues were the same as for benzodiazepines use: unable to control the supply; drug driving; overdose; and black market increase in other drugs.

Pharmaceutical opioid intoxication and policing

Regarding policing issues relating to intoxication by pharmaceutical opioids, one KI stated they are the same as with heroin use, i.e. concern for the welfare of the user. Another maintained that there was no difference from benzodiazepine use, i.e. drug driving and care of children, and another KI stated that there were management issues when an intoxicated person was in custody which required a nurse to be in attendance.

Impact of licit and illicit drug markets on pharmaceutical opioid misuse

Nine KI stated that pharmaceutical opioid use was reliant on heroin trends. When there is less/more heroin, the use of pharmaceutical opioids shifts. No specific types/brands of pharmaceutical opioids were mentioned.

Measures to reduce supply and availability of pharmaceutical opioids

Eleven KI maintained there had been no measures to reduce supply, and one KI did not know. Two KI identified that the 'diversion desk' of the major drug investigation division is talking to pharmacists and the HIC regarding supply reduction.

Pharmaceutical opioid availability and other drug use

Nine KI stated that pharmaceutical opioid use was reliant on heroin trends. When there is less/more heroin the use of pharmaceutical opioids shifts. No specific types/brands of pharmaceutical opioids were mentioned.

How law enforcement could impact on pharmaceutical opioid misuse

Four KI made suggestions. Two argued that if police 'cracked down' users would be less likely to use and possess. Another KI argued for supply reduction by increasing awareness among the police, performing safety audits on pharmacies to reduce likelihood of break-ins, and more effective policing. One KI proposed that if doctors who over-prescribed could be identified via the HIC or other avenues, some supply could be reduced.

Appropriate harm minimization approaches to pharmaceutical opioid misuse

Only two KI suggested measures. One was to use discretion when revealing users in possession, i.e. overlook the possession. The second suggested education of users, supply reduction, diversion programs and referral into treatment services.

Implications of effective supply reduction of pharmaceutical opioids

Three KI made suggestions. Two stated that an alternative would be found, and one specifically stated that there would be an increase in heroin and amphetamine use. One KI suggested a reduction in crime would result.

Benzodiazepines

Diversion of benzodiazepines to the illicit drug market

Table 4. KI information regarding diversion of benzodiazepines onto the black market (N = 13).

Diversion method	Identified by number of KI
On-selling by user	10
Doctor-shopping	10
Prescription forgery	8
Burglaries/stolen from pharmacies	7
Diverted from factories	2
From a family member	1
Out of date meds	2
Doctor selling directly	1

Note: Number of responses exceeds total number of KI as multiple responses allowed.

Impact of illicit use of benzodiazepines on policing

Seven KI did not identify any policing issues around the use of benzodiazepines. One KI identified benzodiazepine use only as a substitute for heroin; the implication therefore was that 'dependence on heroin continues'. One further KI maintained that their use did impact on policing, as the supply cannot be controlled, and drug driving, overdose, and the black market increases when other drug types are scarce. Two KI believed benzodiazepine use had little effect on policing. One KI mentioned Rohypnol as a concern for 'drink spiking'.

Pharmaceutical benzodiazepine intoxication and policing

Regarding policing issues relating to intoxication by benzodiazepines, one KI identified concern for drug driving and care of young children; another cited the welfare of the user as a concern.

Impact of licit and illicit drug markets on benzodiazepine misuse

Ten KI stated that benzodiazepine use was reliant on heroin trends, such that when there is less heroin use benzodiazepine use increases. One KI maintained there was no association between drug availability and benzodiazepine use.

Measures to reduce supply and availability of benzodiazepines

Eight KI identified police initiatives that had been implemented, mainly awareness campaigns. One KI stated that there were no reduction measures, as police had not targeted this area. Another KI stated the change in Temazepam availability on PBS had reduced supply and availability. Two KI reported that there had been an expansion in the drug diversion department of the Major Drug Investigation Division (MDID), which will be placing greater emphasis on benzodiazepine diversion in partnership with the HIC.

How law enforcement could impact on benzodiazepines misuse

Four KI cited supply reduction as a means to impact on misuse. Other KI identified legislative changes, raising awareness or police crackdowns as potentially effective measures. It was also suggested that greater vigilance by police surrounding benzodiazepines might eventuate in raised awareness of the problem at both the political and social levels.

Appropriate harm minimization approaches to benzodiazepine misuse

Five KI suggested supply reduction as an appropriate harm minimisation measure. One suggested creating a 'benzo drought'. One KI recommended education for drug users and using drug diversion programs as an alternative to arrests. One KI recommended referral to treatment.

Implications of effective supply reduction of benzodiazepines

Five KI thought there would be decreased use, two KI suggested an alternative would be found, one indicated that heroin and amphetamine use would increase and one suggested that crime would be reduced. One KI reported that reducing the supply of one drug results in another becoming more prevalent and that police just 'plug the holes as they occur'.

Summary

Heroin was identified as the major concern for Melbourne policing by this group of law enforcement officers. It was reported as the primary drug associated with crime in Victoria, and it is considered to be responsible for substantial demands on police resources, and manpower. Typical associated crimes included home burglaries, robberies, trafficking and shopstealing according to KI.

Methamphetamines were seen as the second most problematic substance for law enforcement in Melbourne. In addition to the problems associated with heroin, methamphetamines were also considered to increase violence experienced by police and the wider community, which according to KI sometimes requires the deployment of substantial police resources.

Benzodiazepines and pharmaceutical opioids (to a much lesser extent) were seen as being issues for police primarily in the context of acting as replacements for heroin when it was unavailable. Whilst it was considered that there was not a large amount of crime associated with either category of drug, KI identified a number of crimes, particularly related to the procurement of these drugs, including burglaries, pharmacy break-ins, forged prescriptions, and drug diversion. It was reported by KI that 2001/02 Victoria Police Crime Statistics showed that, of the approximately 1,200 pharmacies in Melbourne, about 720 had been burgled/robbed.

Major methods of diversion included on-selling by users, doctor-shopping, and prescription forgery and pharmacy burglary/theft. It was reported that the drug diversion desk of the MDID within Victoria Police was implementing a notification scheme in partnership with the HIC. Few KI were aware of any recent legislative changes regarding benzodiazepines and pharmaceutical opioids.

No KI identified substantial policing issues regarding the use of benzodiazepines and pharmaceutical opioids. Most believed that awareness around the use of benzodiazepines and pharmaceutical opioids could be improved. The most important issues for policing identified by police KI were: knowledge about the localities/settings targeted by people committing crimes associated with benzodiazepines and pharmaceutical opioids; knowledge about the types of benzodiazepines/pharmaceutical opioids targeted by the illicit market; knowledge about the dealing and supply patterns of these drug types; and ways in which these can be impacted on.

Overall, most KI saw the use of benzodiazepines and pharmaceutical opioids as being of interest because of its illicit nature, but overall a proportionally small issue in comparison to the use of heroin, methamphetamines and cannabis, and their very strong relationships with crime.

The original 25 research questions of interest were further analysed by the research team, resulting in a final total of 33 questions pertaining to the key themes of links to crime, implications for frontline workers, diversion, market dimensions and characteristics, and interventions. The KI were asked to rank the research questions in order of importance, and the comparative results from the prioritisation exercises undertaken in each study site are presented in Appendix B. The prioritisation exercise with Victorian law enforcement personnel (N = 13) revealed that this group expressed a wide interest in the questions and issues presented to them around benzodiazepines and pharmaceutical opioids, and how these relate to the key themes of links to crime, implications for frontline workers, diversion, market dimensions and characteristics, and interventions. The average priority ranking of 32 of the 33 issues and questions presented was rated as 4 ('very important') for law enforcement, with no clear preference or higher priority indicated for different themes.

Stage two: Survey of people who inject drugs

One hundred and two PWID were surveyed on their demographic characteristics, and asked detailed questions about their drug use history and patterns of current drug use, including details of benzodiazepine and pharmaceutical opioid use. They were also asked to provide information about drug markets, including sources of supply, price and availability, and any changes that may have occurred in the markets in the previous twelve months. Participants were asked for any information about criminal behaviour, and involvement with police, and how this may relate to specific drug use. Experience of drug-related harms was also surveyed, and participants were asked their perceptions of the risks and benefits of using individual drugs, including prescription drugs. All responses were collated and descriptive analyses were performed. Where qualitative information was collected, responses were categorised, and the number of responses were calculated. In some instances, where appropriate, inferential statistical tests of significance were conducted, with the critical level set at .05.

Overview of the sample of people who inject drugs

Respondents were asked to provide information about themselves and their education, living situation, employment and income, and drug treatment and prison history. More than two-thirds of the sample was male, and a greater proportion of men in the study were aged over 32 (54%), whilst the opposite was the case for women participants, with 60% of the women aged less than 32 years. However, this difference was not statistically significant at .05. Table 5 displays comparisons between age and gender in the Stage two Melbourne sample. Age was categorised according to the median of 32.5 years.

Table 5. The age and gender of the Melbourne Stage two PWID participants (N = 102).

	Gender		
Age	**Female (n)**	**Male (n)**	**Total (N)**
Age 32 and Under	18	33	51
Age Over 32	12	39	51
Total	30	72	102

Almost half the sample lived in a hostel or shelter, or had no fixed address, and most participants were unemployed at the time of the interview. The majority of participants derived most of their income from government allowances or benefits, although 15% reported they received most of their income from the proceeds of crime. Almost half the sample reported they were in some form of drug treatment at the time of the interview, with about half each undertaking the methadone maintenance treatment (MMT) program and the buprenorphine program. Almost two-thirds of the sample reported they had been imprisoned at some time in the past. See Table 6.

Table 6. Description of the Stage two PWID participants in Melbourne (N = 102).

Demographic characteristics of the Stage 2 Melbourne PWID sample		
Gender %	Male	71
	Female	29
Age (years)	Mean	32
	Range	18 - 50
ATSI %		4
Housing %	House/flat	39
	Parent's home	15
	Boarding house/hostel	19
	Shelter	13
	Homeless	8
Education	Mean years	9.6
	Range	4 - 12
Post school education %	Trade	39
	Uni	5
Employment %	Unemployed	92
	Employed	6
	Sex-worker	2
	Student	-
	Home duties	-
Main Income %	Govt. benefits	77
	Wage/salary	4
	Crime	15
	Sex work	2
Current Treatment %	None	55
	Methadone	21
	Maintenance Buprenorphine	22

Table 6 continued.

Demographic characteristics of the Stage 2 Melbourne PWID sample		
Months in current treatment	Mean (sd)	22 (30.5)
	Median	6
	Range	1 - 144
Treatment last 6 months %	Yes	57
	No	43
Prison history %	Yes	64
	No	36

Drug use history of people who inject drugs

Respondents were asked about their patterns of drug use, including when they first used an illicit drug, when they first injected an illicit drug, and their frequency of injecting drugs. They were also asked if they had bought drugs yesterday, and, if so, which drug/s and how much they had paid. Detailed information about the PWID drug use history is contained in Table 7.

Age of drug use

Respondents in Melbourne reported first using an illicit drug on average at age 14 (sd = 3), with a range of 7 - 34 years, and reported that they first injected an illicit drug at a mean age of 18 (sd = 4.2), ranging from aged 11 - 39. Five percent of respondents reported injecting illicit drugs less often than once a week, whilst 11% reported the practice more than once a week and 9% reported that they did this daily, or more than once a day.

Heroin injecting

Ninety-nine percent of participants had ever used heroin, and the same proportion had ever injected the drug. As well, 44% first injected heroin whilst 58% reported this was the drug they injected the most often in the month prior to the survey, and 67% reported heroin as their favoured drug.

Methamphetamine injecting

Methamphetamine was the drug that 49% reported injecting first, and had been injected at some time by all participants, with 15% reporting it as the drug they injected most often in the previous month, and 13% indicated it was their favoured drug.

Pharmacotherapy injecting

No Melbourne respondents reported methadone syrup as the drug they first injected or injected most last month, or as their preferred drug. However, 72.5% had used prescribed methadone at some time (and been injected by 22%), and 41% had used illicit methadone (and been injected by 21%). Buprenorphine was nominated as the drug most injected last month by 10%, but was not selected as the drug of choice, or named as the drug first injected. However, prescribed buprenorphine had been used at some time by 53.5% of participants (injected by 35.5%), and illicit buprenorphine had been used by 41% (injected by 38%).

Morphine and other opioids injecting

Forty percent of participants said they had used prescribed morphine at some time, and 33% reported they had injected it, while 88% indicated having used illicit morphine, and it had been injected by 86%. Two percent of respondents reported morphine as the drug they had first injected, while nine percent reported it as the drug they injected most last month, and five percent rated it as their preferred drug. The brands of morphine that were reportedly used most were MS Contin (mainly 100mg and 60mg) and Kapanol (mainly 50mg and 100mg). Prescribed other opioids had been used by 43.5% of participants, and injected by 20%, and illicit other opioids had been used by 28.5%, and injected by 15.5%. Five percent of respondents reported that they injected other opioids such as oxycodone or Panadeine forte most in the past month, although none of these drugs was selected as the drug of choice, or named as the drug first injected.

Benzodiazepine injecting

Nearly all participants had used prescribed benzodiazepines at some time (93%), with 39% having injected them. Most (97%) had also used illicit benzodiazepines at some stage, and 69.5% reported they had injected these drugs. No respondents reported that benzodiazepines were the drugs they had initially injected, with only one percent indicating they had injected them most in the previous month. Four percent ranked these drugs as their most favoured, with temazepam named as the favoured form.

Recent drug use of the PWID sample

Table 7 presents data on detailed information about participants' drug use in the previous six months. In Melbourne 86% of respondents reported injecting heroin in the previous six months (an equivalent 90% of the Victorian 2003 IDRS sample reported this). A mean total frequency of use of 75.5 days was reported, with the same frequency of injecting. The next most injected drug over the previous six months was illicit morphine at 72.5% (18 days injecting, 19 days total use), with 39% of the IDRS sample reporting this; and then illicitly acquired benzodiazepines at 42% (13 days injecting, 41 days total use), which contrasts with a much lower 15% of the 2003 IDRS sample (Breen et al. 2004). Prescribed buprenorphine had been used on average on 36 days (injected on 16 days). The incidence of illicit buprenorphine injection was also notable in Melbourne, at 34% of the sample (9 days both for injecting and total use), which compares with 39% of the IDRS sample (Breen et al. 2004). Prescribed methadone had been used on average on 37.7 days and injected on average on 0.98 days, whereas methadone acquired illicitly was used on average on only 3.4 days and injected on 1.2 on average. Prescribed other opioids had been used on a total of six days, and injected on 0.40 days, whilst illicit other opioids had been used on average the same amount as when they were prescribed, but were more likely to be injected, at 3.6 days on average.

Differences in drug of choice and most used drug

Where respondents' 'drug of choice' and drug most used last month differed (19% of the sample), in most cases (53%, n = 10) this was reportedly due to availability of the drug of choice, mainly heroin, with health effects (n = 2), purity (n = 2) and price (n =2) noted as less important reasons.

Respondents were asked which drug they had used (as opposed to injecting) most frequently in the previous month, and which drug they would choose to substitute for it if it were not available. They were also asked what they would use should their first substitute be unavailable as well. Presented here are the two reportedly most used drugs, and the first and second substitute drugs reported.

Heroin

Heroin was reportedly the most commonly used drug in the month prior to interview in Melbourne, with 58% of respondents. Of these, 21% reported that if heroin were not available they would substitute benzodiazepines, 14% indicated methamphetamine, 11% cannabis, 8% reported they would substitute morphine or other opioids, and 4% selected methadone syrup. If their substitute drug was also not available, reported substitutes were benzodiazepines (21%), morphine or other opioids (11%), cannabis (9%), and methamphetamine (7%). A significant proportion of participants who had used heroin in the previous six months had also injected illicit benzodiazepines in that time (n = 42, 48% of heroin users), and a significant proportion had also injected illicit morphine (n = 66, 76% of heroin users). Almost one-third of people who had used heroin had also injected illicit buprenorphine in the same time frame (n = 27, 32% of the heroin users). All those who had injected illicit methadone (n = 9) had used heroin in the previous six months, which was 10% of those who had used heroin.

Methamphetamines

The second most used illicit drug was methamphetamine, with 15% of respondents. Three percent selected heroin as the drug they would substitute if methamphetamine were not available, whilst two percent reported they would use morphine and the same proportion selected benzodiazepines. Second choice substitutes were cannabis (4%), heroin and benzodiazepines (both 2%). A significant proportion of the 83 participants who had injected amphetamines in the previous six months had also injected illicit morphine (n = 64, 77% of all those who had used methamphetamines), and almost half had also injected benzodiazepines in that time (n = 37, 44.5% of methamphetamine users). Most of those who had injected other opioids in the last six months had used methamphetamines (n = 6, 7% of these amphetamines users), and all nine participants who had injected illicit methadone had also used methamphetamines in the previous six months (n = 9, 11% of methamphetamines users). Almost all those who had injected illicit buprenorphine in that time frame had also injected methamphetamines (n = 27, 33% of methamphetamine users).

Morphine

Of the 74 participants who had injected illicit morphine in the previous six months, 33 (44.5%) had also injected benzodiazepines in that time, 8 had injected methadone (11%), 26 had also injected buprenorphine (35%), and 8 had injected illicitly acquired other opioids (15%).

These findings suggest that these participants tend to be poly drug users, and that benzodiazepines and pharmaceutical opioids were not generally the first drug of choice, but seemed to be largely considered supplementary drugs, and possibly substitutes, for the preferred drug of heroin. Nevertheless, use of multiple pharmaceutical drugs was prevalent within the sample and appears to constitute an important pattern of use distinct from other illicit drug use.

Table 7. Drug use history of Victorian Stage 2 PWID respondents (N = 102).

Drug Class	Ever used		Ever injected		Injected last 6 mths		Days injected last 6 mths	Ever used other route of admin (ORA)		Used ORA last 6 mths		Days used last 6 mths	Drug preference (out of 10)
	N	%	N	%	N	%		N	%	N	%		
1. Heroin	101	99	101	99	87	86	Mean 75.5 (sd 65) Range 0 - 180	26	25.5 Swallowed	7	7	Mean 75.5 (sd 65) Range 0 - 180	Mean 7.5 (sd 2.6) Range 0 - 10
2a. Methadone (prescribed)	76	74.5	22	22	3	3	Mean 0.98 (sd 9) Range 0 - 90	71	71 Swallowed	30	30	Mean 37.7 (sd 68) Range 0 - 180	Mean 5.3 (sd 3.4) Range 0 - 10
2b. Methadone (illicit)	42	41	21	21	9	9	Mean 1.2 (sd 5.8) Range 0 - 42	36	36 Swallowed	15	15	Mean 3.4 (sd 14) Range 0 - 100	
2c. Physeptone (prescribed)	12	12	9	9	3	3	Mean 0.45 (sd 2.8) Range 0 - 20	8	8 Swallowed	1	1	Mean 47 (sd 2.9) Range 0 - 20	Mean 6 (sd 2.3) Range 2 - 8
2d. Physeptone (illicit)	20	20	17	17	5	5	Mean 0.22 (sd 1.3) Range 0 - 12	12	12 Swallowed	5	5	Mean 1 (sd 8) Range 0 - 80	
3a. Morphine (prescribed)	40	40	33	33	18	18	Mean 13.6 (sd 44) Range 0 - 180	23	23 Swallowed	13	13	Mean 16 (sd 47) Range 0 - 180	Mean 6 (sd 2.7) Range 0 - 10
3b. Morphine (illicit)	90	88	88	86	74	72.5	Mean 18 (sd 32) Range 0 - 180	29	28 Swallowed	15	15	Mean 18.7 (sd 32) Range 0 - 180	
4. Homebake	12	12	11	11	1	1	Mean 0.02 (sd .20) Range 0 - 2	0		0		Mean .02 (sd .20) Range 0 - 2	Mean 7 (sd 2.5) Range 5 - 10
5a. Other opioids (presc)	44	43.5	20	20	7	7	Mean 0.40 (sd 3) Range 0 - 30	37	36.5 Swallowed	20	20	Mean 6 (sd 24) Range 0 - 180	Mean 4.3 (sd 2.4) Range 0 - 10
5b. Other opioids (illicit)	29	28.5	16	15.5	8	8	Mean 3.6 (sd 20) Range 0 - 180	21	20.5 Swallowed	15	14.5	Mean 6 (sd 22.5) Range 0 - 180	
6. Methamphetamine	102	100	102	100	83	81.5	Mean 28 (sd 47) Range 0 - 180	40	39 Swallowed	7	7	Mean 28.6 (sd 47) Range 0 - 180	Mean 6 (sd 2.9) Range 0 - 10
7. Pharmaceutical stimulants	26	26	13	13	4	4	Mean 0.81 (sd 6) Range 0 - 60	15	15 Swallowed	8	8	Mean 1.5 (sd 7) Range 0 - 60	Mean 4.8 (sd 2.6) Range 1 - 10
8. Cocaine	59	58.5	54	53.5	14	14	Mean 0.22 (sd .6) Range 0 - 3	8	8 Swallowed	0		Mean .23 (sd 65) Range 0 - 3	Mean 6 (sd 2.5) Range 1 - 10

Table 7 continued.

Drug Class	Ever used		Ever injected		Injected last 6 mths		Days injected last 6 mths	Ever used other route of admin (ORA)		Used ORA last 6 mths		Days used last 6 mths	Drug preference (out of 10)
	N	%	N	%	N	%		N	%	N	%		
9. Hallucinogens	67	66	19	19	1	1	Mean 0.01 (sd .1) Range 0 - 1	59	58 Swallowed	11	11	Mean 0.53 (sd 2.6) Range 0 - 24	Mean 5.6 (sd 3.4) Range 1 - 10
10. Ecstasy	66	65	39	38.5	12	12	Mean 0.68 (sd 2.6) Range 0 - 15	53	52 Swallowed	30	29.5	Mean 2.2 (sd 5.3) Range 0 - 30	Mean 6.5 (sd 2.6) Range 1 - 10
11a. Benzodiazepines (presc)	95	93	40	39	15	15	Mean 2.7 (sd 10) Range 0 - 60	93	91 Swallowed	80	78.5	Mean 80 (sd 72) Range 0 - 180	Mean 6.5 (sd 6) Range 1 - 10
11b. Benzodiazepines (illicit)	99	97	71	69.5	43	42	Mean 13 (sd 31.5) Range 0 - 180	84	82.5 Swallowed	78	76.5	Mean 41 (sd 51) Range 0 - 180	
12. Alcohol	100	98	8	8	1	1	Mean 0.02 (sd .2) Range 0 - 2	97	95 Swallowed	66	65	Mean 30 (sd 52) Range 0 - 180	Mean 5 (sd 3) Range 0 - 10
13. Cannabis	102	100						71	70 Smoked	35	34	Mean 106 (sd 76) Range 0 - 180	Mean 7 (sd 3) Range 1 - 10
14. Anti-Depressants	61	60.5	2	2	0		0	58	57.5 Swallowed	33	33	Mean 35 (sd 66) Range 0 - 180	Mean 3 (sd 3) Range 0 - 9
15. Inhalants	24	24										Mean 0.12 (sd 1) Range 0 - 10	Mean 1 (sd 1) Range 0 - 4
16a. Buprenorphine (presc)	54	53.5	36	35.5	27	26.5	Mean 16 (sd 44) Range 0 - 180	49	48 Swallowed	30	30	Mean 36 (sd 62) Range 0 - 180	Mean 5 (sd 3) Range 0 - 10
16b. Buprenorphine (illicit)	38	41	35	38	31	33.5	Mean 9 (sd 27) Range 0 - 180	11	11 Swallowed	10	11	Mean 9 (sd 27) Range 0 - 180	

Acquisition and price of drugs

Sixty-six percent of respondents (n = 67) indicated they had bought drugs the day before the interview. Table 8 shows the main drug bought and the average price paid by participants. Whilst the average amount spent on different drug types varied widely, it can be seen that on average more was spent on methamphetamines than any other drug ($220), although only a small proportion of participants purchased it (9%). Heroin was purchased by the largest proportion of participants (45%), at an average cost of $138. Substantially less was spent on benzodiazepines ($33) or morphine ($5), which were also purchased by a smaller proportion of respondents (4% and 1% respectively).

Table 8. Price paid for main drugs purchased the day before the interview (N = 67).

Price Paid	Heroin (n = 46) (45%)	Cannabis (n = 22) (22%)	Methamphetamines (n = 9) (9%)	Benzodiazepines (n = 4) (4%)	Morphine (n = 1) (1%)
Average Cost	$138	$34	$220	$33	$5
Range	$20 - 600	$10 - 100	$40 - 400	$4 - 60	$0 - 10

Recent benzodiazepine use

Routes of administration, sources of administration, and forms used

Respondents were asked about their use of benzodiazepines in the six months prior to the interview. All (N = 102) respondents reported that they had used benzodiazepines during that time, and 96% (n = 97) had used them in the previous month. Most of respondents (n = 100, 98%) had used benzodiazepines orally, with the average oral usage 92 days of the previous 180 (sd = 68, ranging from one to 180 days). However, 45% (n = 46) reported they had injected the drugs, on average on 16 days (sd = 34, ranging from one to 180 days). Eighty-one percent of participants (n = 83) reported they had obtained their benzodiazepines via prescription, and used prescribed drugs on average for 80 days (sd = 80, range five to 180 days). Almost all participants, at 91% (n = 93), had acquired the drugs illicitly, and used them for an average of 41 days (sd = 51, range one to 180 days). Clearly, many participants used benzodiazepines both licitly and illicitly, as well as using them both orally and injecting them. Table 9 presents the percentage of participants using benzodiazepines orally and via injection, according to whether they had obtained them by prescription or illicitly.

Table 9. Percentage of all respondents taking benzodiazepines orally or via injection, according to their source of acquisition, in the six months prior to interview (N = 102 benzodiazepines users).

Benzodiazepines	Licit	Illicit
Injected (%)	14.7	42
Oral (%)	78.4	76.5

The most common types/brands of benzodiazepines used orally were reported to be: diazepam, with 70% of benzodiazepine users reporting swallowing it in the month prior to interview; oxazepam, reportedly taken by 58%; alprazolam, taken by 31%; clonazepam, taken by 29%; and

nitrazepam was taken by 27%. Some participants reported injecting these benzodiazepines, which are all in tablet form; for instance 7% of benzodiazepine users reported injecting diazepam, and two percent reported injecting alprazolam.

Injection of temazepam was more commonly reported than its oral use. Many participants also reported using multiple brands and forms of temazepam. Temazepam was injected during the past six months in the following brands/forms: Normison - 20mg capsule, 24% of benzodiazepine users, 10mg capsule, 11%; Temaze - 20mg capsules and tablets, 13% each, 10mg capsule, 8%; Normison tablets and Euhypnos - 10mg capsules, 7% each; Euhypnos - 20mg capsules, 6%; and Temtabs, 1%.

Sources of benzodiazepines

In terms of sourcing benzodiazepines, 80% of participants (n = 82) reported they obtained them via a doctor's prescription on the basis of real symptoms, with 43% reporting this was the way they mostly obtained these drugs. Thirteen percent reported that a doctor prescribed them when they had presented with fake symptoms in order to get the drugs, with 8% reporting this was their usual mode of acquisition.

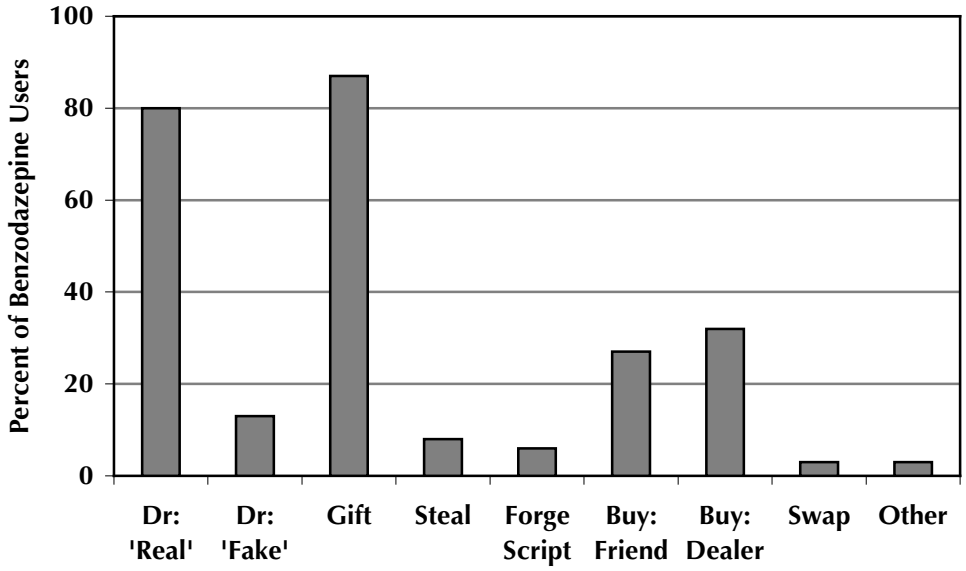
Eighty-five percent of respondents reported requesting benzodiazepines from a number of doctors in the month prior to interview, although a substantial number reported that they didn't bother attempting to get their preferred preparations, such as temazepam capsules, via prescription, as it was impossible due to doctors/HIC crackdowns on dispensing of these drugs. Some participants indicated also that they believed or knew they were marked as doctor-shoppers and so did not approach doctors.

In terms of benzodiazepine gel capsules (i.e. temazepam), the number of doctors approached for prescriptions within the previous six months ranged from one to 15. The number of doctors successfully asked for a script ranged from zero to nine (mean = 0.55, sd = 1.56), whereas the number of doctors unsuccessfully approached (i.e. number of visits resulting in failure to gain a script) ranged from none to 15 (mean = 1.14, sd = 3).

The picture was similar for benzodiazepine tablets, with the number of doctors successfully approached for a prescription ranging from zero to 20 (mean = 1.83, sd = 2.3); 44% of participants approached just one doctor and were successful, while 14% approached 2 and received scripts from both, and 5% tried successfully to obtain a script from five doctors; while one participant reported that they had approached 20 doctors and were successful in each case. The number of doctors unsuccessfully approached for a script ranged from none to 18 (mean = 0.67, sd = 2.26), with one person trying unsuccessfully 18 times.

In terms of non-medical sources, 87% reported benzodiazepines were a 'gift', and 22% said this was their usual means of obtaining them, whilst 8% reported stealing them (one said this was 'usual'), six percent said they had forged a script to obtain them (with no reports of this as usual), and 27% reported they bought them from a friend (with one only citing this as their usual source). When it came to buying them from a dealer, 32% reported they did this (5% reporting this as usual for them). Six percent reported they obtained them from another source, and named 'swapping' drugs for them (n = 3), getting them from a chemist, having an affair with a doctor and doctor-shopping (all n = 1 only). See Figure 1.

Figure 1: Percentage of benzodiazepines users accessing the drugs via different sources (N = 102 benzodiazepine users)



For individual benzodiazepine users, temazepam preparations were obtained far more often via friends, dealers, or other sources (reported 104 times), than medically (30 times). However, temazepam most likely to be obtained via prescription was Normison 20mg gel capsules (seven reports, with four saying this was the usual source and that they had 'real symptoms'), and Temtabs (eight, with all participants using this drug citing this as their usual way of obtaining them). There were a further 15 reports of receiving Normison 20mg capsules as 'gifts', 10 of buying them from friends, and 14 of buying them from a dealer (with 10 participants saying this was their usual source). The source of these drugs is of particular interest because temazepam preparations generally, and Normison specifically, were reported by these participants as the most likely to be injected.

Price, availability and market changes

As previously discussed, buying benzodiazepines from friends or dealers was not as common for these respondents as acquiring them via prescription or else being given them, especially for the non-temazepam preparations. There were 29 reports of buying temazepam this way that also provided the price paid for them last time they were purchased. The prices on the street of the most commonly used benzodiazepine tablets reportedly ranged from $1 per tablet for Serepax (oxazepam) to $5 for Valium (diazepam) and Xanax (alprazolam). Hypnodorm (flunitrazepam) 1mg capsules were also bought for $2.

For those who bought their temazepam either from friends or dealers, the price varied widely, ranging from $1 for a 20mg Normison capsule, to $30 for a 10mg Normison tablet, but there were reports that bottles of temazepam were sold for between $250 and $300 in some areas of Melbourne. See Table 10.

Table 10. Average street price for temazepam preparations.

Temazepam	Average Street Price Cost (Range)
Euhypnos 10mg capsules	$7 ($5 - 10)
Euhypnos 20mg capsules	$7.50 ($5 - 10)
Normison 10mg tablet	$13 ($5 - 30)
Normison 10mg capsules	$10 ($10)
Normison 20mg capsules	$9 ($1 - 20)
Temaze 10mg capsules	$7.50 ($5 - 10)
Temaze 20mg capsules	$13 ($10 - 20)

Types of suppliers, and other drugs sold by suppliers of prescription drugs

Whereas a high proportion of respondents reported they sourced illicit benzodiazepines via friends, 47% of illicit users did not know what kind of dealer their supplier of benzodiazepines was. However, nine percent of illicit users reporting their supplier was a friend selling their own prescription, a further nine percent reported buying them from user-dealers (selling to fund their own use), 16% bought them from small-time dealers, while only four percent said their supplier was a large-scale dealer. In fact, the highest proportion of participants buying any drugs from both user/dealers and large-scale dealers were illicit benzodiazepine users.

Many respondents reported that their benzodiazepines supplier also sold other pharmaceuticals and illicit drugs, which was inconsistent with the above information. For instance, 63% of those sourcing benzodiazepines reported their supplier also sold heroin, 34% reported morphine, 16% said they also sold methadone syrup, 37% reported they also sold cannabis, and 42% reported their dealer sold methamphetamines.

PWID perceptions of the impact of greater availability of benzodiazepines

Eighty-seven participants provided information on their perceptions of what would happen should benzodiazepines be more available than they currently are, while 89 participants provided information about how they believed their friends who use the drugs would respond to such a situation. Reported impacts for greater availability of benzodiazepines were: greater use of the drugs; higher incidence of criminal or problematic behaviour; less stress; and no effects. See Table 11.

Table 11. Number of PWID holding different perceptions of the impact of greater availability of benzodiazepines.

Impact of more benzodiazepines	Respondent (n = 87)	Friends of respondent (n = 89)
Use more benzodiazepines	36	49
No effect	31	9
Commit crime/other problematic behaviour	3	12
Less stressed	8	7
Other effect	9	22

PWID perceptions of the impact of reduced availability of benzodiazepines

Ninety-three respondents provided information about their perceptions of how a reduction in the availability of benzodiazepines would affect them, and 96 offered opinions of how such a situation would affect their friends who use the drugs. Reported impacts of a reduction in benzodiazepines supply were: no effect; anxiety or craving for the drugs; substitution for benzodiazepines with other drugs; higher incidence of crime or doctor-shopping as users search for alternative supply sources; and a sense of being better off without them. See Table 12.

Table 12. Number of PWID holding different perceptions of the impact of reduced availability of benzodiazepines.

Impact of fewer benzodiazepines	Respondent (n = 93)	Friends of respondent (n = 96)
No change (just go without or find them anyway)	32	12
Very anxious/crave the drugs	23	19
Substitute other drugs	17	24
Commit crime/doctor-shop	11	17
Be better off	5	2
Don't know	-	10
Other effect	5	12

Victorian law enforcement KI were asked to prioritise the initial 25 research questions (Appendix A). They indicated that most of the issues surrounding illicit use of benzodiazepines and pharmaceutical opioids were of importance to them (Appendix B). Therefore, depending on the relevance to the data, the questions have been distilled into several areas that provide an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Market characteristics

- The entire current PWID sample had used benzodiazepines in the previous six months, and almost half injected them in that time. There was a significant relationship between illicit benzodiazepine injecting and heroin use in the past six months, and between methamphetamine injecting and illicit benzodiazepine injecting in that time.
- Substantial proportions of those who had injected illicit buprenorphine, methadone and morphine in the previous six months had also injected illicitly acquired benzodiazepines.
- Almost one-quarter of heroin users reported they would substitute benzodiazepines for heroin if it were not available.
- Access to benzodiazepines was predominantly through legitimate prescriptions, 'gifts' or purchases from friends, and a large proportion of respondents claimed not to know what other drugs their supplier sold.
- The suppliers were nominated mainly as friends selling their own prescription, and friends who were users selling to fund their own use.

- Where dealers were the suppliers of benzodiazepines, they were reportedly mostly 'small-time', who also sold heroin (reported by 24% of the sample), morphine, methadone syrup, cannabis and methamphetamines.
- Average purchase prices varied widely, ranging from $1 - $5 per 5mg Valium and 2mg Xanax tablets, to $1-20 for 20mg, and $5 - $30 for 10mg, temazepam gel capsules.
- Benzodiazepines were used orally by most participants, and injected by almost half the sample. When benzodiazepines were obtained illicitly they were more likely to be injected, especially temazepam gel capsules (which were almost always injected regardless of the source).
- Six participants who stole benzodiazepines injected them, whereas two did not inject them, and the same proportion used them orally.

Diversion

- Most PWID participants (80%) received benzodiazepines through legitimate prescriptions from a medical practitioner, with 13% of participants 'faking' symptoms to obtain prescriptions.
- It was more common for PWID participants to access benzodiazepines through gifts than via either prescription or illicit purchases, although buying from friends and dealers was reported by a large minority (27% and 32% respectively).
- Almost 10% of participants had recently stolen benzodiazepines, while six percent had forged prescriptions (most for temazepam capsules, but also for alprazolam and diazepam).
- More than one-third of participants reported they had had their benzodiazepines stolen from them (mainly diazepam, alprazolam, and temazepam).
- While most participants had obtained prescriptions for benzodiazepines from one doctor, a large number of respondents had undertaken 'doctor-shopping' to obtain these drugs.
- Participants reported that obtaining benzodiazepines tablets from doctors was easy or very easy; however, obtaining gel capsules was reported to be very difficult, if not impossible, and most respondents reported they would not bother trying to get a prescription for them.
- Participants had attempted to obtain gel capsules from up to 15 doctors, with one successfully gaining a prescription from nine doctors.
- Tablets were sought from up to 20 doctors, and one participant was successful with 20 different doctors.
- A substantial proportion of participants reported that if benzodiazepines were to become more difficult to obtain, they would doctor-shop.
- Thefts or prescription forgeries were mainly aimed at obtaining temazepam gel capsules, although alprazolam and diazepam were popular also.
- Temazepam gel capsules were targeted because of the preference for injecting them, either alone or with heroin. This is probably related to perceived injectability of the gel substance, as well as relative potency and speed of effect of these formulations, which is well established in the literature (e.g. Dobbin 2001).

Recent pharmaceutical opioids use

Routes of administration, sources of administration, and forms used

Respondents were asked about their use of any pharmaceutical opioid in the six months prior to the interview. Use included licit and illicitly obtained opioids, and all modes of administration. There were large overlaps between means of obtaining opioids and routes of administration.

Ninety-eight participants (86%) reported using one or more opioid drugs either orally, by injection, or both. These proportions include participants on methadone syrup maintenance (MMT) and buprenorphine treatment (BT) programs. The average number of days that opioids were used orally in the previous six months was 67 (sd = 77.5, range one to 180 days), while they were injected on 49.3 days on average (sd = 60.7, range one to 180 days).

Table 13. Routes of administration of all pharmaceutical opioids in the six months prior to interview (N = 102).

	Any Opioids: Oral Use last 6 Months		
Any Opioids: Injected Last 6 Months	**No (n)**	**Yes (n)**	**Totals (N)**
No	4	11	15
Yes	32	55	87
Totals	36	66	102

Table 13 shows that around two-thirds of participants recorded swallowing opioids in the previous six months, while most reported they had injected them, and more than half said they had done both. By far the most commonly used opioid drug in the previous six months was morphine, with n = 80 (78% of the sample overall) reporting its use (82% of all opioid users), with 43% of all participants also reporting they had used morphine in the previous month. The most commonly reported brands/sizes of morphine used were MS Contin tablets and Kapanol capsules, with a total of 38 and 55 reported injectors respectively. See Table 14.

Table 14. Number of reported users of selected forms of morphine in the previous six months (N = 102).

Morphine	MS Contin 60mg Tablets	MS Contin 100mg Tablets	Kapanol 20mg Capsules	Kapanol 50mg Capsules	Kapanol 100mg Capsules
Oral	2	2	2	4	2
Injected	15	23	11	21	23

Morphine was about 60% more likely to be acquired illicitly (n = 78, 97.5% of morphine users) than via prescription (n = 23, 28.75%). Prescribed morphine was used on average on 16 days of the previous 280 (sd = 47, range one to 180 days), while illicitly acquired morphine was used on average on 19 days (sd = 32, range one to 180 days).

Morphine was also more likely to be injected (n = 79, 98.75% of morphine users) than taken orally (n = 22, 27.5%) regardless of the method of acquisition, although this was amplified in the case of illicit morphine, where it was injected by almost five times as many participants as swallowed it. Prescribed morphine was injected on average on 13.5 days (sd = 44, range two to 180 days), and illicit morphine was injected on average on 18 days (sd = 32, range one to 180 days). See Table 14 for the route of administration of the most common forms of morphine.

The second most frequently used opioid was buprenorphine, with n = 46 users (47% of opioid users). Twenty-two percent of the sample was in 'current' buprenorphine treatment. A total of 36% of the sample (n = 37) had been prescribed buprenorphine within the past six months (80% of users of the drug), while 32% (n = 33) of all participants used illicitly acquired buprenorphine

(72% of buprenorphine users). Prescribed buprenorphine was used significantly more frequently than illicitly acquired drugs in the previous six months, with the former used on average on 36.3 days (sd = 62, range six to 180 days), and the latter used on average on 8.7 days (sd = 27, range one to 180 days).

More participants, however, had injected buprenorphine (n = 41, 89% of the drug's users), than had taken it orally (n = 31, 67% of users), although the number of days the drug was taken orally did not differ substantially from the number of days it was injected. The drug was swallowed on average on 49.8 days (sd = 66.4, range one to 180 days), while it was injected on average on 44 days (sd = 63, range one to 180 days). See Table 15 for a breakdown of use of buprenorphine according to the method of acquisition.

Methadone syrup had been used by a total of n = 37 participants within the previous six months (38% of opioid users), with 29% of all participants (n = 30) reporting they had undergone MMT within the past six months (81% of methadone users). Twenty-one percent of the sample was in 'current' MMT. Twenty percent of all participants reported they had used the drug illicitly (54% of methadone users). Prescribed methadone was used significantly more frequently than illicitly acquired methadone, with the former used on average on 37.7 days of the previous six months (sd = 68, range two to 180 days), and the former used on average on 3.4 days (sd = 14, range one to 100 days).

Methadone injection was significantly less likely than buprenorphine injection for this sample, with nine participants injecting methadone syrup (24% of methadone users). Methadone syrup was much more likely to be swallowed (n = 34, 92% of methadone syrup users). Methadone was taken orally significantly more frequently than it was injected as well, at 97.8 days on average of the last 180 (sd = 81, range one to 180 days), compared to being injected on average on six days (sd = 17.4, range one to 90 days). See Table 15 for the breakdown of use of methadone according to the method of acquisition).

Physeptone (methadone tablet) was used by eight participants (8% of opioid users). It was prescribed to half, and taken illicitly by seven (87.5% of Physeptone users). The drug was taken orally by half the Physeptone users, on an average of 10.5 days of the previous six months (sd = 28, range one to 80 days), and injected on average on seven days (sd = 8.9, range two to 20 days) by five participants (62.5% of the Physeptone users). See Table 15.

'Other opioids' (mainly tramadol, oxycodone and Panadeine forte) were used by n = 26 participants (26.5% of opioid users) within the previous six months. One-quarter of participants (n = 25, 96% of other opioid users) had been prescribed the drugs, using them on average on six days of the previous six months (sd = 24, range one to 180 days). Twenty respondents (77% of these users) had acquired them illicitly, and used them on average on 5.8 days (sd = 22.5, range one to 180 days). All the users of other opioids had taken them orally, whilst 15 (58%) had also injected them. See Table 15 for the breakdown in the use of the drugs according to their method of acquisition.

Table 15. Percentage of all respondents taking selected pharmaceutical opioid drugs orally, or injecting them, in the previous six months, according to whether the source of acquisition was licit or illicit (N = 102).

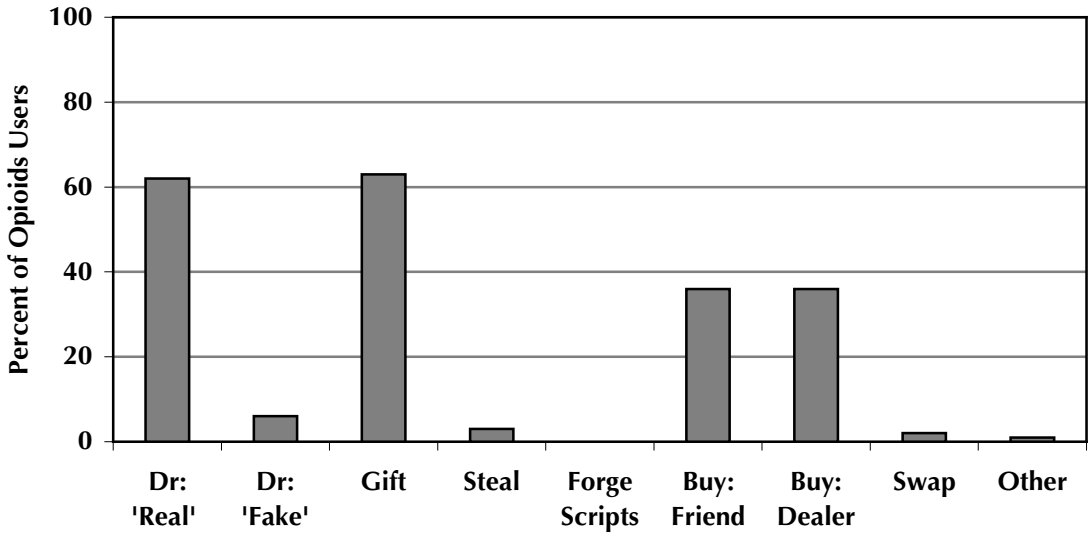
Mode of Acquisition	Morphine		Methadone		Buprenorphine		Physeptone		Other Opioids	
	Inject	Oral	Inject	Oral	Inject	Oral	Inject	Oral	Inject	Oral
Licit	17.6	12.7	3	29.4	26.5	29.4	3	1	6.8	19.6
Illicit	71.5	14.7	8.8	14.7	33.5	10.7	5	5	7.8	14.7

Sources of opioids

In terms of sourcing opioids, the majority either obtained them from a legitimate prescription or else as a 'gift'. Over half of the opioid users, at 62% (n = 61, 60% of the sample), reported that they obtained them via a doctor's prescription on the basis of real symptoms (n = 44 reported that this was their usual mode of supply, reflecting the proportion of participants on a treatment program), whilst six percent said that a doctor had prescribed them when they had presented with fake symptoms in order to get the drugs (three reported this was their usual method).

In terms of non-medical sources, 63% of opioid users (n = 62, 61% overall) reported the drug was a gift (for n = 51, this was their usual source). Nobody reported they had forged a script to obtain them, however three participants (3% of opioid users) reported stealing the drugs. A further 36% of opioid users each reported they had bought them from a friend or a dealer (with seven of those buying from friends reporting this as usual, and 11 of those buying from a dealer reporting this as usual), and three percent reported obtaining them from other sources (only one reported this as their usual mode of acquisition). Within this final category, two respondents reported swapping other drugs for opioids, and one reported obtaining them from his girlfriend. See Figure 2.

Figure 2: Percentage of opioid users accessing different sources of pharmaceutical opioids (N = 98 opioid users)



For individual opioids, those utilised for treatment of drug dependence were the most commonly obtained legitimately via a doctor's prescription. Buprenorphine was obtained legitimately by 30 respondents (29% of the total sample, 31% of opioid users, and 65% of buprenorphine users); most (27) reported this as their usual way of obtaining the drug. Similarly, obtaining methadone syrup medically was reported by 25 respondents (this was 25% of the total sample, 25.5% of opioid users, and 68% of methadone syrup users), with all but one reporting this as their usual way of obtaining the drug.

Many respondents reported requesting pharmaceutical opioids from a number of doctors in the month prior to interview, although a substantial number reported that they didn't bother attempting to get their preferred preparations, such as morphine, via prescription as it was impossible due to doctors/HIC crackdowns on dispensing of these drugs.

No respondents attempted to obtain a script for Physeptone in the previous month. Twenty-one percent of participants had attempted to obtain a prescription for morphine in the previous month. The number of doctors successfully approached for morphine ranged from zero to 5 (mean = 0.86, sd = 1), with 13 succeeding in obtaining a script from one doctor, and just one gaining a script from five doctors, while seven were totally unsuccessful. The range of doctors approached unsuccessfully for morphine ranged from zero to 50 (mean = 4, sd = 11.6), with two respondents each trying unsuccessfully to obtain a script from two doctors and 10 doctors, and one respondent each attempted unsuccessfully with one doctor and 50 doctors. Thirteen participants reported they had not been refused a prescription for opioids at all.

Nine percent of the total sample, or 24% of those reporting methadone syrup use, said they received it as a gift, the second most common way of obtaining it after medical prescription. There were three reports of methadone syrup users buying it from dealers. There were reports of participants in the MMT Program obtaining the drug illicitly this way. See Table 16.

Table 16. Methadone syrup use by Melbourne PWID participants, according to self-reported treatment participation over the past six months, compared with receiving the drugs as 'gifts' (N = 37 methadone syrup users).

	Methadone Syrup Treatment in past Six Months		
Source	**Treatment (n)**	**No Treatment (n)**	**Totals (N)**
Received as gift	4	5	9
Did not receive as gift	21	7	28
Totals	25	12	37
Bought from dealers	3	3	6
Did not buy from dealers	22	9	31
Totals	25	12	37

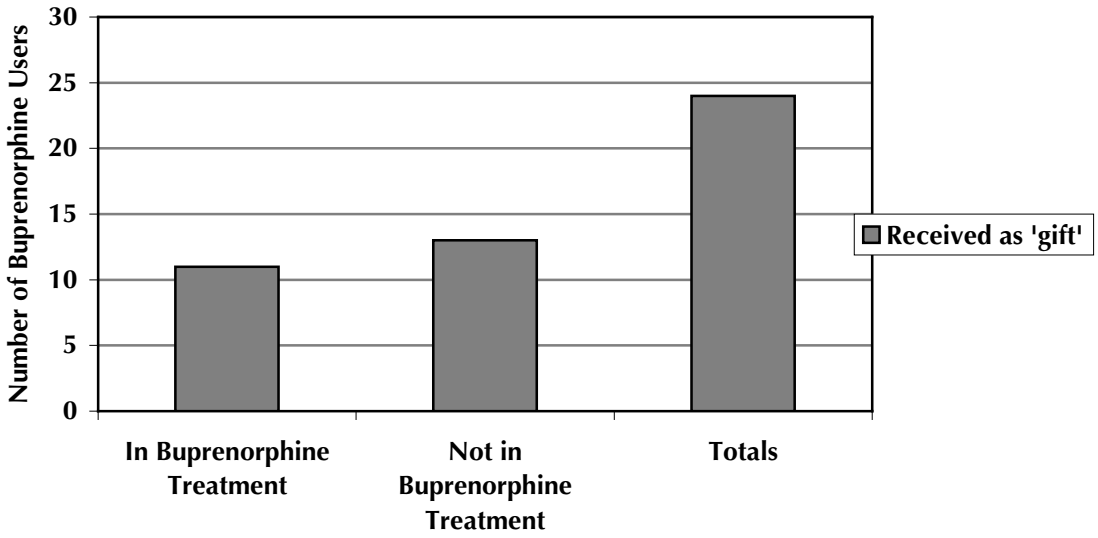
Sixty-five percent (n = 30) of all buprenorphine users (n= 46, 45% of the sample) reported they had been prescribed the drug for legitimate symptoms in the past six months. Eleven percent overall and 24% of those reporting buprenorphine use said they received it as a gift, like methadone syrup the second most common way of obtaining it after medical prescription. There were no reports of buying buprenorphine from dealers, and only one report of buying it from a friend. There were reports of participants in buprenorphine treatment obtaining the drug illicitly this way. See Table 17.

Table 17. Buprenorphine use by Melbourne PWID, according to self-reported medical use over the past six months versus. receiving the drugs as gifts (N = 46 buprenorphine users).

	Buprenorphine Treatment in past Six Months		
Source	**In Treatment (n)**	**Not in Treatment (n)**	**Totals (N)**
Received as gift	11	13	24
Did not receive as gift	19	3	22
Totals	30	16	46

Figure 3 shows how participants acquired buprenorphine illicitly depending on whether they were obtaining buprenorphine by prescription.

Figure 3: Number of buprenorphine users obtaining the drug via a gift, according to whether or not they were undertaking buprenorphine treatment (N = 46 buprenorphine users)



There were a total of 33 reports of morphine or other opioids being sourced via legitimately acquired prescriptions, with tramadol reportedly acquired this way by eight people, MS Contin 60mg by six, Endone 5mg by four, Kapanol 100mg, Oxycontin, Pethidine, MS Contin 30mg, and 100mg, each by three people, and Anamorph by one participant (using 'fake' symptoms).

Most (n = 20) of the 29% of morphine users (n = 23) who reported they had been prescribed morphine in the previous six months stated they had seen a doctor with 'real' symptoms, and four also reported they had reported 'fake' symptoms to receive a prescription for the drug. Fourteen participants who had received morphine via prescription had also received it as a gift, seven had bought it from a friend, and 11 had bought it from a dealer. Seventy-three percent of illicit morphine users (n = 57) received it as a 'gift', 42% buying it from a friend (n = 33), and 41% buying it from a dealer (n = 32).

For individual morphine preparations, MS Contin 100mg tablets were reportedly received as a gift by 31 participants, bought from friends by 46, and from a dealer by 42. Ten of those reporting Kapanol 50mg capsule use indicated they received them as a gift, and eight said they bought them from a dealer. Six respondents reporting Kapanol 100mg capsule use indicated they were

a gift, while 10 said they bought them from a friend and seven bought them from a dealer. Six people were given MS Contin 30mg tablets; there were seven reports of buying them, three from a friend and four from a dealer. MS Contin 60mg tablets were also reported as gifts eight times, bought from a friend six times and from a dealer three times. Five participants reported receiving Anamorph tablets as gifts, two each bought them from a friend and a dealer, and one swapped other drugs for them. There were also 10 reports of Oxycontin as gifts. See Table 18, which shows the method of acquisition for morphine.

Table 18. Number of morphine users acquiring the drug by various means (N = 80 morphine users).

Morphine	
Prescribed	23
'Gift'	67
Bought from friends	67
Bought from dealers	67

Price, availability and market changes

There were a total of 47 reports of buying pharmaceutical opioids from friends or dealers that were also accompanied by the reported price paid last time it was purchased. The drugs most commonly reported were Kapanol 100mg capsules (n = 15), Kapanol 20mg capsules (n = 8), and MS Contin 60mg tablets (n = 6). For those who bought their opioids illicitly the price varied widely, ranging from a minimum of $5, paid for an MS Contin 15mg tablet, to a maximum of $100 paid for a Kapanol 100mg capsule and an MS Contin 200mg tablet. Table 19 shows the street price for the most common illicitly acquired opioids.

Table 19. Average street price for selected opioids (N = 47).

Opioids	**Average Street Price (Range)**
Anamorph	$10 ($0 - 20)
MS Contin 5mg	$40 ($40)
MS Contin 15mg	$15 ($15)
MS Contin 30mg	$15 ($10 - 30)
MS Contin 60mg	$25 ($10 - 50)
MS Contin 100mg	$30 ($0 - 50)
MS Contin 200mg	$75 ($50 - 100)
Kapanol 20mg	$24 ($10 - 75)
Kapanol 50mg	$24 ($10 - 75)
Kapanol 100mg	$40 ($10 - 100)
Ordine	$22 ($15 - 30)
Physeptone	$30 ($10 - 50)

Whereas a high proportion of respondents reported they sourced illicit pharmaceutical drugs via friends, a smaller number reported buying them from user-dealers or small-time dealers, and very few said their supplier was a large-scale dealer. For instance, 44% of morphine users, 42% of buprenorphine users, 41% of methadone syrup users, and 33% of physeptone users reported they obtained the drugs from friends. This contrasted with buying methadone syrup (2%), morphine (7%) and buprenorphine (6.5%) this way. The highest proportion buying from user/dealers were those buying Physeptone (17%), and buprenorphine (10%).

Many respondents reported that their supplier of pharmaceutical drugs also sold other pharmaceuticals and illicit drugs. For instance, cannabis was reported with the highest frequency as also sold by suppliers, with 50% of those buying methadone syrup, 33% buying Physeptone, 32% buying morphine and 33% of those buying buprenorphine reporting this. Methamphetamine was also reportedly sold, with 37.5% of methadone syrup users, 33% of Physeptone users, 40% of morphine users, and 22% of buprenorphine users reporting their supplier sold the drug.

PWID perceptions of the impact of greater availability of pharmaceutical opioids

The participants were asked about how they believed they and their friends who use pharmaceutical opioids would respond if they were to become more available than they currently are. Eighty-two participants provided responses on behalf of themselves, while 67 provided opinions about their friends' behaviour. The most commonly cited effects were: more use of the drugs; overdose; or no impact. See Table 20.

Table 20. Number of PWID holding different perceptions of the impact of greater availability of pharmaceutical opioids.

Impact of more opioids	Respondent (n = 82)	Friends of respondent (n = 67)
No effect	40	9
Would use more opioids	42	33
Overdose	0	3
Other effect	-	22

PWID perceptions of the impact of reduced availability of pharmaceutical opioids

When respondents were asked what they thought would happen for themselves if pharmaceutical opioids were less available, 88 responded, and 78 also gave their opinion about how they thought that situation would effect their friends who use the drugs. The most frequently nominated impacts that such a situation would have were: no effect; substitution of alternative drugs; sickness due to needing the drugs; and increased crime as users attempted to find alternative sources for the drugs. See Table 21.

Table 21. Number of PWID holding different perceptions of the impact of reduced availability of pharmaceutical opioids.

Impact of fewer opioids	Respondent (n = 88)	Friends of respondent (n = 78)
No effect (go without or find them anyway)	58	14
Would substitute other drugs	19	21
Be sick, 'hang out'	9	15
Increase in crime	2	10
Other	10	18

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Market characteristics

- Most of the current PWID sample had used opioids in the previous six months, and three-quarters having injected them in that time. There was a significant relationship between illicit morphine injecting and heroin use in the past six months, with 90% of illicit morphine injectors having also used heroin in that time.
- There was also a significant relationship between methamphetamine injecting and illicit morphine injecting in that time, with 86.5% of illicit morphine injectors having also injected methamphetamines.
- Substantial proportions of those who had injected illicit buprenorphine, methadone and morphine in the previous six months had also injected illicitly acquired morphine.
- Six heroin users reported they would substitute morphine for heroin if heroin were not available, whilst one each indicated they would substitute methadone or other opioids.
- Access to opioids was predominantly through legitimate prescriptions, 'gifts' or purchases from friends, and a large proportion of respondents claimed not to know what other drugs their supplier sold.
- The suppliers were nominated mainly as friends selling their own prescription, and friends who were users selling to fund their own use.
- Where dealers were the suppliers of opioids, they were reportedly mostly 'small-time'.
- Three participants buying methadone reported their dealer also sold heroin, benzodiazepines and methamphetamines, one each reported they sold morphine and cocaine, and four reported they sold cannabis.
- Thirteen percent of the sample also reported their morphine dealer sold heroin, 10% each reported methamphetamines and benzodiazepines, eight percent reported cannabis, and one percent each reported other opioids and methadone.
- Average purchase prices varied widely, ranging from $1 per ml for methadone, to $5 for a dose of buprenorphine and from $10 to $50 for 20, 50, or 100mg morphine tablets and capsules.

- Morphine was injected by most users, regardless of the source, whereas illicit users of buprenorphine and methadone were more likely to inject their drugs than licit users.
- All those who reported stealing their opioids also reported they had injected them rather than used them orally.

Diversion

- Most PWID participants had received opioids through legitimate prescriptions from a medical practitioner, with almost half of these participants currently undertaking either the MMT or buprenorphine program, or else as a 'gift' from another.
- It was more common for PWID participants to access opioids through gifts (61% of the sample) than via either prescription (60% of the sample) or illicit purchases, although buying from friends and dealers was reported by more than one-third of participants (36% each).
- Three percent of participants had recently stolen opioids (MS Contin), while none had forged prescriptions.
- Twenty-one percent of participants had attempted to obtain morphine/other opioids (not including methadone and buprenorphine) prescriptions in the previous month, but reported great difficulty in doing so.
- Most who had succeeded (n = 13) had only received a prescription from one doctor, but one had reportedly succeeded with five.
- Those who were successful usually reported an ongoing medical history which meant they were treated as genuine patients in need of pain relief.
- One respondent reported trying unsuccessfully to obtain morphine from 50 doctors.
- Therefore, while a number of participants had obtained prescriptions for morphine from one doctor, a large number of respondents had attempted 'doctor-shopping' to obtain these drugs.
- A small number of participants reported that if morphine was to become more difficult to obtain, they would doctor-shop, but most reported that it was to difficult to obtain this way and they wouldn't bother to ask a doctor.
- Thefts targeted morphine, namely MS Contin tablets.
- Morphine was preferred, as it most closely approximates the effects of heroin and/or increases heroin's effects. The tablets or capsules are boiled down and liquefied and either combined with heroin or injected alone.

Health benefits and risks

Injection-related health issues

Respondents reported experiencing between zero and six injection-related health problems, with on average 1.72 problems reported (sd = 1.4, median = 1.50). Injection-related problems were defined as a 'dirty hit', prominent scarring or bruising, difficulty injecting, thrombosis, abscesses or infections at injection sites, experiencing drug overdoses, and having Narcan (an antidote for opioid overdose) administered.

Twenty-two participants (22%) reported they had experienced a 'dirty hit' within the previous six months. Nine participants reported that the main drug they had been injecting at the time they experienced the dirty hit was heroin, whilst five reported injecting buprenorphine, four reported injecting methamphetamine, and three reported injecting morphine. Eight of those reporting a dirty hit also reported they had been injecting a second drug at the time, with five participants indicating the second drug to be benzodiazepines, and one each indicating it to be methamphetamine and morphine.

Sixty-two percent of respondents (n = 62) reported they had experienced prominent scarring or bruising in the previous six months, and 53% reported they had experienced difficulty with injecting in the same time frame. Twelve percent and 14%, respectively, reported having experienced a thrombosis and/or abscesses or infections as a result of injecting drugs.

Drug overdose

Nine percent of all respondents (n = 9) reported they had experienced between one and seven drug overdoses in the six months prior to the interview (most participants reported one or two such incidents, with one reporting seven overdoses). Seven participants reported an overdose incident was due to heroin (ranging from between one and seven overdoses on this drug), and one each reported the overdose was due to methamphetamines and morphine. One participant also reported they had experienced three overdoses on benzodiazepines. Five respondents reported that, as well as heroin, they had also been taking benzodiazepines, whilst two reported also taking morphine with heroin, and one reported also drinking alcohol at the time of the heroin overdose. The total overdose episodes exceed the total of respondents reporting overdose, as some respondents reported multiple overdose experiences.

Sixty-six percent of respondents reported they had received Narcan some time in the past. The median time since Narcan was last administered was six months (mean = 19 months, sd = 28.5 months), ranging in time between one week and 12 years prior to the interview.

Benzodiazepines benefits and risks

Participants were asked to name the benefits and the risks of taking benzodiazepines, with 77 providing information about the former. The greatest proportion of responses regarding benefits related to relaxation, reducing anxiety and 'helping to sleep', escaping from reality, feeling good or feeling high, enabling respondents to 'feel normal' or 'get through the day', the drugs assisting with heroin withdrawal or 'hanging out' or 'coming down' from drugs, enhancing the effects of other drugs, and pain relief provided by benzodiazepines. See Table 22.

Table 22. PWID perceptions of benefits of benzodiazepines (N = 77).

Benefits of benzodiazepines	Number of respondents (%)
Relaxation	35 (47%)
Feeling good	15 (20%)
Feeling normal	8 (11%)
Help with withdrawal	6 (8%)
Enhance other drug effects	5 (7%)
Pain relief	4 (5%)
No benefits	4 (5%)

Eighty-eight participants provided information about risks they believed were associated with taking benzodiazepines, which were: risks of physical effects such as seizures, blood clots, vein damage and amputations, and the risk of overdose; risk of developing an addiction to the drugs; and problematic behaviour, such as volatile mood, when taking benzodiazepines or withdrawing from them. See Table 23.

Table 23. PWID perceptions of risks of benzodiazepines (N = 88).

Risks of benzodiazepines	Number of respondents (%)
Physical/health effects	21 (24%)
Overdose	21 (24%)
Volatile behaviour	10 (11%)
Addiction	8 (9%)
No risks	19 (22%)

Morphine benefits and risks

Respondents were asked what they believed were the benefits and risks of taking morphine. Thirty-eight participants provided responses about benefits of morphine. More of these respondents reported pain relief than any other factor as the main benefit, although almost as many reported morphine's main benefit was as a substitute for heroin. A number of respondents reported the main benefit of the drug was for escaping reality, getting high or experiencing a sense of euphoria, others reported morphine reduced anxiety, helped them to relax, or helped them sleep. See Table 24.

Table 24. PWID perceptions of benefits of morphine (N = 38).

Benefits of morphine	Number of respondents (%)
Pain relief	15 (39%)
Substitute for heroin	13 (34%)
Escaping reality	6 (16%)
Relaxation	6 (8%)
Enhance other drug effects	3 (8%)
Pain relief	4 (5%)
No benefits	4 (5%)

Thirty-nine participants provided responses about the risks of using morphine. Almost half of the respondents who supplied information about the risks of morphine reported that the main risk associated with it was overdose or death. A lesser number reported the main risks were associated with physical effects, such as collapsed veins or blood clots, and fewer still reported that addiction was a problem. Others did not think there were any risks associated with morphine. See Table 25.

Table 25. PWID perceptions of risks of morphine (N = 39).

Risks of morphine	Number of respondents (%)
Overdose/death	18 (46%)
Physical/health effects	8 (21%)
Addiction	2 (5%)
No risks	5 (13%)
Other	6 (15%)

Methadone benefits and risks

Respondents were asked what they believed were the benefits and risks of taking methadone. Twenty-three participants provided responses about benefits of methadone. Respondents nominated the benefits as predominantly reduction in withdrawal symptoms and reduction in the need for heroin. See Table 26.

Table 26. PWID perceptions of benefits of methadone (N = 23).

Benefits of methadone	Number of respondents (%)
Stop from 'hanging out'	8 (38%)
Stop me using heroin	6 (26%)
Help function normally	4 (17%)
Pain relief	2 (9%)
Reduced need for crime	1 (4%)
No benefits	2 (9%)

Twenty-six participants provided responses about the risks, which were perceived to be mainly addiction to the drug, health risks or no risks. See Table 27.

Table 27. PWID perceptions of risks of methadone (N = 26).

Risks of methadone	Number of respondents (%)
Addiction	8 (31%)
Physical/health effects	5 (19%)
No risks	6 (24%)
Don’t know	2 (8%)
Other	5 (19%)

Buprenorphine benefits and risks

Respondents were asked what they believed were the benefits and risks of taking buprenorphine. Thirty-one participants provided responses about benefits of buprenorphine. The responses generally centred on the drug reducing withdrawal or the need for heroin. See Table 28.

Table 28. PWID perceptions of benefits of buprenorphine (N = 31).

Benefits of buprenorphine	Number of respondents (%)
Stop me using heroin	19 (61%)
Help function normally	5 (16%)
Save money	3 (10%)
No benefits	2 (6%)
Other	2 (6%)

Thirty-six participants provided responses about the risks of taking buprenorphine, with most responses focussing on health risks, addiction, or a perception there was no risk associated with the drugs. See Table 29.

Table 29. PWID perceptions of risks of buprenorphine (N = 36).

Risks of buprenorphine	Number of respondents (%)
Injecting/health effects	12 (33%)
Addiction	3 (8%)
No risks	11 (31%)
Don't know	4 (11%)
Other	6 (17%)

Benzodiazepine and pharmaceutical dependence

The Severity of Dependence Scale for substance use (Gossop et al. 1995) is a short validated scale for assessing substance dependence that takes around one minute to administer. The SDS has high diagnostic utility (Gossop et al. 1995; Kaye & Darke 2002) and correlates well with the *Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition* (DSM IV) criteria for diagnosis (American Psychiatric Association 1994).

The scale comprises five statements about a drug's use, asking the respondent to select a level of agreement to each statement, from strong agreement to strong disagreement, with each statement assigned a weighted score from 0-3. The potential score thus ranges between a minimum of zero (5 x 0) and a maximum of 15 (5 x 3). The cut-off for a diagnosis of dependence for most drugs is three, with severe dependence diagnosed when the score is six or more. The SDS has been validated for many drug types, including heroin, cocaine, benzodiazepines and amphetamines, and may be reapplied as often as required and remains reliable (De Las Cuevas et al. 2000; Ferri et al. 2000; Gossop et al. 1995). Table 30 shows the mean SDS scores for the users of benzodiazepines, morphine, methadone and buprenorphine, and the proportion that may be dependent on the drugs.

Table 30. Mean SDS scores for the participants who used benzodiazepines, morphine, methadone and buprenorphine in the previous month (N = 102).

SDS Score	Benzodiazepines (n = 98)	Morphine (n = 44)	Methadone (n = 30)	Buprenorphine (n = 37)
Mean	4.2	4.8	5.3	4.6
Median	4	5	3	3
Range	0 - 15	0 - 15	0 - 14	0 - 15
Percent scoring 3 or over	68	63.6	62	69
Percent scoring 6 or over	33	45.5	35	41.4

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

What are the implications of benzodiazepine and pharmaceutical opioid use for police and other frontline workers such as accident and emergency staff, ambulance officers and health/youth workers?

- Most of the current PWID cohort reported experiencing injection-related harms in the month prior to interview. The most commonly reported were scarring or bruising of the injection site, a 'dirty hit', swelling of the limbs, thrombosis or abscesses/infections as a result of injecting drugs. These harms may be related to the intravenous administration of non-sterile materials, and pharmaceutical products that were not designed for such use (Dobbin 2001), especially considering that while most nominated the primary drug they were injecting as heroin, a large proportion were also injecting benzodiazepines, buprenorphine or morphine, either alone or with heroin.
- Eleven percent of the sample reported contact with the police as a result of their benzodiazepine use, while 24% reported having arguments, 20% reported being aggressive, 13% reported getting into fights, and 14% reported getting into criminal trouble (mainly property-related) because of such use. These issues applied to a less extent to the opioids, morphine, methadone and buprenorphine.
- More than one-third (38%) of the current sample reported experiencing memory loss or a 'blackout' associated with benzodiazepine use in the month prior to interview. Several participants using methadone and buprenorphine also reported this.
- Almost 10% of the current sample had experienced at least one overdose in the past six months, with more than half of these attributing the episode/s to pharmaceutical drugs, or a combination of pharmaceuticals and heroin.
- Across all of these target pharmaceuticals, a substantial proportion of participants had experienced social problems such as relationship difficulties, anxiety, lack of motivation, or irritability associated with use and/or withdrawal from these substances in the month prior to interview.
- Combined with the ubiquitous diversion of these drugs onto the black market, these problems represent important considerations for law enforcement and health providers.

Illegal activity among people who inject drugs

Prison history and arrest in the last 12 months

A total of 66% of respondents (n = 67) reported they had been arrested in the year prior to the interview on charges relating to property crimes, fraud, violence, possession, driving-related offences and failure to appear. The use of drugs, such as heroin, benzodiazepines, methadone syrup and morphine, were blamed for some of the offences. See Table 31.

Self-reported property crime last month

Participants were asked whether they had committed any offences in the previous month, including offences they had not been charged for. More than half the respondents (n = 58, 57%) reported they had committed a property offence in the past month, with 42% (n = 24) of these reporting they had done so less than once a week, 14% weekly (n = 8), 28% more than once a week (n = 16), and 16% reported they had done this daily (n = 9, mainly shoplifting).

For those who reported committing property offences, many reported it was drug-related, with the largest number of these (n = 25, 43%), saying they needed to obtain money for drugs (mainly heroin), and/or were under the influence of drugs at the time (mainly heroin) (n = 16, 27%), and/or were withdrawing from drugs at the time (mainly heroin) (n = 10, 18%). Many also reported they committed the offences for non-drug-related reasons, such as because they needed food or goods (n = 23, 39%), and/or needing money to support themselves or their family (n = 17, 29%). The total is more than 100%, as respondents could indicate more than one reason associated with the behaviour.

Self-reported drug dealing last month

Almost half the respondents (49%, n = 50) reported they had dealt drugs in the previous month (not necessarily charged for), with 25% of these reporting they had done so less than weekly (n = 13), whilst 16% did so weekly (n = 8); 37% reported doing it more than weekly (n = 19), and 22% said they were dealing drugs every day (n = 11). The reasons given for dealing drugs were mainly in order to obtain money for drugs (64%, n = 32). They said this was either 'a little' the reason or 'a lot' the reason, although 29% (n = 15) reported they did so as they needed money for their family, and/or had debts, and 25% (n = 13) reported they needed food or goods. Again, respondents may have reported more than one reason for the behaviour.

Table 31. Participants reporting charges for criminal offences (N = 102).

Offence	Participants Charged with Offences % (n)	Offences relating to Drug Use % (n)	Drugs Involved
Property Crimes	37 (n = 37)	89 (n = 33)	Heroin (n = 8), benzodiazepines (n = 7), methadone syrup (n = 3), morphine (n = 1) multiple drugs (n = 8) need money for drugs (n = 6)
Fraud	14 (n = 14)	14 (n = 2)	benzodiazepines, n = 1, heroin, n = 1
Violent Crime	11 (n = 11)	64 (n = 7)	benzodiazepines, n = 2 methadone syrup, n = 1 morphine, n = 1 heroin, n = 1 ice, n = 1 cannabis, n = 1

Table 31 continued.

Offence	Participants Charged with Offences % (n)	Offences relating to Drug Use % (n)	Drugs Involved
Possession	6 (n = 6)	100%	heroin, n = 1 methamphetamine, n = 1 heroin & meth, n = 1 amphetamines & Rivotril, n = 1
Driving-Related	6 (n = 6)	67% (n = 4)	alcohol, n = 1 amphetamines, n = 1 heroin, n = 1 Valium, n = 1 multiple drugs, n = 1
Failure to Appear	4 (n = 4)		

Self-reported violent crime last month

For those who reported committing crimes of violence (a total of n = 13, 13%), 85%, n = 11, of these reported they did this less than once a week, and 15%, n = 2, more than once a week. Forty-two percent (n = 5) said they committed these crimes because they lost their temper, 19% (n = 3) reported needing food and/or 17% (n = 2) said they were under the influence of drugs at the time (mainly heroin). The same proportion (17%, n = 2) reported their group did this kind of thing, and/or they could not explain why they did it.

Self-reported other crimes last month

Other recent criminal behaviour reported were fraud, with n = 13, 13% of respondents reporting this behaviour less than once a week; and sex work (5% total), with two participants undertaking it less than weekly, and three weekly.

Associations between crime and pharmaceutical drugs last month

Fourteen percent of respondents (n = 14) who reported they had used benzodiazepines in the past month said that the effects of using these drugs had caused them to commit a crime (mostly property crime), and 12% (n = 12) reported that the effects of withdrawing from benzodiazepines resulted in them committing a crime (again, mostly property-related crime).

Of those reporting they were current morphine users (n = 43), 9% (n = 4) blamed its effects for causing them to commit a crime, whilst the same proportion also blamed withdrawal from the drug for the behaviour. Very few participants attributed other opioid drugs with criminal behaviour, with only three respondents each blaming criminal behaviour on methadone syrup withdrawal (29% reported its use in the previous month), buprenorphine use, and buprenorphine withdrawal (36% reported buprenorphine use in the previous month).

Statistical relationships between drug use variables, individual characteristics, and criminal activity

Inferential statistical tests were conducted in order to examine more closely whether any factors or characteristics associated with the participants in the study were predictive of self-reported criminal behaviour. In all cases the critical level for a decision of statistical significance was a .05. First, a stepwise linear regression was conducted using various predictor variables against the variable 'total crime score' as the outcome variable, in order to explore associations between

them. The total crime score was derived from a total of items related to responses to having taken part in criminal behaviours within the previous month, such that a score of one was allocated for a positive response to each of nine question items in the survey referring to undertaking any property crimes, violent crimes, frauds, and drug dealing within the month prior to the survey being conducted. A participant's potential score was a minimum of zero and a maximum of nine.

The predictor variables utilised were: age; years of school completed; finished any course post-school; drug injected most last month; how often injected drugs last month; number of days used heroin last month; number of days used prescribed methadone last six months; number of days used illicit methadone last six months; number of days used prescribed Physeptone last six months; number of days used illicit Physeptone last six months; number of days used prescribed morphine last six months; number of days used prescribed morphine last six months; number of days used other prescribed opioids last six months; number of days used other illicit opioids last six months; number of days used methamphetamine last six months; number of days used prescribed benzodiazepines last six months; number of days used illicit benzodiazepines last six months; number of days used prescribed buprenorphine last six months; number of days used illicit buprenorphine last six months; any benzodiazepine – number days oral use last six months; any benzodiazepine – number days intravenous use last six months; any pharmaceutical opioid – number days oral use last six months; any pharmaceutical opioid – number days intravenous use last six months; SDS score for benzodiazepine dependence; SDS score for morphine dependence; SDS score for methadone dependence; and SDS score for buprenorphine dependence.

There were several significant (at .05) relationships, three positive and one negative. There was a strong positive relationship between age and the total crime score, meaning that the older the respondent the higher the total crime score ($R^2 = 0.98$), as well as between the number of days that illicit benzodiazepines were used and the total crime score, meaning that as the number of days of use increased, so did the corresponding crime score ($R^2 = 0.84$). The average number of days that benzodiazepines were used by these participants was 80 (sd = 87). There was also a positive association between the drug injected most often last month and the crime score, with heroin injecting more predictive of a higher score than injecting of other drugs ($R^2 = 0.495$). A negative relationship was found between the total Severity of Dependence Score for methadone dependence and the total crime score; thus the higher the dependence score for methadone use, the lower the crime score for the user was likely to be ($R^2 = -0.602$).

There were also some significant findings from a series of Student's t-tests that were conducted in order to examine whether there was any relationship between self-reported criminal behaviour in the past month and the SDS scores for the various drug categories. Caution should be exercised when interpreting the following findings, as in some cases the numbers of respondents is small. The findings of significance cannot be inferred as generalisable to the generable population of users of the individual drugs.

Those who reported committing crimes whilst using benzodiazepines in the month prior (n = 14) recorded a significantly higher SDS score for benzodiazepines than those who did not report criminal behaviour whilst using these drugs (n = 83), t (95) = -2.349 (the mean SDS score for participants reporting criminal behaviour was 6.21, for those reporting no such behaviour it was 3.89).

Those who indicated they had committed crimes whilst withdrawing from benzodiazepines (n = 13) also recorded a significantly higher SDS score than those participants reporting no such connection between benzodiazepine withdrawal and crime (n = 84), t (95) = -2.173 (the mean benzodiazepines SDS score for participants reporting criminal behaviour was 6.15, for those reporting no such behaviour it was 3.93).

A similar picture existed for participants who reported committing crimes whilst using morphine in the month prior, with the number of participants who did so recording a significantly higher SDS score than the respondents who did not report criminal behaviour whilst using the drugs. However, this group was very small (n = 4 reporting committing crimes, compared with n = 39 who did not). The results should therefore be treated with caution; t (41) = -3.004 (the mean morphine SDS score for participants reporting criminal behaviour was 10.50, for those reporting no such behaviour it was 4.23). Only one respondent reported they had committed crimes whilst withdrawing from morphine.

There were no other statistically significant relationships between any criminal behaviours and any other variables, although it should be kept in mind that in many cases the sizes of the sub-samples were too small to enable meaningful analyses to be conducted (for example, only a few respondents reported using individual drugs such as temazepam, MS Contin, Kapanol etc. and also reported committing any kinds of crime). That does not necessarily mean that no association exists, just that samples of participants representing these users would have to be deliberately targeted in order to investigate these relationships further.

Criminal activity directly related to prescription drugs last month

Twenty-nine percent of respondents (n = 28) reported stealing prescriptions and/or prescribed drugs within the month prior to the interview. For instance, five percent of respondents (n = 5) reported stealing prescriptions from other people (one person reported they had done this 10 times in the past month), and 12% (n = 12) reported having stolen prescription drugs from other people (one person had done this thirty times, or daily). Nine percent (n = 9) said they had taken drugs from a doctor's surgery, whilst three percent (n = 3) reported having done so from a pharmacy.

For around half of the reported thefts of prescriptions or drugs (n = 15), the reason given was opportunity, such as finding a prescription pad at a surgery, being presented with an opportunity to fill another person's prescription, or finding the drugs somewhere they could easily be stolen, either in a pharmacy, hospital, doctor's surgery or a private residence. Six of the nine respondents (69%) who reportedly stole drugs from a doctor's surgery claimed they were easily obtainable in this way.

Examples of typical statements by respondents who had stolen prescriptions or drugs in this way were: 'She gave me the prescription to collect, and I ran away with it. It is their fault if they are stupid' (having stolen a prescription); 'I had none of my own and they were there', and '…I took Mum's (two respondents on having stolen drugs from others); 'I wanted Normisons and they were there', and 'Temaz plus a script for MS Contin were in a basket at the pharmacy', and 'They left them in the tray and I needed them' (having taken drugs from a pharmacy); 'I stole three books that were stamped and ready to go' (on stealing a prescription pad from a doctor's clinic), and 'He walked out of the room, so I looked in the drawer and took some Valium', ' The opportunity was there…so I took them', and 'The opportunity was there. It was their own fault, they shouldn't have left them' (after stealing drugs from a doctor). The other reason for the behaviour typically centred on the want/need for a particular drug: for example, 'I wanted Normisons'; 'I love the drug (Xanax)', 'Because they were benzodiazepines', 'To get pethidine and morphine', and 'I was hanging out'.

Seven respondents reported they had forged a prescription in the past month, with the most likely reason for this reportedly because particular drugs, mainly benzodiazepines (specifically temazepam) were desired. Comments included 'To get high and stop being sick'; 'To get Normisons'; 'To get temaz to sell'; and '…I wanted the caps not the tabs'.

When it came to having their prescriptions and prescribed drugs stolen from them within the month prior to the interview, 16% of participants reported the former (n = 16), and 35% (n = 36) the latter (five people reported this had happened to them on 10 occasions, and one reported it had occurred 20 times). The drug most likely to be stolen from respondents was Valium (13 cases), and temazepam (six cases).

Thirty nine participants (38% of the sample) reported they had driven a vehicle while affected by prescription drugs, with 25% reporting having done so five or more times in the previous month (n = 26, 12 reported having done this daily, and one reported they had driven intoxicated on 120 occasions). Many of these respondents reported that they drove intoxicated because they 'needed to get somewhere' (n = 14), and many also believed their driving ability was not affected by the drugs (n = 9). Several reported that as they take drugs daily (for instance methadone syrup), they have no choice.

One respondent reported they had spiked another person's drink with prescription drugs during the past month, and that they had done so twice, with the reason given that they 'wanted to score'. In addition, one respondent claimed that her drink had been spiked.

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Links with crime

- More than half these respondents had been involved in property-related crime in the previous month (not necessarily charged with), while almost half reported they had dealt drugs in that time. Thirteen percent reported they had been involved in violent behaviour, 13% reported committing a fraud, and 5% had been involved in sex work.
- Of those committing property offences, many reported they were drug-related, namely to obtain money for drugs, or were under the influence of drugs or in withdrawal (mainly heroin).
- Of those committing crimes of violence, several attributed intoxication on drugs to their behaviour.
- The reasons given for dealing drugs were predominantly to obtain money for their own drug supply.
- Fourteen percent of respondents reported that the effects of benzodiazepines had caused them to commit a crime (mostly property-related), and 12% reported that the effects of withdrawing from these drugs resulted in them being involved in criminal activity.
- Four current morphine users blamed intoxication on the drug for criminal behaviour, and the same number attributed their criminal activity to the effects of withdrawal from morphine.
- Three participants each blamed buprenorphine intoxication and withdrawal, and methadone withdrawal on criminal behaviour.
- In terms of individual crimes these participants had been charged for in the previous year, property crimes were related mainly to heroin and benzodiazepines use, with morphine and methadone also blamed, and the 'need for money for drugs' also blamed.
- Crimes of violence were attributed to a range of drugs, with benzodiazepines, heroin, methadone, Ice, and cannabis singled out for blame. Participants reported being charged with driving under the influence while using benzodiazepines, heroin, amphetamines and multiple drugs.

- Statistically, the strongest predictor of criminal behaviour was frequency of heroin use for these participants, in that the more frequent use predicted more likelihood of reporting such behaviour.
- A minority of participants suggested that their recent pharmaceutical drug use had caused them to be involved in some form of criminal behaviour. These reports do differ significantly according to pharmaceutical drug class, namely those using and withdrawing from benzodiazepines were significantly more likely to report such behaviour (in particular property crime).
- The degree of dependence on benzodiazepines and its frequency of use were significantly related to involvement in property crime.
- While some morphine users also reported this activity, the numbers were too small to conduct meaningful statistical tests.
- While financial imperatives and needing goods/essential items for self or family, were most commonly reported as reasons for involvement in property crime, opioid (especially heroin) addiction and withdrawal were also strong reasons provided for such behaviour.
- Increased use of prescribed methadone syrup was predictive of less involvement in such activities.
- Involvement in selling of drugs to others was unrelated to the extent of any particular pharmaceutical product, and was most commonly explained in terms of a means of financial support (for food, bills, debts) by PWID participants engaging in dealing.
- Half of the n = 13 participants reporting involvement in violent crime (n = 6) were injectors of benzodiazepines. Most (n = 11) had injected heroin in the previous six months.
- Reasons for involvement in violent acts were mainly reported as being situational (e.g. 'lost my temper') rather than related to financial reasons (17% reported needing food or goods), although 17% were under the influence of drugs at the time (mainly heroin).
- More than one-third of the sample (38%) reported driving under the influence of drugs, with one-quarter reporting they had done so five or more times in the previous month. The majority (n = 23) had used heroin the most frequently in that month, whilst five had been using or injecting morphine, eight buprenorphine, and one each benzodiazepines and heroin combined with benzodiazepines.
- One PWID participant reported spiking another person's drink with benzodiazepines in order to obtain sex. One other also reported this had happened to her.
- Most of the 28 respondents who reported stealing prescriptions or prescription drugs nominated temazepam as the drug they had targeted, but alprazolam, diazepam, pethidine, morphine, and MS Contin were named as well. More than one-third of the PWID participants reported having some legitimately prescribed prescription drug stolen from them in the preceding six months, most commonly diazepam or temazepam.

Perceptions of police activity and impact

Changes to police activity in regard to prescription drugs last 6 months

The participants were not in general agreement about whether there had been noticeable changes in police activity targeted specifically at illicit prescription drug use within the year prior to the survey, although only one reported that there was less activity than previously. Thirty-six percent reported that police activity had been stable (n = 37), while 38% reported it had increased (n = 39); a further 26% reported they did not know whether there had been a change in activity (n = 27). Forty-two percent of respondents reported specific police actions that had impacted on them around prescription drugs (n = 43), with 30% (n = 13) stating police were more vigilant in

checking the legitimacy of prescriptions and names on prescription bottles/packets, and 26% (n = 11) reporting that police were targeting people on buprenorphine in particular for checking. Five respondents (13%) also reported that police presence was more obvious around chemists.

Police activity making it more difficult to get drugs

The majority (67%, n = 68) of respondents reported that any changes that may have occurred in police activity in the past six months had not made it any more difficult to access prescription drugs, whilst 16% reported that police activity had made it more difficult to obtain them (n = 16), and 16% also reported that they didn't know if such activity had had any effect (n = 16). Fifteen percent of respondents reported specific incidents that had made it more difficult for them to obtain drugs (n = 15), with almost half of them (47%, n = 7) saying that drugs had become harder to access as a result of police activity. Two respondents (13%) each reported that a greater police presence had made it harder to get drugs, they had had their scripts checked by police or they had been arrested for having prescription drugs without a script. A further two respondents (13%) reported that whilst there was more police activity around prescription drugs, this had not effected them personally.

Other activity making it more difficult to get drugs

On the other hand more than half of the respondents (55%, n = 56) reported that besides police activity, 'other' activity had made it more difficult to access prescription drugs. Explanations of the activities that had had this effect related to doctors or chemists 'cracking down' on prescribing and dispensing (75%, n = 44), authorities (HIC) 'cracking down' on doctor-shopping (10%, n = 6), and increased public awareness making it more difficult to access the drugs (5%, n = 3).

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

Eighty-five participants considered that the market in the drug they used most had changed in some way in the past 12 months, with 60 discussing heroin, and the rest discussing other drugs, such as buprenorphine (n = 2), methamphetamines (n = 6), benzodiazepines (n = 7), morphine (n = 6), and cannabis (n = 4). In terms of changes in the heroin market, many respondents were of the opinion the quality had increased (n = 23), although almost the same number felt it had declined (n = 21). Several (n = 3) thought the quality fluctuated, and the remainder believed it was fairly stable or had no opinion about the quality.

Of those offering information about the price of heroin, 17 indicated the price had increased, whilst only five reported it had become cheaper, the rest reported the price fluctuated. In terms of availability, the general consensus was that it was getting easier to obtain as time went by, following the drought, with almost all respondents reporting that it was easier now than a year ago, and only six believing it was harder to get; several respondents commented to the effect that 'it's coming back', 'the drought's gone', 'it's the same as before the drought'.

The two buprenorphine users were not in agreement about the market in the drug, with one each reporting it was harder to get and more expensive, and easier to get and cheaper. Information about methamphetamines was also inconsistent, with three users reporting the quality and potency of the drugs had increased, and two who reported the purity had declined, and the remainder reported it fluctuated.

Benzodiazepines users were generally in agreement that the drugs were easy to obtain on the street, with one reporting that gel capsules were easy to get but expensive at $10 - $15 per capsule, and $180 - $220 a bottle. Only one respondent reported gel capsules were more difficult to obtain on the street, while one user reported that it was harder to get them from doctor-shopping, saying that doctors were 'cracking down'. Information about morphine was inconsistent also.

Two morphine users reported that the drugs were harder to get on the street, with one saying the price had increased. Both of these respondents reported that crime had increased as a result of the reduced availability and increased prices. On the other hand, three reported that they were very prevalent with 'everyone taking them', and one respondent reported that 'doctors are prescribing them to everyone'. One respondent reported that tablets could be obtained on the street for as little as $10. All respondents reporting on cannabis indicated it had become more difficult to obtain and costs more.

Impact of market changes in drug used most

Depending on whether availability of the most used drug had increased/decreased or become cheaper/more expensive, the responses to the impacts of the market changes on respondents differed. For those reporting their drug had become more difficult to locate or costed more, the responses centred around committing more crimes to finance the increased price (n = 6), experiencing increased anxiety (n = 6), having to change sources (n = 3), using other drugs (n = 3), suffering financially (n = 17), having to search harder (n = 6), going without (n = 2), and experiencing negative effects on their relationship (n = 3). Respondents reported that the increased availability of drugs had a beneficial financial effect for them as they sold them (n = 4), while four reported it was good to be able to rely on the supply. Nineteen reported that any changes in the market of the drug they used most had no effect on them.

PWID perceptions of the impact of greater availability of drug used most

Many respondents indicated that a reduced availability of the drug they used the most would have multiple impacts on them and on their friends who also use the drug, therefore the responses do not add up to the total number of respondents. See Table 32.

Table 32. PWID perceptions of the impact of reduced availability of drugs they use most.

Impact of fewer drugs	Respondent (number of responses)	Friends of respondent (number of responses)
Substitute other drugs/stop using	34	28
Commit crime	19	29
Very anxious/crave the drugs	5	7
No effect	11	3
Use less	8	1
Sex work	4	2
Alcohol	2	-
Violence	1	6
Don’t know	-	10
Other effect	8	15

Many respondents indicated that greater availability of the drug they used the most would have multiple impacts on them and on their friends who also use the drug, therefore the responses do not add up to the total number of respondents. See Table 33.

Table 33. PWID perceptions of the impact of greater availability of drugs used most.

Impact of more of the drug	Respondent (number of responses)	Friends of respondent (number of responses)
Use more drugs	45	44
No effect	19	6
Save money	6	3
Bad health	2	5
Overdose	4	-
Use less	2	7
Live normal life	5	-
Be happier	-	7
Stop using	1	-
Don't know	-	7
Other effect	8	3

Summary with reference to NDLERF research questions

Interventions

- The pattern of drug use for these participants is for poly drug use, rather than exclusive use of one drug. Most pharmaceutical opioid consuming PWID participants nominated heroin as their drug of choice, but were commonly using benzodiazepines and/or pharmaceutical opioids either as well as heroin, or in its place if it was difficult to obtain. There have also been reports of 'stockpiling' temazepam in preparation for increased regulation of the drug. This pattern, as well as increases in use of amphetamines, has increased since the heroin drought in Victoria.
- The logical consequences of supply reduction of benzodiazepines and morphine would be an even greater increase in the use of heroin and amphetamines, and greater diversion of prescribed opioids, in particular buprenorphine and methadone.
- Further, should supply reduction efforts reduce the availability of the pharmaceutical opioids, then this may have the potential to create a situation where increased efforts were made to establish lines of regular supply of other prescribed drugs such as morphine, and more uncommon illicits, such as cocaine, into the local market, and also to increase the involvement of large-scale dealing, which was reported with low frequency by these participants.
- Evidence for an increase in other illicit markets is demonstrated by participant responses when they were asked to choose what drug they would substitute if the drug they used most were unavailable, with a large number reporting they would substitute illicit drugs. While one-quarter of heroin users nominated benzodiazepines as their second drug of choice, and 12% chose morphine, methadone or other opioids, 14% reported they would seek out amphetamines, and 11% nominated cannabis. Six of the 10 participants who nominated morphine as the drug they had used the most indicated they would use heroin if it were unavailable, whilst only one reported they would use some other form of morphine (e.g. substitute MS Contin for Kapanol). All four participants reporting that other opioids were their most frequently used drug reported they would substitute heroin for them if they could not get them. Three of the 10 participants who had used benzodiazepines most reported they would

choose amphetamines, and the same proportion reported they would substitute cannabis, whereas three reported they would substitute another benzodiazepine (e.g. use alprazolam instead of temazepam), and one said they would use morphine.

- Among PWID receiving benzodiazepines both licitly and illicitly, it was commonly reported that a substantial decrease in the availability of benzodiazepines would have a deleterious effect on drug-using, as well as psychological and social aspects of their life, increasing potential to use heroin, heightening anxiety and aggression, and decreasing the ability to cope with everyday life and withdrawal symptoms.
- Participants commonly reported they would use other means to obtain these drugs if they were to become more difficult to access, through doctor-shopping, reverting to violence or criminal behaviour, or finding some other way of diverting them. Some did report they would stop or reduce their use of the drugs in response to a decreased availability of diverted benzodiazepines.
- There was also some suggestion that doctor-shopping, crime or violent behaviour may increase in response to such a market change, with participants reporting that availability of benzodiazepines kept down the need for crime.
- Most respondents using diverted pharmaceutical opioids reported that they would not stop or decrease their use of these drugs if there was a substantial decrease in their availability, especially buprenorphine, and that they would locate their drug of choice 'somehow'.
- Participants were more likely to report they would suffer financially, and reported that criminal activity may increase in order to obtain drugs, or to gain money to buy them illicitly. Very few participants reported that a decrease in the drugs would cause them to seek pharmaceutical maintenance therapy, although a large proportion reported they would use other drugs instead, such as heroin, methamphetamine or benzodiazepines.

Summary

Market characteristics

The findings from stage two suggest that this current sample of Melbourne PWID preferred heroin to any other drug; however, significant numbers of the participants also regularly used and injected pharmaceutical opioids and benzodiazepines. These drugs may be used to supplement the effects of heroin, or as a substitute for heroin if it is difficult or expensive to obtain, but they also seem to reflect a clear pattern of opportunistic and poly drug use amongst this sample.

Almost all these participants reported they had used benzodiazepines recently, either medically, illicitly, or both, and that almost half of those who had used heroin in the previous six months had also injected benzodiazepines. The current findings suggest that while other studies, such as the IDRS, found last year that benzodiazepine injecting was decreasing amongst PWID since peaking in 2002, the practice still exists to a substantial degree, with almost half of these respondents reporting they had injected the drugs recently and with reasonably high frequency.

The findings further suggest that PWID in Melbourne were able to obtain gel capsules illicitly relatively easily at the time these data were collected, with 10 or 20mg gel capsules of temazepam selling for between $1 and $30, with an average cost of $10 - $20 each (or up to $300 for a bottle in some locations), and tablets selling for between $1 and $5 each. In addition, some of these PWID reported injecting benzodiazepines other than temazepam, such as diazepam and alprazolam.

The finding that most participants had used illicitly acquired morphine recently, and over 70% had injected it, suggests that the use and injection of morphine preparations, particularly MS Contin tablets and Kapanol capsules, may also be substantial and frequent among the PWID population

in Melbourne. In addition, the finding that three-quarters of the participants who had used heroin in the previous six months had also injected illicit morphine, further confirms the pattern of poly drug use and the availability of morphine in the market. Morphine for illicit use was reportedly not difficult to obtain in the city, with 100mg tablets and capsules selling for between $10 and $100, at an average price of $40 - $50 each.

The findings also suggest that the prevalence of buprenorphine injection is high amongst Melbourne PWID, with over one-third of these PWID (and almost one-third of recent heroin users) reportedly injecting the drug recently, a finding that reflects trends detected by recent IDRS studies (Breen et al. 2004). The findings further suggest that participants undertaking buprenorphine treatment are likely to inject the drug as well as take it orally. The consistent trends in the misuse of buprenorphine suggest that Melbourne PWID may use the opioid in a similar way to how Darwin PWID use the opioid morphine, and how Hobart PWID use the opioid methadone (e.g. Breen et al. 2004).

Diversion

Almost one-third of these respondents reported they had stolen prescriptions or prescription drugs in the previous month. In nearly all cases, the drugs involved were benzodiazepines, mainly temazepam, although other benzodiazepines and MS Contin were also targeted. Participants usually reported 'needing' particular drugs (benzodiazepines), and being opportunistic in stealing prescriptions and/or drugs from various locations, such as doctor's surgeries, chemists, or other people, where they had been afforded easy access and took advantage of a situation when it arose. More than a third had also had their own prescription drugs, mainly diazepam and alprazolam, stolen from them.

Illicit sources for the prescription drugs appear to be largely what could be termed 'low-grade' or 'informal' diffuse and overlapping networks around the users, with the majority of opioids and benzodiazepines seemingly given to the respondents or sourced via friends, other users, and small-time dealers where they are not prescribed. Where both morphine and benzodiazepines were purchased, they were most likely bought from someone who was selling their own prescription drugs, or from a known user/dealer, although substantial numbers of the suppliers reportedly also sold other pharmaceutical drugs, as well as illicits such as amphetamines and heroin. These current findings suggest that further research may be valuable in determining a clearer picture of the market intersection for these drugs by examining how the drugs move from the legitimate patient to the PWID for illicit use, and whether there are other sources further up the supply chain that could not be assessed in this study, such as internet pharmacies and illegal importation of the drugs.

Links to crime

These participants report a high prevalence of involvement in some kind of crime, with almost three-quarters having been imprisoned at some point in the past, and more than half reporting they had committed a crime, mainly property-related, in the previous 12 months. In addition, more than one-third had been charged with property offences in the previous 12 months, and over 10% had been charged with a crime relating to violence. Further, 40% of these participants reported they had driven a vehicle whilst under the influence of drugs in the past month, and around a quarter of the sample reported they did so frequently, in one case up to 120 times. The older the participant, the more different kinds of crimes they reported being involved in during the previous month. The strongest relationship found between drug use and crime was for heroin, with higher frequency of use associated with more offences. Participants frequently attributed their own criminal behaviour to the use of drugs, and the need for money for drugs, including heroin, benzodiazepines and methadone syrup.

In terms of how the use of the prescription drugs relates specifically to criminal behaviour, findings are not clear-cut, mainly because of small numbers in the different categories. Self-reports indicate that participants frequently attribute criminal behaviour to drug intoxication and withdrawal. These current findings do suggest an association between frequency of use of benzodiazepines and committing crimes, in particular property crimes, with this relationship not seen for any other prescription drug. In addition, participants who reported having been involved in some kind of crime when either under the influence of benzodiazepines or else withdrawing from them in the past month, also recorded a higher score for dependence on the Severity of Dependence Scale (SDS) for the drugs than participants who did not report such criminal involvement. The same relationship was also seen for those committing crimes whilst intoxicated with morphine. These findings were not present for any other categories of drugs. However, caution should be applied when considering the generalisability of these findings, as the numbers of participants who actually reported committing crimes while under the direct influence of any drugs or withdrawing from them were low, in some cases too low to enable statistical tests to be conducted.

Implications for police and other frontline workers

Reports of injecting harms implicating prescriptions drugs were frequent for this sample, with 'dirty hits', venous damage, thrombosis, and overdoses the most commonly reported. Participants themselves named the biggest risks of using benzodiazepines and all pharmaceutical opioids as physical/health effects and the risk of addiction or overdosing. The level of dependence on pharmaceutical drugs within this sample appears to be high, with scores on the SDS suggesting that most participants are technically dependent on at least one prescription drug, with more than one-third possibly severely dependent on one or more drugs. This finding has implications for both law enforcement and health providers, as the need for a drug of dependence will naturally have profound effects on the users' behaviours as they act to acquire the drug to alleviate craving and anxiety associated with withdrawal syndrome.

Interventions

There was a perception amongst the respondents that it had become more difficult to obtain prescription drugs in the previous year because of interventions either by police, or by doctors or other authorities such as the Health Insurance Commission (HIC). Whilst around one-third of participants believed that police activity around prescription drugs had increased, and the same number reported it had remained stable in that time, about 40% of respondents reported that police targeted pharmacies, searched for prescription drugs, requested prescriptions, and checked bottles for the name of the patient, and that such activities had made it more difficult to access the drugs illicitly. More participants, however, believed that other interventions had limited their access to the drugs, with over 50% reporting that increased public awareness about illicit use of the drugs, and initiatives by general practitioners or the HIC, had made it more difficult for them to access the drugs, because prescriptions were more difficult to obtain, and this impacted on street availability as well. Examples of such interventions included doctors refusing to prescribe the drugs, or limiting prescriptions to 'drip-feeds', where the patient receives only one or two doses at a time, and a belief by some participants that users were on a 'doctor-shoppers' database which meant they could not obtain prescriptions.

Stage three: Secondary indicator data

A range of secondary indicator data was sourced from National and Victorian law enforcement and health sectors to provide an additional perspective on the issues under focus, and assist in interpreting the relationships between crime and prescription drugs misuse in Victoria. The

most current data available are presented here, separated into broad categories of Use trends, Prescribing trends, Crime and police activity, Health, and Drug market characteristics and pharmaceutical use.

Jurisdictional indicators

Use trends

National Drug Strategy Household Survey

Every three years the National Drug Strategy Household Survey (NDSHS) 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 34 (AIHW 2001). Specific information about morphine was not collected and data collection on methadone and other opioid use commenced in 2001. The table shows that the lifetime and recent use of heroin, painkillers, and benzodiazepines in Australia fluctuated over the surveys; however, the use of benzodiazepines and morphine in Victoria was generally higher than in Australia as whole. Seven percent of Victorians reported lifetime non-medical use of benzodiazepines in the NDSHS 1998 (AIHW 1998), while four percent reported such use in the 12 months prior to the survey, and this usage more than halved in 2001. A similar pattern of use was seen for painkillers/analgesics, with 12% reporting lifetime use in 1998, six percent reporting recent use, which dropped to six precent and three percent respectively in 2001. Use of methadone declined in both Victoria and Australia. See Table 34.

Table 34. Lifetime and recent use of selected drugs in 1995, 1998 and 2001, Victoria and Australia (%).

	LIFETIME USE						RECENT USE					
	1995		1998		2001		1995		1998		2001	
DRUG	Vic	Aus	Vic	Aus	Vic	Aus	Vic	Aus	Vic	Aus	Vic	Aus
Heroin	1.4	1.4	2.2	2.2	1.5	1.6	0.3	0.4	1	0.7	0.3	0.2
Other opioids	na	na	na	na	1.2	1.3	na	na	na	na	0.4	0.3
Methadone	na	na	0.3	0.5	0.2	0.3	na	na	0.2	0.2	0.1*	0.1
Tranq/sleepers	4	3.2	7.4	6.2	3.2	3.2	0.9	0.6	4	3.0	1.1	1.1
Painkillers/ analgesics	na	na	12.2	11.1	6.0	3.2	na	na	6.1	4.9	3.4	3.1
Injected illegal drugs	0.9	1.3	2.2	2.1	1.4	1.9	0.4	0.6	0.9	0.7	0.6	0.6

Source: National Drug Strategy Household Surveys (AIHW 1995, 1998, & 2001).
* Standard error greater than 0.50
na: Not available

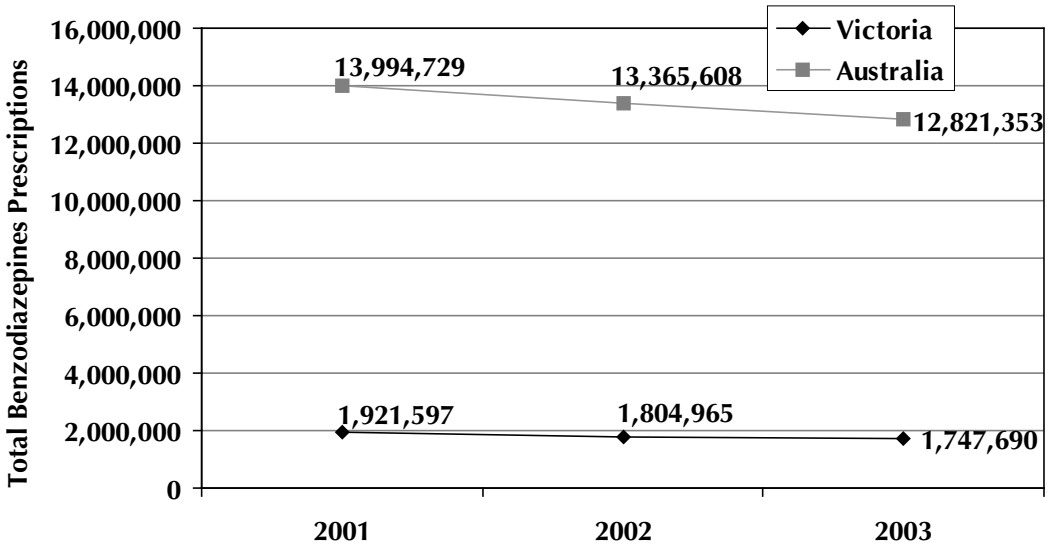
Prescribing trends

Benzodiazepines

In 2001 there were over 1.92 million subsidised prescriptions for benzodiazepines issued under the PBS/RPBS (Victorian Department of Human Services, 2002). Approximately 80% of benzodiazepines issued through Australian pharmacies are subsidised. Hospitals also dispense a large number of prescriptions. Compared to the previous year there was a drop in benzodiazepine prescriptions issued in 2001, a trend which continued in the following two years. See Figure 4.

Temazepam was the most commonly prescribed of the benzodiazepines, accounting for 40% of prescriptions, and together temazepam, diazepam and oxazepam account for 84% of all benzodiazepines issued under the scheme.

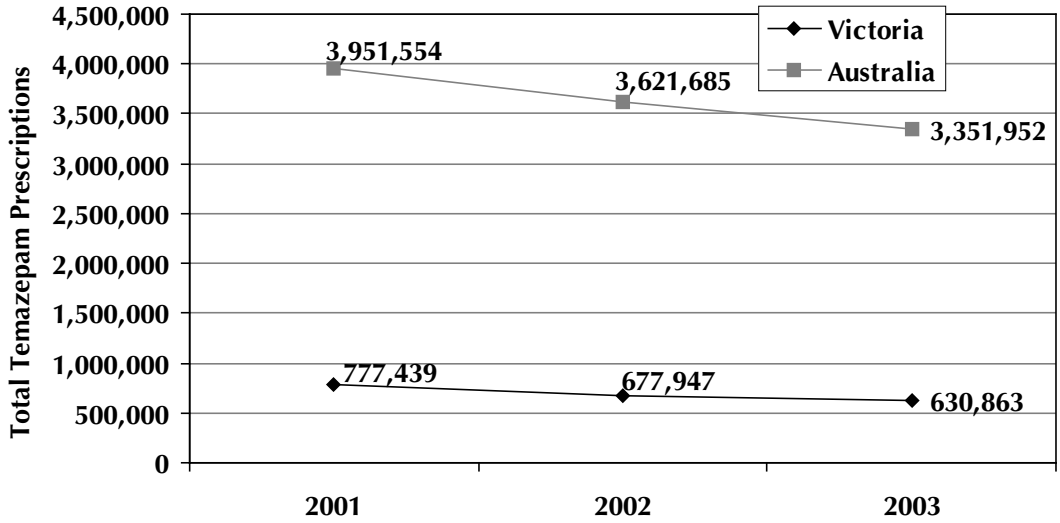
Figure 4: Total number of prescriptions for benzodiazepines under the PBS/RPBS, 2001 - 2003



Source: DUSC Pharmaceutical Benefits Branch, Health Access and Financing Division, Australian Government Department of Health and Ageing (Drug Utilisation Sub-committee (DUSC) 2004).

The decrease in benzodiazepine prescriptions issued under the PBS/RPBS for the three years from 2001 was reflected by a corresponding decrease in temazepam prescriptions (Breen et al. 2003b). The decrease in prescribing is less marked in Victoria than in Australia as a whole. See Figure 5. In 1998, 7% of temazepam prescriptions were for tablets and 93% were for capsules – the proportion of capsules has declined since, with 22% of Victorian temazepam prescriptions in 2001 being for tablets (Dobbin 2001).

Figure 5: Total number of prescriptions for temazepam (capsules and tablets) under the PBS/ RPBS, 2001 - 2003



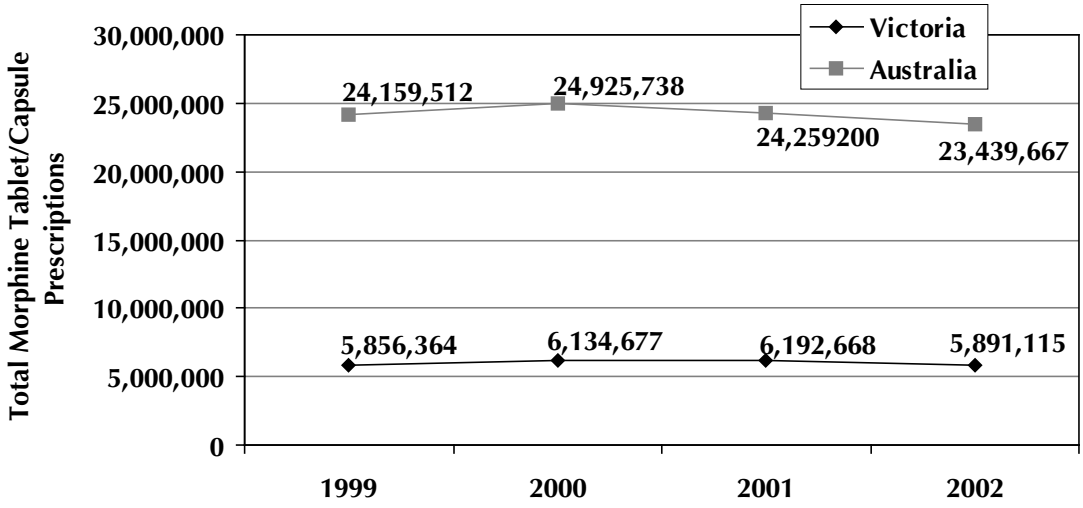
Source: DUSC Pharmaceutical Benefits Branch, Health Access and Financing Division, Australian Government Department of Health and Ageing, 2004.

Pharmaceutical opioids

Morphine prescriptions

There was a slight decrease in prescriptions filled under the PBS/RPBS for morphine in tablet or capsule form (as brands Anamorph, MS Contin and Kapanol) in Victoria between 1998 (7,850 prescriptions) and 2002 (1,557,734 prescriptions), reflecting the trend across Australia (from 153,700 to 3,264,072 prescriptions) in that time. See Figure 6.

Figure 6: Total number of prescriptions for morphine tablets and capsules (branded as Anamorph, MS Contin and Kapanol) under the PBS/RPBS, 1998 - 2002

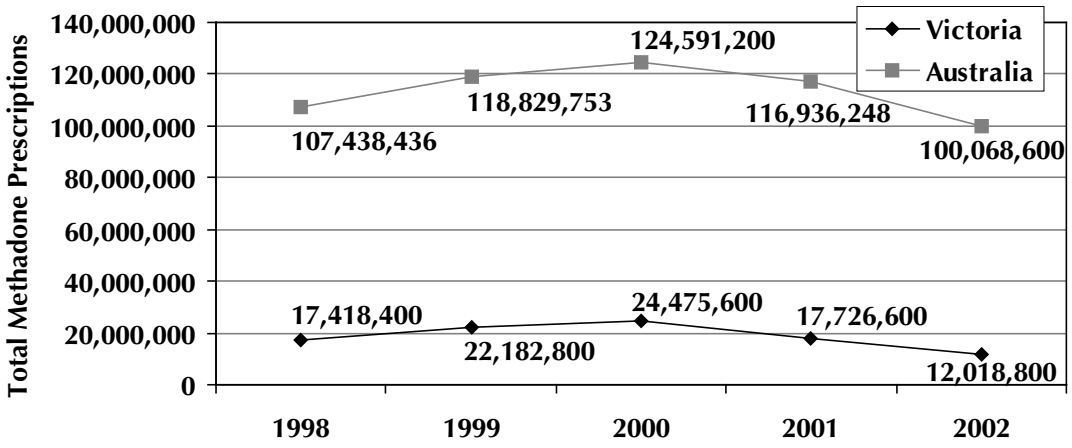


Source: DRUMS, The Treaties & Monitoring Team, Office of Chemical Safety, Therapeutic Goods Administration, 2003.

Methadone prescriptions

Methadone syrup prescriptions in Victoria have decreased since 2000, reflecting an Australia-wide situation for the treatment drug, in particular since the introduction of buprenorphine treatment in 2000, and that drug's approval under the PBS/RPBS in 2001. See Figure 7.

Figure 7: Total number of methadone syrup prescriptions for Victoria compared with the whole of Australia under the PBS/RPBS, 1998 - 2002



Source: DRUMS, The Treaties & Monitoring Team, Office of Chemical Safety, Therapeutic Goods Administration.

Annual National Pharmacotherapy statistics to June 30, 2002 (Australian Government Department of Health and Ageing, 2003) provided information about prescribing of methadone by public and private prescribers in that year. There were large variations in the numbers of clients receiving treatment at public and private prescribers in different jurisdictions. See Table 35.

Table 35. Number of clients collecting doses of methadone at different types of prescribers in Victoria and Australia, 12 months to June, 2002.

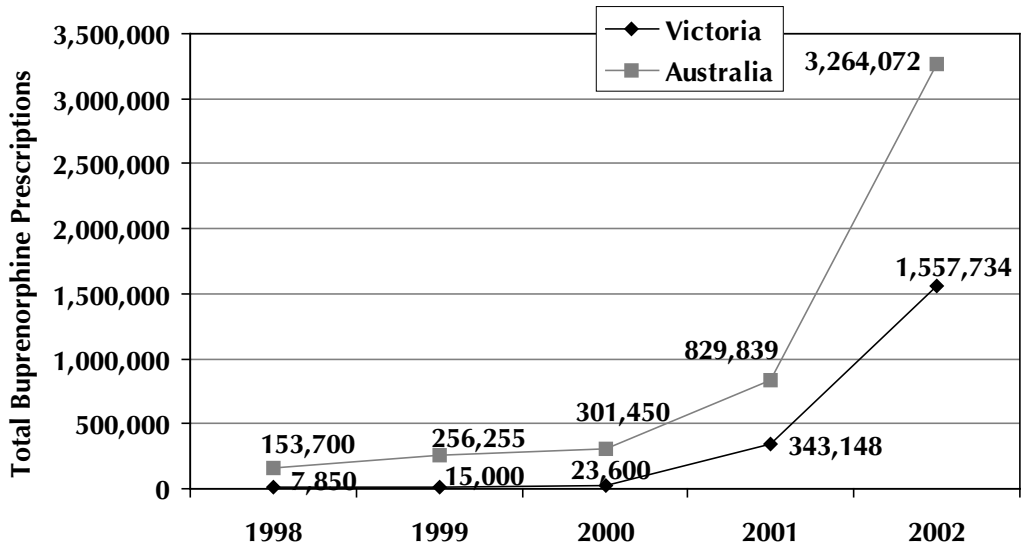
Number of clients collecting methadone	Vic	Australia
Pharmacies	4,580	15,148
Public clinics	85	4,545
Private clinics	-	2,897
Correctional facilities	142	1,897
Other	81	2,002
Total number of clients	4,888	26,489

Source: Australian Government Department of Health and Ageing, 2003.

Buprenorphine prescriptions

Concurrent with trends in the decreasing use of methadone syrup, buprenorphine prescriptions filled under the PBS/RPBS have increased rapidly, as it was taken up as accepted treatment protocol in 2000, particularly in Victoria, and approved for PBS prescribing in 2001. In 2002, Victorian prescriptions represented 48% of all prescriptions for buprenorphine issued under the PBS/RPBS. See Figure 8.

Figure 8: Total number of prescriptions for buprenorphine in Victoria and Australia-wide under PBS/RPBS, 1998 - 2002



Source: DRUMS, The Treaties & Monitoring Team, Office of Chemical Safety, Therapeutic Goods Administration.

Annual National Pharmacotherapy statistics to June 30, 2002 (Australian Government Department of Health and Ageing, 2003) provided information about prescribing of buprenorphine by public and private prescribers in that year. There were large variations in the numbers of clients receiving treatment at public and public prescribers in different jurisdictions. These data, combined with those above confirm that Victoria represented the single largest prescriber of buprenorphine, at 53% of all private and public registered clients in Australia. See Table 36.

Table 36. Number of clients collecting doses of buprenorphine at different types of prescribers in Victoria and Australia, 12 months to June, 2002.

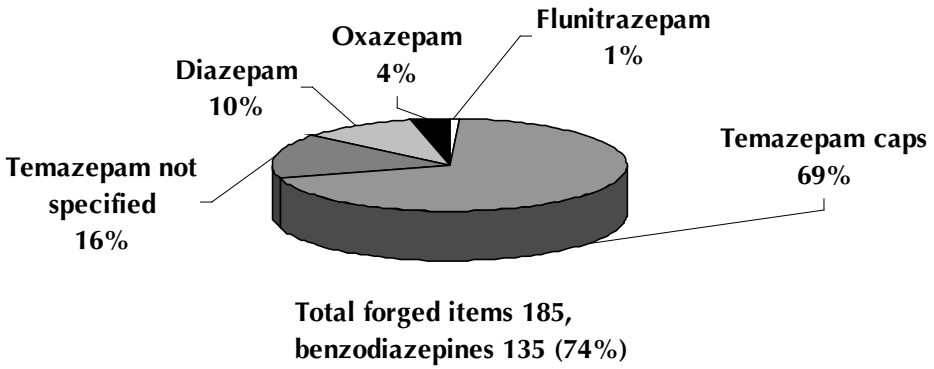
No of clients collecting buprenorphine	SA	Vic	QLD	NSW	Tas	WA	ACT	NT	TOTAL
Pharmacies	N/A	2,711	450	134	47	709		18	4,069
Public clinics	N/A	37	36	337		151	36		597
Private clinics				323					323
Correctional facilities	N/A	54	26	81		17			178
Other		10	83	63					156
Total no of clients	0	2,812	595	938	47	877	36	18	5,323

Source: Australian Government Department of Health and Ageing, 2003.

Forged prescriptions

In 1995, 223 items were included on forged or altered prescriptions reported to the Drugs and Poisons Unit, Victoria (cited in Dobbin 2001). Benzodiazepines accounted for 49% of the forged items, with temazepam accounting for 29% of all benzodiazepine prescriptions forged (Dobbin 2001). In the six months to the end of May 2001, 185 forged items were reported, with benzodiazepines accounting for 74%, and temazepam accounting for 85% of all benzodiazepine prescription forgeries. All forgeries or alterations nominated capsules as the dose form. There were no alterations or forgeries for tablets (Dobbin 2001). See Figure 9.

Figure 9: Reported forged benzodiazepine prescriptions in the six months to 31 May 2001



Source: Dobbin (2001)

Forgeries were written on stolen prescription stationery, some of which were taken during burglaries. A possible additional 385 prescriptions remain undetected. A number of computer-generated forgeries were also detected for Normison 20 mg capsules x 50 (Dobbin 2001).

Crime/police activity

Pharmacy Guild Insurance

Each year Guild Insurance Limited collects data about pharmacy crime-related claims. The most recent data are to the end of June 2002, and show a dramatic increase in total pharmacy-related crime claims in Victoria and Australia as a whole in 2001/02. Although this increase corresponds to the period around the Victorian Temazepam Initiative and the HIC regulation of 10mg temazepam capsules, it is not possible to ascertain the proportion of incidents that directly relate to prescription drug thefts from premises as such. See Table 37.

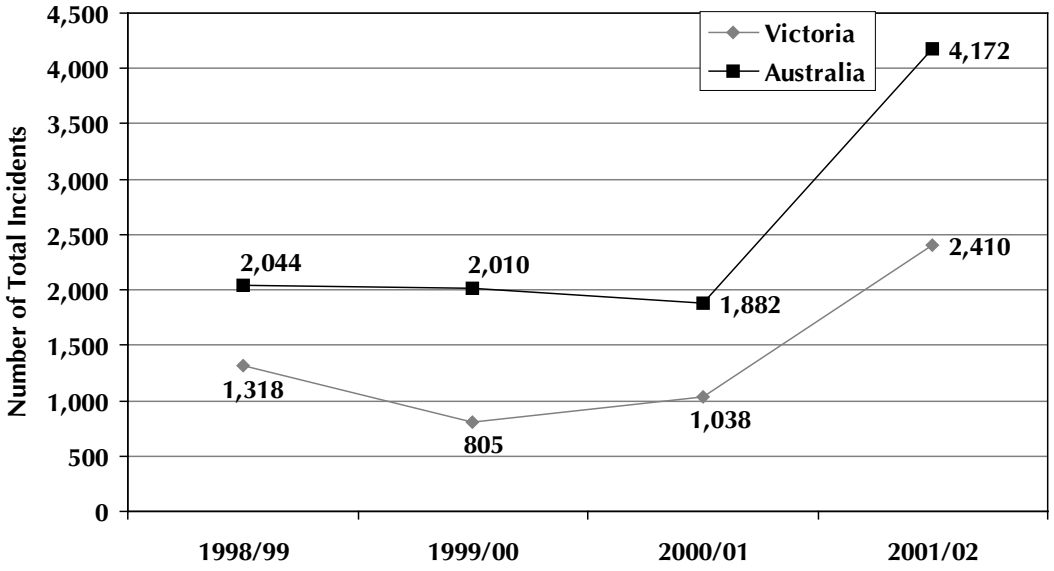
Table 37. The number of pharmacy crime-related claims for the four years ending June 30, 2002.

		Year			
State	**Description of Incident**	**1998/99**	**1999/00**	**2000/01**	**2001/02**
Victoria	Malicious Damage	207	337	258	657
	Burglary	171	339	669	1,524
	Armed hold up/Threat	53	25	20	54
	Theft	71	48	47	132
	Larceny	44	56	44	52
	Total	546	805	1,038	2,419
Australia	Malicious Damage	868	832	560	1,411
	Burglary	671	729	922	2,124
	Armed hold up/Threat	335	238	232	220
	Theft	106	87	62	350
	Larceny	64	124	106	67
	Total	2,044	2,010	1,882	4,172

Source: Guild Insurance Limited (2003)

The financial loss to Guild Insurance Limited more than doubled from 2001/01 to 2001/02 for Australia-wide claims, and more than quadrupled in Victoria, from a total $2,178, 665 in 1998/99 ($500,769 in Victoria) to $5,258,757 in 2001/02 ($2,410,770 in Victoria). Victoria's proportion of the total Australian figures increased substantially throughout the period, so that by 2001/02 they represent more than half of all claims received. The Victorian percentage of total claims was 26.7% in 1998/99, 40% in 1999/00, 55% in 2000/01, and 57.7% in 2001/02 (claims costs include costs of damage caused to premises as well as loss of stock/items etc.). See Figure 10.

Figure 10: Total number of claims for pharmacy-related crimes received by Guild Insurance Limited, 1998/99 - 2001/02



Source: Guild Insurance Limited (2003)

Law Enforcement Assistance Program

Data extracted from the LEAP database by the Victorian Police Statistical Services Division was examined for trends in offences reported against pharmacies/chemists between 1998/99 and 2002/03. No information was available for the types of goods stolen in burglaries, or whether drugs were taken; however, the Victorian temazepam initiative occurred November 2001, and the PBS authority change for temazepam gel capsules occurred May 2002. Burglaries at Victorian Chemists almost doubled in number between 1998/99 and 2000/01 (from 253 to 531), and increased by almost a further 50% to the year 2001/02 (to 743). Then burglary offences more than halved between 2001/02 and 2002/03 (to 360) taking the total offences reported in that year to below the number reported in 1999/00. In terms of the total value of items stolen in the reported burglaries, the amount decreased substantially between 1998/99 and 2000/01, and increased again in the following year, remaining high in 2002/03. See Table 38.

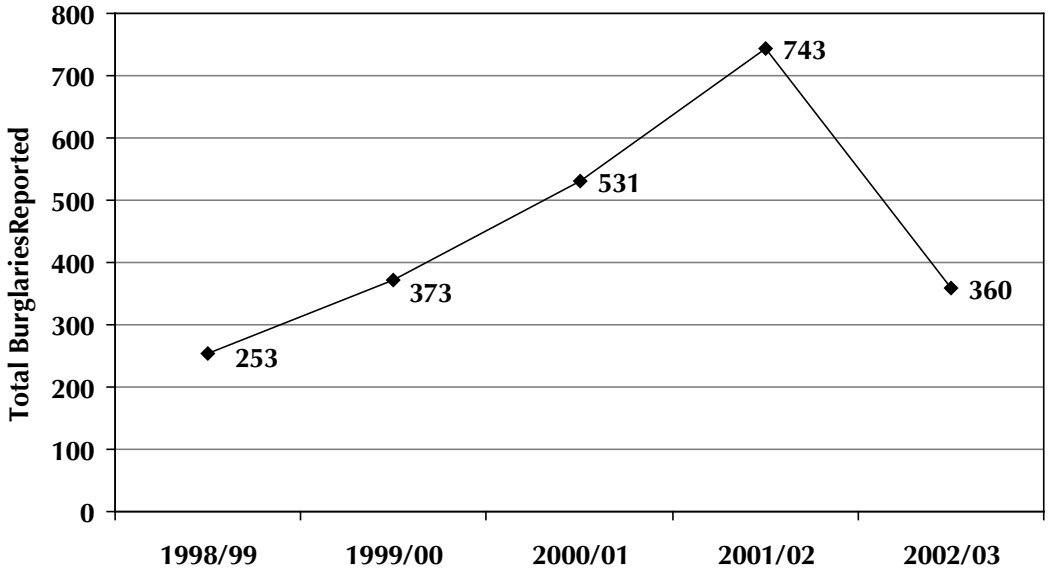
Table 38. Number of burglaries on chemists/pharmacies, 1998/99 - 2002/03.

Financial Year	Offence Count	Value		Total	Financial Year	Total
		Median	Mean			
1998/99	253	$258.00	$2,793.00	$452,407.00	1998/99	$452,407.00
1999/00	373	$200.00	$698.00	$174,549.00	1999/00	$174,549.00
2000/01	531	$266.00	$801.00	$272,211.00	2000/01	$272,211.00
2001/02	743	$233.00	$909.00	$397,951.00	2001/02	$397,951.00
2002/03	360	$500.00	$2,115.00	$363,745.00	2002/03	$363,745.00

Source: Data extracted from LEAP on 25/06/04 by Victorian Police Statistical Services Division.
Data is subject to variation.

Figure 11 demonstrates the trend in reported offences between 1998/99 and 2002/03.

Figure 11: Total number of burglaries from chemists/pharmacies reported, 1998/99 - 2002/03



Source: LEAP data, Victoria Police, 2004.

Offenders in age categories 17-39 were more common than offenders aged less than 16, or over 40 years, in all years, and in particular in 2000/01 and 2001/02, the years when the offences were reported with the highest frequency. Table 39 shows that the majority of offences reported resulted in arrest of the offender, and that arrests increased from 56 in 1998/99 to 159 in 2000/01, and again to 187 in 2001/02, reducing somewhat in 2002/03 to 117.

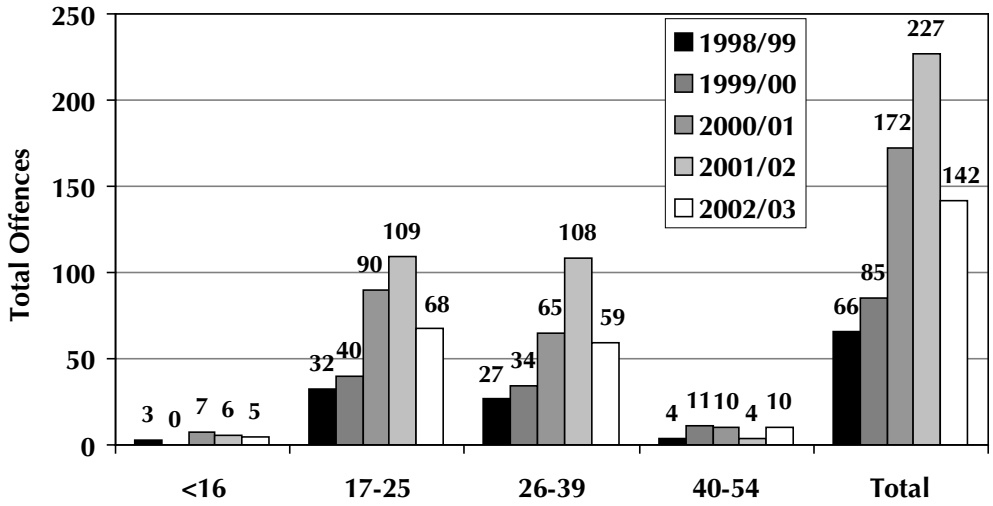
Table 39. Number of offenders processed for burglaries on chemists/pharmacies from 1998/99 - 2002/03 by age and how dealt with.

	How Dealt With	<16	17-25	26-39	40-54	Total
1998/99	Arrest	0	27	27	2	56
	Caution	1	0	0	0	1
	Not authorised	1	1	0	0	2
	Summons applied for/issued	1	4	0	2	7
	Total	3	32	27	4	66
1999/00	Arrest	0	36	31	11	78
	Not authorised	0	0	1	0	1
	Summons applied for/issued	0	4	2	0	6
	Total	0	40	34	11	85
2000/01	Arrest	5	82	63	9	159
	Not authorised	0	1	1	0	2
	Other	1	0	0	0	1
	Summons applied for/issued	1	7	1	1	10
	Total	7	90	65	10	172
2001/02	Arrest	4	97	84	2	187
	Caution	0	0	1	0	1
	Not authorised	0	2	1	0	3
	Summons applied for/issued	2	10	22	2	36
	Total	6	109	108	4	227
2002/03	Arrest	2	58	49	8	117
	Caution	1	0	0	0	1
	Not authorised	0	1	0	0	1
	Summons applied for/issued	2	9	10	2	23
	Total	5	68	59	10	142
	Grand Total	21	339	293	39	692

Source: Data extracted from LEAP on 25/06/04 by Victorian Police Statistical Services Division.
Data is subject to variation.

Figure 12 displays the total number of people in different age categories charged for offences against chemists/pharmacies between 1998/99 and 2002/03. In all years the majority of offences were committed by individuals aged between 17 and 39 years, and offences within these age categories also increased in 2001/02, and 2000/01. Offences committed by individuals aged below 16 were minimal in this time, and offences decreased dramatically for the over 40 years age group in all years.

Figure 12: Number of offenders processed for burglaries on chemists/pharmacies, 1998/99 - 2002/03 by age



Source: LEAP data, Victoria Police, 2004.

Drug offences

The number of people arrested for drug-related offences fell during 2000-01 compared with 1999-00, although this varied depending on drug type (see Table 40).

Table 40. Consumer and provider arrests, by drug type, Victoria, 2000-01.

	Cannabis (n)	Heroin (n)	Amphetamine (n)	Cocaine (n)	Hallucinogens (n)	Steroids (n)	Other (n)	Totals (N)
Consumer Arrests								
Female	832	581	159	4	0	0	148	1724
Male	4,656	2,047	694	33	1	0	575	8,006
Unknown	28	1	2	0	0	0	2	33
Total	5,516	2,629	855	37	1	0	725	9,763
Provider Arrests								
Female	147	301	66	1	0	0	32	547
Male	806	1,068	333	25	0	0	169	2,401
Unknown	4	5	1	0	0	0	0	10
Total	957	1,374	400	26	0	0	201	2,958
Total Arrests								
Female	990	884	227	5	0	0	397	2,503
Male	5,501	3,118	1,033	58	1	0	1,974	11,685
Unknown	33	6	3	0	0	0	13	55
Total	6,524	4,008	1,263	63	1	0	2,384	14,243

Source: Victorian Department of Human Services, 2002.

Heroin and cannabis-related arrests decreased, while arrests for amphetamine-type stimulants, cocaine and other stimulants increased. More people were arrested for cannabis-related offences (consumer/provider) than any other drug type, and more men than women were arrested for trafficking and/or possession than women (Victorian Department of Human Services, 2002). See Table 40 (pharmaceutical drugs are categorised within 'other', and are not specified).

Number of drug charges finalised by offence category, 1998/99 to 2000/01

The Victorian Department of Justice (VDJ) collates Victorian Magistrate's Court data related to drug offences, which are presented in the *Victorian Drug Statistics handbook-2002* (Victorian Department of Human Services, 2002). In 1998/99, 22,456 drug-related charges were finalised. In 2000-01 this fell to 17,397. The majority of finalised charges were for possession and use charges, rather than cultivate, manufacture and traffic. The majority of charges in 1998-99 related to heroin and cannabis. Numbers of finalised manufacturing and possession charges decreased across the three-year period for heroin and cannabis as a percentage of all finalised charges. Table 41 demonstrates the sentencing outcome for the principal proven charges for each drug type during 2000-01. Most charges for cultivation traffic and manufacture (46%) resulted in a fine or bond, with 32% resulting in suspended sentences. While 78% of possession and use charges resulted in a bond or fine, 11% resulted in custodial sentences, and 9% resulted in suspended sentences.

Table 41. Drug charge as principal proven charge by drug type and outcome, Victoria, 2000-01.

	Cultivation, traffic and manufacture charges[a] by drug type								
	Custodial sentence[b]		**Suspended sentence[c]**		**Fine/bond[d]**		**Convicted & discharged**		**Total sentences by drug**
Drug type	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
Cannabis	188	16.8	204	17.1	799	67.0	1	0.1	1, 192
Heroin	349	59.2	188	31.9	52	8.8	1	0.2	590
Amphetamines	51	58.6	27	31.0	9	10.3	0	0	87
Cocaine	0	0	0	0	0	0	0	0	0
Other	21	55.2	5	13.2	12	31.6	0	0	38
No drug specified	0	0	1	25.0	3	75.0	0	0	4
Sub-total	609	32.1	425	22.2	875	45.8	2	0.1	1,911
Possession and use charges by drug type									
Cannabis	31	3.4	52	5.8	813	90.3	4	0.4	900
Heroin	183	18.7	121	12.2	673	67.9	14	1.4	991
Amphetamines	21	10	24	11.4	166	78.7	0	0	211
Cocaine	0	0	0	0	5	100	0	0	5
Other	12	12.2	11	11.2	74	75.5	1	1.0	98
No drug specified	6	18.8	2	6.3	23	71.9	1	3.1	32
Sub-total	253	11.3	210	9.39	1,754	78.4	20	1.0	2,237

Source: Victorian Department of Human Services, 2002.

[a] Data relate to cases where all charges have been finalised and where the principal proven charge was a drug charge. The data do not relate to charges relating to cases that were finalised at a committal hearing or filing hearing.

[b] Custodial sentence = imprisonment, YTC (Youth Training Centre Detention), partially suspended, combined custody and treatment order.

[c] Suspended sentence includes suspended sentences, ICO (Intensive Corrections Order), CBO (Community Based Order).

[d] Fine/bond includes fines or undertaking.

Australian Customs Service

For the majority of benzodiazepine and pharmaceutical drug seizures, specific information regarding the generic forms or brand names are not currently recorded in the Australian Customs Service drug statistics database.

Table 42 provides drug detection figures for the relevant drug categories that are available from the Australian Customs Service database between 1999 and 2003. Detections of the remaining drug categories are recorded in the generic categories of 'Other benzodiazepines' and 'Prescribed drugs'. The detections of drugs within these categories, especially 'Other benzodiazepines' and 'Prescribed drugs', has increased dramatically throughout that time. See Figure 13.

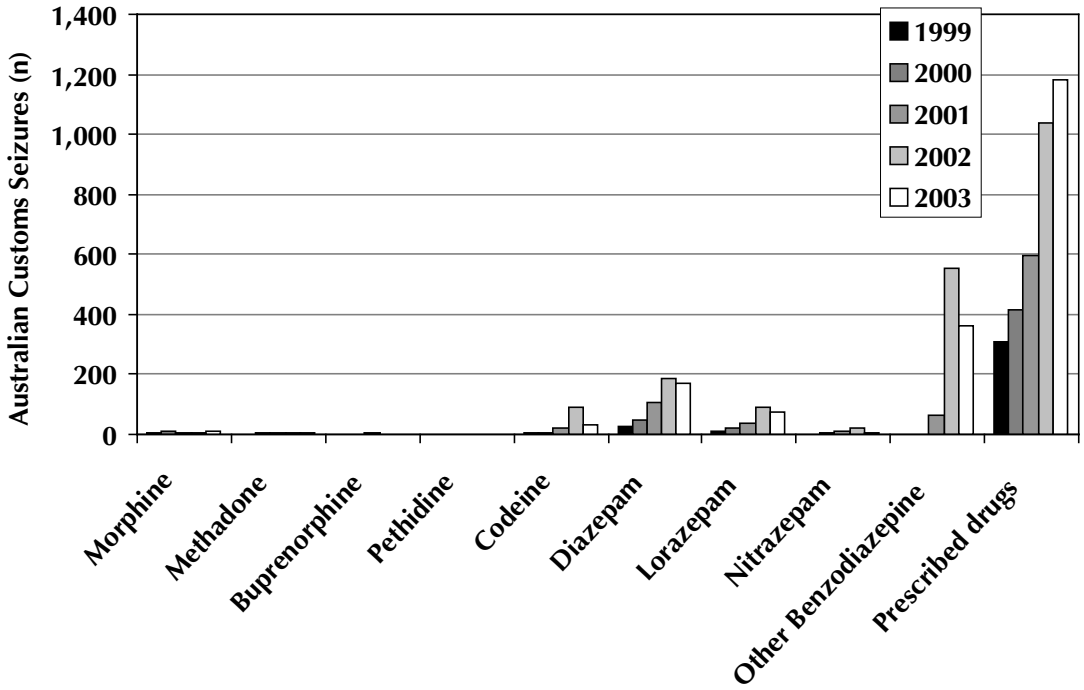
Table 42. Number of drug detections by Australian Customs Service of selected opioids, benzodiazepines and prescribed drugs for years 1999 - 2003.

Drug category	1999	2000	2001	2002	2003
Morphine	4	9	5	7	10
Methadone	1	4	4	3	4
Buprenorphine	0	1	3	0	2
Pethidine	1	1	1	2	1
Codeine	4	7	21	88	32
Diazepam	29	47	106	186	169
Lorazepam	13	21	36	93	76
Nitrazepam	0	4	11	21	7
Other Benzodiazepine	N/A	1	63	552	362
Prescribed drugs	310	413	598	1,037	1,180

Source: Data provided by Australian Customs Service drug statistics database, 2004.

Figure 13 shows the seizures of drugs within the different categories.

Figure 13: Number of seizures by Australian Customs of prescribed drugs, 1999 - 2003



Source: Data provided by Australian Customs Service drug statistics database, 2004.

Victoria Police Seizures

The Chemical Drug Intelligence (CDI) Team at the Victoria Police Forensic Services Centre collates data on drugs seized by Victorian police annually as a result of a drug possession or drug trafficking charge. They supplied data for benzodiazepines and pharmaceutical opioids seized by police between 1998 and March 2004 (where applicable). Temazepam was the drug most consistently seized between 1998 and 2003, followed by diazepam between 1999 and 2003. The trend for seizures of all these pharmaceutical drugs clearly has increased consistently in Victoria from 1998 to 2003 (from 3,070 seizures in 1998 to 16,381 in 2001, to 52,386 in 2003). See Table 43.

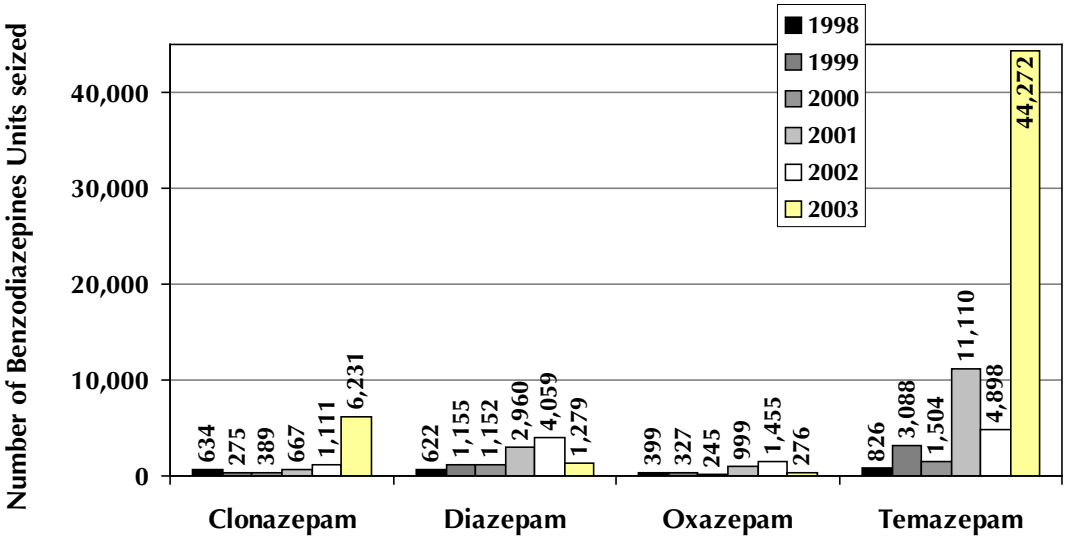
Table 43. Number of units seized of benzodiazepines and pharmaceutical opioids between 1998 and March 2003.

	1998	1999	2000	2001	2002	2003	2004
Aprazolam	33	81	4	590	75	159	10
Clonazepam	634	275	389	667	1,111	6,231	
Diazepam	622	1,155	1,152	2,960	4,059	1,279	
Flunitrazepam	391	166	16	8	340	15	76
Lorazepam	29			5	3		
Nitrazepam	136	118	90	42	280	154	
Oxazepam	399	327	245	999	1,455	276	
Temazepam	826	3,088	1,504	11,110	4,898	44,272	
Total	3,070	5,210	3,400	16,381	12,221	52,386	86

Source: The Chemical Drug Intelligence (CDI) Team at the Victoria Police Forensic Services Centre.

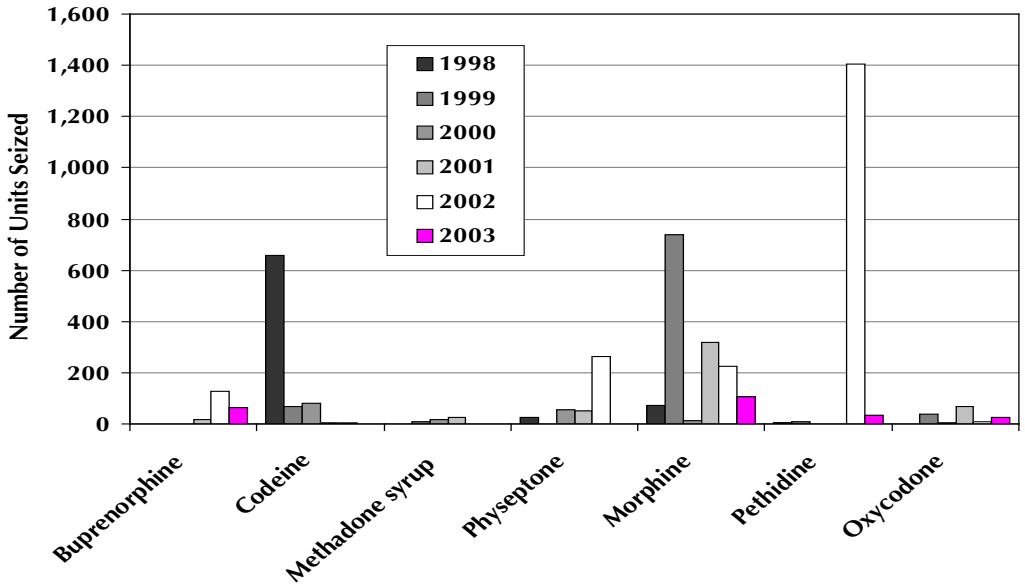
Figures 14 and 15 display the trend for seizures between 1998 and March 2003 in the most commonly seized benzodiazepines (clonazepam, diazepam, oxazepam and temazepam), and for the pharmaceutical opioids.

Figure 14: Number of units of the most frequently seized benzodiazepines, 1998 - 2003



Source: The Chemical Drug Intelligence (CDI) Team at the Victoria Police Forensic Services Centre.

Figure 15: Number of units of pharmaceutical opioids seized between 1998 and March 2003



Source: The Chemical Drug Intelligence (CDI) Team at the Victoria Police Forensic Services Centre

Health

Alcohol and drug treatment services

A census of 75 specialist alcohol and drug treatment services reported that they had seen 1,003 clients (users and non-users) on one day in May 2001. Fifty-four percent of the agencies reported the number of clients seen that day was typical. Table 44 shows the breakdown of the main problem drug of drug-using clients identified by the agencies. The majority of clients sought treatment for opioids (34%) and alcohol (33%), with a large proportion also having problems with cannabis (12%), and with poly drug use (11%). Three percent of clients mentioned benzodiazepines specifically as a problem.

Table 44. Main drug problems of clients attending specialist drug treatment agencies, Victoria, 2001.

Drug	2001 (n = 996)
Alcohol	33%
Opioids	34%
Cannabis	12%
Amphetamines	4%
Poly-drug use	11%
Benzodiazepines	3%
Tobacco	1%
Other drugs	1%

Source: Victorian Department of Human Services (2002)

Australian Needle and Syringe Program

The Australian Needle and Syringe Program (ANSP) collates survey data on the prevalence of the last drug injected by Needle Syringe Program (NSP) clients across Australia. Between 2000 and 2002, there was a clear decreasing trend in Australia in heroin reported as the last drug injected by clients, and a corresponding marked increase in the injection of amphetamines. The injection of other drugs, such as morphine and methadone, also increased between 2000 and 2002 (Buddle, Zhou & MacDonald 2003). See Table 45.

Table 45. Prevalence of last drug injected in Victoria and Australia, 2000 - 2002 according to the Australian Needle and Syringe Program (ANSP) Survey.

	2000		2001		2002	
Drug	**Victoria (N = 293)**	**Australia (N = 2,695)**	**Victoria (N = 340)**	**Australia (N = 2,454)**	**Victoria (N = 265)**	**Australia (N = 2,445)**
Amphetamines	19 (6%)	582 (22%)	84 (24%)	914 (37%)	60 (23%)	809 (33%)
Benzodiazepines	0	11 (<1%)	2 (1%)	11 (<1)	0	8 (<1)
Buprenorphine	-	-	--	-	12 (5%)	25 (1)
Cocaine	0	32 (1%)	05 (1%)	164 (7%)	0	29 (1)
Heroin	255 (87%)	1517 (56%)	197 (58%)	745 (30%)	150 (57%)	881 (36%)
Methadone	5 (2%)	94 (3%)	0	127 (5%)	1 (<1%)	165 (7%)
Morphine	5 (2%)	97 (4%)	9 (3%)	151 (6%)	6 (2%)	180 (7%)
More than one	9 (3%)	199 (7%)	24 (7%)	153 (6%)	24 (9%)	204 (8%)

Source Buddle, Zhou & MacDonald (2003).

Direct Line

Direct Line provides 24 hour counselling information and referral for Victorians for any drug-related issue. Responses through 2000/01 where benzodiazepines were mentioned were cited as cause for concern. They accounted for five percent of all calls where a drug was identified, and two percent of all calls to Direct Line. Metropolitan Melbourne accounts for the bulk of calls (83%), and females made the majority (66%) of calls. Unlike other drug types, the majority of calls from benzodiazepine users (59%) were also made by women. The majority of users were aged between 22 and 40 years. See Table 46.

Table 46. Number of benzodiazepines and other minor tranquilliser-related calls to Direct Line, Victoria, 1997/98 - 2000/01.

Year	Benzodiazepines & other tranquillisers as drug of concern	% of drug identified calls	% of all calls
1997/98	1,392	6.7	3.6
1998/99	1,467	5.2	3.3
1999/00	1,167	4.9	3.0
2000/01	1,131	5.0	2.4

Source: Direct Line Services database. Turning Point Alcohol and Drug Centre Inc, Victorian Department of Human Services, 2002.

Victorian Emergency Minimum Dataset

The Victorian Emergency Minimum Dataset (VEMD) provides information on tissue and vascular harm cases presenting to emergency departments in Victoria resulting from injection of temazepam (cited in Dobbin 2001). The database was not designed for systematic searching of cases due to injury caused by a specific drug or mode of administration. Because of limitations of the VEMD search technique, only an unknown proportion of actual cases of harm resulting from injection of temazepam capsule contents will have been identified. These results may substantially underestimate the number of cases. Sixty-three cases were identified for the period 1996 to end of first quarter 2001. In a similar exercise seeking cases presenting as a result of injection of oxazepam and diazepam in the same period, only a handful of cases were identified, some of which appeared to be due to therapeutic injection of diazepam, or overdose. No cases of vascular harm were identified (cited in Dobbin 2001). See Table 47.

Table 47. All cases of temazepam capsule-related harms identified: year of presentation, 1996 - 2001.

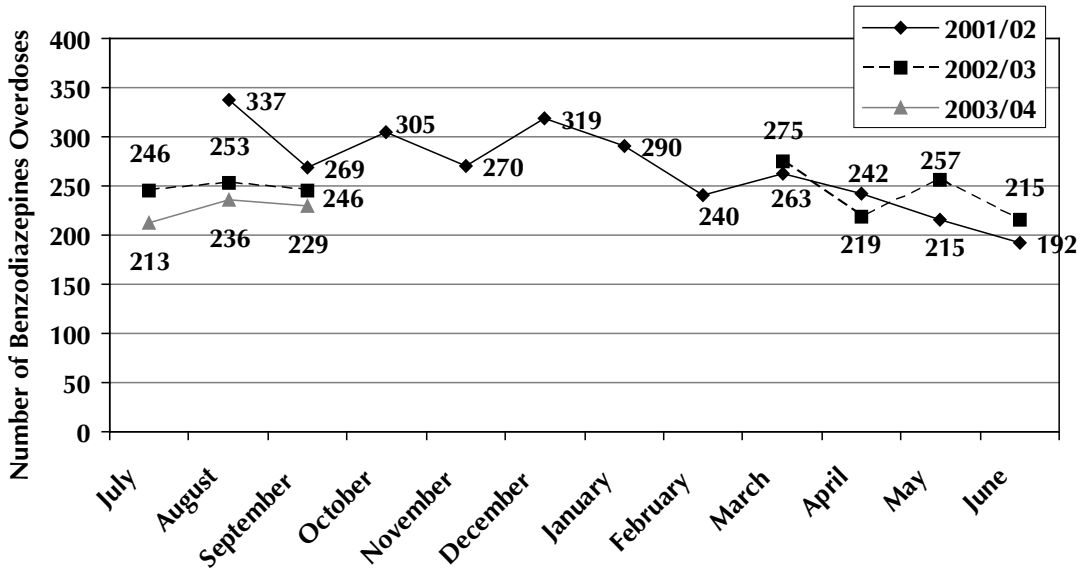
	1996 (n)	**1997 (n)**	**1998 (n)**	**1999 (n)**	**2000 (n)**	**2001 (1st quarter) (n)**	**Total (N)**
Vein or tissue harm	4	0	1	5	7	9	26
Other	3	4	3	7	12	8	37
Total	7	4	4	12	19	17	63

Source: Dobbin (2001).

Non-fatal drug-related overdoses

A database of Melbourne Metropolitan Ambulance Service (MAS) attendance at drug-related overdose incidents is maintained by Turning Point. Figure 16 shows the monthly totals for non-fatal benzodiazepine-related overdoses for the period August 2001 to September 2003 (excludes May - July 2001 and October 2002 - February 2003). There was a general trend for decreasing benzodiazepine-related cases attended by ambulance in Melbourne in the past several years, with 2,896 attendances recorded in the 2001/02 financial year, dropping to 1,711 in 2002/03, with 678 recorded between July and September 2003. Such attendances peaked at 337 in August 2001. However, they have remained at over 200 attendances per month.

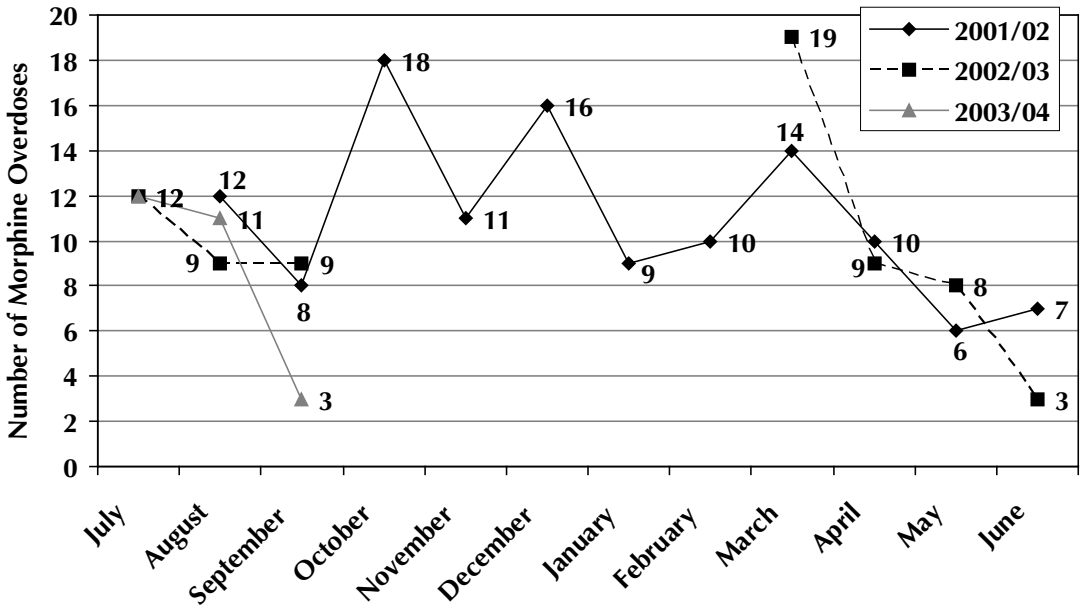
Figure 16: Number of ambulance attendances at non-fatal benzodiazepines overdoses attended by Melbourne Ambulance between August 2001 and September 2003



Source: Data obtained from Metropolitan Ambulance Service and compiled by Turning Point Alcohol and Drug Centre Inc., 2004.

The number of ambulance attendances at non-fatal morphine overdoses fluctuated; after peaking at 18 in October 2001, they showed a decrease towards the end of the 2001/02 financial year. Attendances then peaked again to 19 in March of 2003, before declining dramatically towards the second half of the year, until September when the most recent data are available. See Figure 17.

Figure 17: Number of Ambulance attendances at non-fatal morphine overdoses attended by Melbourne Ambulance between August 2001 and September 2003



Source: Data obtained from Metropolitan Ambulance Service and compiled by Turning Point Alcohol and Drug Centre Inc., 2004.

Hospitalisations

The Victorian Department of Human Services maintains a database of admissions from private and public hospitals (the Victorian Admitted Episode Dataset). Turning Point Alcohol and Drug Centre conducts analyses on these data. A summary of the findings for 2000/2001 is presented here. See Table 48. The table shows that tobacco and alcohol are responsible for more hospitalisations than illicit drugs, causing 25% and 62% of all Victorian hospitalisations respectively. Benzodiazepines and other minor tranquilliser misuse accounted for 3.7% of admissions, compared with opioids at 2.7%, in 2000/01. Females accounted for the majority of benzodiazepines hospitalisations, whereas males accounted for the majority of other drug hospitalisations. There has been a steady increase in the number of hospitalisations for benzodiazepines since 1993. Most people were female (61%), and aged between 25 and 50 years (62%). The majority of hospital days (66%) also involved females (DHS 2002). There were 2,393 benzodiazepine-related hospital admissions in 2001/02, which has remained reasonably steady since 2000/01 (n = 2,436) and 1999/00 (n =2,176) (Victorian Department of Health and Community Services 2003). There were a total of 934 opioid related hospital admissions in the 2001/02 financial year, with 46% (n = 427) due to poisoning, and 34% (n = 321) due to dependent use. This is a decrease on admissions in the 2000/01 year of 1815, and in 1999/00 of 2318. Fewer admissions in 2001/02 were due to dependence than in past years (44% in 2000/01; 52% in 1999/00, (Jenkinson, Fry & Miller (2003)).

Table 48. Number of drug-related hospitalisations in Victoria by drug type and sex, 2000/01.

Drug	Males	Females	Total
Alcohol	11,473	5,788	17,261
Amphetamines	212	112	324
Benzodiazepines	955	1,476	2,436
Cannabis	314	151	465
Cocaine	13	10	23
Hallucinogens	37	27	64
Inhalants	7	1	8
Opioids	1,116	699	1,815
Polydrug*	375	184	559
Tobacco	27,181	14,241	41,423
Unspecified	798	1,254	2,052

Source: Victorian Department of Human Services (2002).
* Includes multiple drugs or unknown drugs.

Drug deaths

Other drugs present in heroin-related deaths

Cases of heroin-related deaths identified by the State Coroner's Office in Victoria were investigated using tissue samples and blood (Wallington, Drummer & Gerostamoulos 2002). Since 1991, there have been a total of 1,772 deaths resulting from the use of heroin (Wallington, Gerostamoulos & Drummer 2003). There were 49 registered deaths from the use of heroin in Victoria in 2001, which was a dramatic decrease (-86%) from the number of deaths in 2000 (n = 331), preceding the heroin drought. Heroin-related deaths rose slightly again to 59 in 2002, and increased still more to 100 in 2003 (Jenkinson, Miller & Fry 2004). At the time of submission of this report, heroin-related deaths in Victoria stood at 72 (Aug 31, 2004) (Coroner's Court and Institute of Forensic Medicine, 2004, cited in the *Herald Sun*, June 10, 2004: P. 20).

Forensic toxicology screening for a range of drugs identified other drugs contributing or incidental to the deaths. Benzodiazepines were the most common drug group identified in these deaths, and were detected in 71% of all cases in 2000, and 55% of all deaths involving heroin from 1997 - 2001. Morphine-related cases remained fairly consistent between 1997 and 2001, peaking at 22% of mentions in 1999; however, morphine, plus benzodiazepine mentions, comprised more than half the deaths in most years, reaching a high of 71% in 2001 (amphetamines mentions also peaked in 2001) (Wallington, Gerostamoulos & Drummer 2003). See Table 49.

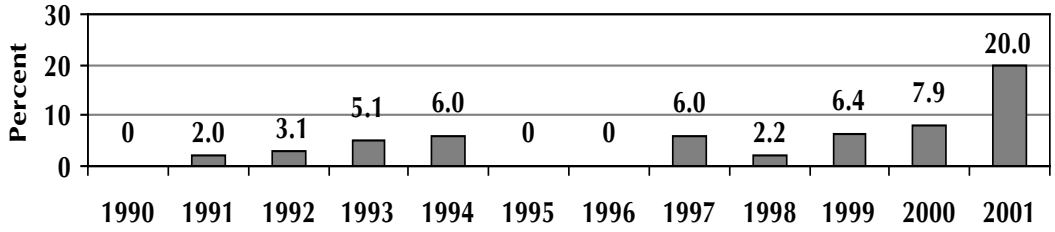
Table 49. Percentage of heroin-related deaths that included the presence of other drugs in the deceased's bloodstream, Victoria, 1997 - 2001.

Prevalence of drugs in heroin-related deaths	1997 (n = 168)	1998 (n = 268)	1999 (n = 359)	2000 (n = 331)	2001 (n = 49)	Overall Average
Morphine only	9%	16%	22%	17%	16%	16%
Benzodiazepines only	na	na	na	na	71%	55%
Morphine plus benzodiazepines	53%	40%	55%	55%	71%	55%
Morphine plus alcohol	29%	40%	32%	32%	31%	33%
Morphine plus other opioid drugs	8%	11%	7.3%	9%	4%	8%
Morphine plus amphetamines	7%	10%	6%	10%	22%	11%

Source: Wallington, Gerostamoulos & Drummer (2003)
na: Not available

Heroin-related deaths from 1991 to 2001 were also examined specifically for the presence of temazepam in the bloodstream (Dobbin 2001). See Figure 18.

Figure 18: Percentage of heroin-related deaths with temazepam present in the bloodstream, Victoria 1990 to August 2001 (data not available for 1995, 1996)

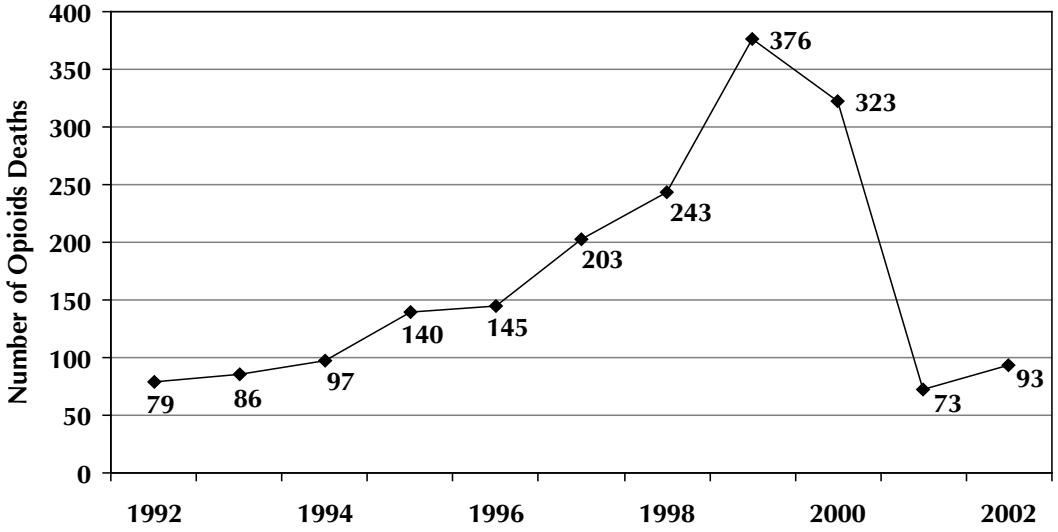


Source: Dobbin (2001)

Opioids-related deaths

The Australian Bureau of Statistics recorded data on opioid overdose deaths (accidental deaths by opioids, including heroin, morphine, pethidine, methadone and codeine). The Victorian rate for these deaths was 33.2 per million aged 15 - 24 years in 2002, compared with 26.4 per million in 2001 and 118.1 per million in 2000 (Degenhardt & Barker 2003). Victoria's rate reflected the national rate in 2002, which was 32.3 per million. See Figure 19 for the number of opioid overdose deaths in Victoria from 1992 - 2002 (Degenhardt & Barker 2003).

Figure 19: Number of accidental deaths due to opioids among people aged 15 - 24 in Victoria, 1992 - 2002



Source: Degenhardt & Barker (2003).

Drug market characteristics and pharmaceutical use

2003 IDRS

Characteristics of the 2003 IDRS sample

Demographic characteristics of the current sample were compared with the 2003 Victorian sample of the IDRS (Jenkinson, Miller & Fry 2004), the findings of which are in Table 50.

Table 50. Characteristics of the Victorian IDRS PWID sample for 2003 (N = 152).

Demographic characteristics of PWID sample of the 2003 IDRS		
Gender %	Male	60
	Female	40
Age (years)	Mean	30
	Range	18 - 54
ATSI %		5
Housing %	House/flat	51
	Parent's home	13
	Boarding house/refuge/hostel	21
	Homeless	7
Education	Mean years	10
Post-school education %	Trade	45
	Uni	7
Employment %	Unemployed	83
	Full time	4
	Part time/causal	9
	Student	1
	Sex worker	3

Table 50 continued.

Demographic characteristics of PWID sample of the 2003 IDRS		
Main income %	Govt. benefits	77
	Wage/salary	4
	Crime	15
	Sex work	2
Treatment last 6 months %	Yes	63
	No	37
Current treatment %	Buprenorphine	22
	Methadone maintenance	15
Months in current treatment	Mean (sd)	19.6 (28.42)
	Median	6
	Range	1 - 144
Prison history %	Yes	41

Source: Jenkinson, Miller & Fry (2004)

There were a few notable differences between the 2003 IDRS sample and the current participants, with the proportion of males higher in the current sample than in the IDRS, and the proportion of participants in methadone maintenance drug treatment lower than in the IDRS, whilst more participants in the current sample (64%) reported they had been to prison.

Drug use history

The mean age at first injecting within the 2003 IDRS Victorian sample was 17.7 (sd = 4.3), ranging from 10 - 40 years (Breen et al. 2004), which is similar to the current sample.

Heroin injecting

Eighteen percent of the IDRS sample reported injecting illicit drugs less often than once a week (compared with five percent currently), whilst 34% reported the practice more than once a week (compared with 11% of these participants), and 49% reported that they did this daily or more frequently (compared with only 9% of the current respondents).

In terms of the drug that respondents reported injecting most in the past month, 65% of the IDRS participants indicated heroin, and 69% reported it as their drug of choice (Breen et al. 2004), which was similar to the current findings. Ninety percent reported they had injected in the past six months, on average for 76 days, which was also similar to the current sample.

Methamphetamine injecting

The IDRS sample reported that methamphetamine was the most injected drug for 25% (10% more than the current participants), and the favoured drug of 15% (Breen et al. 2004). Seventy percent had injected it in the previous six months, for an average of 10 days.

Benzodiazepine injecting

No respondents reported that benzodiazepines were their drugs of choice, or the drug they injected most in the previous month, similar to the participants in the current study. However, the majority of respondents (80%, compared with all the current sample) reported having used benzodiazepines in the previous six months, with most obtaining them licitly (78%, compared with 93% currently), although 45% also received them illicitly (compared with 71% of this

sample). Fifteen percent of the respondents reported injecting benzodiazepines, for an average of five days, compared with 21% in the previous year, and 40% in 2001. Overall, 66% of respondents reported they had injected benzodiazepines at some time (compared with 69% of this sample). The benzodiazepines most commonly reported as having been used in the six months prior to the survey were diazepam (62%, compared with 38% in 2001), oxazepam (14%, compared with 9% in 2001), and temazepam (6%, compared with 45% in 2001). KI reported that benzodiazepines were used either as a substitute when heroin was unavailable, or to enhance and supplement the effects of heroin or other drugs. Benzodiazepines were reportedly obtained through doctor-shopping, as well as black market street selling.

Morphine and other opioids injecting

Two percent of the IDRS sample indicated morphine as their drug of choice (Breen et al. 2004), about half as many as in the current sample. Nine percent of the current sample, however, reported injecting morphine most in the previous month, compared with two percent of the IDRS sample. The IDRS reported that both respondents and KI indicated widespread injection of morphine, with most of the drugs obtained illicitly (only 6% reported using prescribed morphine), and 39% of the sample had injected it in the previous six months, on an average of six days, which reflected a slight decrease on the proportion of the previous IDRS sample (51% in 2002), but is still higher than in 2001 (32%). Overall 83% reported lifetime use of the drug.

Pharmacotherapy injecting

The responses of the participants in the IDRS were reflective of the current sample in terms of buprenorphine and methadone use, with no participants reporting them as their drug of choice (Breen et al. 2004). However, 10% of the current sample reported buprenorphine was the drug they used most in the previous month. Only one respondent each reported injecting licit methadone and illicit methadone. But the IDRS reported increasing injection of buprenorphine with over 39% of the respondents reporting the practice in the previous six months, on average on 24 days where the drugs were licit and four days when they were illicit.

Recent drug use

In the IDRS 90% of respondents reported injecting heroin in the previous six months (compared with 86% of these participants). Fewer IDRS participants reported injecting illicitly acquired morphine or benzodiazepines than the current participants, at 39% and 15% respectively (compared with 72.5% and 42% here) (Breen et al. 2004). The incidence of recent injection of illicit buprenorphine by IDRS participants was similar, however, at 30% (33.5% for the current sample), and illicit methadone had been injected by just 1% of the IDRS sample compared with 9% of the current sample (Breen et al. 2004).

The 2003 IDRS findings (Breen, et al. 2004) were broadly similar to the current findings, with the exception that the current participants were significantly more likely to have injected benzodiazepines and morphine. This suggests that these are intersecting populations of predominantly heroin users (or this is a sub-group of the usual IDRS population), with the current sample being polydrug users, who especially tend towards the use and injection of the benzodiazepines and pharmaceutical opioids, whether as substitutes for heroin, or in conjunction with it.

Law enforcement trends

Overall, the level of self-reported criminal activity was relatively stable and in most areas police activity had reportedly continued to decrease significantly from previous IDRS studies (Jenkinson, Miller & Fry 2004). The majority of respondents (79%) reported that police activity had had no effect on their ability to access drugs (Jenkinson, Miller & Fry 2004).

Summary

Examination of Victorian-specific indicator data in relation to use and misuse of pharmaceutical opioids or benzodiazepines indicates the following.

Use trends

- According to the National Drug Strategy Household Survey (Australian Institute of Health and Welfare 1995, 1998, 2001), lifetime and recent use of heroin, painkillers, and benzodiazepines in Australia fluctuated over the past three surveys; however, the use of benzodiazepines and morphine in Victoria was generally higher than in Australia as whole. Use of methadone declined in both Victoria and Australia.

Prescribing trends

- The Drug Utilisation Sub-committee (DUSC) of the Pharmaceutical Benefits Branch, Health Access and Financing Division, Australian Government Department of Health and Ageing (DUSC 2004) reported there was a steadily decreasing number of benzodiazepine prescriptions issued under the PBS/RPBS for the three years from 2001. The decrease in benzodiazepine prescriptions was reflected by a corresponding decrease in temazepam prescriptions (Breen et al. 2003b). The decrease was less marked in Victoria than in Australia as a whole. In 1998, 7% of temazepam prescriptions were for tablets and 93% were for capsules – the proportion of capsules has declined since, with 22% of Victorian temazepam prescriptions in 2001 being for tablets.
- The Drug Use Monitoring Scheme (DRUMS) of the Treaties & Monitoring Team, Office of Chemical Safety, Therapeutic Goods Administration (DRUMS 2003) reported an increase in prescriptions filled under the PBS/RPBS for morphine in tablet or capsule form (as brands Anamorph, and Kapanol) between 1999 and 2001, but a slight decrease was seen in 2002, although the decrease was not as marked in Victoria as it was in Australia. Methadone syrup prescriptions in Victoria have decreased since 2000, reflecting an Australia-wide situation for the treatment drug, in particular since the introduction of buprenorphine treatment in 2000, and that drug's approval under the PBS/RPBS in 2001. Concurrent with trends in the decreasing use of methadone syrup, buprenorphine prescriptions filled under the PBS/RPBS have increased rapidly, as it was taken up as accepted treatment protocol in 2000, particularly in Victoria, and approved for PBS prescribing in 2001. In 2002, Victorian prescriptions represented 48% of all prescriptions for buprenorphine issued under the PBS/RPBS.
- According to the Annual National Pharmacotherapy statistics to June 30, 2002 (Australian Government Department of Health and Ageing, 2003), there were large variations in the numbers of clients receiving treatment at public and private prescribers in different jurisdictions. These data, combined with those above, confirm that Victoria represented the single largest prescriber of buprenorphine, at 53% of all private and public registered clients in Australia.
- In 1995, 223 items were included on forged or altered prescriptions reported to the Drugs and Poisons Unit, Victoria. Benzodiazepines accounted for 49% of the forged items, with temazepam accounting for 29% of all benzodiazepines prescriptions forged. In the six months to the end of May 2001, 185 forged items were reported, with benzodiazepines accounting for 74%, and temazepam accounting for 85% of all benzodiazepine prescription forgeries. All forgeries or alterations nominated capsules as the dose form. There were no alterations or forgeries for tablets (Dobbin 2001).

Crime/police activity

- Each year Guild Insurance Limited collects data about pharmacy crime-related claims. The most recent data were to the end of June 2002, and showed a dramatic increase in total

pharmacy-related crime claims in Victoria and Australia as a whole, in 2001 - 2002. This increase corresponded to the period around the Victorian Temazepam Initiative and the HIC regulation of 10mg temazepam capsules, although the actual relationship cannot be ascertained as these data are not available. The financial loss to Guild Insurance Limited more than doubled in that time for Australia-wide claims, and more than quadrupled in Victoria, from a total $2,178, 665 in 1998/99 ($500,769 in Victoria) to $5,258,757 in 2001/02 ($2,410,770 in Victoria). Victoria's proportion of the total Australian figures increased substantially throughout the period so that by 2001/02 they represented more than half all claims received. The Victorian percentage of total claims was 26.7% in1998/99, 40% in 1999/00, 55% in 2000/01, and 57.7% in 2001/02.

- The Victorian Department of Justice (VDJ) collates Victorian Magistrate's Court data related to drug offences. The number of people arrested for drug-related offences fell during 2000/01 compared with 1999/00, although this varied depending on drug type. Heroin and cannabis-related arrests decreased, while arrests for amphetamine-type stimulants, cocaine and stimulants increased. More people were arrested for cannabis-related offences (consumer/provider) than any other drug type, and more men than women were arrested for trafficking and/or possession than women (cited in Victorian Department of Human Services 2002).
- In 1998/99, 22,456 drug-related charges were finalised. In 2000/01 this fell to 17,397. The majority of finalised charges were for possession and use charges, rather than cultivate, manufacture and traffic. The majority of charges in 1998/99 related to heroin and cannabis. Numbers of finalised manufacturing and possession charges decreased across the three-year period for heroin and cannabis as a percentage of all finalised charges. Most charges for cultivation traffic and manufacture (46%) resulted in a fine or bond, with 32% resulting in suspended sentences. While 78% of possession and use charges resulted in a bond or fine, 11% resulted in custodial sentences, and 9% resulted in suspended sentences (cited in Victorian Department of Human Services 2002).
- Data extracted from the Law Enforcement Assistance Program (LEAP) data base by the Victorian Police Statistical Services Division was examined for trends in offences reported against pharmacies/chemists between 1998/99 and 2002/03. No information was available for the types of goods stolen in burglaries, or whether drugs were taken; however, the Victorian temazepam initiative occurred November 2001, and the PBS authority change for temazepam gel capsules occurred May 2002. Burglaries at Victorian Chemists almost doubled in number between 1998/99 and 2000/01 (from 253 to 531), and increased by almost a further 50% in the year 2001/02 (to 743). Burglary offences then more than halved between 2001/02 and 2002/03 (to 360) taking the total offences reported in that year to below the number reported in 1999/00. In terms of the total value of items stolen in the reported burglaries, the amount decreased substantially between 1998/99 and 2000/01, and increased again in the following year, remaining high in 2002/03. Offenders in age categories 17-39 were far more common than offenders aged less than 16 or over 40 years in all years, and in particular in 2000/01 and 2001/02, the years when the offences were reported with the highest frequency. The majority of offences reported resulted in arrest of the offender, and arrests increased from 56 in 1998/99 to 159 in 2000/01, and again to 187 in 2001/02, reducing somewhat in 2002/03 to 117.
- For the majority of benzodiazepine and pharmaceutical drug seizures, specific information regarding the generic forms or brand names are not currently recorded in the Australian Customs Service drug statistics database. Data are provided for drug detection figures for the relevant drug categories that were available from the Australian Customs Service database between 1999 and 2003. Detections of the remaining drug categories are recorded in the generic categories of 'Other benzodiazepines' and 'Prescribed drugs'. The detections of drugs within these categories, especially 'Other benzodiazepines' and 'Prescribed drugs', has increased dramatically throughout that time.

- The Chemical Drug Intelligence (CDI) Team at the Victoria Police Forensic Services Centre collates data on drugs seized by Victoria police annually as a result of a drug possession or drug trafficking charge. They supplied data for benzodiazepines and pharmaceutical opioids seized between 1998 and March 2004 (where applicable). Temazepam was the drug most consistently seized between 1998 and 2003, followed by diazepam between 1999 and 2003. The trend for police seizures of all these pharmaceutical drugs clearly has increased consistently in Victoria from 1998 to 2003.

Health

- A census of 75 specialist alcohol and drug treatment services reported seeing 1,003 clients (users and non-users) on one day in May 2001. The majority of clients sought treatment for opioids (34%) and alcohol (33%), with a large proportion also having problems with cannabis (12%), and with poly drug use (11%). Three percent of clients mentioned benzodiazepines specifically as a problem.
- The Australian Needle and Syringe Program (ANSP) collates survey data on the prevalence of the last drug injected by Needle Syringe Program (NSP) clients across Australia. Between 2000 and 2002, there was a clear decreasing trend in Australia in heroin reported as the last drug injected by clients, and a corresponding marked increase in the injection of amphetamines. The injection of other drugs, such as morphine and methadone, also increased between 2000 and 2002 (Buddle, Zhou, & MacDonald 2003).
- Direct Line provides 24 hour counselling information and referral for Victorians for any drug-related issue. Responses through 2000/01 where benzodiazepines were mentioned were cited as cause for concern. They accounted for five percent of all calls where a drug was identified, and two percent of all calls to Direct Line. Metropolitan Melbourne accounts for the bulk of calls (83%), and females made the majority (66%) of calls. Unlike other drug types, the majority (59%) of calls from benzodiazepine users were also made by women. The majority of users were aged between 22 and 40 years (cited in Victorian Department of Human Services, 2002).
- The Victorian Emergency Minimum Dataset (VEMD) provides information on tissue and vascular harm cases presenting to emergency departments in Victoria resulting from injection of temazepam. Sixty-three cases were identified for the period 1996 to end of first quarter 2001. In a similar exercise seeking cases presenting as a result of injection of oxazepam and diazepam in the same period, only a handful of cases were identified, some of which appeared to be due to therapeutic injection of diazepam, or overdose. No cases of vascular harm were identified (cited in Victorian Department of Human Services 2002).
- Non-fatal benzodiazepine overdoses for May 2001 - April 2002, and May 2002 - June 2003 (excludes May - July 2001 and October 2002 - February 2003) showed there was a general trend for decreasing benzodiazepine-related cases attended by ambulance in Melbourne in the past several years, with 2,896 attendances recorded in the 2001/02 financial year, dropping to 1,711 in 2002/03, with 678 recorded between July and September 2003. Such attendances peaked at 337 in August 2001. They have remained at over 200 attendances per month however (Data obtained from Melbourne Metropolitan Ambulance Service and compiled by Turning Point Alcohol & Drug Centre, Inc, 2003).
- The number of ambulance attendances at non-fatal morphine overdoses fluctuated; after peaking at 18 in October 2001, they showed a decrease towards the end of the 2001/02 financial year. Attendances then peaked again to 19 in March of 2003, before declining dramatically towards the second half of the year, until September when the most recent data are available (Data obtained from Melbourne Metropolitan Ambulance Service and compiled by Turning Point Alcohol & Drug Centre, Inc, 2003).

- The Victorian Admitted Episode Dataset is a database of admissions from private and public hospitals. There has been a steady increase in the numbers of hospitalisations for benzodiazepines since 1993. In contrast to 1999/00, where opioids were the most common cause of illicit drug-related hospitalisations, benzodiazepine and other minor tranquilliser misuse accounted for 31% (compared with opioids at 23%) in 2000/01. There were 2,393 benzodiazepine-related hospital admissions in 2001/02, which has remained reasonably steady since 2000/01 (n = 2,436) and 1999/00 (n = 2,176). Females accounted for the majority of benzodiazepines hospitalisations, whereas males accounted for the majority of other drug hospitalizations (cited in Victorian Department of Human Services, 2002).
- There were a total of 934 opioid-related hospital admissions in the 2001/02 financial year, with 46% (n = 427) due to poisoning, and 34% (n = 321) due to dependent use. This is a decrease on admissions in the 2000/01 year of 1,815, and in 1999/00 of 2,318. Fewer admissions in 2001/02 were due to dependence than in past years (44% in 2000/01, 52% in 1999/00 (cited in Victorian Department of Human Services, 2002).
- Forensic toxicology screening for a range of drugs identified other drugs contributing, or incidental to, heroin-related deaths identified by the State Coroner's Office in Victoria between 1997 and 2001. Benzodiazepines were the most common drug group identified in these deaths, and were detected in 71% of all cases in 2000, and 55% of all deaths involving heroin from 1997 - 2001. Morphine-related cases remained fairly consistent between 1997 and 2001, peaking at 22% of mentions in 1999; however, morphine plus benzodiazepine mentions comprised more than half the deaths in most years, reaching a high of 71% in 2001 (amphetamines mentions also peaked in 2001) (Wallington, Gerostamoulos & Drummer 2003).
- The Australian Bureau of Statistics recorded data on opioid overdose deaths (accidental deaths by opioids, including heroin, morphine, pethidine, methadone and codeine). The Victorian rate for these deaths was 33.2 per million aged 15 - 24 years in 2002, compared with 26.4 per million in 2001 and 118.1 per million in 2000. Victoria's rate reflected the national rate in 2002, which was 32.3 per million. See Figure 19 for the number of opioid overdose deaths in Victoria from 1992 - 2002 (Degenhardt & Barker 2003).

Drug market characteristics and pharmaceutical use

- There were a few notable differences between the 2003 IDRS (Jenkinson, Miller & Fry 2004) sample and the current participants, with the proportion of recent benzodiazepine and morphine injectors substantially higher in the current sampling, reflecting the targeted recruitment undertaken for this survey. However, buprenorphine use and injection was similar, as were the demographic characteristics of both samples (Jenkinson, Fry & Miller 2003). The characteristics of the current sample compared with the most recent IDRS findings suggest the current sample may be a particular sub-set of the population that is normally captured by the IDRS recruitment process.

Stage four: Survey of people who inject drugs

Fifty Melbourne PWID were surveyed on their demographic characteristics, and asked detailed questions about their drug use history and patterns of current drug use, with particular focus on details of benzodiazepine and pharmaceutical opioid use. They were also asked to provide information about drug markets, including sources of supply, price and availability of prescription drugs, and any changes that may have occurred in the markets in the previous twelve months. Participants were asked for any information about drug-related and criminal behaviour, and how this may relate to specific prescription drug use. All responses were collated, and descriptive analyses were performed. Where qualitative information was collected, responses were categorised, and the number of responses were calculated.

Overview of the sample of people who inject drugs

Sixteen percent of PWID participants in Stage four (n = 8) had also participated in the Stage two interviews. Stage four respondents were asked to provide information about themselves and their education, living situation, employment and income, and drug treatment and prison history. The proportion of male and female participants in each age group for this stage was similar, with 47% of men aged over 31 and 44% of women aged below 31.

Table 51. Cross tabulation of gender and age for Melbourne Stage four PWID participants (N = 50).

	Gender		
Age	**Female (n)**	**Male (n)**	**Total (N)**
Age 31 and Under	7	18	25
Age Over 31	9	16	25
Total	16	34	50

This distribution differed from Stage two, where a higher proportion of men were older than the median age of 32 years, and a higher proportion of women were younger than the median. It is possible that the reported differences between the two samples may be a product of sampling, with the Stage four sample half the size of Stage two. See Table 51, which displays comparisons between age and gender in the Melbourne sample. Age was categorised according to the median of 31.5 years.

Table 52. Description of the PWID Stage four participants in Melbourne (N = 58).

Demographic characteristics of the Stage 4 Melbourne PWID sample		
Gender %	Male	68
	Female	32
Age (years)	Mean	31.64
	Range	21 - 55
ATSI %		8
Housing %	House/flat	44
	Parent's home	14
	Friend's house	6
	Boarding house/hostel	22
	Shelter	8
	Homeless	6
Education	Mean years (Range)	9.9 (5 - 12)
Post-school education %	Trade	40
	Uni	8
Employment %	Unemployed	88
	Employed	12
	Sex-worker	-
	Student	-
	Home duties	-

Table 52 continued.

Demographic characteristics of the Stage 4 Melbourne PWID sample		
$ Income from different sources - Mean (sd)	Govt. benefits	$361 (125)
	Wage/salary	$69 (205)
	Crime	$80 (149)
	Sex work	$41 (200)
	Drug dealing	$214 (1,062)
	Loans/gifts	$28 (49)
	Other (begging, charity etc)	$160 (394)
Current treatment %	None	50
	Methadone Maintenance	10
	Buprenorphine	36
	Detoxification	4
Months in current treatment	(Mean (sd))	14.7 (14.8)
	Range	0.50 - 48
Treatment last 6 months %		64
Prison history %		42

A question that asked respondents how much they had earned in the previous fortnight from various sources that did not appear on the Stage two survey questionnaire was included on the Stage four survey. This question was in place of the Stage two question asking about the 'main' source of income. The responses to the new question indicate that participants on average obtained most of their income from government benefits ($361), drug dealing ($214), 'other' sources, such as charities and begging ($160), and crime ($80).

There were two notable differences between the Stage two and Stage four samples. First, participants in Stage two spent a substantially longer time on average in drug treatment programs than those in Stage four, although their median time was higher, thus there was greater variance. Second, 34% fewer participants in Stage four reported having a prison history than in Stage two. See Table 52.

Drug use history of people who inject drugs

Respondents were asked about their history and patterns of drug use, including their drug of choice, what happened if they could not get their drug of choice, which drug they had injected most in the previous month, and their injecting patterns. They were also asked if they had bought drugs in the previous fortnight, and, if so, which drug/s and how much they had paid. More detail about drug use history is contained in Table 53.

Almost half the respondents (48%, n = 24) reported they inject drugs at least once a day, whilst 24% (n = 12) reported they do so almost every day (4 - 6 days a week), 22% reported they inject two to three days a week, and 4% (n = 2) indicated they do so less often than once a week. Most of the respondents (57%, n = 28) reported they usually inject while in a private home, while 24% (n = 12) reported they inject in a public place such as a street, park or bench, and 12% (n = 6) reported they inject in a public toilet. The remaining participants said they inject in a car or 'anywhere'.

Heroin injecting

Most (96%) of the participants had injected heroin during the previous six months, which was higher than Stage two. The average frequency was higher also, at 90.5 days (75.5 in Stage two). The drug of choice for 72% of these respondents (n = 36) was heroin, which was a little higher than in

Stage two. In the past month, 75.5% of participants had injected heroin more often than any other drug – this was around 50% higher than in Stage two. A greater proportion of these participants (96%, n = 48) than in Stage two (86%, n = 43) injected heroin in the previous six months. These participants also injected heroin on a greater number of days on average as well, at 90 days of the past 180, compared with 75 days.

Methamphetamine injecting

A little more than half (54%) of participants had injected methamphetamines in the previous six months, which was substantially less than in Stage two (83%). The frequency of use had declined also, at 14 days on average (compared with 28 days in Stage two). Ten percent of this sample reported methamphetamines (n = 5) as their preferred drug, while 8.2% of the respondents injected methamphetamine most often in the past month, somewhat fewer than in Stage two. Fifty-four percent (n = 27) had injected methamphetamine in the previous six months, on average 14 days of the previous 180 days.

Pharmacotherapy injecting

No Melbourne respondents reported methadone syrup or buprenorphine as the drug they preferred. However, buprenorphine was nominated as the drug most injected last month by 10% (n = 5), which was the same as for Stage two, and methadone was injected by 2% (n = 1) (no one injected methadone most in the past month in Stage two). Twenty participants (40%) injected buprenorphine in the previous six months (13 injected prescribed drugs and the same number injected illicit drugs), while three (6%) injected methadone (two injected prescribed methadone, and three injected illicit methadone), and one injected Physeptone (illicitly acquired). Licit pharmacotherapies were injected on average on 35.5 days (sd = 62.5), and were swallowed on average on 57 days (sd = 65). Illicit pharmacotherapies were injected on an average of 9.8 days (sd = 31), and swallowed on 0.70 days (sd = 2.4).

Table 53. Drug use history for Victorian Stage four PWID respondents (N = 50).

	Injected last 6 mths			Used ORA last 6 mths		
Drug Class	**N**	**%**	**Number days injected last 6 mths**	**N**	**%**	**Days used last 6 mths**
1. Heroin	48	96	Mean 90.5 (sd 180) Range 0 - 180	1	2	Mean 90.5 (sd 180) Range 0 - 180
2. Homebake	2	4	Mean 3.9 (sd 0.22) Range 0 - 150	2	4	Mean 3.9 (sd 0.22) Range 0 - 150
3. Methamphetamine	27	54	Mean 14 (sd 37.7) Range 0 - 180	0		Mean 14 (sd 37.7) Range 0 - 180
4. Pharmaceutical stimulants	0	0	-	2	4	Mean 1.6 (sd 9) Range 0 - 60
5. Cocaine	6	12	Mean 0.20 (sd .7) Range 0 - 4	9	18	Mean 0.31 (sd ,77) Range 0 - 4
6. Hallucinogens	1	2	Mean 0.14 (sd 1) Range 0 - 7	3	6	Mean 0.18 (sd 1) Range 0 - 7
7. Ecstasy	8	16	Mean 0.41 (sd 1.3) Range 0 - 8	13	26	Mean 1.2 (sd 3.2) Range 0 - 15
8. Alcohol	0	0	-	31	62	Mean 301 (sd 52) Range 0 - 180

Table 53 continued.

Drug Class	Injected last 6 mths N	Injected last 6 mths %	Number days injected last 6 mths	Used ORA last 6 mths N	Used ORA last 6 mths %	Days used last 6 mths
9. Cannabis	0	0	-	47	94	Mean 115 (sd 73) Range 0 - 180
10. Anti-Depressants	0	0	-	14	28	Mean 24.3 (sd 58) Range 0 - 180
11. Inhalants	0	0	-	1	2	Mean 0.04 (sd 0.3) Range 0 - 2
All licit pharmacotherapies	16	32	Mean 35.5 (sd 62.6) Range 1-180	25	50	Mean 57 (sd 65) Range 1-180
All illicit pharmacotherapies	14	28	Mean 9.75 (sd 40) Range 1-180	5	10	Mean .72 (sd 2.4) Range 0-10
All methadone syrup	3	6	Mean 6.75 (sd 34.6) Range 1 - 180	11	22	Mean 23 (sd 57.7) Range 1-180
Licit methadone syrup	2	4	-	10	20	-
Illicit methadone syrup	3	6	-	1	2	-
All buprenorphine	20	40	Mean 20 (sd 54) Range 1-180	17	34	Mean 19 (sd 55) Range 1 -180
Licit buprenorphine	13	26	-	17	34	-
Illicit buprenorphine	13	26	-	4	8	-
Illicit Physeptone	1	2	Mean 0.1 (sd 0) Range 1	1	2	Mean 1(sd 0) Range 1
Licit morphine	4	8	Mean 4 (sd 15) Range 1-80	2	4	Mean 5 (sd 30.5) Range 3-80
Illicit morphine	31	62	Mean 26.5 (sd 40) Range 1-160	7	14	Mean 0.69 (sd 2.6) Range 0 - 15
Licit other opioids	7	14	Mean 7 (sd 20) Range 1-90	8	16	Mean 22.6 (sd 53.4) Range 1-180
Illicit other opioids	16	32	Mean 4 (sd 8) Range 1-90	6	12	Mean 1.4 (sd 4) Range 1-15
Licit benzodiazepines	12	24	Mean 15 (sd 41) Range 6-180	37	74	Mean 80.5 (sd 78) Range 2 - 180
Illicit benzodiazepines	23	46	Mean 13.5 (sd 31) Range 1-120	31	62	Mean 22 (sd 31) Range 1-120

Morphine and other opioid injecting

Four percent of respondents chose morphine (n = 2, one each for Kapanol and MS Contin) as their drug of choice, similar to Stage two, but only half that proportion injected it most in the past month, compared with nine percent of the Stage two sample. Participants injected licit morphine on an average of four days of the previous 180 (sd = 15), and used them orally on average on five days (sd = 30.5). Illicit morphine was injected on an average of 26.5 days (sd = 40), and swallowed on 0.69 days (sd = 2.6). Other opioids prescribed were injected for an average of seven days (sd = 20), and swallowed on 22.6 days (sd = 53.4), and where they were acquired illicitly they were injected for an average of four days (sd = 8), and swallowed on 1.4 days (sd = 4).

Most (94%, n = 29) illicit morphine injectors had also injected heroin in the previous six months, while two-thirds (n = 31) had also injected amphetamines, 45% (n = 14) had injected illicit benzodiazepines, and 35% (n = 11) had injected illicit pharmacotherapies.

Benzodiazepine injecting

One respondent (2%) selected benzodiazepines (Serepax) as their drug of choice, and, as in Stage two, one respondent injected them most in the past month. One respondent also reported that Normison and heroin combined was their preferred drug; however, no one reported injecting it most in the previous month. In Stage two, four percent nominated benzodiazepines as their drug of choice. Prescribed benzodiazepines were injected for an average of 15 days of the previous six months (sd = 41 days), and were swallowed for an average of 80.5 days (sd = 78). Where they were illicit, they were injected for an average of 13.5 days (sd = 31), and swallowed on average on 22 days (sd = 31).

All participants who had injected illicit benzodiazepines in the previous six months (n = 23) had also injected heroin in that time, two-thirds (n = 15) had also injected methamphetamines, 61% (n = 14) had also injected morphine, and 30% (n = 7) had injected illicit pharmacotherapies.

Differences between preferred drug and drug most injected last month

In most cases, the participant's drug of choice was the drug they had injected with the most frequency in the previous month. However, for the 19% (n = 7) of participants who preferred heroin but did not inject it most, three injected buprenorphine the most, while two injected methamphetamines and one each injected benzodiazepines (temazepam) and methadone. Two (40%) respondents who preferred methamphetamine injected heroin instead, and one (20%) injected buprenorphine.

Half of those who reported morphine as their preferred drug (n = 1) injected it the most in the past month, with the other respondent injecting heroin most. One participant injected MS Contin. The respondent who selected benzodiazepines as their drug of choice reported they injected heroin the most, and similarly the one respondent who reported that heroin and Normison combined was their drug of choice reported injecting heroin more frequently.

Eight percent of respondents (n = 4) reported that their drug of choice was the non-injectable cannabis, but two reported they had injected heroin more often than they had injected any other drug in the previous month, while one had injected buprenorphine the most. One participant reported that they had injected heroin with the most frequency, but they preferred alcohol.

Where there was a difference between the preferred drug and the drug injected most often, in 12% of cases (n = 6) this was because of availability, while in six percent of cases (n = 3) it was because of price. Other reasons for the difference related to health effects (n = 2, 4%), and the heroin blocking effects of buprenorphine (n = 1, 2%). Ten percent of participants (n = 5) reported the difference was due to their preferred drug being non-injectable. The main reasons for being unable to get heroin – the most frequently used and injected drug – were cited to be availability by 36% (n = 18) and price by 32% (n = 16).

When respondents were asked whether they would substitute another drug if the drug they used most was unavailable, 28% (n = 14) said they would not, 22% (n = 11) indicated they would substitute benzodiazepines (mainly diazepam and temazepam) – which was the same proportion of Stage two participants – 10% (n = 5) each said they would use morphine (MS Contin), similar to Stage two, or cannabis instead, and 8% each (n = 4) reported they would substitute methamphetamines or buprenorphine. Most participants reported no problems obtaining heroin

most of the time; however, if there was difficulty, 32% (n = 16) reported the main reason they could not get it was because of price, and 36% (n = 18) reported that availability had stopped them from accessing it.

As with the Stage two sample, these participants clearly preferred to use heroin, and mainly injected it more often than any other drug, but would use pharmaceuticals as an alternative if it was difficult or expensive to access. Most of these respondents reported they had purchased heroin (82%), cannabis (66%) and benzodiazepines (56%) within the previous two weeks. The mean total cost paid for heroin was $732, for cannabis was $116, and for benzodiazepines was $92.50. Sixteen percent of respondents also reported buying morphine in the previous fortnight, spending on average $69, and 22% reported they had bought amphetamines, spending a total of $183 on average. See Table 54.

Table 54. Price paid for main drugs purchased the previous two weeks (N = 67).

Price Paid	Heroin (n = 41) (82%)	Cannabis (n = 33) (66%)	Methamphetamine (n = 11) (22%)	Benzodiazepines (n = 28) (56%)	Morphine (n = 8) (16%)
Average cost	$732	$116	$183	$92.50	$69
Range	$50 - 3,500	$10 - 600	$150 - 250	$3.60 - 1,000	$3.80 - 300

Other drugs that had been purchased in the previous fortnight were base (n = 1), cocaine (n = 3), other opioids (n = 3), antidepressants (n = 3), and illicit methadone (n = 1). Participants spent a substantial amount on alcohol and tobacco, with an average of $82 spent on the former, and $76 on the latter.

In terms of treatment drugs, four participants had bought methadone in the previous two weeks, and spent between $50 and $60, while 30% (n = 15) had bought buprenorphine, spending on average $50, ranging from $10 to $70. Seventy-three percent of participants who had purchased buprenorphine legally (n = 11) had spent $50 or more on the drug.

These purchase findings appear quite different from those of Stage two, with a higher proportion of the current sample buying most drugs and spending more on them; however, it should be kept in mind that the equivalent Stage two question related to the previous day only rather than the past fortnight, therefore the data are not directly comparable.

Recent benzodiazepines use

Three-quarters of the participants (74%, n = 37) reported using benzodiazepines they had obtained legally within the previous six months, about 20% less than in Stage two. A slightly higher proportion (78%, n = 39) reported they had used illicitly acquired benzodiazepines within the same period, also about 20% less than in Stage two.

Routes of administration and forms used

Ninety percent of participants (n = 45) reported using benzodiazepines orally in the previous six months, which was a little less than in Stage two (98%). Sixty-two percent (n = 31) of all participants reported oral use of illicitly acquired drugs (this was 79.5% of illicit benzodiazepines users). However, all participants who had received them via prescription (n = 37) reported they administered them orally. The number of days that prescribed drugs were taken orally ranged between two and 180 days in the previous six months, averaging 80.50 (sd = 78.4). When the drugs were illicit, they were taken orally on average for fewer days, at 22 days (sd = 31), ranging from one to 120 days.

The most common forms of benzodiazepines reported were temazepam, diazepam, oxazepam, alprazolam, and nitrazepam (numbers may add to more than the total participants as some respondents used more than one brand of a drug). There were a total 67 reports of temazepam use, 55 reports of diazepam use, 32 reports of oxazepam use, 21 reports of alprazolam use (Xanax), and 16 reports of nitrazepam (Mogadon) use. See Table 55.

Table 55. Number of PWID using and/or injecting the different forms of benzodiazepines in the six months before the survey.

Brand of benzodiazepines	Used last six months (n)	Injected last six months (n)
Temtabs	5	-
Temaze tablets	7	-
Temaze 20mg capsules	5	5
Temaze 10mg capsules	10	8
Euhypnos 20mg capsules	10	10
Euhypnos 10mg capsules	6	5
Normison 10mg tablets	7	2
Normison 20mg capsule	10	9
Normison 10mg capsule	7	6
Diazepam generic	2	-
Valpam	3	1
Antenax	13	-
Valium	37	5
Serepax	21	2
Alepam	6	-
Murelax	5	-
Xanax	21	2
Mogadon	16	2

Fifty-eight percent of all participants (n = 29) reported they had injected benzodiazepines in the previous six months, an increase on the Stage two sample (45%). Injecting of benzodiazepines was almost twice as likely to occur when they were acquired illicitly, with 24% (n = 12) of all participants (32.5% of licit benzodiazepines users, compared with 16% of these users in Stage two) reportedly injecting benzodiazepines when they had been acquired medically. This compared with 46% (n = 23) of participants (59% of illicit benzodiazepines users) reporting they had injected illicitly acquired drugs (43% of these users in stage two). Six participants injected both prescribed and illicit benzodiazepines. Six injected their prescribed benzodiazepines, but did not inject illicit drugs. There were also 17 participants (n = 34% of the total, and 59% of all benzodiazepines injectors) who reported they had injected benzodiazepines when they were illicit but not when they were prescribed. See Table 56.

Table 56. Percentage of all participants using benzodiazepines orally and via injection, according to method of acquisition.

Benzodiazepines	Injected	Oral
Licit (%)	24	74
Illicit (%)	46	62

Although the prevalence of injecting benzodiazepines for this sample was greater when the drugs were illicit than when they were prescribed, the frequency of injecting did not differ substantially. Where benzodiazepines were prescribed they were injected on average on 15 days (sd = 41) of the previous 180, ranging from 6 - 180 days, and when the drugs were illicit they were injected on average on 13.5 days (sd = 30.6), ranging from one to 120 days.

The most common form of injected benzodiazepines reported was temazepam, but there were reports of diazepam, oxazepam and alprazolam injection as well. There were 45 reports of temazepam injection, six reports of injecting diazepam, two reports of injecting oxazepam (Serepax), and two reports of alprazolam (Xanax) injecting. See Table 55. There were a further two reports of the oral use and three reports of the injecting of Unisom, an over the counter sedative.

Supply, availability and market changes

More than half of those respondents reporting they had been prescribed benzodiazepines (54%, n = 20) indicated they had faked symptoms to receive them, with 32% (n = 12) reporting this was their usual method of obtaining them – this was substantially more than in Stage two (13%). As in Stage two, most (92%, n = 34) of the respondents obtaining benzodiazepines medically reported that their symptoms were genuine, with two-thirds (65%, n = 24) reporting this was their usual method of obtaining the drugs.

Most respondents (78%, n = 39) who used prescribed benzodiazepines had attempted to obtain benzodiazepines in the previous six months, with on average 2.3 doctors (sd = 2.2) being successfully approached for a prescription. The number of doctors successfully approached ranged from none to 12, with the majority of respondents acquiring a prescription from one doctor (n = 16) or two doctors (n = 12). The number of doctors who had been asked for a prescription but had refused was on average 1.3 (sd = 2.95), ranging from none to 15. Most respondents who had approached doctors for a prescription reported they had not been refused at all (59%, n = 22), and, of the remainder, six reported refusal by one doctor, and two doctors refused four. One respondent each reported being refused a prescription by 3, 4, 5, 10 or 15 doctors they had approached. No respondents had attempted to buy benzodiazepines over the Internet in the previous six months.

Participants were asked about the difficulty or ease of obtaining prescriptions for benzodiazepine gel capsules. The most frequent response was that no attempt had been made to obtain them in this way (n = 19, 38%), with 20% of the respondents stating that there was no point in asking for gel capsules, as they would be refused. Fourteen respondents (28%) indicated it was difficult or very difficult to obtain a prescription for gel caps, with 11 (22%) reporting it had become more difficult over the past year. Only four (8%) participants reported it was easy, with none reporting it was very easy, and nobody reported it had become easier since a year before.

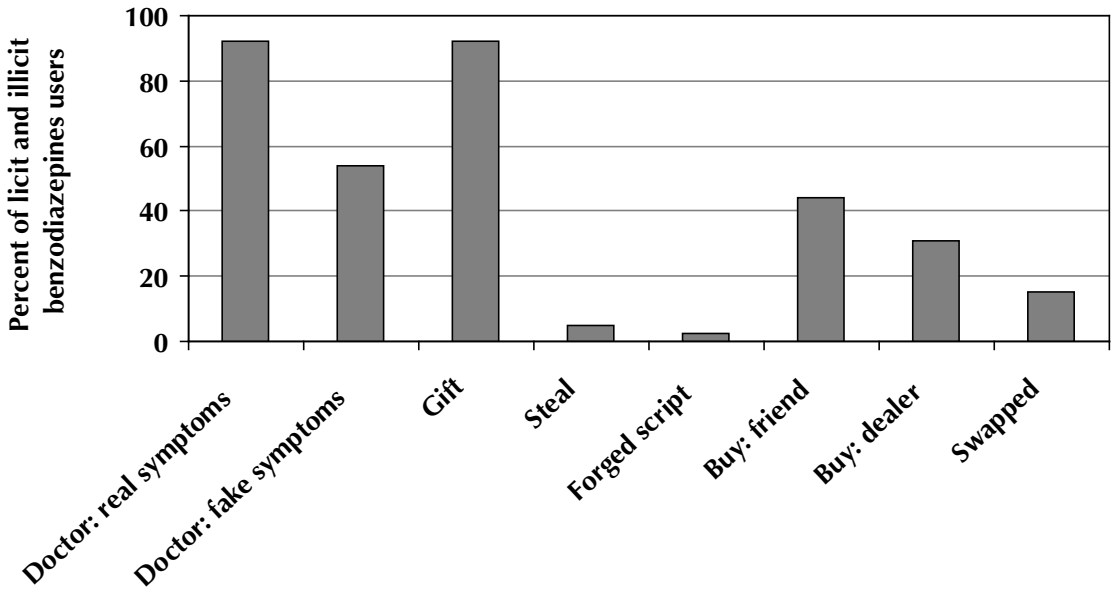
Obtaining a prescription for benzodiazepine tablets on the other hand was reportedly substantially easier, with 62% (n = 31) indicating they were easy or very easy to obtain, and only 12% (n = 6) stating it was difficult, although 28% (n = 14) reported it had become more difficult over the previous 12 months. No one reported it was very difficult. In terms of approaching a doctor

with the aim of obtaining benzodiazepine tablets, 26% (n = 13) reported they had an ongoing relationship with their regular doctor and so were able to get a script without difficulty, while 18% (n = 9) reported that getting a script depended on the doctor and the 'story' told to them, with 10% (n = 5) stating they only had to ask for a script to receive it.

Participants were asked for a description of the last time they had attempted to obtain a prescription for benzodiazepines, and 78% (n = 39) of the participants provided some information. Almost half of these (46%, n = 18) detailed attending a normal appointment with the usual general practitioner, who wrote a prescription without equivocation. Almost a quarter (23%, n = 9) reported that in order to obtain a prescription they had doctor-shopped, with the result they were successful. Twenty-one percent (n = 8) reported they really wanted to obtain the drugs either for detoxification, because they could not sleep, or because they were 'hanging out', and were successful in their attempt. Only five percent (n = 2) reported their last attempt at obtaining a script was unsuccessful.

Acquisition of illicit benzodiazepines for these participants was generally similar to those in stage two. The most frequently reported mode of obtaining illicit benzodiazepines was as a 'gift', with 92% (n = 36) of respondents who had acquired the drugs illicitly reporting this (for 59%, n = 23, this was their usual method). The next most frequent method of obtaining the drugs illicitly was via a friend, with 44% (n = 17) of these kinds of users reporting this (for 26%, n = 10, this was their usual method), which was higher than in Stage two (27%). Thirty-one percent of these respondents (n = 12) also reported buying benzodiazepines from a dealer (with 5% (n = 2) reporting this as their usual source). Few respondents reported stealing the drugs or prescriptions (5%, n = 2) or forging prescriptions (2.5%, n = 1). Swapping other drugs for benzodiazepines was named as a source for the drugs by 15% (n = 6) of the respondents. See Figure 20.

Figure 20: Percentage of both licit (n = 37) and illicit (n = 39) benzodiazepine users obtaining the drugs via the different sources



A large number of participants (42%, n = 21) had not attempted to obtain gel capsules on the street or from friends, or did not know how easy or difficult they were to obtain. However, they were reportedly easier to acquire that way than from a doctor, with 16% (n = 8) of the participants reporting they were very easy or easy to acquire, while 12% (n = 12) reported they were difficult

or very difficult to obtain. Also, 28% (n = 14) of participants reported they had become more difficult to access over the previous 12 months, but nobody considered they had become easier to get, and 32% (n = 16) were of the opinion that they had increased in price in that time as well.

Whilst 38% (n = 19) of the participants had not attempted to access benzodiazepine tablets on the street or from friends or else did not know how easy they were to acquire, according to 38% of respondents they were easy or very easy to obtain, and only one reported they were difficult to get. Thirty percent (n = 15) reported that the ease of obtaining the tablets had remained stable for the past year, and 22% (n = 11) also reported their price had not changed. Fourteen percent (n = 7) reported it had actually become easier to access them on the street or from friends in that time, although only one respondent reported their price had decreased.

Respondents were asked about other drugs that their dealer sold other than the benzodiazepine that the respondent bought from them. The findings were quite different from those in Stage two. While 21% of illicit benzodiazepines users (n = 8) reported their dealer sold no other drugs, 31% (n = 12) reported they also sold heroin, 25.5% (n = 10) reported they sold other benzodiazepines, 23% (n = 9) reported they sold cannabis, 15% (n = 6) reported they sold methamphetamines, and 2.5% (n = 1) each reported they also sold cocaine and ecstasy.

There was reportedly little or no organised or high level dealing of the benzodiazepines acquired by these respondents, as they were accessed most frequently either: from a friend selling their prescription (by 24%, n = 12, 31% of illicit benzodiazepines users); from a friend giving away their prescription (by 12%, n = 6, 15% of illicit benzodiazepines users); or else from a user selling to fund their own use (the same proportion). Only one respondent each received their benzodiazepines from a small-time dealer or from a dealer swapping other drugs for prescription drugs.

Sixty percent (n = 30) of the participants described what happened the last time they had attempted to obtain benzodiazepines on the street or from a friend. The most frequently reported scenario involved contacting a regular dealer or a friend with a benzodiazepines prescription, and obtaining the drugs quickly (by 40%, n = 12). A further 23% (n = 7) described being given the drugs by a friend without searching for them, and the same proportion explained they obtained the drugs opportunistically, happening upon a dealer or vice versa.

Few respondents felt able to comment on the benzodiazepine market, or believed it had changed substantially in the previous 12 months. However, 22% (n = 11) reported there had been changes, with 20% (n = 10) considering the drugs were less available on the street, and 10% (n = 5) reporting it took longer to score them. Eighteen percent (n = 9) also reported that doctors were less willing or refused to prescribe the drugs. Ten percent (n = 5) reported that there had been an increase in police activity around prescription drugs. These respondents described how police were more likely to check people for the drugs, and check identification against prescriptions, as well as fining people for being in possession of temazepam capsules and for selling benzodiazepines.

Eight percent (n = 4) considered that changes in the availability of the drugs had caused an increase in crime by motivating stealing in order to pay for the drugs, directly influencing behaviour ('lots of pills increase confidence, this leads to increased crime – people think they are superman'), and by increasing violent crime ('users will try and rob those who have them'). Eight percent (n = 4) also believed that changes in the availability of benzodiazepines had affected relationships of users, causing family breakdowns, fighting and aggressive behaviour. The same proportion reported that market changes had affected them financially, as the drugs were more expensive and therefore increased difficulties.

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Market characteristics

- Three-quarters of these participants (n = 37) obtained benzodiazepines via legitimate prescriptions, whilst slightly more than that acquired them illicitly (n = 39).
- More than half of those who had received prescriptions for the drugs (n = 20) reported they had feigned symptoms, which was substantially more than in Stage two, but most had had genuine symptoms (n = 34), with some participants reporting both.
- As in Stage two, illicit acquisition of benzodiazepines was generally via a 'gift', with 72% of participants reporting this.
- Thirty-four percent of participants had bought them from a friend, which was similar to Stage two, and 24% bought them from a dealer (less than Stage two).
- Again, few respondents reported stealing the drugs (n = 2), or forging prescriptions for them (n = 1).
- Some participants swapped other drugs for benzodiazepines (12%).
- Similar to Stage two, participants reported their dealers were friends selling their prescription (24%), or friends giving away their prescription (12%), or a dealer selling to fund their own use (12%).
- Again, reports of other drugs sold by suppliers seemed inconsistent with the above information, with 16% of respondents reporting their benzodiazepines dealer sold no other drugs, and 24% reporting they also sold heroin, 20% reporting they sold other benzodiazepines, 12% noting amphetamines, and 18% cannabis, whilst there were a few reports of other drugs such as cocaine and ecstasy.

Diversion

- Again supporting the findings of the earlier survey, PWID participants reported little difficulty in receiving benzodiazepines tablets medically. However, they reported it was very difficult if not impossible to obtain gel capsules this way, and generally did not bother to try.
- Doctor-shopping appeared to be slightly more prevalent with these respondents than in the previous survey. Most participants in this survey (78%, n = 39) had attempted to access these drugs from 2.3 doctors on average in the previous six months, with one participant successfully approaching 12 doctors. Most (58%) had not been unsuccessful at all, though most were successful with only one doctor (n = 16), or two doctors (n = 12).
- Quite a few participants had been refused by at least one doctor, and one participant had attempted to obtain the drugs unsuccessfully from 15 doctors.
- Most participants who reported difficulty suggested that the reason for the refusal was due to the doctor realising they were a drug user.
- Participants reported seeking benzodiazepine prescriptions from medical practitioners predominantly for issues relating to sleeping difficulties or anxiety, or for the alleviation of withdrawal syndrome. Most participants reported that if they were unsuccessful with one doctor they would keep trying until they obtained a prescription, with a common response being 'it depends on the doctor'.

Recent pharmaceutical opioids use

Morphine

Seventy percent of these participants (n = 35) had used morphine in the previous six months, with 89% reporting they had used illicitly acquired morphine and 14% (n = 5) reporting they had used morphine obtained legally. Four of the participants who used morphine medically had also used it illicitly. This finding was similar to the Stage two participants, 78% of whom reported using morphine in total.

Routes of administration and forms used

Eight participants (16%) reported oral use of some form of morphine. All except one of these participants reported the drug was acquired illicitly; they comprised 95.5% of oral morphine users. Thus 22.5% of illicit morphine users had taken the drug orally. Two participants who had received morphine via prescription reported they had taken it orally (40% of licit morphine users), with one also taking illicit morphine orally. See Table 57. The number of days that prescribed drugs were taken orally ranged between three and 180 days in the previous six months. When the drugs were illicit, they were taken orally between one and 15 days.

Morphine was generally acquired illicitly by this sample, but regardless of the source, it was likely to be injected rather than swallowed, with almost two-thirds of all participants (64%, n = 32), and 91.4% of morphine users, reporting they had injected morphine in the previous six months. Four participants (8% of all participants, 80% of the licit morphine users) reported injecting morphine when it had been acquired medically, compared with all illicit morphine users (n = 31) who reported they had injected it. Three participants injected both prescribed and illicit morphine. One respondent injected their prescribed morphine, but did not inject illicit drugs. There were 28 participants (56% of the total, and 87.5% of all morphine injectors) who reported they had injected morphine when it was illicit but not when it was prescribed. These findings reflect those of Stage two. See Table 57.

Table 57. Percentage of all participants using morphine orally and via injection, according to method of acquisition.

Morphine	Injected	Oral
Licit (%)	8	14
Illicit (%)	62	4

While the prevalence of using and injecting morphine for this sample was greater when the drugs were illicit than when they were prescribed, the frequency of injecting also differed substantially. Where morphine was prescribed it was injected on average on four days (sd = 15) of the previous 180, ranging from one and 80 days, and when the drugs were illicit they were injected on average on 26.5 days (sd = 40.3), ranging from one to 160 days.

The most common forms of injected morphine reported were MS Contin tablets and Kapanol capsules, but in Stage two, more participants injected Kapanol than MS Contin, the opposite of these findings. There were 41 reports of MS Contin tablets injection, comprising mainly 100mg tablets, 25 reports of injecting Kapanol capsules, six reports of injecting other morphine. Oral use was much less frequent, with six participants reporting this. See Table 58.

Table 58. Number of PWID using orally and/or injecting different forms of morphine in the six months before the survey.

Brand of morphine	Oral use last six months (n)	Injected last six months (n)
MS Contin 100mg	-	22
MS Contin 60mg	-	8
MS Contin 50mg	-	6
MS Contin 10mg	1	3
MS Contin 15mg	1	1
MS Contin 200mg	-	1
Kapanol 50mg	-	11
Kapanol 100mg	-	9
Kapanol 20mg	-	4
Kapanol unknown	-	1
Morphalgin	1	1
Anamorph	1	3
Morphine linctus	-	1
'Morphine'	-	1
Ordine liquid	2	1

Supply, availability and market changes

Most respondents had not attempted to obtain morphine from a doctor in the previous six months, with 16% (n = 8) reporting having done so. Only two respondents reported they had faked symptoms to receive morphine from a doctor, with one reporting this was their usual method of obtaining them. Most (n = 4, 80%) of the respondents obtaining morphine prescriptions reported their symptoms were genuine, and that this was their usual method of obtaining the drugs.

An average of 2.5 doctors (sd = 5), ranging from none to 15, were successfully approached for a prescription. Three respondents acquired a prescription from one doctor, while one each was successful with two doctors and 15 doctors, and three participants had tried to obtain a script but failed. The number of doctors who had been asked for a prescription but had refused was on average three (sd = 3.9), ranging from one to 10, with one participant each turned down by two, five, seven and 10 doctors. Four participants reported they had not been refused a script by any doctors. No respondents had attempted to buy morphine over the Internet in the previous six months.

Participants were asked about the difficulty or ease of obtaining prescriptions for morphine. Most (n = 42, 84%) had not tried to do so, but two respondents (4%) indicated it was easy or very easy to obtain a prescription for morphine, saying they had a 'permit' because of legitimate pain. Three respondents (6%) reported it was difficult or very difficult to obtain a prescription, and the same number also reported morphine had become more difficult over the past year, while two considered the level of difficulty had remained stable.

Participants were asked for a description of the last time they had attempted to obtain a prescription for morphine, and 14% (n = 7) of the participants provided some information. Three reported that they only needed to ask for a prescription as they were in genuine pain, therefore their last visit to the doctor was straightforward and resulted in obtaining a prescription easily. One participant reported the doctor was reluctant to prescribe morphine at the last visit, but after 'extensive tests', had written a prescription. A further three respondents stated they had asked a doctor for morphine for 'pain', but had been turned down.

The most frequently reported mode of obtaining illicit morphine was as a 'gift', with 84% (n = 26) of respondents who had acquired the drugs illicitly reporting this (for 29%, n = 9, this was their usual method). The next most frequent method of obtaining the drugs illicitly was via a friend, with 64.5% (n = 20) of these kinds of users reporting this (for 52%, n = 16, this was their usual method). Forty-five percent of these respondents (n = 14) also reported buying morphine from a dealer, with 22.5% (n = 7) reporting this as their usual source. No respondents reported stealing the drugs or forging prescriptions. Swapping other drugs for morphine was named as a source for the drugs by 16% (n = 5) of the respondents. One participant reported they had received morphine via another source, which they named as 'a chemist giving them away'.

Six participants (12%) had not attempted to obtain morphine on the street or from friends, or did not know how easy or difficult they were to obtain. However, they were reportedly easier to acquire that way than from a doctor, with 24% (n = 12) of the participants reporting they were very easy or easy to acquire, while 26% (n = 13) reported they were difficult or very difficult to obtain. Also, 16% (n = 8) of participants reported they had become more difficult to access over the previous 12 months, while 10% (n = 5) considered they had become easier to get, and 26% (n = 13) did not think the level of difficulty had changed. In terms of the street price of morphine, 20% (n = 10) reported it had not changed in the past year, whereas 12% (n = 6) considered it had increased, and eight percent (n = 4) thought it had decreased.

Respondents were asked about other drugs that their dealer sold other than the morphine type that the respondent bought from them. While nearly one-third of morphine users (n = 10) reported their dealer sold no other drugs, 22% (n = 7) each reported they also sold heroin and cannabis, 15.5 percent (n = 5) each reported they sold other morphine types and methamphetamine, 6% (n = 2) reported they sold benzodiazepines, and 3% (n = 1) reported they sold ecstasy and inhalants.

As in Stage two, there was reportedly little or no organised or high level dealing of the morphine acquired by these respondents, as they were accessed mainly via informal networks. Almost half of the morphine users (n = 15) received morphine from a friend selling their prescription. A further 16% of morphine users (n = 5) obtained the drug from a friend giving away their prescription and about 10% (n = 3) bought it from a user selling to fund their own use. Only two respondents (6%) each received their morphine from either a small-time dealer or from a friend swapping other drugs for prescription drugs.

Fifty-eight percent (n = 29) of the participants described what happened the last time they had attempted to obtain morphine on the street or from a friend. The most frequently reported scenario, reported by 38% of these respondents (n = 11) involved an opportunistic 'score', where the respondent 'happened to come across a dealer', or vice versa. The next most common situation involved a friend giving the respondent morphine, described by almost a third (n = 9). Seven participants (24% of these respondents) described meeting up with a regular dealer or someone they know with morphine and buying it from them in a straightforward financial transaction. One other participant stated that he went walking in the street looking for a dealer from whom to buy morphine.

Eleven respondents (22%) believed the morphine market had changed substantially in the previous 12 months, with eight percent (n = 4) reporting it had become more difficult to obtain the drug from a doctor, and five (10%) considering it had also become more difficult to access on the street. Four participants also stated morphine had become more expensive, and six considered it now took longer to score than before, with three having to travel further to find it. On the other hand, two participants believed that morphine was actually easier to get than a year ago, and three considered it had become cheaper. One participant thought there was less demand now than previously, and another said Kapanol was easier to get than 'grey nurses' (MS Contin 100mg tablets). Three participants stated there had been a change in the type of people selling morphine, with all saying they were now cancer patients rather than dealers. Only one respondent reported that there had been an increase in police activity around morphine, saying that police used scanners to detect drugs wrapped in alfoil, and targeted the same areas as where known heroin dealers were. One participant stated that there was no police activity associated with morphine, as the police 'don't know what they are dealing with'.

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Market characteristics

- Replicating findings identified in the earlier PWID survey, most morphine was accessed illicitly rather than via prescription, with most participants (84%) not attempting to obtain it from a doctor in the previous six months.
- As in Stage two, most participants received morphine from friends as a 'gift' (52% of participants). Otherwise participants bought morphine from a friend (40%), or from a dealer (32%), or they swapped other drugs for morphine (10%).
- No respondents reported stealing morphine or forging prescriptions.
- One-quarter (25%) of participants reported morphine was easy or very easy to obtain on the street, however a similar proportion (26%) reported they were difficult or very difficult to acquire.
- Participants reported typically purchasing morphine from friends selling their prescription (30% of respondents), friends giving away their prescription (10%), and friends selling to fund their own use (6%). Only four percent of respondents each reported buying morphine from small-time dealers, or swapping other drugs for morphine.
- Almost one-third of morphine users (20% of the sample) reported their morphine dealer sold no other drugs; however, 14% each reported they sold heroin and cannabis, 10% each said they sold methamphetamines and other morphine types, 4% reported they sold benzodiazepines and one participant each reported they sold ecstasy and inhalants.

Diversion

- Four participants reported they had genuine symptoms and were thus able to obtain a prescription, and just two participants had feigned symptoms in an attempt to obtain morphine.
- There was some attempt to doctor-shop by some participants, with an average of 2.5 doctors approached successfully for morphine, and on average 3.9 approached unsuccessfully. The number of doctors who supplied a prescription ranged from 1 to 15, with three participants

successful with just 1 doctor, and one participant each successfully approaching 2 and 15 doctors. The number of doctors who refused to supply a prescription ranged from 1 to 10, with one participant each trying with 2, 7, 5, and 10 doctors.

- Two participants reported it was easy to obtain a morphine prescription, but said this was because they had a genuine medical condition and a long-standing relationship with their doctors. The remainder reported morphine was very difficult to obtain this way.

Pharmacotherapeutic treatment opioids

Over half of the participants (54%, n = 27) reported they had used prescribed pharmacotherapeutic opioids within the previous six months, while 38% (n = 19) reported they had used these drugs illicitly. Use of treatment drugs by this sample was similar to Stage two participants. Buprenorphine was the most used of these drugs, licit or illicit, oral or injected, by these participants in the past six months. Half of the respondents (n = 25) reported they had used buprenorphine, 18 (72%) reported they had been prescribed the drug, which was 36% of the sample. Methadone syrup was used by 22% of participants (n = 11), 10 (91%) of who had a prescription; this was 20% of the sample. Just one participant reported using Physeptone, and it was illicitly acquired.

Routes of administration and forms used

Half of all participants reported taking prescribed pharmacotherapies orally in the previous six months (92.5% of pharmacotherapy users). Five participants reported using illicit pharmacotherapies orally (18.5% of pharmacotherapy users). All participants who reported they had used methadone indicated they had swallowed it, with all prescribed methadone syrup users taking the drug orally, and one illicit user doing so. Not all buprenorphine users swallowed the drug, however, with n = 17 (34% of the sample) doing so. Illicit buprenorphine was swallowed by 16% of the drug's users (n = 4), and prescribed buprenorphine was swallowed by 56% (n = 14). One participant swallowed illicit Physeptone. See Table 59. The number of days that methadone syrup was taken orally ranged between one and 180 days in the previous six months, with an average of 23 (sd = 57.7). Buprenorphine was swallowed less frequently, on an average of 19.17days (sd = 55), ranging between one and 180 days.

Forty percent of participants (n = 20) reported injecting prescribed pharmacotherapies in the previous six months (71% of pharmacotherapy users), with illicit pharmacotherapies injected by 46% of pharmacotherapy users (n = 13). Buprenorphine users were more likely to inject the drug than use it orally, with 40% of the sample (n = 20) doing so. Three participants (27% of methadone syrup users) injected methadone syrup, prescribed users were n = 2, and there was one illicit methadone syrup injector. Illicit buprenorphine was injected by 26% of the sample (n = 13), the same proportion as injected prescribed buprenorphine. Illicit Physeptone tablets were injected by one participant. See Table 59.

Table 59. Routes of administration for main pharmacotherapy treatment drugs according to method of acquisition.

	Methadone Syrup		**Buprenorphine**		**Physeptone**	
	Injected (n)	**Oral (n)**	**Injected (n)**	**Oral (n)**	**Injected (n)**	**Oral (n)**
Licit	2	10	13	17	-	-
Illicit	1	1	13	4	1	1

Note: The categories are not mutually exclusive, thus do not add up to the total pharmacotherapy users

The number of days that methadone syrup was injected ranged between one and 180 days in the previous six months, with an average of 6.74 (sd = 34.6). Buprenorphine was injected much more frequently, on average on 23 days (sd = 54), ranging between one and 180 days.

Supply, availability and market changes

All (n = 27) of the respondents obtaining prescriptions for these drugs reported their symptoms were genuine, and that this was their usual method of obtaining the drugs. Only one respondent reported they had faked symptoms to receive a treatment drug from a doctor. Almost half the sample (46%, n = 23) reported currently being in a pharmacotherapeutic drug treatment program, with five (10%) in current methadone syrup maintenance treatment, and 18 (36%) currently in the buprenorphine program. Five (10%) other participants had taken prescribed methadone at some time in the past six months, and a further two (4%) had attempted to access the MMT program in that time. Seven other respondents (14%) had used buprenorphine in the previous six months, and six (12%) had attempted to gain entry to the program in the same time period.

The most frequently reported mode of obtaining illicit pharmacotherapies was as a 'gift', at 67% (n = 18) of respondents who had used these drugs (56%, n = 15 reported this as their usual method of acquiring the drug). The other methods for obtaining the drugs illicitly was buying from a friend (n = 3), or buying from a dealer (n = 3) (for one participant each, this was their usual method). The price of methadone on the street was reportedly about one dollar per ml, while buprenorphine tablets reportedly sold for between $5 and $20 each.

Participants were asked about the street market in pharmacotherapeutic opioids. Because the proportion of participants using methadone syrup illicitly was small, there was very little information provided about the market in that drug. Three (6%) participants reported it was easy or very easy to access on the street, while one reported it was difficult. Comments regarding buying methadone syrup included knowing people on the program who would sell their take-away doses, and sharing with friends. Eight (16%) participants reported it was easy or very easy to access buprenorphine on the street, and 10 (20%) reported availability of the drug had remained stable during the past year, while one reported it had become easier to get. Six respondents also believed that the street price had remained steady in that time. Three (6%) respondents reported the drug had become less available during the past 12 months, and two considered it had become more difficult to access in that time, with one reporting the price had also increased.

Respondents were also asked about drugs that their dealer sold other than pharmacotherapies. Four methadone users reported the dealer sold only methadone, and one participant each reported their methadone dealer also sold heroin, methamphetamines, and cannabis. Four respondents also reported their buprenorphine dealer sold no other drug, while three reported they also sold cannabis, two reported they sold heroin, and one each reported they also sold methamphetamines and morphine.

According to these participants, there was little or no organised or high level dealing of the pharmacotherapies acquired by these respondents, as they were accessed mainly via informal networks, generally via others' bought or gifted take-away doses. All participants (n = 6) providing information about dealers of methadone believed their dealer fitted this picture, with n = 2 saying they were a friend selling their prescription, n = 3 reporting they were a friend giving away their prescription drugs, and n = 1 indicating they were a friend swapping their script drug for other drugs. Participants providing information about buprenorphine dealers mostly reflected these reports, with n = 4 reporting their dealer was a friend selling their buprenorphine take away dose, and n = 7 reporting they were a friend giving away their take away dose. One participant reported their dealer gave the drug away in return for goods and services.

Three participants described what happened the last time they had attempted to obtain methadone syrup on the street or from a friend. The respondents all described themselves as sick and needing the drug, and finding a friend who shared their own prescribed drug dose with them. Ten buprenorphine users described similar motivations and methods of obtaining the drug, describing how a friend shared or sold their dose. However, two participants reported that there are many dealers of buprenorphine on the street and it was very easy to buy. Three also described having to search for someone with buprenorphine who would be willing to share it or sell it before they were able to access a dose. Three respondents were of the opinion that the market in buprenorphine had changed substantially in the previous year, mainly in terms of demand for it on the streets, stating it was popular, and people with prescribed doses would often be approached to sell them, and one respondent believed that people were substituting the drug for heroin. Only one participant considered that police activity around these drugs had increased in the previous year, stating that police were 'busting people' with buprenorphine.

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Market characteristics

- Over half these participants (54%) reported using prescribed pharmacotherapies in the previous six months, while 38% had used them illicitly.
- Half these respondents (50%) had used buprenorphine and 22% reported using methadone. Just one reported using Physeptone.
- Methadone syrup was most commonly accessed through legitimate prescription via the MMT, and buprenorphine was acquired via treatment programs by 36% of participants.
- The most frequent route of access illicitly for these drugs was as a 'gift' (36% of respondents). Several participants reported buying it from a friend (n = 3), or from a dealer (n = 3).
- Three participants reported that methadone was easy to acquire on the street, selling for one dollar per ml. But most information suggested that supplies came from friends sharing their take-way dose.
- Eight participants (16%) reported it was easy or very easy to obtain buprenorphine on the street also, and that it cost between $5 and $20 a dose. Again, most illicit buprenorphine was acquired from friends sharing their dose (which they hold under their tongue until they leave the pharmacy, and then crush it).
- Participants reported predominantly accessing diverted methadone syrup and buprenorphine from friends receiving these medications legitimately. These people infrequently sold other drugs. However, one methadone user reported their dealer sold methamphetamines and cannabis, and four buprenorphine users reported their dealer sold methamphetamines, heroin and morphine.
- Most users of these drugs reported they accessed them when they were in need of heroin or more of the treatment drug.

Other pharmaceutical opioids

Almost one half of the sample (46%, n = 23) reported they had used some other type of opioid drug, besides morphine and pharmacotherapies, within the previous six months, with 56.5% of these (n = 13) reporting they had obtained these drugs legally, and 61% (n = 14) reporting they had obtained them illicitly (two participants reported both).

Routes of administration and forms used

Almost half of the other opioid users (n = 12) reported oral use of the drugs, which was almost a quarter of the sample. Eight of the oral users reported swallowing their medically acquired drugs (61.5% of licit users). Six reported they swallowed illicitly obtained drugs (43% of illicit users), with two doing both. Almost two-thirds of the users of other opioids (65%, n = 15) reported injecting the drug; this was 30% of the entire sample, and twice as many as in Stage two. Seven of the injectors reported using this route of administration for their medically acquired drugs (this was 54% of those who had obtained them medically). Eight participants reported their injected drugs were illicit (57% of illicit users). Again, two did both. See Table 60.

Table 60. Percentage of all participants using other opioids orally and via injection, according to how they were acquired.

Other Opioids	Injected	Oral
Licit (%)	14	16
Illicit (%)	16	12

The drugs that were reportedly taken orally were: oxycodone Proladone suppository, Oxycontin tablets, tramadol Tramal and Zydol, and Panadeine forte. The Tramadol and Panadeine forte preparations were acquired by prescription, whereas the Oxycontin tablets and suppositories were acquired illicitly. This pattern was largely reflective of the Stage two findings. Oxycodone was the most frequently reported 'other opioid' injected by these participants, with 22 reports, far more than reported in Stage two. The reported breakdown of injection of various brands of opioid was: oxycodone Oxycontin 10mg tablet, Oxycontin 20mg tablet, Oxycontin 40mg tablet, Oxycontin 80mg tablet, MS Mono 90mg capsules, MS Mono 120mg capsules, Endone 5mg tablet; tramadol Tramal 50mg capsule, tramadol Tramal ampoule, Panadeine forte tablets; and codeine phosphate. See Table 61. The oxycodone preparations and the codeine phosphate were acquired illicitly, whereas the Tramal and the Panadeine forte were prescribed.

Table 61. Number of PWID using orally and/or injecting different forms of other opioids in the six months before the survey.

Brand of other opioid	Used orally last six months (n)	Injected last six months (n)
Proladone suppository	1	-
Endone 5mg	2	3
MS Mono 120mg	-	2
MS Mono 90mg	-	1
Oxycontin 80mg	-	7
Oxycontin 40mg	-	1
Oxycontin 40mg	-	3
Oxycontin 20mg	1	3
Oxycontin 10mg	-	3
Tramal 50mg capsule	6	1
Tramal ampoule	-	1
Zydol 50mg capsule	1	-
Panadeine forte	1	1
Codeine phosphate	-	3

The number of days that prescribed opioids was taken orally ranged between one and 180 days in the previous six months, with an average of 22.6 (sd = 53.4). Illicit opioids were swallowed much less frequently, with an average of 1.35 days (sd = 3.7), ranging between one and 15 days. There were 12 reports of swallowing other opioids. Prescribed opioids were injected more frequently than illicit drugs, with the former injected between one and 90 days, with an average of 6.96 (sd = 19.9), and the latter injected an average of four days (sd = 7.9), ranging between one and 30 days. There were 28 reports of injecting other opioids.

Supply, availability and market changes

Four respondents (31% of licit opioid users) reported they had faked symptoms to receive opioids (tramadol or Panadeine forte) from a doctor (with three indicating this was their usual mode of obtaining them). Eleven participants (84.6% of licit opioid users) reported their symptoms were genuine, with 10 reporting this was how they usually obtained the drugs.

Twenty-eight percent of the respondents (n = 14) had attempted to obtain other opioids from a doctor in the previous six months. An average of 2.57 doctors (sd = 3.8), ranging from none to 15, were successfully approached for a prescription, with most respondents receiving a prescription from one doctor only (n = 7). One respondent had no success, while three respondents were successful with two doctors, two were successful with four doctors, and one participant successfully requested prescriptions from 15 doctors. The number of doctors who had been asked for a prescription but had refused was on average 0.79 (sd = 1.7), ranging from none to five, with 11 participants reporting they had not been refused at all, and one each reportedly turned down by two, four, and five doctors. No respondents had attempted to buy other opioids over the Internet in the previous six months.

Participants were asked about the difficulty or ease of obtaining prescriptions for opioids. Eighteen percent (n = 9) indicated it was easy or very easy to obtain a prescription for these drugs, while eight percent (n = 4) reported it was difficult to obtain a prescription. Nine participants (18%) reported there had been no change in the level of difficulty of acquiring a prescription, but three (6%) considered it had become more difficult. Six participants reported they were prescribed the drugs for pain relief, and five said that they had a long history with the doctor and just have to ask for them. One participant reported that they doctor-shop and present well, therefore there is no problem acquiring multiple prescriptions.

Participants were asked for a description of the last time they had attempted to obtain a prescription for opioids, and 24% (n = 12) of the participants provided some information. Five reported that they had presented to the doctor with legitimate pain, such as backache, toothache, or pain from an injury, successfully obtaining a prescription for pain killers, either Panadeine forte or Tramal. Four participants explained they had doctor-shopped, and had simply asked for a prescription, which they received. Several participants suggested the doctors were aware they were prescribing for drug using people, with a couple expressing concern, but others apparently unconcerned.

As in stage two, the most frequently reported mode of obtaining illicit opioids (mainly oxycodone) was as a 'gift', with 64% (n = 9) of respondents who had acquired the drugs illicitly reporting this (for most, n = 8, this was their usual method). The next most frequent method of obtaining the drugs illicitly was via a friend, with 36% (n = 5) of these kinds of users reporting this as their usual method. Three of these respondents (21% of illicit opioid users) reported buying opioids from a dealer. One respondent each reported forging prescriptions for the drugs or swapping other drugs for opioids.

Eighteen percent (n = 9) of participants reported opioids were very easy or easy to acquire on the streets, while 10% (n = 5) reported they were difficult or very difficult to obtain. Only one participant reported they had become more difficult to access over the previous 12 months, while 18% (n = 9) considered there had been no change in the ease of acquiring them. Three respondents stated that they found it easy to acquire the drugs 'if you know the right people', whereas four reported they had to 'put in a bit of effort'. In terms of the street price of opioids, 10% of participants (n = 5) reported it had not changed in the past year, whereas one participant each considered the price had decreased or increased.

Respondents were asked about drugs that their dealer sold other than the opioids type that the respondent bought from them. Twelve respondents reported they did not know whether they sold any others, while three opioid users reported their dealer sold no other drugs. Two participants each reported the dealer also sold heroin, methamphetamines, and morphine. One each reported the dealer also sold benzodiazepines, cannabis, and other opioids.

As with the other pharmaceutical drugs, there was reportedly little or no organised or high level dealing of the opioid acquired by these respondents, as they were accessed mainly via informal networks. Four participants (29% of illicit users) received their drug from a friend selling their prescription. A further two participants (14% of illicit users) obtained the drug from a friend giving away their prescription and one swapped another drug with a friend for the prescription drugs. One participant each received the drugs from a dealer swapping drugs for prescribed drugs, and bought drugs from a small-time dealer.

Seven participants described what happened the last time they had attempted to obtain opioid drugs on the street or from a friend. The most frequently reported scenario, reported by three of these respondents (21.5% of illicit users) involved an opportunistic 'score', where the respondent 'happened to come across' someone with the drugs. The next most common situation involved organising to meet with a friend or dealer who was known to have the drugs (n = 2, 14%). Other scenarios described included dealers offering Oxycontin as a replacement for morphine, and being offered the drugs by a friend who was sympathetic to the respondents' need for drugs (n = 1 each).

Only one respondent believed the opioids market had changed substantially in the previous 12 months, stating they were harder to get on the street now because doctors were reluctant to prescribe them. This respondent reported difficulty in obtaining opioids and this had caused a reduction in their drug use because they now only used them on 'pay day', or when their partner was able to obtain them.

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Market characteristics

- Almost half the sample had used other opioids, with over half of these (26% of the sample) reporting they received them legally, and 28% of the sample reporting illicit use.
- Most users of the other opioids Panadeine forte and tramadol had received them legitimately.
- Almost one-quarter of the sample (22%) reported their symptoms were genuine, whilst eight percent reported they feigned symptoms to acquire the drugs.
- There was some doctor-shopping for these drugs, with between one and 15 doctors successfully approached for a prescription, and between one and five unsuccessfully approached.

- Eighteen percent of participants reported it was easy or very easy to obtain the drugs medically, whilst eight percent reported it was difficult. The discrepancy could be related to the variety of drugs within this category, varying in strength from Panadeine forte to oxycodone.
- Oxycodone use was significantly more prevalent in this sample than in the first. Most users of illicit other opioids had used oxycodone and generally acquired them as 'gifts' (18% of the sample), or bought them from friends (10%). Six percent reported buying them from a dealer.
- One respondent each had forged prescriptions for these drugs and swapped other drugs for them.
- Eighteen percent of participants reported other opioids were easy or very easy to obtain on the streets, whilst 10% reported they were difficult to obtain.
- Eight percent of the sample reported their supplier was a friend selling their prescription, while four percent reported they were a friend giving away their prescription, and one participant had received the drugs from a dealer who swapped other drugs for them, and one had bought them from a small-time dealer.
- Most participants using these drugs (24% of the sample) did not know whether their dealer sold other drugs, and three users said they sold no others. However, two participants each reported their dealer sold heroin, methamphetamines, and morphine. One each also reported they sold benzodiazepines, cannabis and other opioids.

Drug-related behaviour

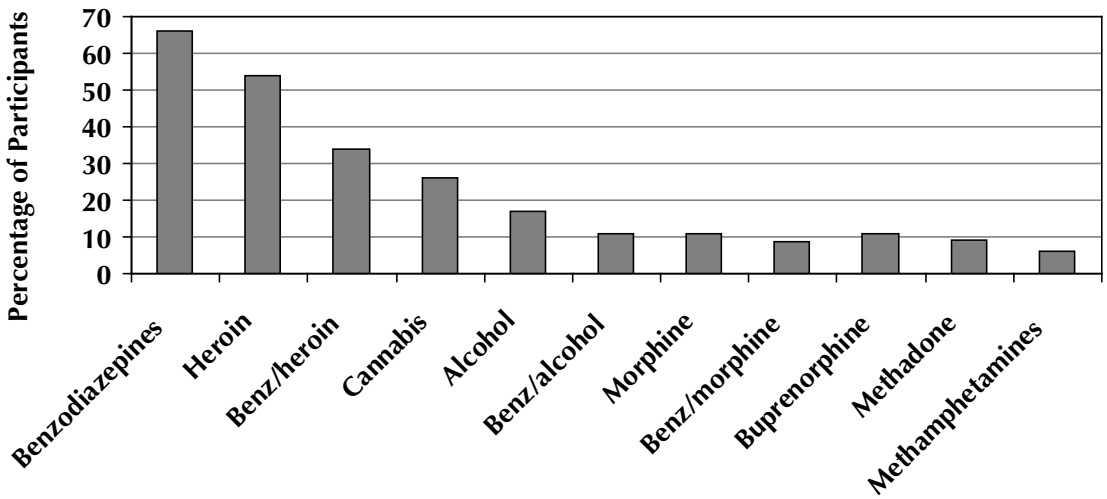
Intoxication

Almost all the participants (n = 47, 94%) reported they had been intoxicated with drugs in the previous month, and 75% of these respondents (n = 35) reported that as a consequence of being intoxicated they had behaved uncharacteristically. Such behaviour reportedly occurred up to 30 times (daily) in the past month, with an average of six times (sd = 8.90). Benzodiazepines, heroin, or a combination of the two were blamed by most of these respondents for the behaviour, and benzodiazepines were blamed in combination with other drugs as well. Benzodiazepines were named by two-thirds of these respondents (66%, n = 23) as responsible. Heroin was the drug attributed with causing uncharacteristic behaviour by more than half of these respondents (54%, n = 19), with benzodiazepines and heroin combined blamed by 34% (n = 12).

Cannabis was named by 26% (n = 9); alcohol by 17% (n = 6, with four of these reporting they had combined it with benzodiazepines); morphine and buprenorphine by 11% each (n = 4, for the morphine, MS Contin, n = 2, Kapanol, n = 1, both combined, n = 1); methadone by 9% (n = 3); and methamphetamines by 6% (n = 2). Three of those taking morphine combined it with benzodiazepines, and half those taking buprenorphine had also been using benzodiazepines.

The brands of benzodiazepines held responsible were: Normison (temazepam), n = 5; temazepam generic, n = 1; Serepax (oxazepam), n = 6; Valium (diazepam), n = 3; Xanax (alprazolam), n = 3; 'all' benzodiazepines, n = 2; Valium and Serepax combined, n = 1; and Valium and Xanax combined, n = 1. Drugs attributed with the behaviour totals more than the participants reporting uncharacteristic behaviour, as respondents may have indicated more than one drug as being responsible for their behaviour. See Figure 21.

Figure 21: Percentage of all respondents nominating different drugs that they believed caused their uncharacteristic behaviour in the previous month (N = 35)



Eight participants (23% of those reporting uncharacteristic behaviour) reported the kind of behaviour they had displayed as 'abusive', 'aggressive' or 'violent', and seven (20%) reported their behaviour as criminal. A further seven (20%) reported their behaviour as 'high', 'silly' or 'energetic', and two (6%) reported they had hallucinated while intoxicated. Five respondents (14%) reported that when they were intoxicated on benzodiazepines they were forgetful or 'blacked-out', and were aggressive or committed offences such as shop-stealing, robbery, or car-theft, and that they did not recall their activities afterwards. Six respondents (17%) also reported that benzodiazepines caused them to be more likely to commit criminal offences, as they lowered their inhibitions and increased their confidence and 'cockiness', with several describing the effect as 'being invincible', or 'thinking you are superman'.

Shoplifting

Over one-third of participants (36%, n = 18) reported they had shoplifted in the previous month, 61% (n = 11) of who reported doing so once a week or more. Reasons given for shoplifting were taking necessary items, such as food or personal items, for themselves or their family, n = 7 (14% of participants); having no inhibitions while on drugs, n = 5 (10%); taking items in order to sell them for money for drugs, n = 2 (4%); and 'liking the challenge', n = 1 (2%).

Property crime

Ten percent of participants (n = 5) reported committing a property theft in the previous month, compared with more than half of the participants in Stage two. Most (n = 3) reported they had committed such an offence less than once a week, and two did so once a week or more. Reasons given for such activity by two respondents were that taking drugs made it more likely thefts would be committed, and two said they needed money, while one respondent cited opportunism, stating 'if it is there to be taken, I will'.

Dealing

More than half the participants (n = 26, 52%) reported having dealt drugs in the previous month, slightly more than in Stage two. About a third of these (31%, n = 8) reported they had done so less than once a week, while 12% reported dealing once a week. Over one half of these respondents reported dealing once a week or more, with 34.6% (n = 9) reporting the activity more than once a

week and 23% (n = 6) indicating dealing daily. Eleven participants (22%, 42% of those reporting dealing) reported their dealing was motivated by money, while three respondents said they dealt to help friends, and two respondents each said they sold drugs to enjoy selling it, or they were 'moral' dealers, selling only cannabis to adults.

Swapping drugs

Almost half of the participants (46%, n = 23) reported they had swapped drugs for other drugs in the previous month. Most (56.5%, n = 13) reported swapping drugs less than once a week, while 26% (n = 6) said they did so once a week, and 17% reported doing it more than once a week or daily. Motivations for swapping drugs were mainly in order to experience something different (n = 15, 65% of these respondents), and having no cash to buy illicit drugs such as heroin, methamphetamines or morphine and being able to acquire them with prescribed drugs (n = 4).

Services in exchange for drugs

A fifth of participants (n = 10) reported they had provided services in exchange for drugs in the past month, with most (n = 7, 70%) reporting they had done this less than once a week, one reporting the activity once a week, and two reporting they had done so more than once a week. Services provided included company or driving people places (n = 3), fixing things (n = 2), sex work (n = 1), and providing a place to stay (n = 1).

Three participants (6%) also reported providing illegal services in exchange for drugs, with two reporting they had done so less than once a week, and one reporting it more than once a week. Two participants reported they stole goods such as mobile phones in exchange for drugs, and one reported stealing pipes from abandoned factories in order to obtain drugs.

Eleven (22%) participants reported they had provided goods in exchange for drugs within the previous month, with most (n = 7, 64%) reporting they had done so less than once a week, one stating this had happened once a week, and three (27%) reporting they had done so more than once a week. Goods reportedly provided for drugs were clothes, electrical goods, jewellery, computer games, laptop computers, bicycles, and cameras. Five participants (45% of these respondents) reported the goods were stolen, and two (18%) reported the goods were theirs, while in three cases (27%) it was unclear whom the goods belonged to.

Fraud

More than one-third of participants (34%, n = 17) reported having 'rorted' to obtain drugs in the past month, with an equal proportion (29%, n = 5) having done so less than once a week or once a week. Three (17.6%) reported rorting more than once a week, and four (23.5%) rorted daily. The definition of rorting was unclear, with the most common explanation provided relating to obtaining money or goods dishonestly but not via theft (n = 14, 82%), but also included begging (n = 4, 23.5%). Activities that were described as rorting included begging (n = 4), asking charities for money that would be used for drugs (n = 1), taking copper pipes from abandoned buildings to sell for cash (n = 2), faking symptoms to obtain prescriptions (n = 1), scoring drugs for someone and not returning (n = 1), exchanging drugs and money (n = 1), misrepresenting a situation (n = 1), pawning goods (n = 1), telling lies for credit (n = 1), using EFTPOS to obtain money from an empty bank account on the weekends when this is possible (n = 2).

Over one-quarter of participants (26%, n = 13) also reported they 'scammed' for drugs or money for drugs, with 38.5% of these (n = 5) reporting they did so less than once a week, 15% reporting it once a week, and 23% (n = 3) each reporting scamming more than once a week or every day. Scamming was defined as the same as rorting by 38% of all respondents, and descriptions of scamming activities were the same as for rorting, centring around begging, approaching charities for money, 'ripping people off', deception, or 'conning' in order to get money or drugs.

Twelve percent of participants (n = 6) reported committing a crime involving fraud in the previous month, with half each reporting they had done so once a week or less than once a week, which was similar to Stage two. Activities cited as fraud by two respondents each were credit card fraud, forging, and deliberately overdrawing on a bank account when the ATM goes down.

Violent crime

Twelve percent of participants (n = 6) reported having committed a crime involving violence in the previous month, with all reporting they had done so less than once a week. The prevalence is similar to Stage two, but the frequency is higher. Most of these respondents (n = 4, 67%) reported they were intoxicated at the time of the offence, and the remainder (n = 2, 33%) reported they had been aggressive and started a fight. Offences included committing assault during a bag-snatch robbery (n = 1), assaulting someone at a pub for no reason (n = 1), assaulting a partner while on Valium (n = 1), threatening someone to acquire temazepam from them (n = 1), attacking an ambulance officer and a police officer while having a 'schizophrenic attack' (n =1).

Driving under the influence of drugs

Almost one-third of participants (n = 18, 36%) reported having driven under the influence of illicitly used drugs in the previous month, with most (n = 10, 56% of these respondents) reporting they did so less than once a week. Six participants (33%) reported driving under the influence more than once a week, and two (11%) reported doing it daily. The reason given for this behaviour with the greatest frequency was necessity to get somewhere, to 'score', or go home after obtaining drugs (n = 7, 39% of these respondents). Four participants (22%) reported they knew the dangers of driving intoxicated, but do it anyway, and three (17%) claim to be capable of driving when intoxicated, or even more able to drive then than when sober. Two (11%) stated that when they are high on drugs they don't care what they do, so are likely to drive then.

The original research questions were distilled into areas that provided an overview relating to illicit prescription drug use and markets, diversion of prescription drugs, implications for frontline workers of the use of prescription drugs, and implications for interventions.

Summary with reference to NDLERF research questions

Links with crime

- Three-quarters of participants reported behaving uncharacteristically as a result of drug intoxication. Benzodiazepines were named by two-thirds of these respondents (46% of the sample) as responsible for the behaviour, heroin was blamed by more than half (38% of the sample), and a combination of the two was blamed by 34% (24% of the sample). Other drugs named were cannabis (18% of all), alcohol (12% of the sample), morphine and buprenorphine (8% each), as well as various combinations of benzodiazepines and other drugs (n = 5). Three who had taken morphine (MS Contin or Kapanol or both) had combined it with benzodiazepines. The benzodiazepines that were held responsible for the behaviour were temazepam (n = 6), oxazepam (n = 6), diazepam (n = 3), and alprazolam (n = 3), and combined forms of the drug (n = 4).
- Respondents reported that benzodiazepines caused them to behave aggressively, bizarrely, or become violent, or to black-out and not remember their behaviour later.
- Six respondents (12%) reported that taking benzodiazepines caused them to be more likely than normal to commit crimes, by lowering their inhibitions and increasing their confidence ('invincible' and 'thinking you are Superman' were used as descriptive terms by several participants).

- Dealing drugs was cited as the second highest source of income for these participants (providing on average $214 per fortnight in income), and 'crime' was cited as the fourth highest (accounting for $80 per fortnight on average).
- Over one-third of participants (36%) reported shoplifting in the previous month, and 10% reported committing a property theft (this appears much lower than in Stage two, but the category of property crime was not separated into sub-categories in the first survey, so it cannot be directly compared).
- More than half these participants reported dealing drugs, which is slightly higher than in Stage two.
- Almost half also reported they had swapped prescription drugs for other drugs, and 20% reported they had provided services in exchange for drugs (such as scoring drugs for others), and 22% reported providing goods in exchange for drugs (named as their own or stolen electrical goods, jewellery, computer games, computers, bicycles and cameras).
- More than one-third of participants reported committing some kind of fraud in the previous month, mainly begging, approaching charities for money, overdrawing their bank accounts, removing copper pipes from buildings to sell, and 'ripping people off'.
- The most commonly reported reasons for committing most offences were needing food or money for themselves or their family, and needing money for drugs, or opportunism, or else for the experience.
- A little over 10% of the current sample had recently been involved in violent crime, all less than once a week. The prevalence was similar to Stage two, but the frequency was higher. Most reported being intoxicated at the time of the behaviour. Offences included bag-snatch and assault, assault of a partner while on Valium, threatening a person to acquire temazepam from them, and attacking a police officer and an ambulance officer.

Summary

Market characteristics

The findings from Stage four were similar to those of Stage two, with some differences that may be due to sampling, or may be due to changes in drug markets and use patterns since the first survey was conducted (approximately five months prior to the second). It may be notable that the use of heroin was more prevalent and more frequent in this sample than in the first, whilst the injection of amphetamines had decreased in prevalence (and apparently in the amount spent on it) and had become less frequent.

The use of benzodiazepines was slightly less than in Stage two, but they were still used by most participants. More than half of the participants had bought them in the previous two weeks, spending an average of $92.50 (and up to $1,000) on them. As in Stage two, illicit acquisition of benzodiazepines was generally via a 'gift', with 72% of participants reporting this. Thirty-four percent of participants had bought them from a friend, which was similar to Stage two, and 24% bought them from a dealer (less than Stage two). Some participants swapped other drugs for benzodiazepines (12%). Reports of other drugs sold by suppliers seemed inconsistent with 16% of respondents reporting their benzodiazepine dealer sold no other drugs, and 24% reporting they also sold heroin, 20% reporting they sold other benzodiazepines, 12% noting amphetamines, and 18% cannabis, whilst there were a few reports of other drugs such as cocaine and ecstasy.

The prevalence of morphine use was similar to Stage two. Also similar to the earlier PWID survey, most morphine was accessed illicitly rather than via prescription, with most participants (84%) not attempting to obtain it from a doctor in the previous six months. Sixteen percent of the sample had bought them in the previous two weeks, spending on average $69 on them (and up to $300).

A difference that emerged in Stage four was a change in the brand of morphine, with more participants reporting they used MS Contin tablets this time, whereas more had used Kapanol capsules in Stage two. Whether this reflects the availability of MS Contin versus Kapanol in the market, or is simply a fluctuation, is uncertain.

As in Stage two, most participants received morphine from friends as a 'gift' (52% of participants). Otherwise participants bought morphine from a friend (40%), or from a dealer (32%), or they swapped other drugs for morphine (10%). Four participants also stated morphine had become more expensive, and six considered it now took longer to score than before. Almost one-third of morphine users (20% of the sample) reported their morphine dealer sold no other drugs; however, 14% each reported they sold heroin and cannabis, and 10% each said they sold methamphetamines and other morphine types, four percent reported they sold benzodiazepines and one participant each reported they sold ecstasy and inhalants. One-quarter (25%) of participants reported morphine was easy or very easy to obtain on the street; however, a similar proportion (26%) reported they were difficult or very difficult to acquire. Twenty-two percent of participants, however, believed the morphine market had changed substantially in the previous 12 months, and 10% considered it had also become more difficult to access on the street in that time. One participant said Kapanol was easier to get than 'grey nurses' (MS Contin 100mg tablets).

Over half these participants (54%) reported using prescribed pharmacotherapies in the previous six months, while 38% had used them illicitly. This was similar to Stage two. Half these respondents had used buprenorphine and 22% reported using methadone. Just one reported using Physeptone. Four participants had bought methadone in the previous two weeks, spending between $50 and $60, while 30% of the sample (n = 15) had bought buprenorphine, spending on average $50 (up to $70). Seventy-three percent of participants who had purchased buprenorphine legally (n = 11) had spent $50 or more on it in that time. The most frequent route of access illicitly for these drugs was as a 'gift' (36% of respondents). Several participants reported buying from a friend, or from a dealer. Sixteen percent of participants reported it was easy or very easy to access buprenorphine on the street, and that it cost between $5 and $20 a dose, and 20% reported availability of the drug had remained stable during the past year, while one reported it had become easier to get. Twelve percent of respondents also believed that the street price had remained steady in that time. Six percent of respondents reported the drug had become less available during the past 12 months, and two considered it had become more difficult to access in that time, with one reporting the price had also increased. Three participants reported that methadone was easy to acquire on the street, selling for one dollar per ml. Three respondents were of the opinion that the market in buprenorphine had changed substantially in the previous year, mainly in terms of demand for it on the streets, stating it was popular, and people with prescribed doses would often be approached to sell them, and one respondent believed that people were substituting the drug for heroin. Participants reported predominantly accessing diverted methadone syrup and buprenorphine from friends receiving these medications legitimately. These people infrequently sold other drugs. However, one methadone user reported their dealer sold methamphetamines and cannabis, and four buprenorphine users reported their dealer sold methamphetamines, heroin and morphine. Most users of these drugs reported they accessed them when they were in need of heroin or more of the treatment drug.

Almost half the sample had used other opioids, with over half of these (26% of the sample) reporting they received them legally, and 28% of the sample reported illicit use. Oxycodone use was significantly more prevalent in this sample than in the first. Most users of illicit other opioids had used oxycodone and generally acquired them as 'gifts' (18% of the sample), or bought them from friends (10% of the sample). Six percent reported buying them from a dealer, one participant had received the drugs from a dealer who swapped other drugs for them, and one had bought them from a small-time dealer. Eighteen percent of participants reported other opioids were easy

or very easy to obtain on the streets, whilst 10% reported they were difficult to obtain. Only one respondent believed the opioids market had changed substantially in the previous 12 months, stating they were harder to get on the street now because doctors were reluctant to prescribe them. Most participants using these drugs (24% of the sample) did not know whether their dealer sold other drugs, and three users said they sold no others. However, two participants each reported their dealer sold heroin, methamphetamines, and morphine. One each also reported they sold benzodiazepines, cannabis and other opioids.

Diversion

Three-quarters of these participants (n = 37) obtained benzodiazepines via legitimate prescriptions, whilst slightly more than that acquired them illicitly (n = 39). More than half of those who had received prescriptions for the drugs (n = 20) reported they had feigned symptoms, which was substantially more than in Stage two, but most had had genuine symptoms (n = 34), with some participants reporting both. Similar to Stage two, participants reported their benzodiazepine dealers were friends selling their prescription (24%), or friends giving away their prescription (12%), or a dealer selling to fund their own use (12%). Again, few respondents reported stealing the drugs (n = 2), or forging prescriptions (n = 1).

Four participants reported they had genuine symptoms and were thus able to obtain a prescription for morphine, and just two participants had feigned symptoms in an attempt to obtain the drug. Participants reported typically purchasing morphine from friends selling their prescription (30% of respondents), friends giving away their prescription (10%), and friends selling to fund their own use (6%). Three participants stated there had been a change in the type of people selling morphine, with all saying they were now cancer patients rather than dealers. No respondents reported stealing morphine or forging prescriptions.

Methadone syrup was mostly accessed through legitimate prescription via the MMT, and buprenorphine was acquired via treatment programs by 36% of participants. Most information suggested that methadone supplies came from friends sharing their take-way dose, and most illicit buprenorphine was also acquired from friends sharing their dose (which they hold under their tongue until they leave the pharmacy, and then crush it).

Most users of the other opioids Panadeine forte and tramadol had received them legitimately. Almost one-quarter of the sample (22%) reported their symptoms were genuine, whilst eight percent reported they feigned symptoms to acquire the drugs. One respondent had forged prescriptions for these drugs. Eight percent of the sample reported their supplier was a friend selling their prescription, while four percent reported they were a friend giving away their prescription.

Links to crime

These participants reported that drug dealing and crime contributed a significant amount to their income in the previous fortnight. Over one-third of participants (36%) reported shoplifting in the previous month, and 10% reported committing a property theft (this appears much lower than in Stage two, but the category of property crime was not separated into sub-categories in the first survey, so it cannot be directly compared). More than half these participants reported dealing drugs, which is slightly higher than in Stage two. Almost half also reported they had swapped prescription drugs for other drugs, 20% reported they had provided services in exchange for drugs (such as scoring drugs for others), and 22% reported providing goods in exchange for drugs (named as their own or stolen electrical goods, jewellery, computer games, computers, bicycles and cameras). More than one-third of participants reported committing some kind of fraud in the previous month, mainly begging, approaching charities for money, overdrawing their bank accounts, and removing copper pipes from buildings to sell, and 'ripping people off'. The

most commonly reported reasons for committing most offences were needing food or money for themselves or their family and needing money for drugs, or opportunism, or else for the experience.

A little over 10% of the current sample had recently been involved in violent crime, all less than once a week. The prevalence was similar to Stage two, but the frequency was higher. Most reported being intoxicated at the time of the behaviour. Offences included bag-snatch and assault, assault of a partner while on Valium, threatening a person to acquire temazepam from them, and attacking a police officer and an ambulance officer.

Implications for police and other frontline workers

Doctor-shopping for benzodiazepine tablets appeared to be slightly more prevalent with these respondents than in the previous survey. Participants reported seeking benzodiazepine prescriptions from medical practitioners predominantly for issues relating to sleeping difficulties or anxiety, or for the alleviation of withdrawal syndrome. Most participants reported that if they were unsuccessful with one doctor they would keep trying until they obtained a prescription, with a common response being 'it depends on the doctor'.

Eight percent of the sample considered that reduced availability of benzodiazepines had caused an increase in crime by motivating stealing in order to pay for the drugs, and by directly influencing behaviour ('lots of pills increase confidence, this leads to increased crime – people think they are superman'), and by increasing violent crime ('users will try and rob those who have them'). Eight percent also believed that reduced availability of benzodiazepines had affected relationships of users, causing family breakdowns, fighting and aggressive behaviour. The same proportion reported that market changes had affected them financially, as the drugs were more expensive and therefore increased difficulties, as they had to spend a higher proportion of their income on them.

There was some attempt at doctor-shopping for morphine by some participants, with an average of 2.5 doctors approached successfully for morphine, and an average of 3.9 approached unsuccessfully. The number of doctors who refused to supply a prescription ranged from one to 10. There was also some doctor-shopping for other opioids, with up to 15 doctors successfully approached for a prescription.

Three-quarters of participants reported behaving uncharacteristically in the previous month as a result of drug intoxication. Benzodiazepines were named by 46% of the sample as responsible for the behaviour, heroin was blamed by 38% of the sample, and a combination of the two was blamed by 24% of the sample. Other drugs named were cannabis, alcohol, morphine, and buprenorphine, as well as various combinations of benzodiazepines and other drugs (10% overall). Three participants who had taken morphine (MS Contin or Kapanol or both) had combined it with benzodiazepines. The benzodiazepines that were held responsible for the behaviour were temazepam, oxazepam, diazepam, and alprazolam, and combined forms of the drug.

Respondents reported that benzodiazepines caused them to behave aggressively, bizarrely, or become violent, or to black-out and not remember their behaviour later. Six respondents (12%) reported that taking benzodiazepines caused them to be more likely than normal to commit crimes, by lowering their inhibitions and increasing their confidence ('invincible' and 'thinking you are Superman' were used as descriptive terms by several participants).

Interventions

Supporting the findings of the earlier survey, PWID participants reported it was very difficult if not impossible to obtain gel capsules medically, and generally did not bother to try, and 18% of the sample also reported that doctors had become less willing, or refused, to prescribe tablets.

Most participants who reported difficulty in obtaining prescriptions suggested that the reason for refusal was due to the doctor realising they were a drug user. Ten percent of participants reported that there had been an increase in police activity around benzodiazepines. These respondents described how police were more likely to check people for the drugs, and check identification against prescriptions, as well as fining people for being in possession of temazepam capsules and for selling benzodiazepines.

Eight percent of participants reported that morphine had become more difficult to obtain from a doctor in the previous 12 months. Two participants reported it was easy to obtain a morphine prescription, but said this was because they had a genuine medical condition and a long-standing relationship with their doctors. The remainder reported morphine was very difficult to obtain this way. Only one respondent reported that there had been an increase in police activity around morphine, saying that police used scanners to detect drugs wrapped in alfoil, and targeted the same areas as where known heroin dealers were. One participant stated that there was no police activity associated with morphine, as the police 'don't know what they are dealing with'.

Only one participant considered that police activity around pharmacotherapeutic drugs had increased in the previous year, stating that police were 'busting people' with buprenorphine. In terms of other opioids, 18% of participants reported it was easy or very easy to obtain other opioids medically, whilst eight percent reported it was difficult. The discrepancy could be related to the variety of drugs within this category, varying in strength from Panadeine forte to oxycodone. One respondent believed they were harder to get on the street now than previously because doctors were reluctant to prescribe them.

Stage four: In-depth key informant interviews

In-depth qualitative KI interviews were conducted with 28 experts and professionals across health and law enforcement sectors in order to examine the issues arising from the earlier research stages in greater depth. As most KI experience was with benzodiazepines, buprenorphine and methadone, responses to questions regarding pharmaceutical opioids usually related to the latter two drugs, unless specified. The responses were separated into themes, and the number of responses to each theme in each category was calculated.

General questions concerning use and market characteristics

KI were asked to identify the primary drug of choice for benzodiazepine and pharmaceutical opioid users. Table 62 shows that heroin, cannabis and methamphetamines were the most commonly nominated drugs.

Table 62. Drugs nominated by total KI pool (N = 28).

Drug/s	Identified by number of informants
Heroin	27
Methamphetamine	2
Cannabis	4
Alcohol	1
Benzodiazepine	1

Note: Multiple responses, therefore n exceeds total number of KI

Twenty-six KI identified heroin as the primary drug of choice of pharmaceutical opioid and/or benzodiazepine users. One KI commented that this depended on the setting and geographical area, whilst another said that the combination of heroin and benzodiazepines was a pattern for some drug users. Two KI identified amphetamines as the primary drug of choice of pharmaceutical and/or benzodiazepine users. One commented that this may only be when heroin is not available, whilst the other identified amphetamine use as being amongst younger clients. Four KI identified cannabis as being the primary drug of choice of pharmaceutical and/or benzodiazepine users. Again, one informant advised that this depended on setting, in this case geographical setting, whilst another related primary cannabis use to a younger age group of drug users. The two remaining informants made no further comment on cannabis use. One KI identified alcohol as the primary drug of choice of pharmaceutical and/or benzodiazepine users. This was partly related to the division of clients at this service, with heroin users commonly being treated by a separate unit. One KI identified benzodiazepines as the current drug of choice of pharmaceutical and/or benzodiazepine users. This was the case for only two clients that the informant could identify.

KI were also asked to identify the most commonly used benzodiazepines and pharmaceutical opioids. KI restricted their answers to substances that were being 'misused'. See Table 63. As a result methadone does not appear on this table as it is not regarded as commonly misused.

Table 63. Most common pharmaceuticals used as identified by Melbourne health and law enforcement KI (N = 28).

Pharmaceutical	Identified by number of informants
Temazepam/Normison/Unisom	24
Valium/diazepam	21
Ms Contin (morphine)	9
Serapax/oxazepam/Urilax	9
Buprenorphine	9
Kapanol (morphine)	2
Rivotril™clonazepam	3
Xanax/alprazolam	3
Mogadon/nitrazepam	1
Flunitrazepam/Rohypnol	4

Note: Multiple responses, therefore n exceeds total number of KI

Several KI commented that Rohypnol had been more commonly used in the past; however, use has decreased as Rohypnol has become more difficult to obtain.

Who is most likely to use pharmaceutical benzodiazepines/morphine/methadone/ buprenorphine?

Health

Many KI identified long term injecting drug users as the most likely to use pharmaceutical benzodiazepines/morphine/methadone or buprenorphine. As one KI commented, 'the most likely is going to be the heroin user who leads a fairly chaotic sort of lifestyle – street-based

injecting drug users'. Several KI also reported that there is a relatively high proportion of benzodiazepine use relating to anxiety and mental health issues both within this group and amongst short term drug users. Two KI identified clients on a methadone program as being likely to use pharmaceutical benzodiazepines, because 'they have a more constant relationship with their doctor'. A percentage of methadone clients tend to be prescribed benzodiazepines as well: 'often that's the daily pick-up, methadone and Valium at the same time'. Further to that, one KI commented that illicit morphine may be used as a replacement for methadone where the routine of methadone pick-ups is prohibitive or inconvenient.

Four KI felt unable to identify any specific group of people who may use benzodiazepines/morphine/methadone or buprenorphine. As one KI stated, 'I can't say that there's a certain type of person. I've just seen it misused by varying people from different backgrounds and different genders and everything'. One KI identified women as more likely to be using benzodiazepines, although this may have been related to the demographics at that service: 'I think we've got more females generally at the moment, so that's probably why'. Finally, one KI indicated that the misuse of morphine is occasionally related to a habit that develops as a result of being treated for illness or injury in hospital.

Law enforcement

Of the Law Enforcement personnel who were able to comment on who is most likely to use benzodiazepines/morphine/methadone or buprenorphine, all KI answered that 'people in the local street culture' or 'heavier drug users' were most likely to use, especially when there was a shortage of heroin. 'I think if [a] supplier becomes disconnected…anything that takes the stress and withdrawal feelings away [would be used]'.

For you, what are the pros and cons of prescribing benzodiazepines/opioids to drug users?

Health

Advantages: Benzodiazepines

The majority of KI reported that the use of benzodiazepines is a 'pro' when used in the treatment of withdrawal from both illicit drugs and alcohol, especially when appropriate supervision and care is provided: 'Well obviously within treatment there are benefits to prescribing or giving injecting drug users – heroin users – benzodiazepines during their withdrawal'. The provision of benzodiazepines helps to 'alleviate pain and aches and assist with sleeping and relaxing and that type of thing'. Several KI also reported that the use of benzodiazepines in home-based withdrawal was of benefit. Some KI also suggested that the use of benzodiazepines may help to keep people in treatment by helping to reduce heroin use.

Offering a variety of treatment options to drug users was seen as another 'pro' of prescribing benzodiazepines, as was the suggestion by one KI that the supervised use of benzodiazepines may mean that drug users do not have to go on 'arduous [pharmacotherapy] treatment programs'. Many KI also discussed the usefulness of benzodiazepines in treating anxiety in drug users, with several stating that drug users had as much right to access benzodiazepines as the 'general population'. 'People genuinely have problems that they might need [benzodiazepines for]…and just because they are drug dependent doesn't mean that they haven't got depression or anxiety'. One KI commented that the need to provide a controlled detoxification or maintenance program to drug users who are benzodiazepine dependent is a positive aspect of benzodiazepine prescription. Detoxification or maintenance programs may prevent 'seizures and serious consequences, like potentially dying from a seizure', that can occur with a sudden cessation of benzodiazepine use.

The overwhelming impression given by KI was that benzodiazepines are a useful tool in regards to withdrawal, being most effective when both 'appropriate prescribing and supervision are taking place'.

Disadvanges: Benzodiazepines

KI identified a variety of negative aspects of benzodiazepine prescription. As identified above, many KI considered 'irresponsible' prescribing of benzodiazepines as a major 'con'. There were two main discussions occurring around this, one associated with a perceived shortcoming in the treatment of the underlying mental health conditions of drug users: 'I think with benzodiazepines it just needs to be a supported program, and I don't mean that as a medically supported program, but I think clients need more counselling and support and better access to counselling and support…If you are prescribing something like a benzo, you should be looking at 'why' and supporting [drug users] through the process'.

The second problematic aspect of the prescription of benzodiazepines was seen as the lack of a supervised withdrawal regime and related aftercare, including a lack of information for users about the possible side effects of benzodiazepines. The experience of many KI is that benzodiazepines are 'sent out the door with a stamp of approval' without 'monitoring by GPs', so that benzodiazepine use can 'quite easily get out of control'. As one KI said, 'Doctors just writing scripts without providing any other form of support is a major negative…[they aren't] looking at the bigger picture and it often ends up having negative effects for the clients. Especially if they haven't been given enough information about the possible side effects of drugs'.

Other 'cons' of prescribing benzodiazepines to drug users were seen to be the negative health impacts arising from injecting, including serious vein damage, abscesses, and in two separate and severe cases, testicular amputation. KI added to this the risk of overdose – when benzodiazepines are used in combination with both licit and illicit drugs – with two KI specifically mentioning overdoses where benzodiazepines are used in combination with methadone. One of those KI posited that 'something like 80% of methadone-related deaths involve prescription drugs, and the most conspicuous category of drugs is benzodiazepines'; however, it was also acknowledged that 'attributing death to any one drug [in combination with methadone] is problematic'. Several KI identified the abuse (injection and exceeding doses) of benzodiazepines by drug users as a negative aspect of prescribing. Many KI also identified benzodiazepines as extremely habit forming, a consequence of which may be poly drug dependency. Injection of benzodiazepines was specifically stated by one KI as a 'con' of prescribing benzodiazepines to drug users, while two others named changes in behaviour and loss of memory as a particularly potent combination. Often the occurrences seen to be the 'cons' of prescribing benzodiazepines to drug users were related back to the way in which prescription occurs. 'I don't think it helps anyone being prescribed [benzodiazepines] their entire life'.

Advantages: Pharmaceutical opioids

The vast majority of KI see the prescription of pharmaceutical opioids to drug users – and in particular methadone and buprenorphine – as a 'vital and important treatment option'. Many KI reported that methadone and buprenorphine maintenance programs improve the health of drug users, with potential follow-on effects in the areas of housing and employment. 'All the studies [around buprenorphine and methadone programs] point to the benefits psycho-socially and economically' for those on the programs. KI also testified that maintenance programs help drug users 'stop their merry-go-round lifestyle' by creating a sense of stability and allowing people to 'concentrate on getting better'. Several KI commented that this can also involve removing the 'criminal element' from people's lives, or the need to commit crime to support an illicit drug habit.

The flexibility of programs and the availability of treatment options are seen by many KI to be vital to achieving the best possible outcomes for drug users. As will be explored later, the option of take-away doses is seen to be a very important aspect of pharmaceutical maintenance programs.

Three KI also commented more specifically on the benefits of pharmaceutical opioids as an alternative to injecting heroin. Firstly, it was reported that it may be easier for drug users to 'step down' their drug use by beginning a program of buprenorphine maintenance and then later withdrawing from buprenorphine. Secondly, two KI stated that whilst injection of buprenorphine may not be ideal, it 'may be preferable to heroin in terms of overdose risk if it is not accompanied by benzodiazepine use'.

One KI talked about the benefits of prescribing morphine to a particular drug user who had been prescribed morphine after an accident. After his doctor ceased writing prescriptions, the client was forced back into a more 'chaotic and taxing' lifestyle associated with illicit heroin use, which had serious effects on his health and emotional well-being. In the view of this KI, the positive aspects of prescribing morphine were that it had the potential to prevent deterioration in the clients' quality of life. However, this KI also specified that illicit morphine use was not particularly common amongst the clients at the service. 'It's very difficult to get prescribed something like morphine, and doctors are usually really wary of that stuff'.

Two KI also reported that pharmaceutical opioid maintenance programs may be of particular benefit to younger drug users whose drug dependencies may not be as deeply entrenched as older users. 'I had a young boy, quite young, maybe 19 or 20, he's been coming in for a while and injecting heroin, looking really haggard and unhappy, and he came in a couple of weeks later and he was on bupe and he's just – his whole outlook had changed – he was positive, he was bouncing, he was happy…the change in a very short period of time was extraordinary'.

Disadvantages: Pharmaceutical opioids

There was general agreement amongst many KI about the various 'cons' of prescribing pharmaceutical opioids to drug users, with the most commonly mentioned issue being the rigour of pharmacy pick-ups: 'I've had a couple of…people who have just jumped off methadone, whether it's due to [issues] with the chemist dispensing it, not being very pleasant to them and giving them a hard time, the fact that they are sick of having to go and pick it up every day, [they] can't work, can't get employment [because of the regime] and there are often problems with transport as well, especially if they don't have cars'. Another KI commented, 'I think you get a sub-class of people who are dependent on methadone [and so therefore] they've got to deal with doctors and pharmacies and the rest of it, and it's quite bureaucratic, it's self limiting that they've got to pick up everyday…'. Several KI also mentioned the difficulties created by the unavailability of buprenorphine take-aways. 'I think the no bupe take-away thing is a really tricky factor. Even if you're in every second day to pick up bupe, you know, if something was to happen you can't just kind of duck interstate'.

Accessibility issues were also raised in relation to the number of prescribing doctors: 'Only a small proportion of GPs actually become pharmacotherapy prescribers…but ideally it would be great if most people could do it', and in relation to the number of prescribing doctors in rural areas. 'Well, per capita we've probably got as many rural prescribers, but given they're dispersed, it's a bit harder for clients [to get access]'. KI also suggested that the cost of pharmacotherapies to drug users was a problem.

Several KI reported that one of the 'cons' of prescribing pharmaceutical opioids to drug users was a lack of information about the side effects and potential impacts on users' health. 'People are put on methadone and they're not told carefully enough that they need to make sure that they're drinking

and producing saliva in their mouth so their teeth remain good and there's not enough care around the administration of these drugs'. One KI pointed out that '[pharmaceutical opioid maintenance] has got some secondary complications and its certainly…some people are at risk because of their Hep C status and their alcohol abuse…'

KI also commented on a perceived lack of rigour in dispensing pharmaceutical opioids – buprenorphine in particular – and the resultant impact on clients' drug use and health. 'I often think the opioids, particularly bupe…are not being managed by the chemist. It's creating more problems in terms of it's not being crushed, it's not being administered directly onto the clients tongue etc… so they are spitting it out, selling it or using it themselves to inject and we are certainly seeing more health problems associated with that'. In relation to this, several KI commented that as the reality is that clients 'are' injecting pharmaceutical opioids, it is a continuing frustration that pharmaceutical companies do not produce buprenorphine, for example, in an injectable form, with accompanying health advice: 'In an ideal world, I think that would happen'.

Law enforcement

Advantages: Benzodiazepines

According to KI from Law Enforcement, the main 'pro' of prescribing benzodiazepines to drug users is that it may assist with drug dependency, or more specifically 'with the withdrawal process'. Several KI also commented that contact through a doctor in relation to benzodiazepine prescription may mean that drug users can be monitored more closely. 'I'm not up to date with the policy as far as prescription drugs [go]; however, I would say in a personal opinion, you could monitor someone's dosage of the drugs'.

Several KI commented that the prescribing of benzodiazepines may help improve drug users' health, and, further, that this is of benefit because the health of drug users impacts on the frequency of drug-related crime. 'If it assists them to divert away from committing crimes, that would be the most important one, and obviously to keep them in a state that they feel healthy enough to live a normal lifestyle'.

One KI commented that the prescription of benzodiazepines to drug users may assist with anxiety and sleeping problems.

Disadvantages: Benzodiazepines

KI identified a handful of 'cons' of the prescribing of benzodiazepines to drug users. Several KI reported that benzodiazepines are desirable on the black market and that either the theft of scripts from drug users, or drug users selling personal scripts, can be a problem for police. The abuse of prescribed benzodiazepines was also reported as a negative aspect of benzodiazepine prescribing, especially when used supplementally to 'jack up on other drugs'. This was reported in conjunction with concerns that benzodiazepines don't 'help users to get off drugs', because 'they're not really getting off heroin; they're just boosting it with benzodiazepines'.

One KI expressed concern that the prescription of benzodiazepines to drug users was risky when doctors 'don't know what somebody is already consuming', and therefore inadvertently 'prescribe something to maintain somebody when you're not sure…perhaps they're not honest about…other substances they are taking', the consequences of this being (a) that drug users' health is put at risk, and (b) that doctors might unintentionally provide scripts to drug users which will then be sold on the black market.

Advantages: Pharmaceutical opioids

Law enforcement KI reported that the positive effects on drugs users' health due to pharmacotherapy programs was a 'pro' of prescribing pharmaceutical opioids to drug users. With regard to methadone, for example, one KI said that 'obviously from what you see in studies here and overseas, methadone can alleviate peoples' problems and keep them leading a normal lifestyle'. Further to that, KI commented that the legal supply of pharmaceutical opioids creates a situation where drug users may become disengaged from street supplies of heroin. As one KI commented, 'At least there's a process and somewhere for them to go in order to attempt to address their drug issues and there's some form of health intervention, so we're actually forcing them into some form of marketplace, so that if…their behaviour is such that they need significant health [advice], someone can actually advise them…so we're actually forcing [drug users] away from each other or swapping around the streets, so there is some form of control'.

Several KI mentioned the control of heroin use by regulated dispensing of pharmaceutical opioids was a positive. 'It enables whoever needs to, to monitor the treatment…they've got access to doses and regularity of patients using it'. Although the potential for abstinence from heroin use was mentioned as a positive of the prescribing of pharmaceutical opioids, it was also noted that buprenorphine may help drug users to decrease their drug use. 'A lot of the users are on bupe as they call it. I've found that it's helped quite a few, not completely get off heroin, but certainly withdraw from daily use to maybe once or twice a week'.

One KI also commented that buprenorphine and methadone programs can be 'a very clean and efficient maintenance system while [drug users] try to get their lives in a bit of order to work out what direction they want to go in rather than chasing drugs all the time'.

Disadvantages: Pharmaceutical opioids

Of the negatives mentioned by KI in relation to prescription of pharmaceutical opioids, the most common was that drug users are not solely using their buprenorphine or methadone, but are using other drugs, either licit or illicit, at the same time. 'I think the difficulty is that same dilemma [as with benzodiazepines] that people often aren't using it alone'. Another KI commented that, in his experience, drug users on pharmaceutical maintenance programs were supplementing their daily pick-ups with either heroin or benzodiazepines.

Two KI said that the issue of drug users not having enough 'will power' may result in the prescription of pharmaceutical opioids being a negative. 'It gets down to anything, any medication or any program they're put on, they've got to have the will, naturally they've got to have the will to get off the stuff and that's the big key'. Similarly, one KI stated that the prescription of pharmaceutical opioids to drug users 'keeps people on the straight and narrow to a limited amount'.

One KI raised the issue of the diversion of buprenorphine having increased in the past two years, with an established street trade of buprenorphine being established.

Are there benefits of easy availability of pharmaceutical benzodiazepines/morphine/methadone/buprenorphine?

Health

Several KI questioned whether or not it is accurate to say that benzodiazepines and pharmaceutical opioids 'are' easily available to drug users. With regard to pharmaceutical opioids, some KI related this to the availability of prescribing doctors and dispensing pharmacists,

especially in terms of dealing with a variety of cultural groups: 'There are a lot of issues with getting people onto programs, there's a real lack of prescribers in the west, [and] there's certainly a lack of ethnic Vietnamese prescribers'; while others considered the regime of pharmaceutical maintenance programs negated any sense of 'easy' availability. For example, one KI commented, 'I don't think it can ever be too easy to get bupe and I don't think it's easy at all. I think the fact that clients have to check in like they're on parole is really inappropriate…they're getting on these programs so they can fix their lives, so they can have a regulated normal life like other people – why do they have to check in? You know, why can they not have a holiday when they want to, why can they not go and visit their grandmother without it being a real hassle?' Several KI also mentioned the cost of pharmaceutical maintenance programs as being prohibitive for drug users.

With regard to the easy availability of benzodiazepines, KI mentioned that they believe it has become much harder to obtain prescriptions, with one commenting, 'I can't think of anything more arduous than trying to convince a GP [that you need benzodiazepines]'. Despite these concerns, many KI provided feedback in response to the question.

Benzodiazepines

The vast majority of KI responded that the easy availability of benzodiazepines is a positive thing for drug users, 'provided it's done safely, and managed'. One KI added that prescription of benzodiazepines should be done on a 'case-by-case' basis: that is, 'benzodiazepines are really beneficial for some people and easy availability would be really beneficial for some people'. To add to that, another informant commented that 'people need to get onto treatment readily…you might have a problem sleeping, or you know, there's mental health issues, you might be stressed in your work, and again, not all users are dependent users and they might have pain management issues.'

Another issue raised by two KI was that the easy availability of benzodiazepines either provides drug users with alternatives if they are unable to score heroin or amphetamines – thus assisting in emotional wellbeing and health issues – or prevents drug users from having to use potentially more harmful substances.

Pharmaceutical opioids

The overwhelming response by KI in regard to the easy availability of pharmaceutical opioids (concerns about availability aside) was that the benefits of pharmaceutical opioid-based maintenance programs are simply 'amplified the easier they are [to access]'. KI responded that 'the more available they are, the more people can use them, the better' or 'I have no doubt in my mind that increasing the availability of those products increases the number of people who use them', and therefore access to the benefits of being on a maintenance program.

One KI also commented that 'increasing the availability of morphine would have a similar effect' in terms of benefits for drug users; however, that would be complicated not only by the existence of only one 'morphine product which would be suitable for once daily supervised administration', but also because it would be 'unchartered waters in Australia' and may lead to 'diversion' and the 'creation of a black market' in morphine where one does not already exist.

Law enforcement

Benzodiazepines

The overwhelming response from law enforcement KI in response to the easy availability of benzodiazepines to drug users was that easy availability leads to harmful poly drug use. One KI remarked, 'I can't see a benefit because…unfortunately there is a segment in the drug using

community that will just use anything and if they can get easy access, they just load up on them, [and] unfortunately that's pretty much your basis for a lot of the overdoses'. Another KI commented that he has never seen the use of benzodiazepines work in a positive way for drug users, whilst remarking that this is also in part due to the fact that drug users who do not have problematic use do not come to the notice of the police. 'From a street policing point of view, I don't see the benefits because we only see the abuse'.

One KI thought that the benefits of easy availability of benzodiazepines to drug users was debatable: 'I don't know if that's a problem in respect of helping them or causing more problems for us on the street with misuse'. The same KI went on to comment that the restriction of access to benzodiazepines may also have a negative impact in that 'the availability assists the misuse, but to restrict availability might restrict the ability of users to get off heroin'.

Pharmaceutical opioids

Most of the KI who responded to this question reported that the easy availability of pharmaceutical opioids to drug users was generally a positive thing. 'Well the simple fact is that it's there for them and it's another opportunity if they want to withdraw to get on that program'. One KI also remarked that 'if it can be used as a substitute to help people get back on track and look at where they want their lives to go…' then that is a positive thing.

However, one KI commented that he was not seeing any positives of the easy availability of pharmaceutical opioids at all. 'I'm not seeing a benefit. What I'm seeing is that every person that we arrest and process for heroin use is on the program. From my perspective there might be thousands of people out there who are on these programs and not using heroin, but the ones we deal with are using heroin and they are [also] on the program'.

Are there problems associated with the easy availability of pharmaceutical benzodiazepines/morphine/methadone/buprenorphine?

Health

KI reported that one of the problems associated with the easy availability of benzodiazepines in particular is that if doctors are not always able to be vigilant – and several KI remarked that they are aware that this is difficult – easy availability may lead to serious health problems in drug users who are benzodiazepine dependent or who are injecting benzodiazepines. Included in this is the risk of overdose, with KI reporting that overdose may relate to the use of benzodiazepines in conjunction with other substances, but also that overdoses are 'more to do with the illicit nature of drug use and a lack of education about drug use, rather than the drugs themselves'. The provision of information is seen to be a way of reducing the harms associated with the easy availability of benzodiazepines.

Two KI commented that as benzodiazepines are highly addictive, their easy availability may result in drug users developing another drug dependence. Two KI identified the diversion of benzodiazepines as a problem related to easy availability, saying that 'there is the possibility that there is going to be misuse or diversion into the black market'.

There were no KI who reported any difficulties with the easy availability of pharmaceutical opioids.

Law enforcement

Of the law enforcement KI who responded to this question, one identified the diversion of benzodiazepines and pharmaceutical opioids onto the street as a problem of easy availability, and the other reported that as long as the 'ethical pharmacist…complies with all the rules and

regulations' in a 'highly regulated industry' there should not be any problems. However, this KI also added that there is a 'fine line' between these regulations and the reality that pharmacies are also operating as a business, with the need to make a profit.

Are there problems associated with the poor availability of pharmaceutical benzodiazepines/morphine/methadone/buprenorphine?

Health

The majority of KI considered the 'poor availability' of benzodiazepines or pharmaceutical opioids to include the practicalities around access, but also the broader social issues that may arise for drug users with regard to access to benzodiazepines or pharmaceutical opioids.

Benzodiazepines

The main concern expressed by KI in regard to the poor availability of benzodiazepines was that if they become more difficult to come by, both dependent and non-dependent benzodiazepine users would be forced into a situation where they will have to source a potentially more harmful replacement. In addition to this, several KI expressed the view that the poor availability of benzodiazepines to drug users reinforces discriminatory notions of who 'deserves' access to particular drugs. As one KI put it, 'people are deserving of a bit of calmness in their life…and I think that's quite appropriate. And if you can't get it naturally, then we do go looking for something to augment'. Another KI remarked that 'they are really widely prescribed to the general population, so there's no reason why [drug users] should be excluded from that…I don't think you could say users shouldn't get them when, you know, 40% of the population is getting them anyway…'.

Again, as mentioned earlier, KI express strong concerns that the availability of benzodiazepines should be accompanied by advice, education, and, in some instances, supervision. However, many KI also expressed concern at the possibility of daily pick-ups of benzodiazepines 'contributing' to their poor availability. Rather than being viewed as a support mechanism, one KI remarked that '[daily pickups] would be restricting for clients because it means that their lifestyle is impacted upon because they have to go to the chemist every day on top of everything else…and they often might not get there, so then they miss out on their dose'.

One KI remarked that the poor availability of benzodiazepines, particularly liquid gel caps, may impact negatively on older people in the community, in that they may have difficulty ingesting benzodiazepine tablets, or may have issues with the size of tablets in the event that they 'drop them on the carpet'.

Pharmaceutical opioids

Several KI made suggestions about the impact of the poor availability of pharmaceutical opioids to drug users. Primarily, there was concern that the cost of buprenorphine and methadone maintenance programs is prohibitive to many drug users. 'Generally these clients are trying to sort themselves out, kind of straighten up so to speak, but I think it's a really significant amount of money, particularly if you are on Centrelink benefits'. In addition to this, one KI commented that the cost of pharmaceutical opioid maintenance means that drug users are put in a position where they may need to engage in criminal activity to procure the funds for their daily dose: 'I think that clients are still kept in the [drug using] lifestyle by the fact that they need to do crime in order to pay for bupe or methadone. I've seen clients kicked off bupe and methadone programs because they can't pay the chemist and, again, that's really negative and it keeps people in that world of having to do other things…people are having to pay out $50 a week – it's a hell of a lot on top of rent and food and bills and all that kind of stuff'.

A second aspect of the poor availability of pharmaceutical opioids that was identified by several KI was the rule regarding pharmaceutical maintenance programs. KI commented on the fact that clients often don't have to do anything serious to be excluded from a maintenance program, which forces clients back into an illicit drug using lifestyle and makes it more difficult to access a program on subsequent occasions. 'They only have to stuff up a little bit and they are off these programs, then it puts them back into the whole cycle you know, mixing with people who are taking heroin or chasing heroin. People aren't always going to be as reliable or as sort of forward thinking as perhaps those of us who have more to lose, so you are going to get people who can't keep up with the actual procedure…and then they get taken off [the program] and they're angry at themselves but it's really hard for them to then establish again another prescription'.

Again, as with benzodiazepines, potential discrimination by pharmacists is seen as being an element of the poor availability of pharmaceutical opioids in that it effects people's willingness to engage with pharmacies and therefore their ability to remain on buprenorphine or methadone programs. 'Yeah, I'd say there's an underlying distaste about having to have somebody 'like that' in your shop, and you're seeing chemists suddenly putting on gloves to serve somebody and you'll see it in their body language in terms of how they treat that person and how they treat [another] customer; it's outrageous'. One KI suggested that a 'one stop shop' offering a clinic with a pharmacy attached would be useful in addressing these aspects of the poor availability of pharmaceutical opioids. Drug users could be offered counselling and support as well as access to pharmaceutical opioids like buprenorphine and methadone, which would help to facilitate availability of maintenance programs.

Law enforcement

One KI responded to this question, suggesting that the poor availability of pharmaceutical opioids may lead to criminal behaviour: 'you will see a variety of behaviours around getting it and procuring it, whether it's burglaries or whatever'.

What proportion of pharmaceutical benzodiazepines/morphine/methadone/ buprenorphine use is primary versus supplemental? [i.e. being drug of choice rather being a substitute when drug of choice is not available]?

Health

Benzodiazepines

The majority of KI reported that benzodiazepines are being used as a supplement rather than a drug of choice. 'With benzodiazepines, it's definitely supplemental, it's there to increase the effects of heroin that they might be using'. However, many KI also added that benzodiazepines are being used in a more fluid way than this question allows, according to availability, health, financial situation and a range of other factors. 'I think that it swaps back and forward depending on where they are physically and emotionally'. Another KI added: 'we're seeing mixed patterns where people will use cannabis for a period of time, slow down the cannabis, start using benzodiazepines for a while, start using heroin, come back to amphetamines and sometimes parallel processes where they're actually using benzodiazepines, using cannabis…it seems to be a mixed changing picture'.

Two KI reported that they believed that benzodiazepines were being used as a primary drug of choice. One of these two commented that temazepam in particular has become very common as a drug of choice in preference to heroin. The other remarked that where drug users may have had an existing opioid dependence: '[users] have just substituted over time and [benzodiazepines] have sort of taken over. It's easier to get, it's cheaper, it's unique and it will maintain you for a bit longer'.

Pharmaceutical opioids

Where pharmaceutical opioids are concerned, KI reported that there is a blend of both primary and supplemental use. Some people 'are on the program and that's how they are using their bupe' whilst others 'are using it and then topping up with [heroin]'. One KI reported some people on buprenorphine may have initially been topping up with heroin, and then later reverted to buprenorphine as their primary drug of choice. 'It's a really interesting question with the bupe, because when it first came out people obviously just supplemented and there were…these doctors that were prescribing bupe at an enormous rate, but they were injecting it too, that's what they really like, they actually had a pharmacotherapy that cost them $5 a day that they could inject…a lot of them reported that they actually really liked it, better than heroin…'.

Law enforcement

All law enforcement KI reported that benzodiazepines and pharmaceutical opioids are used as a supplement to heroin, except when heroin is not available. 'I do think it's primarily supplemental because I do think if people can get what they want illicitly and that's their drug of choice they will stay with that. But I think if there is a disruption to supply or…income dries up or whatever, then there's a bit of a sort of shift around to try to find a substitute or a support until something else happens'.

Drug trading

What are the patterns of drug sharing with friends? (which drugs, how often, reasons, social context etc.); i.e. how do users get benzodiazepines/morphine/buprenorphine and where from?

Health

Many KI commented that drug sharing amongst partners is a common occurrence, with both benzodiazepines and pharmaceutical opioids. 'I get the impression that there is quite a bit of drug sharing out there particularly between boyfriend and girlfriend or partners'. One KI reported that a client who had been prescribed morphine in very large amounts for an injury was sharing that morphine regularly with her partner. This KI also commented on the existence of relationships in which female partners are coerced into engaging in sex work to obtain drugs to share with male partners.

As well, KI identified various patterns of drug sharing amongst friends. One KI remarked that 'the nature of drug use' is that people will share their substances with other people because 'you don't want to be seen to be mean'. Informants noted that this could involve a wide range of quite fluid patterns of sharing, trading, buying and selling, although several KI also commented that they haven't been seeing a 'network' as such, rather a system of 'mates rates' – 'I'll give you some choof if you give me that, sort of stuff' – and 'helping out a friend', i.e. 'Look, I always help you out with Normies, just give us a shot now, next week I'll throw in a Normi for free'.

One KI also reported that he had heard of a casual sharing of buprenorphine occurring when the person who had been prescribed buprenorphine did not have the money to pick up their dose. A friend would pay for the dose, and the person would leave the pharmacy with the buprenorphine on them and then give their friend 'a chop' in return. However, the KI added that, 'there's not a big black market in diversion [of buprenorphine], it just doesn't attain that [status]'. One other KI commented that the sharing of buprenorphine seems to have lessened due to pharmacists being more vigilant about the crushing of tablets and ensuring they are ingested on the premises.

Several KI reported that there is little or no trade in benzodiazepines at the moment due to the increased difficulty of obtaining them. 'I think everybody is pretty greedy with their benzodiazepines, I don't think many people want to hand them out'. One KI also commented, 'I get the sense that people are more likely to share a hit that they've bought on the street of heroin or speed rather than share their prescribed medication'.

One KI also reported that they were not aware of any trade in buprenorphine. 'Well I haven't heard that because mostly they're taking it out of their mouths and injecting themselves'.

Law enforcement

Law enforcement KI reported that drug sharing and trading happens in the 'hotspots' around Melbourne. One KI suggested that 'a lot of users will hook up together, go off and say pool their money, buy [illicit drugs] and split it, or some will traffic. Same with bupe and other drugs, so yeah, it's quite common'. Another KI commented that the sharing of pharmaceutical opioids in particular is connected to dispensing pharmacies. 'A lot of individual users are on-selling it, crushing it up, selling it as something else, or injecting it, exchanging it for other things, telling them it's one thing and it's another, that sort of stuff, so there's that street trading. Where we find pharmacies that are bupe outlets we find usually a bit of a healthy street trade around those pharmacies'.

When people have legal access to pharmaceutical benzodiazepines/morphine/methadone/buprenorphine, what proportion would give away, trade, on-sell their drugs, or keep their drugs entirely for themselves? Why?

Health

Many KI commented that it was hard to know the answer to this question, given that the relationship between themselves and their clients is often not one where this question would be asked, or else that relationship exists in a context where information about on-selling would be deliberately concealed.

However, several KI from differing geographical areas did make comments on on-selling. One KI reported a high level of on-selling: 'it would be really high, yeah', but only with buprenorphine and not benzodiazepines, because benzodiazepines have become more expensive due to the difficulty in acquiring scripts. A number of KI commented that any trade in benzodiazepines that existed previously has significantly lessened in recent time. 'Because they are so difficult to get, people like to keep that quiet to themselves and not let too many people know and just like to have it to themselves'. Another KI, from a different geographical area, reported that drug users may 'sell or give away their benzodiazepines', but 'clients don't seem to talk as much about actually selling or buying their bupe'. However, this KI also commented that '[I've] certainly seen a lot of clients who will say that they are taking bupe, but they're not being prescribed it'.

Several KI reinforced earlier comments about the lack of a 'black market' and the more common occurrence of people passing on or selling benzodiazepines or pharmaceutical opioids to friends, although one KI speculated that on-selling may be more common with morphine, which is harder to get, and more 'unusual' in terms of availability.

One KI linked the amount of benzodiazepines prescribed to an individual with the likelihood of on-selling. The bigger the script, the more likely the person will be to on-sell a percentage. 'It's a proportional thing. Like if you walk out and you've actually got two scripts for a couple of hundred diazepam, well, wonderful, so you keep 50 and sell 150. But if all you've got is 25, you're probably not going to move it on'. Another KI added that people who are not dependent on benzodiazepines but can get scripts might be more likely to on-sell or trade.

Finally, one KI commented that the on-selling or trading of benzodiazepines was not generally associated with alcohol clients, but with illicit drug users, due to 'more of a community base and an acceptance of that stuff within that particular culture'.

Law enforcement

Law enforcement KI responded that there is a proportion of on-selling and trading in benzodiazepines, but not so much with pharmaceutical opioids. 'There is a trade, there's no doubt in any drug culture in any area, there is a trade on'. In one area in particular, 'there's a big trade in Normison tablets'. However, KI commented that they would be speculating as to the proportion of benzodiazepines or pharmaceutical opioids that would be given away, traded or sold. One KI commented that there has not been a large number of benzodiazepine seizures in comparison with heroin seizures, and that 'as far as benzodiazepines are concerned, it's not really a major issue', especially in the past couple of years when there has been a 'slow and steady increase' in the purity and availability of heroin.

Why do you believe people deal pharmaceutical benzodiazepines/morphine/methadone/buprenorphine?

The majority of KI from health, and all law enforcement KI, responded that people deal in benzodiazepines and pharmaceutical opioids, 'for the same reasons that people sell *anything*' – to get money, and regularly to get money to support a heroin habit. It's 'a way of making money so they can either buy drugs or just buy food and all that kind of stuff, or to pay for the next lot of prescriptions'.

One KI remarked that people are able to deal in benzodiazepines in particular because they have become highly sought after as a result of stricter prescribing. 'It's only when people are having treatment withheld that they actually need because of their mental health or physical health that they become valuable'.

Another KI reported that the idea of people selling buprenorphine for money was 'mad' and 'ridiculous' given that buprenorphine tablets are sold for as little as $2.50. Instead, this KI suggested people are selling buprenorphine either to help out friends, or to 'add to the blend and that psycho-social sort of stimulus' related to a drug using culture.

Source

Where do pharmaceutical benzodiazepines/morphine/methadone/buprenorphine available to your clients/people you have contact with come from? (Internet sources?)

Health

Many KI reported that the benzodiazepines and pharmaceutical opioids available to their clients where coming from prescribing GPs. There was also some suggestion that this may differ according to each particular substance. In terms of an illicit supply of benzodiazepines, KI reported that whilst Valium is still commonly prescribed by GPs, Normison has become more difficult to get and as a result people may need to purchase it on the street. Several KI reported that there is a strong street market in Normison. With regard to buprenorphine, many KI reported that, in the main, people are being prescribed by GPs, with a small amount traded amongst friends or sold at a street level. Regarding morphine, the difficulty of getting a script means that 'a lot of it is [coming from] people on pain relief for backs, necks whatever' or people who have been diagnosed with cancer, who then sell their medication. Some KI reported that people might obtain benzodiazepines from family, friends or a partner.

Two KI commented that people may source benzodiazepines from chemist burglaries – although this was seen to have decreased significantly – or shoplifting from pharmacies, which was also seen to be more difficult than previously. One KI mentioned that people may obtain benzodiazepines or morphine by forging prescriptions on a stolen prescription pad.

All KI reported that they had not heard of anyone sourcing benzodiazepines or pharmaceutical opioids over the Internet, although they were aware that this option existed. One KI commented that the process of internet shopping may be discouraging: 'you've got to pay for it in US dollars, so you've got to convert it, then there's postage, and a lot of it would be stopped at customs I imagine'. Another commented that 'this is a very marginalised group of people, they don't always have a computer, don't always have the net, don't always have education that is sophisticated enough to actually order off the net'.

Law enforcement

The majority of law enforcement KI reported that people were accessing benzodiazepines via chemist burglaries or burglaries carried out at manufacturers or distributors, the latter occurring when out of date benzodiazepines are discarded without proper security. One KI suggested that benzodiazepines had been stockpiled after burglaries that occurred over 12 months ago. However, there was also a strong suggestion that chemist and warehouse burglaries had dropped significantly with the increase of heroin supply. 'If you asked this question two years ago, we had stats to show how many burgs there were in this area…when the drought was on, that was what they [drug users] were doing. But the burgs have dropped dramatically'.

Several KI also stated that people acquire benzodiazepines via a street market and trafficking. There was no such suggestion regarding pharmaceutical opioids.

Two KI suggested that people obtain benzodiazepines and pharmaceutical opioids from GPs, and one KI reported that people routinely kept their prescription on them so as to be excluded from suspicion of trafficking.

What proportion of pharmaceutical benzodiazepines/morphine/methadone/ buprenorphine trading involves organised crime?

Health

The vast majority of KI suggested that there is not any real element of organised crime in benzodiazepine and pharmaceutical opioid trading. 'It's not organised – this is very disorganised'. In terms of the practicalities of organised crime, one KI commented, 'I don't think there would be the overseas connections and networks through major transport routes and all that type of thing that the heroin market has or the amphetamine market, it's more lower level stuff that's happening…people who are connected at the street level rather than people who organise things from higher up'. Another KI commented that the relatively low financial value of benzodiazepines and pharmaceutical opioids meant that organised crime was unlikely to develop. 'I would say that it's "organised" at a street level, but I can't imagine there being enough money in benzodiazepines to have an organised crime racket going on'.

One KI commented that although the trading of benzodiazepines may even be 'very organised at a certain level', below the entry point into the black market it 'immediately becomes disorganised'.

Law enforcement

The perception of law enforcement KI is that there is not any organised crime involved in benzodiazepine or pharmaceutical opioid trading. As with KI from the health sector, law enforcement personnel reported that trading of benzodiazepines and pharmaceutical opioids exists at a street level: 'there are networks based around groups where people can get these things and distribute them amongst themselves without any repercussions', but not at a higher level as with amphetamines and heroin. One KI reported that although occasionally police will do a search where they may find benzodiazepines, 'generally they are at the bottom end of the market…a lot more disorganised crime'.

Why might it be harder to obtain pharmaceutical benzodiazepines/morphine/methadone/buprenorphine in some geographical areas than others?

Health

Many KI reported that it might be harder to obtain benzodiazepines and pharmaceutical opioids in some geographical areas because of a lack of prescribing doctors, a lack of bulk billing doctors, or a lack of dispensing pharmacies. This is applicable to both suburban access – several KI commented that there is a lack of services in perceived 'middle class' suburbs – or to rural access, where people seeking treatment have to travel long distances or do not have access to bulk billing doctors. In addition to this, KI also commented on the 'sympathies' of doctors, stating that doctors who are more inexperienced with drug users may be either less likely to prescribe to people: 'Some doctors have just put blanket policies up, nah, not doing that kind of thing', or conversely, some doctors may be more likely to prescribe due to a lack of experience and education with drug users. 'I think, you know, you hear of people going out to Croydon or Malvern, the suburbs…if you go and see a doctor that doesn't see people that [are drug dependent]…they may be more inclined to [prescribe]'.

KI also commented that it may be easier to access both benzodiazepines and pharmaceutical opioids in areas where there may be a concentration of doctors or pharmacists who are not as rigorous with prescribing and dispensing. For example, with buprenorphine, 'In ***** there was a situation where the pharmacist was for some reason very slack with it, so it got out onto the street a lot more'. Several KI also reported that it is easier for drug users to access benzodiazepines and pharmaceutical opioids where a street trade is more prevalent. Finally, one KI suggested that policing may be a factor in making it more difficult to obtain benzodiazepines and pharmaceutical opioids in some areas, although it wasn't a key factor.

Law enforcement

Several KI reported that it would be easier to access benzodiazepines and pharmaceutical opioids in Melbourne's drug 'hot spots' where the drug street trade is more prominent. However, one KI suggested, 'However…I do think it's far more widespread than just the six hotspots, I think it's in every community, it's just a question I suppose as to whether it reaches a visible level amongst the gatekeepers, whether it's the pharmacist or the doctor or the police…I think it's there in every community just like alcohol is, but I think it's just whether it becomes a public problem'.

One KI suggested that difficulty in obtaining benzodiazepines and pharmaceutical opioids in some geographical areas was due to policing.

What is the extent and ease of 'doctor-shopping' to obtain benzodiazepines and pharmaceutical opioids?

Health

KI were fairly evenly split in regards to the extent and ease of 'doctor-shopping'.

Firstly, KI reported that 'doctor-shopping' was occurring to a significant extent. 'In terms of benzodiazepines, I think it's really rife actually and I think it's quite easy'. Another KI commented that 'doctor-shopping' is not as common with Normison, but that there seems to be a fairly constant supply of Valium: 'I've never seen a decline in people being able to access Valium tablets, they seem to always be around, people never seem to have trouble getting them'. These KI also suggested that 'doctor-shopping' is 'easy – some people do it lots and some doctors get it more than others'. In addition to that, one KI added that the range of treatment from GPs contributed to the ease of obtaining medication:

> *'I'm really surprised at how easy it is, like I'm shocked, I think it's because you'll always have doctors at different levels of giving service, some of them are really tired and old and they don't care and they just want to retire, some of them are probably thinking they're doing a good job and being very nice and understanding and probably don't really know what is going on or they're not opening their eyes to perhaps what is going on, some of them are really strict of course, so you get this whole range of responses from doctors for a whole lot of different reasons and yeah I think that while you've got that, which is pretty much a given, people are going to try to get a doctor that they can get what they want from.'*

Alternately, KI suggested that doctor-shopping has in fact become much 'harder' in recent times. 'I think it's really difficult actually, and I don't know if there's a lot that goes on anymore'. In terms of both extent and ease, one KI remarked, 'It's certainly gotten harder, it's not just the case of going in and saying 'I really need to have something to help me sleep'. Another commented, 'I believe it would be very very difficult. Being that it's all on notification to the pharmacy board and doctors have to get permits to prescribe these sorts of things. I don't think it's as easy as people make it out to be'. Several KI also commented on the complexity of the term 'ease', suggesting that it is in fact, very 'arduous': 'I don't think it's easy for people to present every couple of days for the doctor to try and get drugs….I think 'ease' is actually a loaded term that implies a moral perspective that I'm not comfortable with'. Two KI also reported knowledge of young women being asked to engage in sexual acts with doctors in exchange for benzodiazepines.

All KI agreed that it would be difficult if not impossible to 'doctor-shop' for buprenorphine or methadone, and all remarked that obtaining morphine in this way would not be 'hugely common': 'I haven't heard of anyone being able to get that through a doctor in terms of doctor-shopping'.

Law enforcement

Of the three KI who responded to this question, two suggested that doctor-shopping was 'rife' or 'not at all difficult', while one suggested that although he believed it was happening to a quite large extent, doctors have become more aware of the problem and reacted accordingly. 'They're no fools. Doctor-shopping is predominant, but I don't believe that they are successful'.

How much prescription/doctor-shopping occurs for personal use vs. obtaining scripts for on-selling?

During doctor/patient consultations, how do clients report getting scripts? [what strategies do they use?]

Of the small number of KI who responded to the first question, all suggested that 'doctor-shopping' occurs primarily for personal use. One KI added that people would then occasionally share with friends, rather than 'on-selling' their benzodiazepines or pharmaceutical opioids. Another KI suggested that any on-selling was opportunistic rather than 'organised'. 'I mean you don't have people running around with drug dependencies to get prescriptions which aren't their primary drug of choice to then go out and sell on the street, it's just ridiculous'.

Again, a small number of KI responded to the question of how clients report getting scripts. One KI said that clients simply 'ask for it and the doctor thinks that they are the only doctor prescribing it', while several KI reported that clients may complain of trouble sleeping or of being in pain.

Another KI responded by saying that the term 'doctor-shopping' is a 'very loaded term when you are talking about people who have drug dependencies and need to use drugs every day…I'm disappointed to see it described that way and if our system were working correctly then perhaps people wouldn't be seeking these alternatives'.

What would make prescriber's role easier regarding limiting diversion of pharmaceutical products?

Health

Many KI suggested that changes to health care would make a prescriber's role easier regarding limiting diversion of pharmaceutical products. Firstly, one KI suggested that reducing benzodiazepine prescribing in general, including weaning all clients – not just those suspected of 'doctor-shopping' – off benzodiazepines would result in a reduction of diversion. However, this KI also suggested that just saying 'no' to benzodiazepines prescribing is not the answer either, recommending instead that doctors develop 'alternative prescribing practices', ask questions about drug use, and utilise the services of drug and alcohol agencies.

Several KI advocated a more 'holistic' approach to health care, suggesting that doctors forming a 'better relationship with their patient' and approaching treatment from a more wide-ranging perspective may result in less benzodiazepines prescription and therefore less diversion. Several KI also acknowledged the difficulty this presented for doctors in terms of lacking the time or resources to ask questions of people seeking benzodiazepines or pharmaceutical opioids. In response, it was suggested that a system could be developed whereby 'a primary drug and alcohol service is made available to GPs…in other words, you might have seven people [in an area] who are available to GPs for secondary consultation and advice' including being able to sit in on consultations with people whose drug use GPs may be concerned about. These measures were seen as having the potential to reduce inappropriate prescription of benzodiazepines in particular, and again, reduce diversion as result.

Another KI suggested that although it is a very complex problem 'the short answer is to have a lot more services for people who are using drugs and to administer those sorts of drugs in those services like the primary health care facilities'. This KI suggested that this approach may deal with the 'conflict of interest' that many pharmacists feel between 'not actually wanting the drug user in the shop' and 'getting money for administering the drug'. It was suggested that this conflict is potentially responsible for the poor administration of buprenorphine, allowing diversion to take place more easily.

In terms of accountability for the diversion of benzodiazepines and pharmaceutical opioids, for both drug users and doctors, some KI suggested that 'tracking people in terms of what they have been prescribed could be one way' of limiting diversion. This 'tracking' could be monitored through GPs or pharmacies. It was also suggested that further measures should be taken to secure prescription pads and in addition that there be increased accountability for doctors when pads are stolen. One KI also suggested that there be more questions asked of doctors about the level of benzodiazepines prescribing.

Two KI suggested that daily pick ups of benzodiazepines may be a way of limiting diversion, but emphasised that it be done on a 'case-by-case' basis to limit the element of 'social control' which was perceived to be part of a daily pick up routine.

In relation to pharmaceutical opioids – and buprenorphine in particular – one KI suggested that 'the fast dissolving preparation that's been talked about for a couple of years', whilst still undergoing testing, may be 'looking promising'. This preparation 'fizzes up in your mouth and you can't inject it', thereby preventing diversion. This KI also commented on the benefits this form of pharmaceutical opioid could have in terms of limiting diversion from pharmacies, considering that pharmacists may not have the resources or the motivation to prevent diversion, or that doing so is even their responsibility. 'I mean, logistically, the business of expecting pharmacists to stop diversion is just impractical…they're not paid to do it, they're not going to do it, we shouldn't even be thinking that they [can]. To get them to crush [buprenorphine] is about as much as you can expect and that's messy and time consuming'.

One KI also mentioned that the availability of Suboxone may also help prevent diversion. The combination of buprenorphine and naloxone can in some cases cause withdrawal when injected, thereby discouraging people from diverting from pharmacies for that purpose.

Finally, several KI suggested that acknowledging 'the culture of drug use' and allowing people to safely inject pharmaceutical opioids would render the problem of diversion for personal use a non-issue.

> *'There's learnt behaviours and practices that people follow and sometimes it's part of their own personal ritual about injecting and it's odd that it's seen as illegal to inject that drug but you can inject another drug. Like diabetics can inject and it's not an issue – it's seen as a treatment, it's a treatment plan. I don't understand why if [drug users] feel injecting would help them, they can't use that option. I mean it could be done through pharmacies, if they could provide it in an injectable format, and if they 'have' to, if the government feels that, they could have them inject on site. Then you'd have to provide safe injecting facilities. If you want to reduce the concept that [drug users] are using [pharmaceutical opioids] illegally, then allow them to inject it safely'.*

In addition, another KI added that the health benefits of allowing injection would also be considerable, especially in terms of injecting health.

Law enforcement

KI from law enforcement suggested that pharmacists ensuring that tablets are crushed and ingested on the premises is one way of limiting diversion of pharmaceutical opioids, or possibly dispensing substances in a liquid form.

Another KI suggested that the sharing of information between doctors about strategies to deal with feeling intimidated by clients seeking benzodiazepines and pharmaceutical opioids may help in a reduction of supply and a resulting reduction in diversion. 'They [doctors] can share tactics and strategies about how they can go about deflecting [aggressive patients]'. In addition, it was

suggested that programs of awareness for all doctors about which drugs in particular have the potential for diversion may have helped in limiting diversion, again, by limiting supply to people seen as potentially problematic drug users. 'Doctors say, 'oh, we didn't realise that [MS Contin] was a common drug of abuse'.

If there was a total ban on take-away doses of methadone, how would this impact on your service? Your clients/people you have contact with? Others?

The overwhelming majority of KI responded that a total ban on take-away doses of methadone would have a 'massive' impact on the wellbeing of clients and retention rates in the methadone program.

Some examples of the positive impact of methadone take-aways were provided to highlight the 'devastation' that banning take-away doses would have. One KI discussed the situation of a client who was nursing a seriously ill friend in a rural town:

> *'I have a client that I work with and he is supporting a friend who is dying of cancer. He lives in Melbourne and his friend lives up in *****. And, you know, he travels back and forward when she has chemo, he goes and stays with her for three or four days to look after her through her chemo. Now who are you punishing if you take that dose away? I mean that's…it would be inconceivable'.*

Many KI reported that a total ban on take-away doses would have a serious impact on the self-esteem and sense of self-worth of people on methadone, that it would adversely affect people who have to travel considerable distances to their dispensing pharmacies and that it would have the potential to prevent people with mental illness, who may find it difficult to leave their homes, from accessing the treatment. In addition, it would lock people into geographical areas of pick up – one KI gave the example of a person who worked close to their dispenser but lived very far away, meaning that the person would have to devote a significant amount of every weekend to travelling to pick up their dose – and have a major impact on the ability of people to remain employed. 'I mean, if you're a doctor or a police officer or a nurse and you have to go to the pharmacist every day, try living with that and try holding down a job and having a social life; you know, I think people need a bit of time off'. All of these factors are seen as affecting retention rates in treatment, therefore forcing people to return to illicit drug use. 'I think that [a total ban on methadone take-aways] would push clients to go and use more illegal drugs, I think it would take away the one thing that makes them legitimate parts of society and able to treat themselves and look after their own illness. I mean it would be easier to go and use an illegal drug rather than deal with the regime [of no take-aways]'.

Several KI also pointed out that the diversion or injection of methadone is unusual and uncommon. 'The nature of methadone is that most people, if they don't take their methadone take-away, they feel sick and I think that's a significant enough incentive for people generally to use their take-aways. I don't see many problems from methadone take-aways'. Another KI added, 'I mean, who is going to go and swallow all their methadone to have a really good time?! It's one of the most dramatic kinds of drugs that you can take, it has horrible withdrawals and, you know, it's not by any means a party drug…people go on it because they have to'.

Crime

Do you believe there are some circumstances where pharmaceutical benzodiazepines/ morphine/methadone/buprenorphine are directly related to specific crimes? How? What sorts of crime?

Health

The suggestions of many KI fitted in to two main themes in relation to benzodiazepines and pharmaceutical opioids and crime.

The first was that rather than being directly related to specific crimes, the use of benzodiazepines simply means that people may commit crimes they were already intending to commit, but with less inhibition:

> *'Now I don't know if there is any specific crimes that are being committed because of benzo use. I think for some people it's just part of what they do because they are also using heroin and cannabis and other drugs; if they haven't got the money to support their habits they are going to do something to get the money. So I don't think it's any specific crime that they're doing'.*

Overwhelmingly, the most common example of a crime that may have already been going to be committed – but now with a large amount of disinhibition – was shoplifting. KI commented that people almost guaranteed that they were going to get caught, relating instances of people shoplifting directly in front of a store assistant or walking out of a shop with a stereo in their arms. 'I think most of the time they would have occurred anyway, but I think that people might feel a bit more…I don't know how to explain it…I think people are not so aware of what's going on around them because they are on pills, they are in their own little world not realising what's going on and therefore are probably going to get caught'. Another KI added, 'I think that people who are out of it on benzodiazepines get caught doing things definitely [but] I don't think there are specific crimes that people who are out of it on benzodiazepines do'.

Alternatively, KI reported that the use of benzodiazepines may cause people to commit crimes that they would *not* have committed before or that were 'out of character'. Again, shoplifting was commonly mentioned, as were burglaries. Two KI commented that people who have taken a significant amount of benzodiazepines, particularly in combination with alcohol, may also become violent or aggressive. The reason for this uncharacteristic behaviour was seen to be the profound sense of 'invincibility or invisibility' that benzodiazepines afford some people. One KI suggested that benzodiazepines have the potential to push people over the 'threshold' of what they would normally consider acceptable.

In addition, a single KI mentioned ram raids on chemists and theft from chemists as crimes that may be related to benzodiazepines rather than pharmaceutical opioids, although according to other KI this has decreased in the past 12-24 months. One KI suggested that the theft of prescription pads may be specifically related to benzodiazepines use.

In terms of buprenorphine, one KI commented that as it has 'brought more people into treatment that weren't in treatment before…I think that has got to [reduce] crime', whilst another mentioned the diversion of buprenorphine as a crime in itself.

Law enforcement

All law enforcement personnel reported that there is a 'definite correlation' between benzodiazepines and pharmaceutical opioid use and crime, with burglary and theft being the crimes that are seen to be specifically related. Included in this were: bag snatching; thefts from motor cars; drug users stealing from families; theft of prescription pads; robberies; and thefts from pharmacies or doctors surgeries.

In relation to thefts from pharmacies and doctors' surgeries, however, one KI commented that, 'in the last 12 months it's now dropped to half what it was two years ago, through pharmacies taking better crime prevention measures'. Another commented that the crime statistics may be related to 'people wanting to obtain more illicit drugs, like heroin' rather than benzodiazepines or pharmaceutical opioids.

In addition to thefts, one KI reported that although he couldn't name specific crimes related to the use of benzodiazepines and pharmaceutical opioids, he did think that there was a connection to shoplifting in order to then on-sell goods. 'That's a big one we're getting now, shoplifting, because we've got a lot of receivers [of stolen goods] in the community'.

A single KI commented that armed hold ups committed using a knife or syringe were related to benzodiazepine and pharmaceutical opioid use. Another suggested that some crimes of violence, such as male partners assaulting women, are related to benzodiazepines and pharmaceutical opioid use.

A further KI reported that trafficking in benzodiazepines and pharmaceutical opioids was a specifically related crime.

Overall, do you believe the availability of pharmaceutical benzodiazepines/morphine/methadone/buprenorphine reduces or increases crime? How?

Health

As with earlier questions, KI differentiated between benzodiazepines and pharmaceutical opioids when answering this question.

The majority of KI responded by saying that the availability of benzodiazepines to drug users would not significantly increase crime because any criminal behaviour that is occurring is 'pre-existent'. That is, 'If people are into stealing cars or shoplifting, they are going to do it anyway, and whether they are on benzodiazepines or not I think is pretty irrelevant'. One KI also suggested that when benzodiazepines are freely available to drug users there is a corresponding lack of crime, both because people do not need to commit crime to obtain substances and because with the development of a high tolerance to benzodiazepines, people 'really don't get into that sort of stupor' that has been associated with shoplifting and burglaries.

Three KI thought that the availability of benzodiazepines might increase crime; however, two of those KI also believed that crime was connected to the level of disassociation caused by large doses of benzodiazepines. 'I think the availability of benzodiazepines does increase crime…but the strongest thing is that they are more likely to get caught'. Another KI suggested that the free availability of benzodiazepines would lead to more 'marketplace bartering', but not necessarily trafficking.

In relation to pharmaceutical opioids, all KI bar one suggested that the availability of pharmaceutical opioids reduces crime. In addition, others also said that the 'poor' availability of pharmaceutical opioids would 'increase' crime. 'I'd say it reduces crime majorly! If that access to the pharmacotherapy program is removed, clients would be more likely to have to sustain their drug use or their self-treatment plan elsewhere. That costs a lot of money because they'd be buying from the black market and they'd have to come up with the money somehow'. One KI also commented that if pharmaceutical opioid-based maintenance programs were both more available, and less expensive, 'I think there could be a further reduction [in crime]'.

One KI suggested that 'the diversion of methadone and bupe probably does contribute to some criminality' but that, 'on the other side of that is that people on methadone and bupe are generally more stable and less likely to carry on a criminal lifestyle than they were because of the stability of their drug source'.

Law enforcement

Most law enforcement KI restricted their comments to whether the availability of pharmaceutical opioids reduces or increases crime. Several KI believed that the availability could reduce crime, 'it obviously would be working to assist some people with their drug addictions, so therefore there's probably a good chance that it would be certainly stopping some people from offending or re-offending', although one KI commented that this would only be the case if people were not 'still using heroin for which they've got to commit crime' which in his experience was not generally the case. This KI summarised by saying that the availability of pharmaceutical opioids 'has the propensity or possibility of reducing crime, but the flipside is that it can increase it as well'.

One KI suggested that the availability of pharmaceutical opioids may increase crime, and that the type of crime that may be increased would not necessarily be either reported or reflected in police statistics; for example, the forgery of prescription pads or Medicare cards. Another KI reported that there was an increase in crime in suburbs where there are a lot of pharmaceutical opioid prescribers and a subsequent influx of people from other areas.

Two KI commented that the availability of benzodiazepines and pharmaceutical opioids simply maintained a 'status quo' and that they are not 'having a direct impact on crime' at all.

How does police activity influence the use of pharmaceutical benzodiazepines/morphine/methadone/buprenorphine?

Health

Many KI agreed that police activity has little or no effect on the use of benzodiazepines and pharmaceutical opioids. 'If you've got more street police around, or visual police presence, people will go and deal [illicit] drugs in different areas, but I can't see how that would relate to people using benzodiazepines or injecting bupe. Mostly people would do it in their own homes'. Several KI commented that because police activity is generally aimed at illicit drugs, the effect is not only to 'displace' illicit drug use to another area, but to actually increase the use of benzodiazepines if the supply of heroin becomes harder to find. One KI said that in the past this had lead to an increase in overdoses from benzodiazepines use. In addition, it was suggested that police activity also has no effect on the 'illegitimate' prescribing of benzodiazepines and pharmaceutical opioids, including morphine, 'except on the rare occasion that they bust the corrupt prescriber and that appears to be a very hard thing to do'. Another KI commented, 'I don't think police activity ever really stops any drug use'.

One KI reported that a police presence may make injecting benzodiazepines and pharmaceutical opioids in laneways a 'more haphazard thing because people are worried about getting caught'. This KI also added that police awareness of forged scripts and pharmacists contacting police in these instances 'may make people a lot more wary about fronting up to pharmacies with altered scripts and things like that'. One other KI also reported that people using benzodiazepines without a script were being charged by police. It was also suggested by one KI that when people are actually arrested by the police it may lead to a 'pathway into treatment' for their drug use.

Law enforcement

There was a strong sense from law enforcement KI that police activity is focusing on drug traffickers and not drug users, although users do sometimes 'fall into the trap'. There was also a perception that benzodiazepine and pharmaceutical opioid use is 'not a big problem' and that most police operations focus on illicit drugs, particularly heroin.

Having said that, several KI mentioned that the option of drug diversion, including cautioning, was an important aspect of policing and was having a significant impact on various forms of drug use. In some areas, officers actively 'push diversion to try to give the kids a chance', whilst others suggest that 'possibly for the first time offender or somebody who hasn't had any contact with police or other support networks like [drug and alcohol centres] then that certainly would have a little bit of an impact you would like to think'. In addition to this, one KI suggested that the changing nature of the police force – in that police now recognise drug use as a health problem – has had an impact on drug users, including people using benzodiazepines and pharmaceutical opioids, in that policing is no longer 'zero tolerance' and users may have more access to services once they have come to the attention of the police. However, this KI also emphasised that officers still have to 'police the area and get rid of drug traffickers'.

Several KI reported that police activity around areas like shopping malls where drug trading is more prevalent is having an impact on drug use, presumably not just illicit drug use, but the use of benzodiazepines and pharmaceutical opioids as well. 'I think the police activity is very much a positive and we've reduced the amount of activity in our shopping centre and made it so much more difficult to hook up for people coming in to the suburb'. In the opinion of one KI, the flow on effect of this is that 'coincidentally we've seen a severe drop in our crime rates', including burglaries, robberies and armed robberies. One KI also suggested that because this activity has a 'really positive influence' on the reduction of drug availability and drug use, people 'may just go and address the issues in their life'. However, KI also reported that police activity directed at drug trafficking also caused those targeted to 'become more covert', using mobile phones and vehicles to distribute substances. It is not clear whether or not this includes people trafficking benzodiazepines, but when police activity is focused on traffickers of heroin, people may be more likely to use benzodiazepines and pharmaceutical opioids. 'I guess you could say that if there is activity around the illicit market, people may shift to other accessible products through doctors and scripts and all that stuff'.

One KI also suggested that police activity and a visible police presence had an impact not just on crime, but on the 'perception' of crime, with a significant drop in reported levels of fear in one 12-18 month survey.

Finally, another KI also suggested that 'the initial work that's been done in a proactive way between police, doctors and pharmacists' has had an impact on the use of benzodiazepines and pharmaceutical opioids. These groups have gotten together and talked about common issues, 'how things can be solved' and are starting to 'learn from each other'. One example of the practical application of this co-operation is when police feed back to a pharmacist that buprenorphine is being diverted, the pharmacist reacts accordingly by keeping an eye on a particular client and also contacts their doctor, who in turn 'is in a better position to then talk about the quantities they want to prescribe or not prescribe, or using an alternative'.

How can existing data systems be better used to enhance the understanding of the nature of the illicit benzodiazepine and pharmaceutical opioid market and its impact on crime? e.g. IDRS, hospital data, police data, arrests.

Health

Given that the perception of many KI is that there is not a large or organised benzodiazepine and pharmaceutical opioid market, especially compared to heroin or amphetamines, the responses to this question were limited. One KI responded that it is very difficult to get data on the illicit benzodiazepine and pharmaceutical opioid market from clients, because reporting is 'so incredibly variable', and because it is a process which takes a very long time and requires a significant build up of trust. Another KI suggested that enhancing the understanding of the nature of the illicit benzodiazepines and pharmaceutical opioid market is not necessary. 'We're just about helping people, supporting them through their treatment and providing accessibility to health services so, if we've got good health information then that's all that we need'.

Information dispersal was the final issue that was raised. One KI commented that it would be useful if data gathered by pharmacies on doctor-shopping could be fed back to doctors and emergency centres at hospitals to prevent misuse, and also that a regular forum of drug and alcohol workers, pharmacists and police would be useful in terms of enlightening everyone of what was happening in the community; for example, people travelling to a particular area for buprenorphine diversion. Finally, it was suggested that being able to access different sources of data sets – for example, police data – may help in understanding the nature of the benzodiazepine and pharmaceutical opioid market and its impact on crime. For example, law enforcement statistics on the toxicity reports of culpable drivers, or statistics on drug-related sexual assaults or armed robberies – if they exist – would undoubtedly enhance understanding of the ramifications of benzodiazepine and pharmaceutical opioid misuse.

Law enforcement

Several KI from law enforcement reported that it is difficult to obtain statistics about the misuse of licit drugs or any potential market that exists because benzodiazepine and pharmaceutical opioids are often legally prescribed. One KI reported that although there is a need for statistics around the benzodiazepine and pharmaceutical opioid market, 'a lot of this stuff (like chemist burglaries) doesn't really get to crime data'. This KI argued that there is a need for a 'Victoria-wide picture of things' but that it was very difficult to get that picture 'because of the legal availability of these things; you can go to the doctor and get them and deal amongst a group of friends and have relative safety from prosecution or intervention'.

In addition, one KI suggested that, of the statistics that are available, 'we hardly see or hardly charge anybody with possession or use of benzodiazepines or trafficking in methadone or that sort of thing. I'd have to say, to be honest about it, we don't focus on it because we're focused on heroin or the other illegal drugs'. This KI commented that unless police liaison with outreach services or drug and alcohol workers showed that benzodiazepine and pharmaceutical opioids were becoming a huge issue, police would probably continue to focus on illicit drug use.

Are there any questions that need to be asked of existing data or existing trends that you believe are not currently being asked? i.e. Is there any info about these drugs and their use that could be collected that you think would be useful to you in your work?

Firstly, one very strong response from KI to this question was that there needs to be significant inroads made into the *sharing of data*, and that linkages between different data sets are essential to the strengthening and deepening of knowledge around benzodiazepine and pharmaceutical opioid use.

Some of the agencies or areas that KI reported could share data sets are: alcohol and drug agencies; Transport Accident Commission; Workcover; Coroners Court; pharmacists; hospital data; ADIS (Alcohol and Drug Information System); and mental health data. KI did acknowledge that there would be issues of confidentiality to address, and also that the collection and entry of data can be seen as burdensome for some organisations.

Further to that, KI suggested that progress could be made in the following areas by utilising pre-existing data.

- More analysis of benzodiazepine prescribing – 'what harm results from it and what benefits'.
- The gathering together of national data on why people are injecting temazepam and why they inject in the groin.
- Further use of information coming from pharmacology research around health and injecting practices.
- Questions asked around the trend of punishing 'doctor-shopping' and why we have particular views of drug users seeking medication.
- Questions asked of mental health data concerning the psycho-social issues around patterns of use.
- More analysis of the causative factors of substance use and more analysis of 'what works and what doesn't work' in terms of treatment.
- Use of existing data sets to instigate some 'sociological' drug and alcohol research.
- Asking questions about why heroin can't be legalised to allow people to 'lead a normal life' because we are 'set on a particular type of drug medicine' (pharmaceutical opioids) and how that relates to people's benzodiazepine use.
- Utilising existing data to undertake some gender-orientated analysis of benzodiazepine and pharmaceutical opioid use.

Impact

How does misuse of benzodiazepines/morphine/methadone/buprenorphine impact on your work?

Health

The majority of KI reported that the health problems associated with injecting benzodiazepines and pharmaceutical opioids have an impact on their work. Three KI stated that it did not especially impact on their work any more than other drug use.

KI listed blood clots, deep vein thrombosis, infections, abscesses, collapsed veins, gangrene, complications with groin injection and, in severe cases (as mentioned earlier), amputations as the main health problems caused by injecting benzodiazepines – and temazepam in particular – and pharmaceutical opioids. Many KI also reported problems arising from poly drug use, such as dealing with more overdoses or having to present more clients to accident and emergency, and one KI commented that clients can sometimes be agitated. Several KI also commented that clients can be more 'high risk' in general because of poly drug use involving benzodiazepines and pharmaceutical opioids. One KI noted that the use of benzodiazepines and the misuse of pharmaceutical opioids can complicate the management of opioid dependence.

Many KI also mentioned the difficulty of withdrawing from benzodiazepines and the impact that had on their work. One person commented that benzodiazepine withdrawal is 'particularly nasty' and that they may have to deal with crises resulting from sudden withdrawal. Another KI also mentioned that it was difficult to get people into a detox unit to withdraw from benzodiazepines

or pharmaceutical opioids because of the extra time and sometimes complicated variables involved. 'I think that withdrawal still remains a problematic area, because usually to reduce somebody it's very difficult to get them admitted to a unit'. In addition to this, getting people off benzodiazepines 'requires sophisticated counselling and that's not always available'.

As a result of the health problems associated with benzodiazepines and pharmaceutical opioid misuse, KI also reported that the impact on their work resulted in the provision of more vein care and injecting health information to their clients, and in particular several KI mentioned information on filtering processes where buprenorphine was being taken from the mouth and injected into the bloodstream. A couple of KI mentioned that because of the effect that benzodiazepines can have on memory this information often had to be provided more than once, although one of these added that having to repeat information is not necessarily a negative. 'You might spend time with them on an issue and they'll come back the next day and will have completely forgotten what you said. So, you will have to go over it again, but that's not so much a negative impact because, you know, we're always prepared to go over things with people'. In addition to this, one KI remarked that the health issues arising from benzodiazepines and pharmaceutical opioid misuse sometimes created a situation where a more robust connection could be made with a client. 'It ends up being quite intensive and often that's really good, like it's a really positive kind of interaction, so we've got to know people really well'.

Finally, two KI mentioned that it can be more difficult to engage with clients who have taken benzodiazepines, and one of these mentioned that a service may have to monitor young drug users on the premises if a large amount of benzodiazepines had been taken.

Only two KI reported that the use of benzodiazepines and pharmaceutical opioids had a different impact on their work to other drugs, and that was because of issues of vein damage.

Law enforcement

Four law enforcement KI responded to this question. One KI commented that benzodiazepine and pharmaceutical opioid misuse represented no special problems, but were the same as heroin in terms of impact on police work. 'The issues for heroin are the same as the issues for the misuse of bupe and methadone and other prescription drugs…they've somehow got to pay for it, so therefore they commit crimes generally. The dole only goes so far'.

The second KI addressed the injection of benzodiazepines and pharmaceutical opioids, observing that there may be health considerations for officers: 'as far as injecting goes, the only thing that springs to mind is they're obviously using needles and therefore it's a safety issue for us. That's the biggest thing with any type of intravenous drug use, is first and foremost needle stick injuries'.

The third KI discussed the delay in processing which may occur if a person has taken a significant dose of benzodiazepines – particularly Normison – and the added responsibility of officers to ensure that the person does not overdose whilst in custody waiting to be charged.

Finally, the fourth KI reported that the use of benzodiazepines and pharmaceutical opioids had no impact on police work, which was significantly different to other illicit substances.

For police

Historically, what have been the benefits and problems of policing efforts that you are aware of in response to pharmaceutical misuse?

Benefits

KI reported on a variety of benefits of policing efforts in response to pharmaceutical misuse. Firstly, one KI reported that the more that police can 'reduce the illicit use' of pharmaceuticals (particularly by focusing on traffickers), 'then you see a reduction in crime. If it's left unchecked it gets out of control and increases the crime'.

In direct relation to this, one other KI reported that police statistics in a particular area show that in the case of pharmaceutical-related burglaries, or 'chemist burgs', offences are well down as a result of policing efforts. This was done by working with the statistics that had been gathered: 'We solved the problem with our database because we knew what times they were committing the offences, so we ran operations and sat off the premises and apprehended the offenders'. This KI suggested that, in most areas, stations would have addressed this issue and reduced the number of 'chemist burgs'.

Another benefit of policing efforts was seen to be that police members are treating the use of pharmaceutical drugs as a health issue and, therefore, are relaying offenders into diversion programs so as to focus on those people who are trafficking in pharmaceuticals.

Finally, the production of the guide '*An Investigation Guide to Pharmaceutical Drug Trafficking and Use*' (Victoria Police 2004) was mentioned by several KI as a significant development in policing efforts, in that it enables officers to more readily identify pharmaceutical substances. 'That's been a sensational resource and we've used it here in the office, because when we go out, we do a lot of search warrants on addresses and it's increased the information and awareness of my members. When they go to an address or check someone in the street…and discover tablets or whatever, if they can't identify it there and then they can use the guide back at the station. So that's been a real positive, that guide'.

One KI identified a problem with policing efforts which was that the procedure of having to check people for scripts and then cross reference with pharmacies was time consuming and created a lot of paperwork. 'Probably the only problem is increased workload. You know, without the users carrying their scripts around that creates a problem because you're stuck between a rock and a hard place; you don't know, are they supposed to have it, or not. Also time constraints because you've got to go and check with the pharmacies'.

What would make your policing/role easier regarding pharmaceutical products?

Several KI identified restricting the source and tracking the dispensing of pharmaceutical products as a significant way of making their policing role easier. That is, the ability to 'police and control' how people 'get hold' of benzodiazepines and pharmaceutical opioids in the first place, including putting more measures in place to prevent the theft of prescription pads, and steps to monitor where pharmaceuticals go once prescribed. One KI suggested that benzodiazepines as well as pharmaceutical opioids used for maintenance programs be dispensed from 24 hour clinics on a daily basis because 'as soon as you have access to it and it's up to [drug users] where and how they take it, they're going to abuse it'. A separate KI also suggested that clinics and pharmacies be available in a wider variety of areas to prevent an influx of 'criminal activity' into particular suburbs where prescribers are common.

On a broader note, another KI suggested that 'there should be some system, some accountable system to track every batch when it comes out of the factory – where it goes. It's probably not simple, but it's like some system where say ***** produces X amount, you know, two million tablets, and [there must be] one million sold and one million retrieved and destroyed or something like that'. In addition, there could be a 'national database [where] pharmacists have all their

dispensing linked, so that if someone came out with a prescription, they'd search and go, ahh, here's a name'. This KI suggested that although some people would get around this system by using false identification, at least it would have some effect on reducing supply, and therefore, potentially make policing easier.

One KI pointed to the fundamental importance of information in improving policing with regard to benzodiazepines and pharmaceutical opioids. 'All policing relies on information, from whatever source, and without it we don't survive, that's a significant issue, so the more information we have [the more it] actually creates a picture, creates intelligence, and then it actually allows you to make decisions as to where we need to focus our investigations. There may be a really significant issue for the community that we know nothing about because we don't have the information, and at some point in time we have to reassess the way we do our business to say, 'we need to start concentrating on this'.

Finally, several KI again mentioned the continued use of the resource *'An Investigation Guide to Pharmaceutical Drug Trafficking and Use'* (Victoria Police 2004) in making their policing role easier. In addition, one KI suggested that the handbook would be even more useful if it was to be expanded and made more practical. It could include 'more information on why the user is using [particular pharmaceuticals]' and include the street names of drugs so that 'it's much easier to talk to the users and you get a bit more credibility if you know what they are calling them'. Officers would then also be aware of street names if approached for drugs themselves.

Summary

Market characteristics

The majority of KI reported that heroin was the primary drug of choice for people using benzodiazepines and pharmaceutical opioids. KI noted that people were using a variety of benzodiazepines, but that the most common benzodiazepines were temazepam/Normison, closely followed by Valium. Long-term injecting drug users were identified by the majority of informants as the most likely to use benzodiazepines and pharmaceutical opioids. Some KI also noted that people with anxiety and mental health disorders are also using these drugs, as well as a percentage of methadone clients.

Most KI from the health sector, and all KI from law enforcement, reported that benzodiazepines are being used as a supplement to a primary drug of choice rather than being a drug of choice themselves. Health KI commented that benzodiazepines might be used to increase the effects of heroin use, to ease symptoms of withdrawal, or to deal with sleeplessness or anxiety. However, several KI also reported that the use of benzodiazepines is quite fluid, and that people will alternate between substances according to availability, health and financial situation, as well as a raft of other psycho-social factors. Two KI reported benzodiazepines being used as a primary drug of choice, with one suggesting that temazepam in particular was being used by one client in preference to other drugs. The second KI that identified benzodiazepines being used as a drug of choice commented that this had come about as a result of the supplementary use of benzodiazepines gradually shifting to primary use over time as a consequence of the relative affordability of benzodiazepines and the perception that at times they offer a longer lasting effect than heroin.

With regard to pharmaceutical opioids, KI offered the suggestion that there is a blend of primary and supplemental use. Whilst some people use only their buprenorphine, for example, others may top up with heroin when required. There was also some suggestion that when buprenorphine initially became available people were more likely to supplement with heroin, but that as more people remained on the program their heroin use ceased.

Despite these suggestions, there were still fairly consistent reports from KI that the trade of benzodiazepines, which may have previously existed, has significantly decreased. In addition, several KI reinforced earlier comments about the lack of an organised black market in benzodiazepines and pharmaceutical opioids, although one KI speculated that on-selling may be more common in the case of morphine, which is notoriously hard to get and therefore more valuable. One KI from law enforcement reported that because the trading and on-selling of benzodiazepines and pharmaceutical opioids exists, but is not a major problem, it would be pure speculation to comment on the proportion of drugs that are traded.

The response from almost all KI from both the health and law enforcement pools suggested that the primary reason that people might deal in benzodiazepines or pharmaceutical opioids was the need to make money. This money would be used to meet the basic daily needs of survival in terms of food, housing or drug use. One KI suggested that the monetary value of benzodiazepines and pharmaceutical opioids was so low that it was 'ridiculous' to suggest people were dealing to make money. Instead, dealing or trading was simply an entrenched facet of a drug using culture.

Diversion

A small number of KI reported that when 'doctor-shopping' does occur, it is most likely to be for personal use rather than for on-selling. One KI suggested that people would perhaps share with friends and another that any on-selling would be opportunistic rather than pre-arranged. When asked about the patterns of drug sharing amongst friends, KI reported a relatively high incidence of sharing between partners. KI suggested that people may also share drugs with other users to avoid appearing to be 'mean', but, more broadly, that a disorganised social network of sharing, trading, buying and selling exists, where a person may exchange cannabis for benzodiazepines or heroin, or where a promise of something in return 'next week' will result in the sharing of heroin or benzodiazepines.

One KI commented on an instance where someone who is not able to afford to pick up their dose of buprenorphine will make an arrangement with a friend to pick it up, and the buprenorphine will then be shared. Another commented that they were not aware of a trade in buprenorphine. In addition, KI were doubtful about the existence of more formal trafficking in buprenorphine, particularly where pharmacists have become more wary of clients leaving without the tablet having been crushed and ingested. Law enforcement KI added that drug trading is more likely to occur in Melbourne's 'drug hotspots' and may also centre around pharmacies that are dispensing buprenorphine.

Several KI suggested that there is little or no trade in benzodiazepines at the moment due to the increased difficulty in obtaining scripts from doctors. The result of this is that people are much more reluctant to share a scant personal supply of benzodiazepines and instead are more likely to share heroin or amphetamines if they are sharing at all. When people have legal access to benzodiazepines and pharmaceutical opioids, the proportion that is traded, given away or sold can depend on the geographical area. In one area KI reported a high level of buprenorphine on-selling, but not of benzodiazepines, again because benzodiazepines have become harder to acquire. Alternatively, in another area, one KI reported that people may be selling or giving away their benzodiazepines, but that the trading or sharing of buprenorphine was less common. One KI suggested that the level of trading or selling of benzodiazepines depends on the size of the script that a person is given. If prescribed a large amount of benzodiazepines, then the person might sell or trade some and keep some for themselves, whereas a smaller script is more likely to be kept for personal use.

Many KI reported that the majority of benzodiazepines and pharmaceutical opioids available to their clients are coming from prescribing general practitioners. However, there was also the suggestion that this arrangement differs with regard to substances. For example, whilst KI reported that Valium is still commonly prescribed by GPs, Normison has become significantly harder to get. Therefore the supply of Normison might be more likely to be provided at a street level. Several KI reported that there is a stronger market for Normison than other benzodiazepines. With regard to morphine, some KI reported that the difficulty of obtaining a script means that a lot of the available morphine would be coming from people on pain relief for physical injury or illness, or from family, friends or a partner.

Two KI suggested that people may source benzodiazepines from chemist burglaries or raids – although this was seen to have decreased significantly – or by shoplifting from pharmacies, which was also seen as being more difficult than in previous times. The majority of law enforcement KI also suggested that people were accessing benzodiazepines via chemist burglaries or burglaries carried out at manufacturers or distributor premises, although they also reported a considerable decrease in these offences over the past twelve months to two years. Several law enforcement KI suggested that people obtain benzodiazepines and pharmaceutical opioids from the street market, and two law enforcement KI suggested people obtain them from GPs. No KI had heard of people sourcing benzodiazepines or pharmaceutical opioids over the Internet. Doing so was considered by one KI as inconvenient and unreliable, as well as being inaccessible to many drug users either as a result of a lack of access to resources or a lack of knowledge about the Internet.

Links to crime

The majority of KI from both health and law enforcement did not believe there was any aspect of organised crime related to benzodiazepines or pharmaceutical opioid use. Instead, KI reported that any trading, sharing or selling was more likely to be disorganised. Whilst connections and networks might exist at a street level – and in that sense may exhibit some organisation – KI did not believe that it went 'any higher up' or that there was any sort of 'crime racket' going on. In part this was seen to be a result of the relatively low financial rewards to be gained from trafficking benzodiazepines and pharmaceutical opioids.

When asked if there are some circumstances where benzodiazepines and pharmaceutical opioids are related to specific crimes, KI gave two main responses. The first was that the use of benzodiazepines may mean that people commit crimes they 'already intended to commit', but with far less inhibition. In terms of the type of crimes that may already have been committed, KI mentioned shoplifting in particular. This was the primary response from KI. The second was that the use of benzodiazepines may be a factor in crimes committed, again like shoplifting, but also on occasion burglary, because of the sense of 'invisibility' that benzodiazepines create. In both circumstances KI reported that people are much more likely to get caught committing crime because of this sense of invincibility.

With regard to pharmaceutical opioids, the response from most KI was that maintenance programs reduce crime in general. One KI noted that the diversion of buprenorphine was a crime specifically related to its availability.

All law enforcement KI reported that there was a correlation between benzodiazepines, pharmaceutical opioids and crime, suggesting that property crimes such as thefts (including shoplifting) and burglaries had been most prevalent. However, one KI suggested that pharmaceutical-related crime (especially burglaries on chemists) had dropped in the past twelve months, while another suggested that police crime statistics might also relate to people wanting to obtain illicit drugs. One KI suggested that crimes of violence may be connected to benzodiazepines and pharmaceutical opioid misuse, whilst another reported that trafficking in benzodiazepines or pharmaceutical opioids was occurring.

Overall, the majority of KI reported that the availability of benzodiazepines would not significantly increase crime because the criminal behaviour of people pre-exists the use of benzodiazepines. In addition, one KI suggested that when benzodiazepines are freely available there is a corresponding lack of crime due to the fact that their availability removes the need to commit crime to obtain illicit drugs, and also because when benzodiazepines are freely available people quickly develop a tolerance, and do not get into the 'stupor' that is associated with shoplifting in particular. Three KI thought that the availability of benzodiazepines increased crime. Of these three, one added that it meant people were much more likely to get caught and one that the availability of benzodiazepines may lead to marketplace bartering rather than trafficking.

In regard to pharmaceutical opioids, all KI but one suggested that their availability reduces crime. Others added that the 'poor' availability of pharmaceuticals would increase crime because it would mean that people would turn to illicit drug use, and the maintenance of that drug use might involve crime. One KI also commented that wider and less expensive access to pharmaceutical opioids could reduce crime. One KI suggested that the diversion of buprenorphine and methadone probably does contribute to some criminality but that people on these programs are also able to carry on a more stable lifestyle.

Law enforcement KI restricted their comments to pharmaceutical opioids, with several KI agreeing their availability could reduce crime. However, one law enforcement KI commented that the availability of pharmaceutical opioids could increase crimes that may not necessarily be reported such as the forging of Medicare cards. Another KI suggested that there was an increase in crime in suburbs that host a high number of prescribing pharmacies.

Implications for police and other frontline workers

The health implications of injecting benzodiazepines and pharmaceutical opioids had the most impact on the work of KI working in the drug and alcohol field; although three KI reported that the misuse of benzodiazepines and pharmaceutical opioids did not have any special impact on their work but was the same as other drugs. KI reported having to deal with clients developing blood clots, deep vein thrombosis, infections, abscesses, collapsed veins, gangrene or having to undergo amputation, as well as the complications arising from withdrawal from benzodiazepines.

Many KI also reported problems arising from poly drug use such as dealing with overdoses or having to take clients to hospital, whilst others added that clients who were poly drug users were generally much more high risk than others. As a result of the impact of benzodiazepine and pharmaceutical opioid misuse, KI needed to be familiar with information about vein care and general injecting health. One KI commented that clients could sometimes become agitated. Finally, two KI mentioned that it could be more difficult to engage with clients who have taken a large amount of benzodiazepines, with one of these KI adding that young clients who are intoxicated with benzodiazepines may have to be monitored at the service, which sometimes disrupted other clients.

With regard to policing, one KI reported that benzodiazepines and pharmaceutical opioid use had no impact on police work, whilst another commented that benzodiazepines and pharmaceutical opioids had the same impact as other drugs. One KI suggested that the risk of needle stick injury, when people were injecting benzodiazepines and pharmaceutical opioids, was of concern. Finally, one KI observed that the delay in processing which occurs with significant doses of benzodiazepines, and the resultant responsibility for that person's health, impacted on officers' work.

As for the extent and ease of 'doctor-shopping', KI were divided in their responses. Some KI reported that it was 'rife' or occurring to a large extent with some benzodiazepines, and that it was relatively easy to do. One KI thought that although that is the case, it is subject to the availability of doctors who are inexperienced, 'tired' or of the view that they are doing the 'right thing'. In contrast, other KI thought that 'doctor-shopping' had become much harder in recent times and that it had lessened to a significant degree, mostly because doctors had become more aware of its occurrence, and because the prescription of 10mg temazepam gel capsules must now be authorised by the PBS. These KI saw 'doctor-shopping' as being arduous and difficult for drug users. Three KI from law enforcement echoed the response from KI from the health sector.

All KI from the health sector agreed that it would be extremely difficult if not impossible to 'doctor-shop' for buprenorphine or methadone and all considered that obtaining morphine would be very difficult. Law Enforcement KI did not comment on 'doctor-shopping' for pharmaceutical opioids. With regard to how people report getting scripts, again a small number of KI responded by saying that people may just ask for prescriptions and are provided with them because the doctor is not aware that they have already been prescribed elsewhere, whilst several others reported that people may complain of difficulty sleeping or of experiencing physical pain.

Two KI reported that female drug users were sometimes coerced into undertaking sex work in order to make money to procure drugs for themselves and their partners. The majority of KI reported that the prescribing of benzodiazepines to drug users should be viewed as a positive when forming part of a withdrawal program, or by helping to keep people in treatment by lessening the need to use heroin. The prescription of benzodiazepines was generally seen as a positive because it provides a treatment option for drug users as an alternative to taking part in pharmacotherapy programs, which are sometimes viewed by drug and alcohol workers and drug users alike as being overly regimented. However, there was also firm agreement from many KI that benzodiazepines should be prescribed with some vigilance and that drug users who are prescribed benzodiazepines be offered support and counselling or be encouraged to access support and counselling. KI from law enforcement added that positive impacts on health might convert into a reduction in crime, and that another benefit of the prescribing of benzodiazepines might be that drug users can be more closely 'monitored'.

One of the 'cons' of prescribing benzodiazepines to drug users was seen to be a perceived lack of support, as mentioned above. In addition, KI thought that the lack of information concerning the potential side effects of benzodiazepines was a negative aspect of prescribing. Another strong theme that emerged from KI in regards to the 'cons' of prescribing benzodiazepines to drug users was the serious health issues connected to the injection of these substances such as vein damage, abscesses, and in serious cases, amputations. The risk of overdose was also mentioned many times, most often in with regard to the use of benzodiazepines in conjunction with other drugs. Finally, the habit-forming nature of benzodiazepines was cited as a potential negative consequence of their prescription. Law enforcement KI also mentioned the desirability of benzodiazepines on the black market and the abuse of benzodiazepines, especially when used in conjunction with other drugs, as negative aspects of benzodiazepines prescription.

With regard to the provision of pharmaceutical opioids to drug users, the overwhelming response – again, keeping in mind that unless otherwise specified KI answered in response to buprenorphine and methadone – was that opioid-based pharmacotherapy programs were of the utmost importance in drug treatment. KI reported that the provision of pharmaceutical opioids significantly improved the health and wellbeing of drug users, with flow on effects to employment and housing, thereby offering people the chance to create some stability in their lives. As a result of the legal provision of pharmaceutical opioids, KI also suggested that people no longer need to commit crime to pay for illicit substances. Another positive aspect of prescribing pharmaceutical opioids to drug users was seen to be the potential to 'step down' from heroin use to buprenorphine

use, for example, and then from buprenorphine to abstinence if that was desired. Law enforcement KI echoed these thoughts, adding that the availability of pharmaceutical opioids may reduce crime by disengaging people from street supplies of heroin and may also help to control peoples' heroin use.

KI mentioned very few 'cons' of prescribing pharmaceutical opioids in terms of the drugs themselves, but were more concerned with the regime of dispensing (daily pick ups) and the lack of take-away doses for buprenorphine clients, seeing these as having an impact on retention rates, and therefore an impact on the possibility of positive outcomes from treatment. Other issues of accessibility were also raised by KI, primarily the lack of both prescribers and dispensers in rural and suburban areas. And, as before, a lack of information about the side effects of pharmaceutical opioids was also seen to be one of the negatives of prescribing them to drug users. Finally, KI suggested that inconsistencies in the dispensing of buprenorphine, such as not crushing the tablet on the spot – which then allowed the drug to be diverted or injected – were a 'con' of prescribing pharmaceutical opioids. Law enforcement KI saw the use of pharmaceutical opioids and other drugs (such as heroin) in combination as one of the main drawbacks of prescribing. Two KI saw the provision of pharmaceutical opioids as a 'bandaid' solution which does not address drug use, and one KI raised the issue of the diversion of buprenorphine as a negative aspect of prescribing.

A number of KI questioned the assumption that benzodiazepines and pharmaceutical opioids were easily available to drug users, positing that a lack of available prescribers (with pharmaceutical opioids) and the difficulty of obtaining prescriptions from doctors (with benzodiazepines) meant that people often had problems with access. However, several KI did respond by repeating that the easy availability of benzodiazepines to drug users was a positive thing when done with consideration and support, noting that benzodiazepines were very beneficial to people suffering from sleeplessness and mental health issues as well as those who require benzodiazepines for pain management. The easy availability of benzodiazepines was also seen as a positive because they can provide an alternative to potentially more harmful substances. Law enforcement KI added that the easy availability of benzodiazepines was problematic because it leads to harmful poly drug use.

With regard to pharmaceutical opioids, easy availability was seen to be a positive thing first and foremost because the more available pharmaceutical opioid-based maintenance programs are, the higher the reward in terms of both uptake of programs and success of programs. One KI also suggested that were there to be ease of availability of morphine, this could also produce some positive outcomes very similar to those achieved by the use of opioid replacements. Many of the law enforcement KI also reported that one of the benefits of the easy availability of pharmaceutical opioids was a positive impact on the health of drug users; however, one KI commented that he was not personally aware of these benefits.

Many KI reported that there are problems with the easy availability of benzodiazepines when they are dispensed without vigilance. These include a variety of serious health problems as well as the risk of overdose and death. Whilst daily pick-ups of benzodiazepines were also seen to be a problem because they placed restrictions on people's lives – especially when not considered on a case-by-case basis – KI did report that a more interested prescribing of benzodiazepines could contribute to solving these problems. Of the law enforcement KI who responded to this question, both identified the diversion of benzodiazepines and pharmaceutical opioids as a problem associated with easy availability.

No KI from the health sector reported any problems with the easy availability of pharmaceutical opioids. In terms of problems with the poor availability of benzodiazepines, several KI suggested that lack of supply could force both dependent and non-dependent benzodiazepines users to

seek a more harmful replacement, thus causing a whole raft of new health and law enforcement problems. KI also suggested that one of the problems associated with a deliberately poor supply of benzodiazepines to drug users was that it endorsed a discrimination which is not experienced by the broader population, to whom benzodiazepines are widely available. Several KI also suggested that daily pick-ups of benzodiazepines could be considered to be a poor supply because it would reduce access by imposing restrictions on use that cannot always be met by people with often chaotic lives.

Several KI reported that the cost of pharmaceutical opioids was a significant factor when thinking about the problems of poor availability. If the cost of programs is prohibitive – and for the majority of drug users the sometimes $5 a day cost of buprenorphine can be prohibitive – the obvious outcome is less access to treatment and, as mentioned earlier, less improvement in the health and wellbeing of drug users. In addition, the poor availability of pharmaceutical opioids may also lead to an increase in crime for some people as they are compelled to commit crime to pay for their dose. The one KI from law enforcement who responded to this question also suggested that poor availability of pharmaceutical opioids may also lead to criminal behaviour. Finally, one KI commented that the poor availability of benzodiazepines in liquid form such as temazepam may impact on the elderly population for whom the gel caps were originally designed.

KI thought that it might be harder to obtain benzodiazepines and pharmaceutical opioids in some geographical areas than others primarily because of a lack of prescribing doctors, a lack of bulk-billing doctors (which means that people cannot afford the consultation) and, especially where pharmaceutical opioids are concerned, a lack of dispensing pharmacies. This was an issue across the board, in both rural and suburban areas. In addition, several KI commented that doctors who may be inexperienced with drug users, or who are not comfortable with treating drug users, might be less likely to prescribe benzodiazepines or pharmaceutical opioids (conversely, some KI also suggested that inexperience with drug users may also mean that doctors are 'more' likely to prescribe). It was also suggested that it might be easier to access benzodiazepines and pharmaceutical opioids in areas where there was a concentration of doctors or pharmacists who were not as rigorous with prescribing and dispensing.

Interventions

One KI suggested that policing might have a minor effect on access to benzodiazepines and pharmaceutical opioids in some geographical areas. One KI from law enforcement agreed with this assertion, whilst several others suggested that it might be easier to obtain benzodiazepines and pharmaceutical opioids in Melbourne's drug 'hotspots'.

Many KI suggested that changes to health care would make a prescriber's role easier regarding the limiting of pharmaceutical products. One KI suggested that the reduction of benzodiazepine prescribing in general would have an effect on diversion, however, did not think that this was the only alternative option. Several KI recommended a that more holistic approach to prescribing would reduce the opportunity for the diversion of pharmaceutical products because this approach would mean doctors would be less likely to prescribe them in large doses. With regard to buprenorphine, one KI suggested that the provision of more prescribing pharmacies where drug users were 'welcome' would result in increased vigilance with dispensing and as a result less opportunity for diversion. In addition, another KI commented that the development of a fizzy 'Berocca™ like' form of buprenorphine may prevent diversion. Some KI suggested that tracking the amount of prescriptions an individual has, taking extra care to secure prescription pads and arranging daily pick-ups on a case-by-case basis for benzodiazepines may limit diversion. Several KI suggested that if an injectable form of pharmaceutical opioid were to be introduced via pharmacies, the motivation for diversion would be removed. Law enforcement KI agreed

that ensuring that buprenorphine tablets are crushed and ingested on the spot would help with diversion. One law enforcement KI suggested that the sharing of information and strategies amongst doctors would ensure that all doctors were aware of which drugs are targeted for diversion, and as a result could reduce the amount they prescribe.

The vast majority of KI reported that a total ban on take-away doses of methadone would have a disastrous impact on their clients. Health and self-esteem would be affected, it would discriminate against people who have to travel significant distances to pick up their daily dose, and it would potentially limit the access of people suffering from mental illness to the program. The removal of take-away doses would affect peoples' ability to become or remain employed and also had serious implications in terms of forcing people back into using illicit drugs if they were unable to adhere to the daily pick up regime. Many KI commented that the diversion of methadone was not common at all.

Most KI did not think that police activity had any effect on the use of benzodiazepines and pharmaceutical opioids. Police presence was seen as more influential in terms of illicit drug use. Several KI commented that the displacement of illicit drug trafficking to another area as a result of policing could lead to an increase in benzodiazepine use, if illicit drugs were more difficult to obtain. This was seen by one KI as contributing to the number of overdoses occurring. One KI thought that police activity might result in benzodiazepine use becoming more discreet, and also that, as a result of pharmacists calling police when scripts seemed suspicious, people might also be more wary of presenting forged scripts to pharmacies. One KI mentioned that people in possession of benzodiazepines without a script were being charged. Police activity was seen as having little or no effect on corrupt prescribing of benzodiazepines or pharmaceutical opioids.

Law enforcement KI suggested that policing was having an effect on drug traffickers rather than drug users, and many KI reported that the primary focus of police was on 'illicit' substances rather than on benzodiazepines and pharmaceutical opioids. However, KI commented that police cautioning and diversion programs were having an impact on various forms of drug use. As well, several KI reported that police activity in areas like shopping malls was having an influence on drug use by making access more difficult and in turn reducing crime in those areas. However, two KI also suggested that police activity around trafficking has caused trafficking to become more covert. Finally, one KI suggested that increased co-operation between police and pharmacies had the potential to influence the use of benzodiazepines and pharmaceutical opioids.

With regard to using existing data systems to better understand the nexus 'between the illicit benzodiazepines and pharmaceutical opioid market and crime'; the perception of many KI is that there is not a large or organised market at all.

One KI responded that it is very difficult to obtain data about this in the first place, while another commented that a better understanding of the relationship between any existing illicit benzodiazepines and pharmaceutical market was unnecessary for health workers given that their job is to provide support and treatment. One KI suggested that it would be helpful for data collected by pharmacists on 'doctor-shopping' to be fed back to doctors and Accident and Emergency (A&E) departments at hospitals. A final KI observed that access to different sorts of data sets – for example, law enforcement data – may be of use.

Law enforcement KI added that it was also difficult for police to compile statistics about the misuse of licit drugs. In addition, because the benzodiazepines and pharmaceutical opioid market was seen as relatively insignificant in comparison to the licit market, law enforcement may not have enormous use for this data until it becomes a 'huge' issue.

KI came up with a range of questions that could be asked of existing data or trends that they believe are not currently being addressed. Primarily, this centred on obtaining access to data, and ensuring that there was 'talking' amongst data sets and sharing of data. KI suggested links could be made in a variety of ways between alcohol and drug agencies, the Transport Accident Commission, Workcover, the Coroners Court, pharmacists, hospital data, mental health data and ADIS for example. KI suggested a variety of other questions could be asked, for example, about the harm and benefits that are associated with benzodiazepines prescribing or about the development of harm reduction practices around injecting pharmaceutical drugs.

In terms of the historical benefits and problems of policing in regard to pharmaceutical opioid misuse, law enforcement KI reported a variety of benefits. Policing efforts had reduced the use of pharmaceuticals and, hence, the incidence of crime, as reflected in crime statistics. Another benefit of policing in regards to pharmaceutical misuse was seen to be the changing approach of police towards drug users. With the diversion of drug users into cautioning programs, police are more able to focus their efforts on the trafficking of pharmaceuticals. The production of the guide *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) for all stations was also seen to benefit policing efforts, in that it allowed officers to correctly identify pharmaceuticals and to lay charges where applicable. One KI identified the time consuming nature of the paperwork associated with police efforts to check and cross-check personal scripts as being a problem of some policing efforts.

In response to the question of what would make their policing role easier, law enforcement KI made a range of suggestions. Restricting the source of benzodiazepines and pharmaceutical opioids as well as dispensing them from a 24 hour clinic would be of assistance, as would establishing pharmacies in a wider range of areas to prevent people from flocking to 'hot-spots'. One KI also suggested that there be a system to track batches of benzodiazepines as they come out of the factory in conjunction with a national database of dispensing. Another KI remarked that the provision of information to police around emerging problems would make policing easier. Finally, KI reinforced the positive impact of *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) and suggested that the updating of the guide on a regular basis would ensure that it was of continued benefit in policing efforts.

Chapter four: Overall summary

The findings from all four stages are summarised in the following sections.

Stage one: Key informant interviews (law enforcement)

Market characteristics

Firstly, in order to explore these issues, 13 law enforcement KI from Melbourne localities were interviewed about their experiences in policing around prescription drug issues. Most informants believed that pharmaceutical drug use was dependent on heroin trends, the former increasing in response to reductions in the latter.

Diversion

It was believed that prescription drugs were diverted to the black market via burglaries and pharmacy thefts, prescription forgeries, doctor-shopping, and on-selling by users. There had reportedly been 720 pharmacies burgled in the previous year in Melbourne, with pharmaceutical drugs targeted in many instances.

Links to crime

Most of the KI believed that heroin and methamphetamines were in fact much more likely to be associated with crime, in particular burglaries and robberies, than were pharmaceutical opioids or benzodiazepines.

Implications for police and other frontline workers

Illicit use of prescription drugs such as opioids and benzodiazepines was seen as difficult to police, as the drugs themselves were legal when prescribed, with the difficulty being in assessing whether an individual should have them in their possession. Policing issues for both forms of drugs were seen as similar, and identified mainly as a police inability to control the supply of the drugs, drug-driving, care of children by intoxicated people, and management of intoxicated people when they were apprehended.

Interventions

It was considered by most KI that there had not been any substantial programs implemented to reduce the use or diversion of pharmaceutical drugs, with the exception of the HIC regulation of 10mg temazepam gel capsules in 2002. However, it was reported that the drug diversion desk of the Major Drug Investigation Division of Victoria Police would be implementing a notification scheme in partnership with the HIC in order to reduce the illicit use of prescription drugs.

Stage two: Survey of people who inject drugs

The sample were predominantly poly drug users, whose 'drug of choice' was heroin.

Market characteristics

All participants had used benzodiazepines in the six months prior to the survey, and 45% reported they had injected the drugs, mainly temazepam (but also alprazolam and diazepam) in that time. Temazepam gel capsules were preferred for injection as they may be heated and liquefied,

they also metabolise and enter the brain quickly, resulting in a fast (and long-lasting) effect, and increase the effects of heroin. Almost all participants (91%) had also acquired the drug illicitly, mostly as a 'gift' from a friend or other user, although almost one-third each had bought them from a dealer or a friend. Temazepam gel capsules were reportedly readily available in some areas of Melbourne, selling between $5 and $30 each depending on size. The majority of participants believed that suppliers of benzodiazepines were users selling their own drugs or small-time dealers, but many reported that dealers sold other drugs such as heroin, methamphetamine, morphine and cannabis.

Almost all participants had used opioids within the same time frame, and 85% had injected them. A large proportion (37%) had been in buprenorphine treatment, and 29% had undergone methadone maintenance treatment in the previous six months, and this was reflected by the fact that most respondents reporting opioids use reported it was obtained licitly (60% of the sample), with six percent reporting they had feigned symptoms to receive opioids. However, 61% reported they received opioids as a gift from a friend or other user, and 36% reported buying the drugs from a friend or a dealer.

Most (78%) of the sample had also used morphine, and 77% had injected it, with the most frequently used brands Kapanol and MS Contin. Morphine was preferred as it most closely approximates the effects of heroin, and was injected by boiling down and filtering the tablets/capsules. Almost all morphine users (97.5%) had acquired the drug illicitly. More than half the sample (57%) had acquired it as a 'gift' from a friend or other user, although around one-third each had bought them from a dealer or a friend. Morphine, in particular Kapanol capsules and MS Contin tablets, was reportedly readily available in most surveyed areas of Melbourne, selling between $10 and $100 each depending on size. The majority of participants believed that suppliers of morphine were users selling their own drugs or small-time dealers, but many reported that dealers sold other drugs such as methamphetamine and cannabis.

Forty-one percent of the sample had also injected buprenorphine, and 32% of the sample had used illicit buprenorphine. Almost half (45%) reported they had been prescribed the drug in the previous six months, while 11% said they had received it as a gift, but no-one had bought it from a dealer. Buprenorphine was reportedly readily available on the street in most surveyed areas of Melbourne for around $5 a dose. The majority of participants believed that suppliers of the drug were users sharing their own doses, but many reported that dealers sold other drugs such as methamphetamine and cannabis. Nine percent had injected methadone syrup, and 20% of the sample had used illicit methadone. A quarter of the sample had been prescribed methadone syrup, nine percent reported receiving it as a gift, and three said they had bought it from dealer (for about one dollar per ml). The majority of participants believed that suppliers of methadone were users sharing their own take-away doses, but many reported that dealers sold other drugs such as heroin, methamphetamine and cannabis. Fifteen percent of the sample had injected other opioids (such as oxycodone, Panadeine forte and tramadol), with 20% of the sample reporting they had used illicitly acquired drugs, and one-quarter reporting they had been prescribed the drugs.

There was a significant relationship between both heroin use and methamphetamines use and illicit benzodiazepine injecting in the previous six months. Substantial proportions of participants who reported injecting benzodiazepines had also injected illicit buprenorphine, methadone and morphine in the same time period, and almost one-quarter of heroin users indicated that if heroin were not available they would substitute benzodiazepines for it. There was also a significant relationship between both heroin use and methamphetamines use and illicit morphine injecting in the previous six months. In addition, substantial proportions of participants who reported injecting morphine had also injected illicit buprenorphine, methadone and benzodiazepines in the same time period, and six heroin users indicated that if heroin were not available they would substitute morphine for it.

Diversion

Eighty percent of participants had received the drugs via prescription in that time, with 13% reporting they had faked symptoms to obtain them, and 85% reported visiting a number of doctors (up to 20) to acquire a prescription. Almost 10% had recently stolen benzodiazepines, and six percent had forged prescriptions (in both cases temazepam was the drug most likely to be the target, but alprazolam and diazepam were also nominated). Six participants reported injecting benzodiazepines they had stolen.

Six percent of the sample reported they had feigned symptoms to receive opioids. Three percent reported they had recently stolen opioids (mainly MS Contin tablets), all of whom injected them. Thirty percent of participants had received morphine via prescription in that time, with four percent reporting they had faked symptoms to obtain them, and many reporting visiting a number of doctors to acquire a prescription (up to 50). The majority of participants believed that suppliers of methadone and buprenorphine were users sharing their prescribed doses.

Links to crime

Two-thirds of the sample reported they had been arrested in the previous year, with charges relating mainly to property crimes (37%), fraud (14%), violence (11%), possession (6%), and intoxicated driving (6%). A high proportion of the criminal behaviour was attributed to drug use, frequently benzodiazepines, and to a lesser extent to methadone. Eleven percent of the sample reported recent contact with the police resulting from benzodiazepine use, while 24% reported having arguments, and benzodiazepines were blamed for aggressive behaviour (20%), getting into fights (13%), getting into criminal trouble (14%) mainly property-related. These issues applied to a lesser extent to morphine. Thirty-nine percent of participants reported they had driven a vehicle while under the influence of prescription drugs in the previous month, and more than one-quarter reported they had done so five or more times (up to 120 times).

Fourteen percent of those using benzodiazepines reported the effects of the drugs had caused them to commit a crime, while 12% reported that withdrawal from the drugs had resulted in criminal behaviour. Four morphine users blamed effects of the drug for causing them to commit crime, and the same number attributed withdrawal from the drug for criminal behaviour. Other opioids were blamed by very few participants for criminal behaviour. Statistically, the main predictors of criminal involvement were age, frequency of heroin use, and frequency of illicit benzodiazepines use. Dependence on methadone (according to the SDS) predicted a significantly lower likelihood of being involved in criminal behaviour. Higher dependence scores for benzodiazepines and morphine were related to committing crimes while intoxicated on the drugs, and higher dependence scores for benzodiazepines were related to committing crimes while withdrawing from them. More than one-quarter of participants (29%) reported stealing pharmaceutical drugs or prescriptions in the previous month, with 9% stealing drugs from a doctor's surgery (mainly temazepam and MS Contin), and 3% from a pharmacy, with opportunism, or wanting the particular drug, the main reasons cited for the behaviour. Seven participants reported they had forged a prescription in the previous month, mostly temazepam. More than one-third of the sample reported having their prescriptions or pharmaceuticals (temazepam and diazepam) stolen from them.

Implications for police and other frontline workers

Most participants had experienced some kind of injecting harms in the previous six months, mainly effects of a dirty hit, prominent scarring or bruising, and difficulty injecting, with many attributing their problems to having injected prescription drugs in that time. Nine percent reported they had experienced at least one overdose, with most of the occurrences attributed to heroin.

Application of the SDS suggests that most participants may be dependent on benzodiazepines, morphine, methadone and/or buprenorphine. More than one-third of the sample reported experiencing memory loss or a blackout associated with benzodiazepines in the previous month, with several participants also attributing these symptoms to buprenorphine or methadone. A substantial number of participants had experienced social problems, such as relationship difficulties, anxiety, lack of motivation, or irritability in the previous month, which they attributed to pharmaceutical drugs

Interventions

There were conflicting reports about police activity targeting prescriptions drugs, with 38% of PWID reporting it had increased in the previous 12 months. Police activities included checking legitimacy of drugs on their person, and being arrested for having illicit prescription drugs. Five reported a higher police presence around chemists. Most (68%) did not consider that police activity had made it more difficult to access prescription drugs, but 16% thought it had. Other activities, such as GP or HIC crackdowns on prescribing practices and doctor-shopping, were considered to have impacted on access to pharmaceuticals.

These findings suggest that reducing supply of prescription drugs may have the effect of increasing heroin, methamphetamine or alternative pharmaceutical use. They also suggest that supply reduction may result in a situation where increased efforts are made to access regular supply of other less common drugs such as cocaine. The findings suggest that supply reduction may also result in: increased doctor-shopping, the involvement of large-scale dealing, criminal behaviour resulting from withdrawal syndrome and efforts to generate income to purchase drugs that were harder to obtain.

Stage three: Secondary indicator data

Market characteristics

Prescribing of both benzodiazepines and morphine decreased in recent years in Australia as a whole, and in Victoria specifically, according to PBS/RPBS data. Lifetime and recent use of both drug classes also declined in the general population between 1998 and 2001 across the state and the country as a whole according to the National Drug Strategy Household Surveys (Australian Institute of Health and Welfare 1998, 2001). Available PBS/RPBS unpublished data provided for 2003 also show that prescribed doses of methadone have decreased, especially in Victoria, where buprenorphine treatment (and prescribing trends) for drug dependence has seen high acceptance. In 2002, Victorian prescriptions for buprenorphine represented 48% of all prescriptions issued in Australia under the PBS/RPBS.

The 2003 IDRS found that 80% of the sample had used benzodiazepines in the previous six months. The survey also found that 15% had injected them, a large decrease on the previous two years, at 21% in 2002 and 40% in 2001. Overall, 69% reported they had injected benzodiazepines at some time. The most commonly used forms were diazepam, oxazepam, and temazepam. Almost half, at 45%, had obtained the drugs illicitly, and they were reportedly obtained through doctor-shopping or blackmarket street selling. Thirty-nine percent of the 2003 IDRS sample had injected morphine, compared with 51% in 2002 and 32% in 2001, and 83% reported they had used the drug at some time. Over 39% of the sample reported they had injected buprenorphine in the previous six months (Jenkinson, Miller & Fry 2004).

Diversion

The majority of forged prescriptions in Victoria up until 2001, before regulation of the 10mg capsules, were for temazepam gel capsules, or for alterations from temazepam tablets to capsules (Dobbin 2001).

Links to crime

Total pharmacy-related crime in Victoria showed a dramatic increase between 1998/99 and 2001/02, from 805 incidents in 1998/99 to 2,410 in 2001/02, according to Guild Insurance Limited (2003) data, with the increase corresponding to the time around the HIC regulation of 10mg temazepam capsules.

The number of people arrested for heroin-related offences fell in 2000/01 compared with 1999/00, whilst arrests for amphetamines and stimulant-related offences increased, probably reflecting the heroin drought. However, in areas identified as Melbourne's street-based heroin markets, violent and property-related offences increased between 2000 and 2001 (Victorian Department of Human Services, 2002) following the drought. The Melbourne arm of the 2003 IDRS (Jenkinson, Miller & Fry 2004) found that 59% of the injecting drug using participants reported involvement in some kind of criminal activity, and 47% had been arrested in the 12 months prior to the survey, with 55% of arrests for property crime, 18% for violent offences, 22% for possession, and 14% for trafficking/dealing. The overall figures were similar to the 2002 IDRS (Jenkinson, Fry & Miller 2003), which saw substantial increases in self-reported criminal behaviour from 2000, especially in property and violent crimes.

Implications for police and other frontline workers

There was a general trend for decreases also in ambulance attendances at non-fatal benzodiazepine-related cases attended by ambulance in Melbourne in recent years, with 2,896 recorded in the 2001/02 year, dropping to 1,711 in 2002/03, and with 678 recorded between July and September 2003. They remain at over 200 attendances per month, however. The number of attendances at non-fatal morphine overdoses fluctuated in recent years; after peaking at 18 in October 2001, they showed a decrease at the end of the 2001/02 year (to n = 7), then increased to a peak again at 19 in March 2003, before declining dramatically towards the second half of the year (Data obtained from Melbourne Metropolitan Ambulance Service and compiled by Turning Point Alcohol & Drug Centre, Inc, 2004).

Benzodiazepines were the most common drug identified in contributing, or incidental to, heroin-related deaths at 71% in 2000, and 55% of all deaths between 1997-2001. Morphine-related cases remained constant between 1997 and 2001, peaking at 22% in 1999; however, morphine plus benzodiazepines comprised more than half of all deaths in recent years, reaching a high in 2001 (Wallington, Gerostamoulos & Drummer 2003). The number of temazepam-specific incidents increased from 6.4% in 1999 to 7.9% in 2000, to 20% in 2001 (Dobbin 2001).

Stage four: Survey of people who inject drugs

The sample was equivalent to the PWID sample from Stage two, with 68% male, a mean age of 32 years and 88% unemployed. The sample identified that government benefits were the main source of income (mean = $361 per fortnight), followed by drug dealing (mean = $214) and begging/charity (mean = $160). Half the sample was not in current drug treatment, while 10% were in current MMT and 36% were in the buprenorphine program. A couple of notable differences from the first sample were a smaller proportion with a prison history (42%), and the second sample had spent on average a substantially longer period of time in drug treatment programs (mean = 14.7 months).

Market characteristics

Almost all (96%) of the sample had used heroin in the six months prior to the survey, while 90% had used benzodiazepines orally and 58% had injected them (which was 13% higher than Stage two). The most common forms used were temazepam, diazepam, oxazepam and nitrazepam. Temazepam was the most commonly injected drug, but diazepam, alprazolam and oxazepam were injected also. Three-quarters (74%) reported they had used legally acquired benzodiazepines in the previous six months (20% less than Stage two), and 78% reported using illicit benzodiazepines. The pattern of illicit benzodiazepines was not dissimilar to Stage two, with most obtained as a 'gift' (92% of all illicits), followed by buying from a friend (44%, higher than Stage two), and buying from a dealer (31%). The drugs were swapped for other drugs by 12% of the sample (n = 6). Gel capsules were reportedly easier to acquire on the street than from a doctor, with 16% reporting they were easy or very easy to obtain that way, although tablets were easier, with 38%, reporting they were easy or very easy to obtain. PWID reported their benzodiazepines dealer was mainly a friend selling their own prescription (24%), or a friend giving their prescription away (12%), or a user selling the drugs to fund their own use (12%). Just one reported buying the drugs from a small-time dealer or a dealer swapping drugs. Other drugs reportedly sold by benzodiazepine dealers included heroin (24%), cannabis (18%), methamphetamines (12%), and other benzodiazepines (20%).

Seventy percent of the Stage four sample had used morphine in the previous six months, which was similar to Stage two, with 16% taking it orally, and 64% of the sample having injected it. MS Contin tablets and Kapanol capsules were the most frequently used forms (in Stage four, more PWID had used MS Contin than Kapanol the opposite of the Stage two finding). Similar to Stage two, 62% of the sample had used illicitly acquired morphine. As with benzodiazepines, the most common method of obtaining morphine illicitly was as a gift (84% of illicit morphine users), then buying them from a friend (64.5%), or buying from a dealer (45%), and 16% reported swapping other drugs for them. A quarter of the sample reported morphine was easy or very easy to obtain on the street, but about the same proportion considered it was difficult or very difficult. As in Stage two, most suppliers of morphine were friends selling their prescription (30% of the sample), or a friend giving away their drugs (10%), or a friend selling to fund their own use (6%). Only two reported buying morphine from a small-time dealer. Other drugs reportedly sold by dealers of morphine were heroin and cannabis (14% each of the sample), other morphine types or amphetamines (10% each), and benzodiazepines (4%).

Over half the participants had used prescribed pharmacotherapies in the previous six months, with 38% reporting they had used them illicitly – these findings were similar to Stage two. Buprenorphine was the most commonly used, either licitly or illicitly (by 50% of the sample), prescribed to 36%. Methadone syrup had been used by 22% of the sample, all but two of who had a prescription. Almost half (40%) reported injecting pharmacotherapies, the same proportion had injected buprenorphine, and 6% had injected methadone syrup. Illicit and prescribed buprenorphine were both injected by 26% of the sample. For methadone syrup injectors, two were prescribed the drug and one obtained it illicitly. When pharmacotherapies were illicit, they were mostly a gift (67% of these users), otherwise they were bought from a friend (n = 3), or a dealer (n = 3). Methadone was reportedly around one dollar per ml on the street, while buprenorphine tablets were between $5 and $20 each.

Other opioids had been used by 46% of these PWID – namely oxycodone, tramadol, codeine phosphate, and Panadeine forte. More than half (56.5%) had been prescribed them (tramadol and Panadeine forte), and 61% had obtained them illicitly (oxycodone and codeine phosphate). Almost 30% of the sample had injected the drugs, mainly oxycodone (Oxycontin tablets), but also tramadol and codeine phosphate. The use of oxycodone was much more frequent with this sample than the first sample. Where the drugs were acquired on the street, it was mostly as a gift

(64% of illicit opioids users), then from buying from a friend (36%), and from a dealer (21%). One reported forging a prescription. Eighteen percent of the sample reported opioids to be easy or very easy to obtain on the street, while 10% said it was difficult or very difficult. Two participants each reported their opioid dealers also sold heroin, amphetamines, and morphine, and one said they also sold benzodiazepines, and again most illicit users received the drugs from friends selling their prescription (29%) or a friend giving away their prescription (14%). One participant each received the drugs from a dealer swapping other drugs for them, or from a small-time dealer selling them.

Diversion

Forty percent of the sample reported they had feigned symptoms to obtain a prescription for benzodiazepines, substantially more than Stage two, and reports of doctor-shopping were frequent, with up to 15 doctors approached in the previous six months. Most respondents reported that gel capsules were too difficult to obtain medically, but tablets were reportedly mostly easy or very easy to obtain. Few PWID reported stealing them (n = 2), or forging prescriptions (n = 1). Ten percent of the sample had obtained prescriptions for morphine in the previous six months, but most participants had not attempted to obtain morphine medically in that time, considering it too difficult. However, two had faked symptoms in an attempt to gain a prescription, and 16% of respondents had tried doctor-shopping, approaching up to 15 doctors for a prescription. No participants reported stealing the drugs or forging prescriptions. Overwhelmingly, pharmacotherapeutic opioids were reportedly obtained from other users giving away or selling their 'take-away' dose. Four participants (8%) had feigned symptoms to obtain other opioids in the previous six months, and 28% altogether had attempted to obtain a prescription in that time. Some doctor-shopping was apparent, with up to 15 doctors approached for the drugs.

Links to crime

In terms of self-reported crime in the previous month in this sample, there were differences from Stage two that suggest the majority of property crimes committed by these PWID may be related to shoplifting. Because property crimes were broken down into distinct behaviours, fewer of these participants reported it, at 10%, whereas 36% reported shoplifting – 61% once a week or more often (the two offences combined are similar to the responses to property crime overall in Stage two). Of those that reported committing property crime, two each said that taking drugs made it more likely they would commit such offences, and that they needed the money. Reasons given for shoplifting were to obtain essential items, such as food for themselves or their family (14% of all participants), having no inhibitions while on drugs (10%), taking items to sell to acquire money for drugs (4%), and 'liking the challenge' (2%).

Twelve percent of participants reported having committed a crime involving violence in the previous month, with all reporting they had done so less often than once a week; the prevalence is less than Stage two, but the frequency is higher. Most of these respondents (67%) indicated they had been intoxicated at the time of the offence, and the others reported they had been aggressive and started a fight. Offences included committing an assault during a bag-snatch, assaulting someone at the pub for no reason, assaulting a partner while on Valium, threatening someone to obtain temazepam from them, and attacking an ambulance officer and a police officer during a 'schizophrenic' attack.

More than half of the sample (52%) reported dealing drugs in the previous month, slightly more than in Stage two; about a third of these (31%) reported they did so less than once a week and 70% reported dealing once a week or more. Forty-two percent of those dealing drugs reported they did so for money, while 11.5% said they dealt to help friends, and 8% said they enjoyed selling drugs.

Twelve percent of participants reported they committed some form of fraud in the previous month, although 34% also reported having 'rorted' to obtain drugs (rorting was defined as obtaining money or goods dishonestly but not through theft, e.g. 'ripping people off', begging, asking charities for money, faking symptoms to obtain prescriptions, telling lies), and over one-quarter also reported they had 'scammed' to obtain drugs (scamming was defined as similar to rorting).

More than one-third of the sample (36%) reported they had driven while under the influence of illicitly used drugs in the month prior to the survey. Most of these respondents (56%) did so less than once a week, but 44% reported they did so once a week or more frequently.

In addition, 8% of the sample believed that changes in benzodiazepines availability had caused an increase in crime by motivating stealing in order to pay for the drugs, by directly influencing behaviour (by increasing confidence and risk-taking), and by increasing violence.

Implications for police and other frontline workers

Seventy percent of the sample reported they had behaved 'uncharacteristically' because of intoxication on drugs, and mostly blamed heroin (38%), benzodiazepines (66%), or a combination of the two (24% of the sample), and benzodiazepines combined with other drugs were blamed as well. Morphine (MS Contin and Kapanol) and buprenorphine were each blamed by 8% of the sample, and methadone syrup was also blamed by 8%. Three participants taking benzodiazepines had also been using morphine, as had half of those taking buprenorphine. The benzodiazepines held responsible for the behaviour were temazepam, diazepam, oxazepam, and alprazolam. The behaviours described as uncharacteristic and drug-induced were 'aggressive/abuse/violent' (23% of those reporting such behaviour), 'criminal' (20%), and 'high/silly/energetic' (20%).

Two participants reported experiencing hallucinations while on benzodiazepines, and five reported blacking out or forgetting incidents they had been involved in whilst intoxicated on the drugs, such as car thefts, shoplifting, robbery, or aggressive behaviour. Six respondents believed that the drugs made it more likely they would commit criminal offences, by lowering their inhibitions and increasing their confidence and feelings of 'invincibility'. In addition, 8% of the sample believed that changes in the availability of the drugs had affected users' relationships, because of aggression, fighting, and family breakdowns, as well as affecting people financially with the drugs more expensive on the street.

Interventions

Twenty percent considered that benzodiazepines had become more difficult to obtain on the street in the previous 12 months, 18% reported doctors were becoming less willing to prescribe them, and 10% reported increasing police activity around the drugs, with police more likely to check PWID for them and check prescriptions. Twenty-two percent of the sample believed the morphine market had changed substantially in the previous six months, with 8% each reporting it had become more difficult to obtain and more expensive; however, the general consensus was that there had not been any increase in police activity around morphine or other opioids on the street.

Stage four: In-depth interviews of key informants (health and law enforcement)

Market characteristics

Most of the 28 KI interviewed (n = 18 health workers, and n = 10 law enforcement personnel) reported heroin was the primary drug of choice for PWID using benzodiazepines and pharmaceutical opioids. It was considered benzodiazepines were primarily used by PWID to

supplement heroin and increase its effects, rather than as a primary drug of choice. There were also reports that use of prescription drugs is fluid, with PWID alternating drugs according to availability or their financial or health situation. On the other hand, it was considered by some KI that benzodiazepines had become the drug of choice of some PWID as a result of supplementary use gradually shifting to primary use over time as a consequence of the relative affordability of the drugs, and a perception that at times they offered a longer lasting effect than heroin. In terms of opioids use, KI considered there was a combination of primary and supplemental use, with some PWID using pharmaceutical opioids, such as buprenorphine exclusively, and others 'topping up' with heroin (although it was thought that people were less likely to top up the longer they were in the program). According to the KI, the most frequently illicitly used benzodiazepines were temazepam and diazepam, while the most common opioids were reportedly buprenorphine, MS Contin and Kapanol.

Law enforcement KI considered that trafficking in pharmaceuticals was more likely to occur in Melbourne's drug 'hot-spots', although they were doubtful about the existence of formal trafficking in buprenorphine, with the drug more likely to be a prescribed dose shared by a patient. On the other hand, some KI reported a brisk street trade in buprenorphine. Similarly, some KI reported that the trade in benzodiazepines was reduced currently due to decreases in prescribing by doctors, but others disagreed with this. The lack of agreement about drug markets seemed related to geographical areas, with Frankston and Footscray named as having bigger street markets. The general agreement seemed to be that dealing, rather than undertaken as a money-making activity, was more likely to be an informal network at street-level, comprising a disorganized system of trading, selling or sharing as part of a 'drug-using culture'. Most KI agreed there was no organized crime element or organized black market in prescription drugs, with the possible exception of morphine as it is more difficult to obtain and therefore more valuable. This was because most KI did not consider the financial rewards of selling prescription drugs to be great.

Diversion

KI considered that most of the prescription drugs available emanated from prescribing doctors, although temazepam was considered more likely to be obtained at street level, becoming more difficult to acquire medically. Morphine on the other hand was believed to originate from patients on pain relief, or friends and family members or others with a legitimate prescription. Doctor-shopping for both benzodiazepines and pharmaceutical opioids was considered to be rife and its relative ease was generally related to personal qualities of individual doctors (e.g. doctors thinking they are doing the right thing, being known as 'easy' or 'soft' by users, being inexperienced or 'tired'). On the other hand it was considered that temazepam was now more difficult to obtain this way because of the regulation of 10mg gel capsules. All agreed that doctor-shopping did not apply to methadone and buprenorphine, this being very rare. Thefts from pharmacies or distributors'/ manufacturers' premises were mentioned as possible sources for the drugs, although it was considered these had reduced considerably over the past two years. The Internet was not seen as a viable source for prescription drugs, with KI considering that the drugs were too expensive, and many PWID were not computer literate or did not have access to the technology.

Links to crime

The common attitude about the relationship between specific drugs and criminal behaviour was that the use of benzodiazepines may mean people are more likely to commit crimes they had already planned on committing, for instance shoplifting, but with less inhibition. A sense of 'invisibility' and 'invincibility' was also associated with the use of benzodiazepines, with KI considering they may be a factor in crimes. All law enforcement personnel reported that there was a 'definite correlation' between benzodiazepines and pharmaceutical opioid use and crime, with

burglary and theft being the crimes that are seen to be specifically related. Included in this were: bag snatching; thefts from motor cars; drug users stealing from families; theft of prescription pads; robberies; and thefts from pharmacies or doctors' surgeries.

In addition to thefts, one KI reported that although he couldn't name specific crimes related to the use of benzodiazepines and pharmaceutical opioids, he did think that there was a connection to shoplifting in order to then on-sell goods. 'That's a big one we're getting now, shoplifting, because we've got a lot of receivers [of stolen goods] in the community'. A single KI commented that armed hold ups committed using a knife or syringe were related to benzodiazepines and pharmaceutical opioid use. Another suggested that some crimes of violence, such as male partners assaulting women, are related to benzodiazepines and pharmaceutical opioid use. A further KI reported that trafficking in benzodiazepines and pharmaceutical opioids was a specifically related crime.

Licit opioids were considered more likely to reduce crime than increase it, taking away the need for generating an illicit income to pay for the drug of dependence. Where crimes were seen to relate to benzodiazepines and pharmaceutical opioids, the offences were most likely to be shoplifting, property crime, and burglaries, as well as pharmacy-related crime, crimes of violence, and trafficking in the drugs. There was a perception that the lack of availability of drugs, including benzodiazepines and opioids, also may precipitate crime that aimed at attempting to obtain them.

Implications for police and other frontline workers

Health-related KI identified serious health issues resulting from benzodiazepine use; for instance vein damage, abscesses, amputations, dependence, poly-drug use, and overdose. On the other hand benzodiazepines were considered useful for helping to manage withdrawal in drug dependent people. Overall, the responses of the Stage four law enforcement KI were similar to those in Stage two; that is, prescription drugs were not really an issue for police, or were seen as more or less the same as other drugs, having in themselves a small impact on their work, and that there was little point in focussing on them until they become 'huge'. Police did mention that diversion of benzodiazepines to the black market because of their desirability caused law enforcement problems and they considered that it was more useful to focus on trafficking in pharmaceuticals than on users. Police KI mentioned the provision of the Victorian Police manual *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) for all stations as a great benefit in identifying drugs and laying charges when appropriate. On the whole, however, prescription drugs were not seen to be the problem that illicit substances such as heroin and amphetamines were, and were not linked with criminal behaviour or organised trafficking networks in the same way, thus did not generate the same level of attention.

Interventions

Many KI suggested that changes to health care would make a prescribers' role easier regarding the limiting of pharmaceutical products. One KI suggested that the reduction of benzodiazepines prescribing in general would have an effect on diversion, however, did not think that this was the only alternative option. Several KI recommended that a more holistic approach to prescribing would reduce the opportunity for the diversion of pharmaceutical products because this approach would mean doctors would be less likely to prescribe them in large doses. With regard to buprenorphine, one KI suggested that the provision of more prescribing pharmacies where drug users are 'welcome' would result in increased vigilance with dispensing and, as a result, less opportunity for diversion. In addition, another KI commented that the development of a fizzy 'Berocca™ like' form of buprenorphine might prevent diversion. Some KI suggested that tracking the amount of prescriptions an individual has, taking extra care to secure prescription pads and arranging daily pick-ups on a case-by-case basis for benzodiazepines, may limit diversion.

Several KI suggested that if an injectable form of pharmaceutical opioid was to be introduced via pharmacies, the motivation for diversion would be removed. Law Enforcement KI agreed that ensuring that buprenorphine tablets are crushed and ingested on the spot would help with diversion. One law enforcement KI suggested that the sharing of information and strategies amongst doctors would ensure that all doctors were aware of which drugs are targeted for diversion, and as a result could reduce the amount they prescribe. KI from the health sector do not want to see restricted access to benzodiazepines or pharmaceutical opioids, but more responsible prescribing and dispensing.

Most KI did not think that police activity had any effect on the use of benzodiazepines and pharmaceutical opioids. Police presence was seen as more influential in terms of illicit drug use. Several KI commented that the displacement of illicit drug trafficking to another area as a result of policing leads to an increase in benzodiazepine use if illicit drugs are more difficult to obtain. This was seen by one KI as contributing to the number of overdoses occurring. One KI thought that police activity might result in benzodiazepine use becoming more discreet, and also that, as a result of pharmacists calling police when scripts seemed suspicious, people might also be more wary of presenting forged scripts to pharmacies. One KI mentioned that people in possession of benzodiazepines without a script were being charged. Police activity was seen as having little or no effect on corrupt prescribing of benzodiazepines or pharmaceutical opioids.

KI commented that police cautioning and diversion programs were having an impact on various forms of drug use. As well, several KI reported that police activity in areas like shopping malls was having an influence on drug use by making access more difficult and in turn reducing crime in those areas. However, two KI also suggested that police activity around trafficking has caused trafficking to become more covert. Finally, one KI suggested that increased co-operation between police and pharmacies had the potential to influence the use of benzodiazepines and pharmaceutical opioids.

In terms of the historical benefits and problems of policing in regard to pharmaceutical opioid misuse, law enforcement KI reported a variety of benefits. Policing efforts had reduced the use of pharmaceuticals and hence the incidence of crime, as reflected in crime statistics. Another benefit of policing in regards to pharmaceutical misuse was seen to be the changing approach of police towards drug users. With the diversion of drug users into cautioning programs, police are more able to focus their efforts on the trafficking of pharmaceuticals. The production of the guide *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) for all stations is also seen to benefit policing efforts, in that it allows officers to correctly identify pharmaceuticals and to lay charges where applicable.

In response to the question of what would make their policing role easier, law enforcement KI made a range of suggestions. Restricting the source of benzodiazepines and pharmaceutical opioids as well as dispensing them from a 24 hour clinic would be of assistance, as would establishing pharmacies in a wider range of areas to prevent people from flocking to 'hot-spots'. One KI also suggested that there be a system to track batches of benzodiazepines as they come out of the factory in conjunction with a national database of dispensing. Another KI remarked that the provision of information to police around emerging problems would make policing easier. Finally, KI reinforced the positive impact of *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) and suggested that the updating of the guide on a regular basis would ensure that it was of continued benefit in policing efforts.

Chapter five: Discussion and conclusions

The primary aims of the research were to: gain a greater understanding of illicit benzodiazepine and pharmaceutical opioid market-place dimensions and characteristics; investigate the hypothesised relationship between benzodiazepine and pharmaceutical opioid misuse and crime; explore the implications for emergency services staff of emergent illicit markets for benzodiazepines and pharmaceutical opioids; and consider appropriate interventions to address both the law enforcement and health impacts of benzodiazepine and pharmaceutical opioids misuse. The original 25 research questions relating to these broad aims (Appendix A) were further analysed by the research team, resulting in a final total of 33 questions pertaining to the key themes of links to crime, implications for frontline workers, diversion, market dimensions and characteristics and interventions. The prioritisation exercise with Victorian law enforcement personnel (n = 13) revealed that this group expressed a wide interest in the questions and issues presented to them around benzodiazepines and pharmaceutical opioids, and how these relate to the key themes of links to crime, implications for frontline workers, diversion, market dimensions and characteristics and interventions. The average priority ranking of 32 of the 33 issues and questions presented was rated as 4 ('very important') for law enforcement, with no clear preference or higher priority indicated for different themes. See Appendix B. The main findings from the Victorian study are discussed in regards to these themes.

Market characteristics

The IDRS (Fry & Miller 2002) found an emergent trend towards the illicit use and injecting of benzodiazepines and pharmaceutical opioids among PWID in Australia and Victoria following the heroin drought at the end of 2000, with such use of benzodiazepines appearing to decline again in 2003, and morphine and buprenorphine injecting remaining stable (Jenkinson, Miller & Fry 2004). This current study specifically sampled PWID who used illicit benzodiazepines and/ or pharmaceutical opioids. The findings, in the main, confirmed most 2003 IDRS findings, with similar prevalence of recent injecting of morphine and buprenorphine, and a higher prevalence of recent benzodiazepine injection found among the current sample. It must be kept in mind that sampling of the PWID participants targeted those who misuse any/all of these types of drugs, and therefore the findings cannot be generalised to broader PWID populations. Nevertheless, clearly there exists a demand for diverted prescription drugs. These findings accord with past research by others such as Miller, Fry and Dietze (2001), Fry and Miller (2002), and Dobbin (2002). The current findings show that whilst temazepam is preferred by PWID for injecting because of its fast and long-lasting effect, and the way it increases the effects of heroin, other benzodiazepines such as diazepam and alprazolam were also injected. The findings also show that morphine and buprenorphine injecting are also an established practice. There were substantial overlaps in drug usage, with most PWID being polydrug users.

Changes to the PBS prescribing practices for 10mg temazepam gel capsules in 2001, and re-emergence of heroin onto the market in 2002 were expected to result in decreases in the misuse of prescription drugs (ACC 2003; Breen et al. 2002). The IDRS (Jenkinson, Miller & Fry 2004) found that injecting of benzodiazepines did subsequently decline, however, it also found that injection of buprenorphine and morphine remained high; findings reflected here. And whilst temazepam has reportedly become more difficult to acquire, with most PWID considering it too difficult to obtain from a doctor, acquisition and use of the drug still continues, at least amongst some groups of PWID in some geographical locations around Melbourne. These findings strongly suggest that temazepam, morphine, and to a lesser extent buprenorphine, appear to have become firmly established on the black market in Melbourne, and, reportedly, not difficult to obtain, especially in the inner-city suburb of Footscray in the case of temazepam, and most areas for morphine and buprenorphine.

It has generally been considered that prescription drugs are used by PWID to increase the pharmacological effects of heroin, or as substitutes for heroin (e.g. Marshall & Longnecker 1992; Rall 1992), as they are considered to be of a consistent quality, reasonably priced and easy to acquire (see Breen et al. 2002; Dobbin 2002). Most KI from the health sector, and all KI from law enforcement, agreed with past reports, asserting that benzodiazepines are used to supplement a primary drug of choice rather than being a drug of choice, contending that benzodiazepines are used to increase the effects of heroin use, to ease symptoms of withdrawal, or to deal with sleeplessness or anxiety. However, these findings suggest that this may not necessarily always be the case, and that prescription drugs may in fact be the primary drug for some PWID. There were reports that benzodiazepines are used as a primary drug of choice by some PWID, with suggestions that temazepam in particular was used in preference to other drugs as a consequence of its relative affordability, and the perception that it may offer a longer lasting effect than heroin. In addition, the use of benzodiazepines was reported to be quite fluid, with PWID alternating between substances according to availability, health and financial situation. With regard to pharmaceutical opioids, KI suggested there was a blend of primary and supplemental use.

The findings suggested that the prescription drugs market in Melbourne, with the possible exception of morphine which was more expensive and less easy to acquire than benzodiazepines and buprenorphine, did not at this stage appear to be large-scale. The market seemed to be dominated by small-time dealers, users selling to fund their own use, and a diffuse network of users sharing their own prescription drugs, and swapping drugs amongst themselves. There were reports of prescription/prescription drugs thefts and attempts at doctor-shopping for all drugs, and benzodiazepines were reportedly acquired by these PWID mainly via friends and medical prescriptions, and through small-time dealers. PWID also tended to inject buprenorphine they were prescribed, or shared others' doses. Tablets reportedly sold for as little as one dollar, and gel capsules for between $5 and $30 each, although morphine tended to be acquired through friends or dealers for around $50 for 100mg. Respondents generally reported that dealers of all prescription drugs were other users with a prescription for sale, or were 'small-time', although there were frequent reports that many dealers sold other illicit drugs as well. These reported patterns of dealing and use suggest an opportunistic way that polydrug using PWID might adapt to and manipulate available drugs for maximum effect, according to the availability, price, and consistency of illicit drugs on the market at any given time, balanced against the widespread availability and relatively low price, as well as the predictable quality, of prescription drugs.

While PWID were clear that use of prescription drugs have become established among PWID, and offer another selection of choices in the dealers' menu of drugs – apparently reasonably easily available and widely used – comments by law enforcement KI seemed to reflect a feeling that such use was not entrenched or problematic. These KI generally considered that heroin and amphetamines were the main drugs of choice, and represented the main drugs market, with the use of benzodiazepines only supplemental, or in place of heroin, if it was not available, and that there was not a notable market in benzodiazepines and other prescription drugs. PWID and KI, however, did seem to agree about the make-up of dealing networks. KI argued that the majority of pharmaceutical drugs originated from medical prescriptions, with the possible exception of temazepam, which reportedly had become increasingly difficult to obtain, and was considered to be more likely to be purchased on the street. This tended to agree with PWID reports for most drugs, except morphine, which seemed particularly difficult to obtain medically (as well as temazepam gel capsules). KI and PWID agreed that any networks were low-level and disorganised with no organised crime involved. However, part of the KI reasoning for this conclusion seemed to be based on the opinion that selling pharmaceutical drugs was not financially rewarding. That perception was not necessarily borne out by these findings, given that the drugs may potentially be obtained for around $4 for an entire prescription and then sold for anywhere from $1 and $100 a tablet, and participants reported spending up to $1,000 in two weeks on prescription drugs.

The main question about the prescription drugs market in Melbourne that was raised by these current findings, as well as past assertions by others such as the Australian Bureau of Criminal Intelligence (2002) – that most opioid acquisition was illicit – seemed to be around the original sources for morphine and temazepam. Both are restricted drugs, heavily regulated (morphine is S8 and temazepam gel capsules are either issued under authority under the PBS or else only prescribed privately), and reportedly difficult to obtain medically, yet PWID reported that though generally expensive, they were available on the street if 'you know the right people'. Available unpublished data from the PBS/RPBS show that temazepam prescriptions, as well as MSContin™ and Kapanol (the two most commonly reported forms of morphine used by these PWID), declined across Australia in the past five years; yet morphine was used regularly by most of these participants, and many had used temazepam gel capsules, and contended they were difficult, but not impossible, to obtain on the street. Both PWID and KI reported that users of these drugs would not access them on the Internet; however, Australian Customs Service data demonstrated an increase in seizures of morphine and of benzodiazepines over the past five years.

Diversion

These findings accord with Dobbin's (2002) assertion that a strong demand for the drugs was driving intense and extensive diversion of licit drugs to illicit markets, and that policing of the issue was complicated by the difficulty in identifying where use and/or possession was licit or illicit. The current findings suggest that all the surveyed prescribed drugs were frequently diverted to the black market. This was achieved by diverting of legitimate prescriptions via PWID who either gave them away, swapped them for other drugs or sold them. Diversion was also achieved via thefts of the drugs, or forgeries of prescriptions. However, no pharmacy break-ins or hold-ups were reported by this sample of PWID. These current reports were contradicted by KI contentions, and also seemingly by LEAP data (Victoria Police, 2004). On the other hand, the KI did believe such criminal activity had reduced over the past couple of years, a view supported by previously reported figures (Dobbin 2001; Guild Insurance Limited 2003).

Most participants in this study had received both prescribed and illicit benzodiazepines, most had also received illicit morphine, and the use of both prescribed and diverted buprenorphine was widespread as well. Law enforcement KI considered prescribed drugs mostly originated from medical prescriptions, but also may have come from pharmacy burglaries and thefts from drug distributors, although they reported these incidents had declined in the past 12 months. These findings suggest that swapping and sharing of PWID's own prescriptions is widespread, and comments from both PWID and KI suggest that such sharing activity may be a part of drug culture, and related to a reciprocity understanding (i.e. one who shares their own drug this week will be owed for the future, calling in the debt when it is needed).

The findings accord with Dobbin's (2001) assertion that that doctor-shopping may be the origin of many of the drugs on the illicit market, being a common source of benzodiazepines (although most participants considered it was too difficult to obtain temazepam gel capsules that way), and a less successful source for morphine. The initiation of the new prescription-shopper database (Kamien, 2004) may help clarify the relationship between doctor-shopping and diversion of these drugs to the illicit market. The findings also concur with Dobbin et al. (2003) – that prescription forgery had been used to source prescribed drugs, in particular benzodiazepines (74% of all forgeries). Dobbin et al. (2003) found that the majority of benzodiazepine forgeries (85%) were for temazepam gel capsules, which PWID reported to a lesser extent here. The difference would presumably be because the increased regulation of these forms of the drug since 2002 has made it increasingly difficult to present such forgeries to pharmacists. These PWID did report prescription/drug theft, especially of benzodiazepines. They reported stealing them, or else having them stolen from them. In the case of the former, the activity tended to be opportunistic, although PWID

expressed preferences for the drugs that they stole. The current findings further suggest therefore that, for this group of PWID at this stage at least, prescription drug acquisition, diversion, and illicit use, seems primarily to be operated by a diffuse network of low-level user/dealers.

Links to crime

The majority of research in Australia to date had found that heroin use was most closely related to criminal behaviour (e.g. Makkai 2002), and the current finding was that frequency of heroin use was most closely associated with self-reported commission of crimes, with the current sample predominantly heroin users. However, these findings do suggest that prescription drugs may be related to crime in several ways. Eleven percent of the first sample reported they had experienced contact with police because of their benzodiazepines use, and a high proportion of both samples of participants reported involvement in criminal activity, especially shoplifting, other property crimes, drug dealing, intoxicated driving, and to a lesser extent violence, and most blamed drugs for their offences. However, they were also, in the main, reportedly polydrug users, and previous research, while linking drugs and crime (e.g. Makkai 2002), has been unable to pinpoint how specific drugs relate to specific crimes (e.g. Makkai 2002; Weatherburn et al. 2002). Other findings suggest that sometimes drugs may be used purposefully to reduce fear of committing a crime (Makkai 2002). When considering theories of drugs and crime, these findings are thus ambiguous, suggesting either PWID who are dependent may need to increase their income through crime in order to pay for the drugs, which would accord with the 'enslavement' model forwarded by Makkai (2002), the PWID may be part of a 'deviant' lifestyle involving both drug use and crime ('criminality model'), or else the psychopharmacological effects of the drugs may increase criminal behaviour ('psychopharmacological model') (Makkai 2002).

On the one hand, these findings accord with previous research, such as Bonn and Bonn's (1998), Rall's (1992) and the ACC's (2003), that has found that prescription drugs, especially benzodiazepines, may exert a psychopharmacological effect on users that increases uncharacteristic, aggressive, disinhibited and/or criminal behaviour. PWID reported they were more likely to commit criminal offences when they were intoxicated by, and withdrawing from, prescription drugs, especially benzodiazepines and to a lesser extent morphine. Research has suggested that benzodiazepines may cause personality changes, disinhibition, and bizarre behaviour, as well as precipitating feelings of over-confidence and invincibility (e.g. Bonn & Bonn 1998; Dobbin 2001; Rall 1992). These participants frequently reported feeling 'invisible', 'invincible' and more confident than usual, believing they could get away with behaviours they would not normally undertake. A high proportion of these participants directly attributed such behaviour as aggression, shoplifting and thefts, to benzodiazepines – either alone or in combination with other drugs. Some PWID also reported they had experienced hallucinations and black-outs while intoxicated by benzodiazepines, with reports of participants committing offences whilst intoxicated, but having no memory of the events the following day.

It was found that the frequency of use of illicit benzodiazepines was related to the number of different kinds of criminal behaviours that respondents reported being involved in, and the degree of dependence on benzodiazepines was also related to whether a crime had been committed whilst intoxicated by, or withdrawing from, benzodiazepines. A relationship was also found for dependence on morphine and committing crime whilst intoxicated on the drug, which is problematic for the psychopharmacological model, but more supportive of the enslavement model (morphine is generally acquired illicitly and is expensive) or criminality model. The finding that dependence on methadone for these PWID tended to reduce involvement in criminal behaviour also supported a psychopharmacological relationship for methadone and crime (Makkai 2002); however, MMT was far less expensive than illicit drugs, thus may not precipitate the need to commit crime to increase income in the same way (Makkai 2002). The current finding was that

KI considered that when a PWID was undertaking a maintenance program such as buprenorphine, the regular expenditure could be such that it becomes prohibitive, and that may be a catalyst for crime, which may also support the enslavement model (Makkai 2002). A high proportion of these respondents also reported dealing drugs, with a substantial proportion of their average income attributed to the activity, which means that many may be involved in a cycle of drugs use and criminal activity that is related to an entrenched lifestyle. If that was indeed the case, possibly they are more likely to offend, or to offend more frequently, than if they were not using drugs. This might accord with the 'criminality' model of drugs and crime discussed by Makkai (2002).

Law enforcement KI were of the opinion generally that prescription drugs were not a major cause of crime in Melbourne. The first sample of KI reported the main policing problem associated with the drugs was in the care and management of intoxicated people in custody, and intoxicated driving. The second sample, though, indicated that while they were of the belief that problems associated with prescription drug use were not 'huge', benzodiazepines were related to bag snatches, burglaries, robberies, armed robberies, property crimes and thefts. KI did consider that prescription drugs might disinhibit behaviour, and thus make it more likely that a crime already planned may take place, which is in agreement with PWID accounts about the effects of benzodiazepines on their behaviour. It seems possible, however, that KI assessments of the impacts of these drugs on behaviour may be underestimated when compared with PWID reports. When considered in their entirety, these findings do suggest a link between the use of prescription drugs and criminal behaviour, through changes in behaviour, self-reported offences attributed to the drugs by these PWID, and the consideration that where dependency on a drug exists there is a need to maintain supply (Makkai 2002). Further, many of the drugs, particularly morphine and temazepam, are difficult to obtain and may be expensive and not affordable on a legitimate income (especially as the vast majority of the PWID gain most of their income from government benefits, begging and charity). Past research suggests that more serious and financially rewarding crimes tend to be committed by the heaviest drug users (SACACWG, 2002), and these participants tend to use a wide range of drugs frequently. These findings accord with contentions by Makkai (2003) and Makkai, McGregor & Wei (2003), that the relationship between drugs and crime is complex, with the phenomena varying according to types of offenders and drug users, and a number of environmental, situational and psychological factors.

Implications for police and other frontline workers

The main harms attributed to prescription drugs by both previous research – such as the IDRS (Jenkinson, Fry & Miller 2003), and Dobbin (2001) – and these current findings, have been injecting harms such as vein damage, thrombosis, 'dirty hits', scarring and infections. Almost two-thirds of these PWID participants reported experiencing injection-related harms, and benzodiazepines and morphine were frequently blamed. Injecting harms apply to all the prescription drugs commonly used by these PWID, especially temazepam, morphine and buprenorphine, as they are manufactured for oral use, and injection is only possible by heating and liquefying the tablets/capsules. The resultant liquid hardens once it is injected and reaches body temperature, potentially causing severe health effects, including the need for amputation. High proportions of these participants agreed there were negative consequences of using prescription drugs, such as: physical/health effects, volatile behaviour, overdose, and addiction (benzodiazepines); overdose/death, physical/health effects, and addiction (morphine); addiction and physical/health effects (methadone); and injecting/health effects and addiction (buprenorphine). Prescription drugs intoxication and withdrawal were also blamed for social and relationship problems, anxiety, lack of motivation, and irritability by the PWID. Health KI reported that the habit-forming nature of benzodiazepines, as well as injection-related damage, were a potential negative consequence of their prescription. They also contended prescription drugs overdose was a problem, especially with benzodiazepines when used with other drugs, and with

methadone. KI reported a relatively high incidence of sharing between partners, and there were reports that female drug users were sometimes coerced into undertaking sex work in order to make money to procure drugs for themselves and their partners.

Dependence and overdose (especially when the drugs were combined with other drugs and/or alcohol) were cited by PWID as two of the biggest disadvantages to using prescription drugs. Two-thirds of these PWID recorded scores on the SDS that suggested they may be dependent on benzodiazepines, morphine, buprenorphine, and/or methadone. In addition, data from the Melbourne Ambulance Service (analysed by Turning Point) confirmed that most heroin-related deaths in the past ten years have involved benzodiazepines and/other opioids. In addition, law enforcement KI considered the desirability of benzodiazepines on the black market and the abuse of benzodiazepines, especially when used in conjunction with other drugs, to be problematic, driving diversion of the drugs. The use of pharmaceutical opioids and other drugs (such as heroin) in combination were considered to be one of the main drawbacks of prescribing the drugs to PWID, and some law enforcement KI considered the provision of pharmaceutical opioids as a bandaid solution that did not address drug use. Law enforcement KI argued that the diversion of buprenorphine was a negative aspect of prescribing, and health KI suggested that inconsistencies in the dispensing of buprenorphine, such as not crushing the tablet on the spot, were a problem, allowing the drug to be diverted or injected.

On the other hand, there were suggestions that lack of supply of prescription drugs could force both dependent and non-dependent benzodiazepine users to seek a more harmful replacement, thus causing health and law enforcement problems. There was general agreement that prescribing of pharmacological drug treatments were essential for the health and quality of life of drug users, and for the reduction of crime, although several KI argued that the sometimes prohibitive cost of ongoing treatment may result in less access to treatment, reduced improvement in the health and wellbeing of drug users, and an increase in crime for some people as they are compelled to commit crime to pay for their dose. This contention was supported by the finding that some PWID who are on the buprenorphine program had spent up to $50 in the previous fortnight on the drug.

Interventions

This study found that police activity generally was not considered by PWID to have impacted on the availability of prescription drugs on the illicit markets, and this may be supported by the finding that many law enforcement KI found it difficult to police the illicit use of prescriptions drugs. In accord with this, most KI did not consider that police activity had any effect on the use of prescription drugs by PWID, impacting more on illicit drugs. However, a few law enforcement KI did not agree, arguing that police cautioning and diversion programs were having an impact on all drug use, and that police activity in shopping malls was making access to drugs (including pharmaceuticals) more difficult, and reducing crime in those areas. Law enforcement KI reported that policing efforts had reduced the use of pharmaceuticals, and hence the incidence of crime, and this was reflected in crime statistics. They also considered this kind of visible police activity may reduce the incidence of forged prescriptions being presented. A further suggestion of these findings was that another benefit of policing in regards to pharmaceutical misuse may be a changing approach of police towards drug users. With the diversion of drug users into cautioning programs, police contended they were more able to focus their efforts on the trafficking of pharmaceuticals. The production of the Victoria Police manual *An Investigation Guide to Pharmaceutical Drug Trafficking and Use* (Victoria Police 2004) for all stations was also seen to benefit policing efforts, in that it allows officers to correctly identify pharmaceuticals and to lay charges where applicable, suggesting that wider distribution of this or a similar publication may be useful. Provision of information to police about emerging problems and regular updating of the manual are therefore suggested by these findings.

The current findings suggest that potential consequences of police 'crackdowns' – resulting in more 'underground' activity and use of pharmaceutical drugs – should be considered when planning such programs. It was considered by other KI that police crackdowns on illicit drugs leads to displacement of illicit drug trafficking to other areas (moving the problem but not solving it), or may result in drug trafficking becoming more covert in response, and/or an increase in the use of benzodiazepines, as illicit drugs become more difficult to obtain. Another side effect of police activity cited that may result from crackdowns is PWID sharing injecting equipment, injecting 'on the run' and in unsanitary conditions, thus increasing injecting harms considerably, as well as the risk of overdose. Injecting harms were considered to be the major problem by health KI, and they prioritized the development of harm reduction practices around injecting pharmaceutical drugs. It was also mentioned that, where people in possession of benzodiazepines without a prescription had been charged, it often resulted in prescription drug use becoming more covert.

Overwhelmingly, this study found that pharmacological drug treatments were considered to be of the utmost importance in reducing both health and law enforcement problems associated with prescription drugs use, and health KI considered that targeted and monitored benzodiazepines could be useful in a withdrawal treatment regime. Treatments were attributed with significantly improving the health and well being of drug users, with flow on effects to employment and housing, thereby leading to continuing stability for individuals. It was considered that provision of these treatments reduced crime as they reduced the need for substantial amounts of money for financing a habit. On the other hand, some consideration may need to be given to the costs of these programs, as KI contended that the cost of regular treatment (up to $5 per day) for those on low incomes could become prohibitive, and may in fact precipitate criminal behaviour (law enforcement KI agreed that pharmacotherapy treatments were worthwhile, and considered that their availability could disengage PWID from street supplies of heroin). Some KI thus suggested that the cost should be reduced or waived because of this. The findings suggest that diversion and maintenance of PWID into such (affordable) treatment programs may have a positive effect on both health and law enforcement outcomes. Further to this, police considered that strategies that would assist them in policing pharmaceutical drug misuse include dispensing pharmacotherapies from 24-hour clinics and establishing pharmacies in a wider area than currently to reduce the numbers of people flocking to 'hot-spots'.

The findings suggest that interventions from health authorities, rather than law enforcement, may have a greater impact on the use of prescription drugs. For instance, temazepam injecting appears to have declined since the HIC regulated prescribing of the 10mg gel capsules under the PBS/RPBS in 2001. The cessation of production of all gel capsules that has now occurred in Australia may be expected to have a further impact. Several other interventions in prescribing practices were suggested by these findings. KI tended to agree that medical interventions may be useful in reducing prescription drug misuse. For instance, KI considered that limiting prescribing of some drugs, such as benzodiazepines (for example by prescribing daily pick-up of enough of the drug to maintain a person for only the next 24 hours), may reduce diversion. In support of this, PWID often reported that when they received a prescription, they kept a proportion for their own use and sold or gave away the rest, suggesting that if they had less of the drug they may be less inclined to share it. Furthermore, PWID reported that GP and HIC crackdowns on prescribing and doctor-shopping were the activities most likely to have made the drugs more difficult to obtain both medically and on the street. Findings from the current study – that temazepam and morphine were very difficult to acquire medically, and there was no point in trying to get them this way – further suggest that prescribing practices have reduced access to the drugs, and have most likely discouraged doctor-shopping for them.

Somehow restricting the sources of benzodiazepines and pharmaceutical opioids, tracking the prescriptions an individual has, as well as the development of a system that tracks batches of benzodiazepines as they are produced, cross-matched with data on dispensing, may help reduce diversion of prescription drugs. Many doctors (e.g. Kamien 2004) are also looking forward to availability of the HIC prescription shopper's data base, replacing the doctor-shopper hot-line as a way of enabling better control of over-prescribing and doctor-shopping. There were some suggestions that that it would be helpful for data collected by pharmacists on 'doctor-shopping' to be fed back to doctors and A&E departments at hospitals, and that access to different sorts of data sets, for example law enforcement data, may be of use. Law enforcement KI agreed that access to cross-matched data could be of use. Privacy is obviously an issue with these suggestions. PWID reports suggest these strategies may have some effects, as PWID reported that when they believed they were on a doctor-shoppers database they did not bother to attempt to obtain prescriptions for drugs. Other strategies suggested for reducing diversion included better vigilance with prescription pads, pharmacists calling police where forged prescriptions are presented (which often does not currently happen), crushing of buprenorphine in the pharmacy before administration (or administering a 'fizzy' form similar to Berocca), injectable buprenorphine delivered in the pharmacy, and more sharing of information between doctors and police about drugs preferred for diversion.

Methodological considerations

The PWID samples surveyed in this study were convenience samples and therefore caution is necessary in generalizing these findings to a broader population of PWID. A further consideration for external validity is that the samples utilized were targeted specifically for their prescription drugs misuse, with all participants selected and surveyed because of their reported pharmaceutical drug use; therefore, the patterns of drug use for these samples cannot be generalized to any population. Although the sampling targeted users of prescription drugs, because the drugs have many categories within them (e.g. specific benzodiazepines, specific morphine etc.), when these participants' use patterns were broken down into these categories and then examined for associated behaviours, the numbers were too small to enable meaningful analyses to be conducted, which meant that validly answering some research questions was problematic. For instance, there were only four PWID who reported being intoxicated on morphine whilst committing any kind of crime, and a similar number reported they used temazepam and committed criminal offences. Therefore, inferential findings should be treated with extreme caution where the statistical test does not examine the entire group or large sub-samples, and the findings can only be applied to these samples and not generalized to any other groups or populations.

Directions for future research

Several directions for future research are suggested by these findings. Since Sigma pharmaceutical company has now discontinued the production of temazepam gel capsules, which completely removes the gelcap formulation from Australia, it will be interesting to monitor use trends of the drug in the PWID community. An examination of sources of morphine and temazepam would be of value, as the current findings raise the question of the origin of these drugs, given the difficulties in obtaining prescriptions for them, and the reluctance of participants to attempt to obtain them medically. Australian Customs Service data show that seizures of morphine shipments have increased substantially in recent years, and international findings show that the Internet is a source for prescribed drugs – it may be they are links in the chain maintaining supply of these drugs.

A study examining supply sources and diversion of prescription drugs that utilises a comparison of non-PWID participants may also enable closer investigation of the issue of where the drugs initially originate. Several participants in this study commented that they received morphine, in particular, from patients with pain medication or cancer treatments, and that these people sold their medication to raise money. It would be informative to examine this further to determine whether this is a significant contributor to the diversion of prescription drugs onto the black market.

Further, research that enables a closer examination of the issues explored in the current study should be implemented. A problem with this study was that, where participants reported using specific forms of prescription drugs (e.g. temazepam) and also reported being involved in criminal activity, the numbers were too small to enable a meaningful analysis to be conducted. By purposely sampling users of such specific drugs, who also report undertaking criminal activities, it may be possible to determine more specifically the links between specific drug use and specific crimes.

Summary

The current research found clearly that misuse and injecting of benzodiazepines and pharmaceutical opioids, especially morphine and buprenorphine, has become entrenched among some groups of PWID in Melbourne. The findings suggest that the drugs are diverted to the black market and sold for considerable profit. The drugs may be diverted from legitimate prescriptions and prescribed doses, via doctor-shopping, or from forged prescriptions or stolen drugs. Prescription drugs appear to be relatively easy to obtain on the street, and the findings suggest they are available from a diffuse network of users, friends of users, dealers and suppliers, some of who also sell all kinds of illicit drugs. The findings suggest criminal behaviour may be related to the dependence on, and the use of, prescription drugs: for instance shoplifting, property crime, drug dealing, violence and intoxicated driving; and disinhibited, aggressive, and bizarre behaviour, as well as feelings of invincibility, were attributed to the drugs, in particular benzodiazepines. On the other hand, dependence on methadone may mitigate against the commission of crime. Besides criminal behaviour, other negative consequences of prescription drugs use were considered to be injecting harms, dependence and overdose, as well as social impacts such as relationship breakdown, effects on mood, anxiety and irritability. There were several potential interventions put forward for consideration, for instance decreasing the costs of drug treatments, a more holistic approach to prescribing of drugs, close monitoring of PWID who are prescribed benzodiazepines, development of alternative forms of buprenorphine that cannot be diverted, keeping police up to date with prescribed drugs that are likely to be diverted, and education of doctors and pharmacists about diversion of the drugs, and encouraging sharing of information between different bodies that produce data.

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Appendix A: NDLERF pool of research questions from RFT 04/02

Key Theme	Research Questions
Links to crime	1. Is benzodiazepine/pharmaceutical opioid use amongst illicit drug users related to the commission of particular crimes (either to obtain these drugs and/or while under their influence)? 2. What effect does being under the influence of/withdrawing from these drugs have on the types of crimes committed and the behaviour of those committing the crimes? 3. Which drugs from the benzodiazepine group and the pharmaceutical opioid group are most likely to be associated with crime (which is committed to obtain the drugs and/or while under their influence)? 4. Do those drug users who steal benzodiazepines and pharmaceutical opioids exclusively or primarily inject them? 5. Are injecting benzodiazepine/pharmaceutical opioid users more likely than non-injecting users of these drugs to commit crime; to commit higher rates of crime; or different profiles of crime? 6. Are there particular localities more likely to be targeted for the commission of benzodiazepine/pharmaceutical opioid-related crimes (either to obtain these drugs and/or committed while under their influence, i.e. urban, regional etc)? 7. Are there groups other than illicit drug users who are committing benzodiazepine/pharmaceutical opioid-related crimes (either to obtain these drugs and/or committed while under their influence)?
Implications for frontline workers	8. What are the implications of this for police and other frontline workers such as accident and emergency staff, ambulance officers and health/youth workers?
Diversion of drugs	9. Are there particular types of benzodiazepines/pharmaceutical opioids that are more likely to be targeted by those wishing to steal them and if so why?
Market dimensions/ characteristics	10. Are illicit benzodiazepines and pharmaceutical opioids sold by sellers of other illicit drugs? 11. What is their cost? 12. Do shifts in other parts of the illicit drug market affect rates of benzodiazepine/pharmaceutical opioid use? If so, which drug markets or drug types have most effect? 13. Is there a correlation between the use of benzodiazepines/ pharmaceutical opioids and other drugs; for example, methadone? 14. How are benzodiazepines and pharmaceutical opioids obtained on the illicit market? 15. To what extent is doctor-shopping used to obtain benzodiazepines and pharmaceutical opioids and how easy is it to obtain these drugs by this method?

Appendix A continued

Key Theme	Research Questions
Interventions	16. What action is currently in place to identify individuals engaged in doctor-shopping? 17. What are the limitations of existing Health Insurance Commission (HIC) processes and what, if any, changes should be considered? 18. What impact does the scheduling by the Pharmaceutical Benefits Scheme of benzodiazepines have on their misuse and impact on crime (e.g. what is the impact of the rescheduling of Temazepam capsules)? 19. How can the information held by the HIC on individuals identified as actual or suspected doctor-shoppers be shared with law enforcement agencies? If impediments exist, e.g. privacy provisions under *National Health Act*, what action can be taken to enhance the sharing of information? 20. What opportunities does this present the law enforcement and health sectors in terms of having the maximum impact on reducing the supply of illicit benzodiazepines and pharmaceutical opioids, such as the rescheduling of some of these drugs, the removal from the market of certain formulations of these drugs, or education of GPs? 21. Where inappropriate prescribing is identified, what are the underlying factors contributing to this practice (e.g. fear, intimidation, lack of knowledge, criminality, lack of case management of patients)? 22. What impact would an increase in benzodiazepine/pharmaceutical opioid use have on the rates of benzodiazepine/pharmaceutical opioid-related crime in particular and on profile of crime in general? 23. What would be the potential/likely implications of more effective supply reduction of benzodiazepines and pharmaceutical opioids in terms of crime, offending and/or creating an environment that is more conducive to the establishment of a heroin/cocaine market and an environment in which the overall level of harm may actually be increased? 24. What existing data systems can be better used to enhance the understanding of the nature of the illicit benzodiazepine and pharmaceutical opioid market and its impact on crime? 25. What other collection sets/processes could be instituted in the future to understand these issues?

Appendix B: Ranked importance of NDLERF research questions

Q	Key Theme	Questions/Issues	VIC (n = 13) Sum	Mode
6	*Links to crime*	Knowledge about the localities/settings targeted by people if committing crimes while under the influence of prescription drugs	53	4
5	*Links to crime*	Knowledge about the localities/settings targeted by people to obtain prescription drugs	53	4
27	*Interventions*	Opportunities for the law enforcement sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opioids	52	4
12	*Diversion*	Knowledge about the types of benzodiazepines/pharmaceutical opioids targeted by the illicit market	52	4
13	*Market characteristics*	Black market dealing patterns for benzodiazepines/pharmaceutical opioids in general illicit markets	51	5
7	*Links to crime*	Knowledge about groups other than illicit drug users who may be committing crimes to obtain prescription drugs	51	4
22	*Market characteristics*	Information about the extent and ease of doctor-shopping to obtain benzodiazepines and pharmaceutical opioids	50	5
17	*Market characteristics*	The potential impact of shifts in other parts of the illicit drug market on rates of pharmaceutical opioid use	50	5
32	*Interventions*	Knowledge about the impact on crime of more effective supply reduction of benzodiazepines and pharmaceutical opioids	50	4
21	*Market characteristics*	How pharmaceutical opioids are obtained on the illicit market	50	4
20	*Market characteristics*	How benzodiazepines are obtained on the illicit market	50	4
1	*Links to crime*	Knowledge about the types of crimes committed by illicit drug users to obtain prescription drugs	50	4
33	*Interventions*	Information about how existing data systems can be better used to enhance the understanding of the nature of the illicit benzodiazepine and pharmaceutical opioid market and its impact on crime	49	4

Appendix B continued.

Q	Key Theme	Questions/Issues	VIC (n = 13) Sum	Mode
30	*Interventions*	Understanding of the impact that an increase in benzodiazepine/pharmaceutical opioid use might have on the rates of benzodiazepine/pharmaceutical opioid-related crime	49	4
26	*Interventions*	Enhanced surveillance measures to reduce doctor-shopping	49	4
31	*Interventions*	Understanding of the impact that an increase in benzodiazepine/pharmaceutical opioid use might have on the extent and profile of crime in general	48	4
3	*Links to crime*	Knowledge about the types of crimes committed by illicit drug users while withdrawing from prescription drugs	48	4
10	*Implications for frontline workers*	The implications of prescription drug misuse for ambulance officers	47	4
9	*Implications for frontline workers*	The implications of prescription drug misuse for accident and emergency staff	47	4
8	*Implications for frontline workers*	The implications of prescription drug misuse for police	47	4
2	*Links to crime*	Knowledge about the types of crimes committed by illicit drug users while under the influence of prescription drugs	47	4
28	*Interventions*	Opportunities for the health sector to maximize impact on reducing the supply of illicit benzodiazepines and pharmaceutical opioids	46	4
16	*Market characteristics*	The potential impact of shifts in other parts of the illicit drug market on rates of benzodiazepine use	46	4
14	*Market characteristics*	Cost of types of benzodiazepines in the illicit market place	46	4
23	*Interventions*	Information about current measures in place to identify individuals engaged in doctor-shopping	45	4
19	*Market characteristics*	Information about other drugs used by pharmaceutical opioid users	45	4
18	*Market characteristics*	Information about other drugs used by benzodiazepine users	45	4
15	*Market characteristics*	Cost of pharmaceutical opioids in the illicit market place	45	4
25	*Interventions*	Information about the potential impact of rescheduling of drugs by the PBS on misuse and associated crime	43	4

Appendix B continued.

Q	Key Theme	Questions/Issues	VIC (n = 13) Sum	Mode
11	*Implications for frontline workers*	The implications of prescription drug misuse for health/youth workers	43	4
4	*Links to crime*	Knowledge about routes of administration of prescription drugs by illicit drug users	40	4
24	*Interventions*	Information about the limitations of existing Health Insurance Commission (HIC) processes	36	4
29	*Interventions*	Information about the factors contributing to inappropriate prescribing	25	1

Note: Importance ranking codes: (1) Not at all important; (2) A Little Important; (3) Moderately Important; (4) Very Important; (5) Extremely Important.