Prescription drug misuse: issues for primary care

FINAL REPORT OF FINDINGS

April 2008

Janie Sheridan, PhD FRPharmS, RegPharmNZ, BPharm(Hons), BA(Hons)
Rachael Butler, BA, PGDipPH

The School of Pharmacy
The University of Auckland
New Zealand
TABLE OF CONTENTS

1 Executive Summary of Results and Recommendations ........................................... 10
  1.1 Recommendations ............................................................................................. 11
  1.1.1 Systems ........................................................................................................ 12
  1.1.2 Primary care practitioner practices ............................................................ 13
  1.1.3 Health promotion, harm reduction and treatment ...................................... 13
  1.1.4 Training and education ............................................................................... 14
  1.1.5 Research ....................................................................................................... 14
2 Introduction ............................................................................................................. 15
  2.1 Background ........................................................................................................ 15
  2.2 Study aims and methodology ........................................................................... 18
  2.2.1 Aims ............................................................................................................. 18
  2.2.2 Scope of the study ....................................................................................... 18
  2.3 Ethics approval ................................................................................................. 19
  2.4 Research advisory group ................................................................................ 19
  2.5 Structure of this report .................................................................................... 20
3 Literature Review .................................................................................................... 21
  3.1 Introduction ....................................................................................................... 21
  3.1.1 Scope of this review ..................................................................................... 21
  3.1.2 Review Methodology .................................................................................. 22
  3.2 Overview of the size and nature of the problem ............................................ 22
  3.2.1 United States (U.S.) .................................................................................... 23
  3.2.2 United Kingdom .......................................................................................... 25
  3.2.3 Australia ....................................................................................................... 27
  3.2.4 Canada ........................................................................................................ 30
  3.2.5 New Zealand ............................................................................................... 31
  3.3 Harms ................................................................................................................ 33
    3.3.1 Dependence ............................................................................................... 34
    3.3.2 Intravenous use of prescription medicines .............................................. 34
    3.3.3 Overdose and drug-related deaths ......................................................... 35
    3.3.4 Emotional and social problems ................................................................ 36
    3.3.5 Other harms ............................................................................................... 37
  3.4 Access to Prescription Drugs via Primary Care ................................................ 38
    3.4.1 ‘Doctor shopping’ ..................................................................................... 38
    3.4.2 Friends and family .................................................................................... 39
    3.4.3 Fraudulent prescriptions ......................................................................... 40
    3.4.4 Patient deception ...................................................................................... 40
    3.4.5 Thefts from pharmacies .......................................................................... 41
    3.4.6 Other methods of sourcing prescription medicines from primary healthcare .................................................................................................................... 41
  3.5 Interventions ...................................................................................................... 41
    3.5.1 Monitoring and surveillance systems ...................................................... 42
    3.5.2 Changing prescription formats .................................................................. 45
    3.5.3 Educational interventions designed to change prescribing patterns ....... 45
    3.5.4 The use of guidelines in altering prescribing ........................................ 47
    3.5.5 Public education and demand reduction ............................................... 48
    3.5.6 Altering availability of different drugs and dosage forms ...................... 49
    3.5.7 Examples of New Zealand-specific interventions .................................. 50
4 Semi-structured interviews with General Practitioners, community pharmacists and ‘key experts’ ........................................................................................................... 52
4.1 Methodology and sample ........................................................................................................................................................................... 52
4.1.1 Methodology ......................................................................................................................................................................................... 52
4.1.2 Sample ........................................................................................................................................................................................................ 52
4.1.3 Sampling ............................................................................................................................................................................................... 52
4.1.4 Recruitment of Participants ................................................................................................................................................................ 52
4.1.5 Data Collection ...................................................................................................................................................................................... 53
4.1.6 Data analysis .......................................................................................................................................................................................... 53
4.2 Results ........................................................................................................................................................................................................... 54
4.2.1 Description of the sample ......................................................................................................................................................................... 54
4.2.2 ‘Drug seeking’ behaviour ..................................................................................................................................................................... 55
4.2.3 What happens to these prescription medicines? ................................................................................................................................. 72
4.2.4 Primary healthcare practitioners’ response to the issue .................................................................................................................... 77
4.2.5 Impact of prescription drug misuse on primary health care practitioners ........................................................................................ 87
4.2.6 Support for primary care health practitioners ................................................................................................................................ 99
4.2.7 Suggestions for better management of prescription drug misuse .................................................................................................. 104
4.3 Limitations of qualitative data .................................................................................................................................................................... 109
5 Review of secondary data sources ......................................................................................................................................................... 111
5.1 Methodology .................................................................................................................................................................................................. 111
5.2 Results ........................................................................................................................................................................................................... 111
5.2.1 Prescription data ..................................................................................................................................................................................... 111
5.2.2 Prescription data from research ............................................................................................................................................................ 115
5.2.3 Help and information seeking data ....................................................................................................................................................... 116
5.2.4 Treatment data .......................................................................................................................................................................................... 120
5.2.5 Research Data - Illicit Drug Monitoring System (IDMS) ................................................................................................................. 121
5.2.6 Police data .................................................................................................................................................................................................... 122
5.2.7 Pharmacy break-ins .............................................................................................................................................................................. 129
5.2.8 Medicines Control .................................................................................................................................................................................. 129
5.3 Summary .................................................................................................................................................................................................... 130
6 Summary and Recommendations ............................................................................................................................................................ 131
6.1 Summary .................................................................................................................................................................................................... 131
6.1.1 Which drugs get misused / are the main substances of concern? ......................................................................................................... 131
6.1.2 How are such substances obtained? .................................................................................................................................................... 131
6.1.3 What do GPs and CPs do when they suspect there is a problem? ....................................................................................................... 132
6.1.4 What happens to the drugs after being diverted? ............................................................................................................................... 132
6.1.5 How much prescription drug diversion occurs? ............................................................................................................................... 132
6.1.6 What harms does it cause? ................................................................................................................................................................. 133
6.1.7 How effective do GPs and CPs feel they are in preventing prescription drug misuse? ....................................................................... 133
6.1.8 How easily accessible and accurate are current prescription data in New Zealand? .............................................................................. 133
6.1.9 A final note .................................................................................................................................................................................................. 133
6.2 Recommendations ........................................................................................................................................................................................ 134
6.2.1 Systems ................................................................................................................................................................................................... 134
6.2.2 Primary care practitioner practices ...................................................................................................................................................... 135
6.2.3 Health promotion, harm reduction and treatment .......................................................................................................................... 136
6.2.4 Training and education ......................................................................................................................................................................... 136
6.2.5 Research................................................................................................................. 137
7 Appendices.................................................................................................................... 138
7.1 Appendix One: Classification of Medicines within New Zealand ....... 138
7.2 Appendix Two: List of prescription drugs mentioned in this study with
generic names and their respective New Zealand brand names. ........ 139
8 References ..................................................................................................................... 140
TABLES AND FIGURES

Table 1: Types of illicit drug use in the past month among persons aged 12 or older: numbers in thousands, 2006........................................................................................................24
Table 2: Pharmaceuticals for non-medical purposes use, persons aged 14 years and older, by age, by sex, Australia, 2004.................................................................28
Table 3: Selected prescription drugs used by injecting drug users (as a percentage) in the preceding six months, by jurisdiction, 2006 .......................................................29
Table 4: Impact of Substance Abuse on Abusers (Percent)..............................................36
Table 5: Top three methods of diversion as reported by physicians and pharmacists in CASA (2005) ..................................................................................................................38
Table 6: Types of fraudulent prescriptions .......................................................................40
Table 7: Formulation strategies to decrease abuse liability ...............................................49
Table 8: Breakdown of GP Sample ....................................................................................54
Table 9: Breakdown of CP Sample.....................................................................................55
Table 10: Reported street prices of prescription medicines taken from interviews across the three sample groups (GPs, CPs and KEs*) ................................................................74
Table 11: Comparison of the number and percentage of alcohol and other drug related calls: 2003/04-2006/07 (ADANZ Annual Report 2006/7) ........................................116
Table 12: Leaflets and other information sent out to callers (ADANZ Annual report 2006/7) ..........................................................................................................................117
Table 13: Get the Msg! Monthly Report ............................................................................119
Table 14: Percentage identifying using benzodiazepines in previous 6 months .......120
Table 15: Percentage identifying using opiates in previous 6 months and route of use at triage .....................................................................................................................120
Table 16: The use of specific substances in last 6 months (N=318 combined sample) (N/A = figures not available) ................................................................................121
Table 17: Drugs used concurrently with methamphetamine, ecstasy and IV drug use (IVDU) .......................................................................................................................121
Table 18: Prescription drugs in the possession of arrestees at the time of arrest ......122
Table 19: Drug measures and prices - maintenance table.............................................128
ACKNOWLEDGEMENTS

This study was supported with funding from the National Drug Policy Discretionary Grant Fund. We would like to acknowledge the support and feedback from the advisory group: Dr Graham Gulbransen, Ms Maree Jensen, Professor Ross McCormick, Ms Sheridan Pooley, Dr Papaarangi Reid and Mr Gary Symes. We would also like to thank the interviewees for giving up their time to participate in this study and those who helped us with recruitment. A thank you also to the organisations which provided data to us for the secondary data analysis section of this study: Alcohol and Drug Association of New Zealand (ADANZ), Pharmac, BPAC, CADS Auckland, National Drug Intelligence Bureau (NDIB), the New Zealand Drug Foundation, and to Dr Chris Wilkins for his help with IDMS data.
GLOSSARY

Benzodiazepines: benzodiazepines are a class of psychoactive drugs with varying hypnotic, sedative, anxiolytic, anticonvulsant, muscle relaxant and amnesic properties. They are generally used to treat insomnia, anxiety, panic attacks, muscle spasms, and seizure disorders, and includes drugs such as diazepam, lorazepam, clonazepam and temazepam.

Community pharmacist (CP): a pharmacist who works in a pharmacy based in the community setting (often referred to as a ‘chemist’).

Data saturation: also known as ‘theoretical saturation’, data saturation has been described as “the point in data collection and analysis when new information produces little or no change to the codebook” [1].

Diversion: the giving or selling of prescription medicines to others.

‘Doctor shopping’: where an individual seeks treatment from a number of different doctors in order to obtain more prescriptions for the same medicine, in the context of misuse or selling onto the illicit market.

Drug abuse containment bulletin: contains statements by Medical Officers of Health, as authorised by the Misuse of Drugs Act and Medicines Act, about people who are dependent, or likely to become dependent, on controlled drugs, prescription or restricted medicines.

‘Drug seekers’: this term is used throughout the report and refers to people involved in prescription drug misuse (see definition of prescription drug misuse below).

General practitioner (GP): a registered doctor who practices medicine in the community, often as part of a group of GPs in a GP practice.

Key experts (KEs): one of the groups of research participants who took part in the qualitative data collection stage of the research. These people were recruited using a purposive (targeted) sampling for their views on, and experiences with, prescription drug misuse in New Zealand. They included people working in drug treatment, representatives of primary health care practitioner organisations, and regulatory and policy organisations.

Medsafe: Medsafe is the New Zealand Medicines and Medical Devices Safety Authority. It is a business unit of the Ministry of Health and is the authority responsible for the regulation of therapeutic products in New Zealand.

Medicines Control: Drug abuse containment activities are carried out by medicine control staff who are part of the Ministry of Health’s quality and safety team. Medicines control advisors are experienced pharmacists with backgrounds in hospital and community pharmacy and the pharmaceutical industry. The advisors are appointed as Officers under the Misuse of Drugs Act 1975 and the Medicines Act 1981.

Opioids: An opioid is a synthetic chemical substance that has a morphine-like action, which is mainly used for pain relief, for example: methadone, oxycodone, morphine, codeine, dihydrocodeine, pethidine and buprenorphine. In New Zealand, methadone
and buprenorphine (Suboxone®) are both licenced for the treatment of opioid dependence.

**Over-the-counter (OTC) medicines:** These medicines are available for purchase without a prescription. They may require the intervention of a pharmacist, may be available only from a pharmacy with no intervention, or may be available for sale from any premises.

**Pharmac:** is the Pharmaceutical Management Agency. It is a Crown entity established by the New Zealand Public Health and Disability Act 2000. The Agency is directly accountable to the Minister of Health.


**Pharmaceutical medicines:** In the context of this report, this term refers to medicines which have been formulated and tested for use in humans, in compliance with strict legal standards and as such are distinct from illicit drugs such as ecstasy tablets, which have not been tested or formulated under any quality control conditions. It may include both prescription and OTC medicines, as in some cases it is not clear in research reports whether only prescription medicines or both prescription medicines and OTCs have been included.

‘**Pharmacy hopping**:’ visiting many pharmacies in order to have a prescription filled for a drug liable to misuse – this normally entails the person having multiple prescriptions, possibly from different doctors (see ‘Doctor shopping’ above).

**Prescription drug misuse/abuse (PDM):** For the purpose of this study, this was defined as ‘the use or illicit purchase of prescription drugs by somebody for whom they were not prescribed OR where people use prescription drugs in a way that they were not intended (e.g. for their psychoactive effects) OR where such drugs are sold on to the illicit market’. Behaviour such as patients sharing non-psychoactive medications (e.g. antibiotics) was excluded from the study. The terms “misuse” and “abuse” have been used interchangeably.

**Prescription drugs / medicine:** in this report, this refers to any medicines where a prescription would legally be required in order to obtain them, and was the definition utilised within the research study. Thus, this includes ‘prescription medicines’ (as defined in the Medicines Act 1981) and some of these will be classified under the Misuse of Drugs Act 1975 (see Appendix A. of this report for a more detailed overview of the medicines classification system within New Zealand).

**Primary care:** Several definitions exist of the term ‘primary care’ or ‘primary healthcare’. In this report, primary care refers to the care of a patient by a member of the health care team who has had initial contact with the patient, and is limited to general practitioners and community pharmacists, as they have key involvement in the supply of prescription drugs to patients. Other primary access points are excluded such as hospital emergency departments.

**Primary healthcare practitioners (PHCPs):** a collective term used in this report for general practitioners and community pharmacists.

**Purposive sampling:** this sampling approach seeks to select individuals due to their knowledge, experience or specific characteristics [2].
Restricted person: is the subject of a Restriction Notice which prohibits every medical practitioner from prescribing or supplying controlled drugs except one specific doctor or group of doctors, under the Misuse of Drugs Act 1975, Medicines Act 1981, or both. A ‘restricted persons list’ is a list of people who are the subject of a restriction notice.

Secondary care: in this report, secondary care refers to health services provided by practitioners who generally do not have first contact with a patient. This includes, for example, specialist services within a hospital setting. Access to secondary care is often via referral by a primary healthcare provider.

Snowballing: a method of recruitment where participants identify people they know who may be interested in taking part in the study. This approach has shown to be effective in reaching ‘hidden’ populations, such as drug users [3].

Stimulants: stimulants, in the context of this study, refers to a class of psychoactive drugs which affect the brain causing increased alertness, insomnia and other effects such as raised heart rate and blood pressure. Pharmaceutical stimulants include methylphenidate and dexamphetamine.

Whanau: Māori word for extended family.
1 EXECUTIVE SUMMARY OF RESULTS AND RECOMMENDATIONS

- Results are based on the analysis of data obtained from tape-recorded, qualitative interviews with 16 community pharmacists, 17 general practitioners and 18 ‘key experts’ from a variety of backgrounds. In addition, a literature review and a review of available secondary data and their utility and limitations have also been carried out.

- Estimating the size of the prescription drug misuse problem in New Zealand is very difficult, not the least because it tends to be a covert activity. New Zealand prescription data are incomplete as they cover only prescriptions which attract a subsidy and thus do not provide an accurate picture of prescribing levels. Even with accurate data, it is not possible to differentiate between medications prescribed for ‘legitimate’ use and that which has been sought for misuse/abuse. Interventions in Canada and Australia, which collect prescription data, provide more reliable information, although these systems also have their limitations with regards to the intended use of the medication by the patient. These systems are useful for tracking ‘doctor shopping’.

- No New Zealand data sources are currently available which can provide real-time, accurate information on ‘doctor shopping’ or ‘pharmacy hopping’; the Pharmhouse database has potential for this as a patient’s unique identifier is included in the dataset, although as previously stated, this only collects data on subsidised prescriptions. There are ethical and privacy concerns as well as potential for misuse of data should they be used to ‘police’ the system; in addition, patients are theoretically able to obtain multiple ID numbers.

- With regard to issues for primary healthcare practitioners, prescription drug misuse was not considered by them, in general, to be a major problem, although there was a high level of awareness of the issue. Feedback from interviewees indicates that prescription drug misuse is not a substantial issue in terms of disruption to normal practice, workload or the provision of treatment. However, for general practitioners in particular, there were sometimes financial repercussions when patients who were ‘drug seeking’ left the surgery without paying for their consultation.

- Primary healthcare practitioners tended to see those who misused/abused prescription drugs as either ‘drug addicts’ (‘abusers’) who were trying to supplement or support an illicit drug habit, or those who had become ‘medically addicted’ (‘over users’) through excessive or long term prescribing.

- Responses to patients often depended on which group the person was seen to belong to. Categorisation of patients was generally very subjective, and often appeared to involve a level of judgement and stigmatisation.

- Managing prescription drug misuse mostly involved preventing patients obtaining prescription drugs for inappropriate use. There was a relatively low level of awareness of the harms associated with prescription drug misuse amongst primary healthcare practitioners interviewed. ‘Key experts’, on the other hand, especially those who worked in alcohol and other drug services,
were much more aware of the issues, and some were very involved in provision of treatment to prescription drug misusers.

- In addition, primary healthcare practitioners did not report a great deal of involvement in harm reduction interventions related to prescription drug misuse. Barriers included lack of training, a perception that it was time-consuming and that patients were not interested, and a lack of support. Where primary healthcare practitioners had tried to provide treatment, some felt ‘out of their depth’. ‘Key experts’ who worked in alcohol and other drug treatment services were more likely to discuss harm reduction and treatment interventions, and supported the notion of working closely with primary healthcare practitioners.

- Primary healthcare practitioners noted a lack of clear guidance on managing prescription drug misuse and requests for drugs liable to misuse. Keeping up to date on what is being abused or sought, and who current local ‘drug seekers’ were, were issues for them.

- Primary healthcare practitioners were often unaware of locally available treatment and support for patients, and reported that they were not aware of any printed support materials.

- Where difficulties existed for primary healthcare practitioners it was often related to management of difficult or aggressive patients. Community pharmacists often found themselves in the middle between the general practitioner and the patient, making them particularly vulnerable to manipulation and aggression.

- This study has not covered the perspective of prescription drug misusers and further research needs to be undertaken to explore user perspectives and the impact of prescription drug misuse on their lives, families and whanau.

1.1 Recommendations

The Medical Council of New Zealand’s 1991 report "Strategies for Action on the Misuse of Addictive Prescription Drugs" made a number of recommendations, many of which appear to be similar to those that will be found below, indicating that whilst action may have occurred in the intervening period, the problems remain broadly similar and unresolved. This significant international health and social issue requires future central Government support.

The following recommendations (which are based on the literature review, research and review of data sources) have been broadly categorised into recommendations around systems, primary care practitioner practices, treatment services and harm reduction, and education and continuing professional development. They come from a harm minimisation perspective and thus cover supply, demand and harm reduction.
1.1.1 Systems
It is recommended that a New Zealand framework or guidelines about responding to PDM in primary care be developed, supported by central funding, and that the guidelines include:

- prescribing and dispensing protocols;
- support for patients with PDM problems;
- strategies to minimise PDM;
- areas for training and education.

Relevant professional bodies would need to be included in the development of guidelines for the management of PDM, and associated training available to PHCPs on an on-going basis.

Also recommended are:

- an in-depth review of a variety of international monitoring and surveillance systems, both electronic and multiple prescription;
- an in-depth analysis of the outcomes of these systems on diversion, inappropriate prescribing, appropriate prescribing (in terms of negative consequences to patients with real medical need), cost, patient and PHCP confidentiality issues.

In line with findings from the review recommended above, it is recommended that the following are considered:

- the development of a ‘real time’ prescription drug recording system which is inclusive of subsidised and non-subsidised drugs (and possibly OTC drugs);
- the development of a system which could be used to monitor prescribing patterns, whilst taking into account that some GPs will necessarily have legitimate reasons for prescribing large amount of opioids, for example patients receiving treatment from community alcohol and drug services;
- that Medicines Control are requested to develop an online ‘restricted persons’ list (while recognising the privacy obligations around that);
- encouragement for PHOs to ensure that GPs have access to accurate information about PDM;
- a requirement for pharmacists to mark ‘refused’ prescription in some way in order to minimise the chance of them being presented and ‘filled’ elsewhere;
- raising of awareness amongst GPs of the “Surgery Support” service from Medicines Control;
- that Medicines Control develop a parallel “Pharmacy Support” pack for community pharmacists.
1.1.2 Primary care practitioner practices

- Form regional\(^1\) and national committees comprising representative GPs, pharmacists and other relevant members of the primary healthcare team with a remit that includes:
  - improving communication between GPs and CPs and other PHCPs around PDM issues;
  - keeping abreast of emerging issues with regards to PDM;
  - reviewing and providing feedback on desired curricula for undergraduate education and continuing professional development of primary healthcare practitioners;
  - working closely with local treatment and harm reduction services to ensure effective communication between these services and primary care;
  - the formation of appropriate networks with Police to provide two-way information on drugs of concern.

- GPs, CPs and other relevant members of primary healthcare need to find opportunities to discuss generic issues and problems they face when dealing with PDM and look for local solutions.

- It is essential that GPs and CPs are familiar with prescription drugs liable to misuse, and local treatment and harm reduction services available to them and their patients.

1.1.3 Health promotion, harm reduction and treatment

Central and regional government health departments should:

- develop printed and web-based support materials about the issues and repercussions of PDM for the community;

- investigate the availability of treatment for PDM beyond that which exists within CADS units, and if gaps are found, develop appropriate, relevant and accessible treatment interventions targeted at those who appear to slip through the gaps.

Furthermore, there is a need to:

- ensure PHCPs are aware of the wide range of resources available concerning drugs liable to be misused (e.g. Medsafe Datasheets and other web pages);

- encourage PHCPs trained in this field to work with ‘over-users’ to support them in reducing their prescription drug use;

- ensure PHCPs are aware of the AOD services available in their area and what the services provide to correct a lack of knowledge and/or misconceptions;

---

\(^1\) In Auckland, the Auckland Drug Advisory Committee (ADAC) meets regularly and discusses issues relating to prescription drug and other drug misuse locally.
• promote, and provide additional funding (if required) for the Alcohol and Drug Clinical Helpline for doctors and other health professionals.

1.1.4 Training and education
• Provide training to encourage prescribing that aims to minimise PDM.
• Professional bodies need to work closely with undergraduate and postgraduate educators to ensure that issues around PDM are integrated into curricula.
• Encourage participation in de-escalation training for GPs and CPs and self defence, particularly for all additional staff.
• Encourage PHOs to utilise their internal existing 'experts' to provide mentoring, advice and leadership.
• Facilitate the formation of links between PHCPs local and local and national AOD organisation to enable informal training to occur.

The following is a suggested (but not exhaustive) list of potential areas of training and education to be covered:
• which drugs get misused;
• what types of PDM exist;
• common methods of illicitly obtaining prescription drugs;
• risks associated with long term use of benzodiazepines;
• the need to review medications regularly;
• management of drug withdrawal;
• harm reduction interventions;
• identifying PDM and making appropriate referrals;
• prescribing that aims to minimise PDM.

1.1.5 Research
Further research is required, including:
• comparison of actual prescribing with Pharmhouse database data to see what the correction factor needs to be;
• an investigation of ways of targeting information about PDM to communities;
• research with prescription drug misusers to better understand reasons for misuse, access to help and support, and impact on family and whanau;
• research into the incidence of ‘doctor shopping’ and ‘pharmacy hopping’;
• an investigation of issues specific to rural communities, including the impact of rurality on access to medicines, and on access to help, advice and treatment for PDM.

Consider including questions on availability, use and price of illicitly obtained prescription medicines in National Household Surveys.
2 INTRODUCTION

2.1 Background

Prescription drug misuse (PDM) or abuse is a worldwide problem. In the US, prescription medicines are the second most misused class of drugs after cannabis, and it has been predicted that misuse of these substances will soon exceed illicit drug use [4]. PDM has been associated with a wide range of social and health harms, including medical emergencies, drug-related deaths, emotional or mental health problems, and problematic poly drug use [5]. However, although PDM is internationally recognised as a problem, it is often one which is overlooked by policy makers and treatment and harm reduction intervention providers, and is often misunderstood within the community. Indeed, a recent Australian report noted [6]:

“it can hardly be said that this area [prescription drug misuse] is one that is in fact conceptualised as a drug problem when compared to illicit drugs such as heroin or amphetamine or even licit drugs such as alcohol. Such indifference or lack of knowledge may even extend to the health professions and particularly general practitioners” (p.8).

Indeed, the report goes on to comment on how, at a community level, there is often a lack of understanding of the risks associated with PDM, and the seriousness of dependence on them.

In New Zealand, it is noted in the National Drug Policy (2007-2012) document [7] that:

“due to New Zealand’s geographic isolation, it is not easy to import heroin and raw opium in bulk; thus the majority of opioids abused in New Zealand have been prescription medicines (e.g. morphine sulphate tablets, methadone), poppies and home bake” (p.31).

The most recent national household data of 13-65 year olds indicate that 0.7% had ever tried morphine, and 1.7% ever having used tranquillisers [8]. Problematic use is also an issue. For example the use of tranquillisers such as benzodiazepines has been highlighted as a significant problem amongst people in drug and alcohol treatment services, and in a recent study 14% were diagnosed with sedative dependence [9]. Frequent drug users interviewed as part of the 2006 Illicit Drug Monitoring System (IDMS) reported that availability of opiates was ‘easy/very easy’, and 50% of the intravenous drug users who took part in the study indicated that opiates were the drug most responsible for their drug-related work/study problems [10].

PDM poses issues at many levels. One key factor is the fine line between appropriate and inappropriate use of prescription drugs, and whether someone who misuses as a result of iatrogenic dependence poses the same problems as someone who obtains prescription drugs for recreational use, or to feed an illicit drug habit. The misuse or inappropriate use of prescription medicines has cost implications which may include dealing with adverse outcomes such as dependence, injecting-related harms, overdose and the broader social consequences of drug misuse. The treatment of PDM, including harm reduction interventions, poses complex problems in that not everyone who misuses these medicines is linked into the highly stigmatised illicit drug scene. Thus, services set up for illicit drug misusers may been seen by health professionals and patients alike as not an appropriate place for the management of iatrogenic
dependence, even though this is where the expertise often lies. Furthermore, the issue of prevention of PDM needs to be carefully thought through, as simply preventing access through regulation can have negative impacts on legitimate patients as well as those who rely on prescription drugs to support their drug dependence. All these are issues which will be considered within this research, and resulting recommendations will take these into account. Although not considered as part of this research, any changes which alter the availability of prescription drugs may cause current misusers to move towards using illicit drugs, which in turn may result in more unknown and more harmful consequences.

We can hypothesise that a significant proportion of the prescription medicines obtained for non-medical purposes in New Zealand will be accessed via primary healthcare, although not all prescription drugs available for misuse are in this way and some may also be diverted from secondary care, come from thefts from wholesalers, and nowadays also via the internet.

‘Drug seeking’ from primary care presents a range of issues and challenges for primary healthcare practitioners (PHCPs) who may not be adept at managing patients who exhibit ‘drug seeking’ behaviour, and for whom the issue may have a significant impact both in terms of emotional stress and workload pressures. Studies have found doctors in the US failed to identify symptoms of substance misuse in patients [11] and that doctors find it hard to discuss prescription drug misuse with patients. When surveyed, pharmacists in Florida indicated a lack of training in this area, with those having been trained feeling more comfortable discussing the issue with patients [12].

The legal availability of prescription medicines in New Zealand is governed by a number of factors. In New Zealand, medicines are classified as being available on prescription only, available through pharmacies only without the need for a prescription, or available through any outlet – the latter two groups commonly being known as ‘over-the-counter’ (OTC) medicines. For prescription medicines to be prescribed in New Zealand, they need to be registered by Medsafe. However, the availability of prescription drugs in New Zealand is generally controlled by Pharmac, as Pharmac decides which drugs will attract a government subsidy which is passed on to the patient. Thus, a particular prescription medicine may be theoretically accessible under licence through Medsafe, but not be available due to Pharmac not providing a subsidy, making it financially unfeasible for the drug company to supply the medication in New Zealand. Further complicating this, Pharmac may change the brand, the dosage form or the formulation (e.g. slow release or fast release) which is subsidised. All these may potentially have implications for PDM, as certain dosage forms and formulations are more attractive to intentional misusers. Thus, in terms of injecting drug misuse, capsules, where the contents might easily be emptied out and dissolved ready for injection, or liquid filled capsules, are more attractive than slow release tablets with large amounts of excipients which make preparing for injecting more difficult, and there are greater risks through injecting of materials not designed for this purpose.

Most countries attempt to control the viability of abusable drugs through legislation. In New Zealand, this is through the Misuse of Drugs Act (MODA) and Regulations. As a means of restricting availability the MODA has utility, although research has shown that when prescription drugs are restricted by law or regulation, users will tend
to move to other available drugs as opposed to stop using them [13]. The MODA is currently under review.

OTC drugs, available from pharmacies and other retail outlets, without a prescription, are not covered by this report. Regulations around which products are available vary internationally, but generally in developed countries such regulation is based on relative risk of adverse effects and/or abuse liability. There are concerns about misuse/abuse of OTCs in many countries – the most common products of concern are those containing opioids, sedating antihistamines and stimulants (mainly pseudoephedrine as a precursor for the manufacture of methamphetamine). In New Zealand, OTC products containing any of these drugs are only available through pharmacies\(^2\), although intervention by pharmacists for a sale to occur is not required. Pseudoephedrine-containing products generally require a person to provide ID, although this is not mandatory, and such products have been classified as Controlled Drugs under the Misuse of Drugs Act (1975) and the Misuse of Drugs Regulations (1977) in order to facilitate convictions for importing.

Whilst OTC medicine misuse is a concern, the milligram quantities of psychoactive drugs in these products are relatively low and limited under the law. However, their relative availability means they are attractive to some drug misusers, either for recreational use or to ‘top up’ when drugs of choice are unavailable. As with prescription drugs, people have become addicted to OTCs inadvertently as a result of misuse and overuse. No published research currently exists around the level of any OTC problems in New Zealand.

In New Zealand, a patient is not required to register with one GP, as is the case in the United Kingdom, for example. Furthermore, patients pay a fee for an appointment. Recent changes in government funding have resulted in patients being encouraged to enrol with a Primary Health Organisation (PHO), in order to receive subsided GP visits and reduced prescription charges. Prior to this, patients could see any GP for treatment, and the PHOs that support GPs would not necessarily know about patient contact or prescriptions from other general practitioners. This situation is still possible as enrolment with a PHO is not mandatory and people are able to visit a GP by registering as a casual for a one-off visit. Nonetheless, there is now the potential for ‘doctor shopping’ to be more closely monitored with more patients enrolling using their unique identifier – their NHI number. It is therefore theoretically possible to retrospectively use the patient’s NHI number to identify multiple requests for the same medication from different doctors. However, this relies on the person using their legitimate NHI number and not having multiple NHI numbers and PHOs having the ability and resource to extract data and analyse these patterns.

---

\(^2\) The Medicines Act Section 3(3) & Section 52 & Section 51 outlines that shops that have a licence to sell medicines by retail can sell Pharmacy-Only medicines that are described in their licence. Shops with Licences to sell medicines by retail are situated at least 10 kilometres by the most practicable route from a pharmacy. A licence to sell medicines by retail shall not authorise the sale by retail, or the supply in circumstances corresponding to retail sale, of any Prescription Medicine or any Restricted Medicine. Airports can also sell products such as meclozine, promethazine etc., which are classified in such a way that they are normally Pharmacy Only medicines, except when they are sold at transport terminals.
Currently, no research exists which has explored the issues around prescription drug misuse and diversion and primary care within New Zealand. At a broad level, this is highlighted within the National Drug Policy 2006–2011 Consultation Document where the lack of mechanisms to measure the volume of diverted pharmaceutical drugs is acknowledged, alongside the fact that previous surveys on recreational use of these substances have focussed on tranquilliser use. Other drugs of concern noted in the document include ‘morphine, methadone and other opioid-based pharmaceuticals, amphetamine, benzodiazepines, methylphenidate (Ritalin®) and ketamine [14]’.

This report presents findings from a study which was undertaken to explore prescription drug misuse in the context of drugs obtained through primary healthcare, specifically general practitioners (GPs) and community pharmacists (CPs), and sought to address some of the aforementioned information gaps in what we know about PDM in New Zealand.

2.2 Study aims and methodology

2.2.1 Aims

The main aim of the research was to explore prescription drug misuse and diversion in the context of the issues for primary healthcare. In particular, the following key areas were investigated:

1. Which drugs get misused / are the main substances of concern?
2. How are such substances obtained?
3. What do GPs and CPs do when they suspect there is a problem?
4. What happens to the drugs after being diverted?
5. How much prescription drug diversion occurs?
6. What harms does it cause?
7. How effective do GPs and CPs feel they are in preventing prescription drug misuse?
8. How easily accessible and accurate are current prescription data?
9. What can be done to begin to deal with these problems from a harm reduction perspective?

2.2.2 Scope of the study

2.2.2.1 Drugs included

In this study we have defined prescription drug abuse as: “the misuse or illicit acquisition or diversion of prescription drugs for their psychoactive effects”. Certain other pharmaceutical medicines have been excluded:

- over-the-counter drugs;
- drugs used in sport, e.g. anabolic steroids;
- drugs only used in secondary care settings.
In the literature review, we have concentrated mainly on the key groups of prescription medicines identified as being of concern worldwide: opioids, stimulants and benzodiazepines.

In the interviews undertaken in this study however, any drug with a psychoactive effect was included if it was mentioned by CPs, GPs and ‘key experts’ (KEs), for example: antidepressants, antipsychotics, and barbiturates. Drugs such as ketamine, which are likely to be only prescribed in secondary care, do not appear in this study, due to the focus on primary care.

2.2.2.2 Primary healthcare
This study is exploring PDM from the perspective of primary healthcare – specifically community pharmacy and general practice, as these are the two groups of primary healthcare practitioners who most are involved in the supply of such medicines, and are also the most likely primary healthcare practitioners to be impacted upon by PDM itself. It is acknowledged that prescription drug misuse occurs in other contexts – and that drugs are obtained from a variety of sources, such as secondary care, direct diversion by health professionals and their staff – and that the impact on healthcare goes beyond primary healthcare. The use of the Internet to obtain prescription medicines has not been included in this research as it does not form part of the primary healthcare system.

2.2.2.3 Study methods
- A literature review – this review explores the literature on the size of the prescription drug misuse problem, drugs which are commonly misused, how they are obtained, harms associated with their use, issues for health practitioners, and current interventions available to prevent prescription drug misuse, reduce harms and provide treatment, in the context of primary care.
- Qualitative semi-structured interviews with GPs, CPs and KEs.
- A review of secondary data sources.

2.3 Ethics approval
Ethical approval for the study was granted by the University of Auckland Human Participants Ethics Committee (ref: 2007/033).

2.4 Research advisory group
An advisory group was formed for the study. This consisted of six individuals from a range of backgrounds (general practice, community pharmacy, regulatory authority, specialist drug and alcohol services, public health, consumer adviser) who provided guidance and support for the research team. Three advisory group meetings were held during the course of the study, where the members advised on issues such as sampling
and recruitment, data collection and analysis and interpretation of research findings. In addition, further consultation occurred via email.

2.5 **Structure of this report**

The remainder of this report is divided into four sections as follows:

- **Section 3** presents findings from the literature review
- **Section 4** presents findings from the interviews undertaken with GPs, CPs and KEs
- **Section 5** presents findings from the review of secondary data sources
- **Section 6** contains a summary of the findings and recommendations.
# LITERATURE REVIEW

## 3.1 Introduction

Prescription drug misuse is referred to in a variety of ways, including ‘pharmaceutical abuse’, ‘prescription drug abuse’, ‘non-medical use of prescription medications’ and ‘illegal use of prescription medications’. Additionally, an array of descriptions have been utilised to define these terms. Some examples include:

- *use without a prescription of the individual’s own or simply for the experience or feeling the drugs caused* [15]

- *the use of prescription medication to “get high”, or to create an altered state, or for reasons (or by routes) other than what the prescribing clinician intended* [16]

- *any misuse or non-medical use of a controlled psychotropic pharmaceutical drug – that is, the use of a drug for something other than its intended medical or psychiatric purpose (for example, to get ‘high’)* [17]

Overall, however, most classifications of the behaviour refer to the fact that the medicines are not used in the way (or for the purpose) that was intended (including the person for whom they were prescribed), and that they are taken for the (psychoactive) effects that they provide.

## 3.1.1 Scope of this review

This review was undertaken to supplement the study’s primary data collection and is designed to act as a ‘scene setting’ exercise and provide a basis from which the findings from the current study can be compared and placed in context. For this reason, we have been selective in choosing the data we are presenting and the reader should take note that it is not an exhaustive review of all the literature. In particular, where possible, we have paid particular attention to the focus of this report which is issues relating to primary healthcare. In this context, particular emphasis has been given to specific countries and individual topics. For example, whilst there is a wealth of material from the United States, and indeed some attention has been given to literature from this country in this review, data from other nations which have greater similarity to New Zealand in terms of healthcare systems and drug markets (e.g. Australia) have been given a higher profile. This is also the case when exploring interventions that have been implemented to monitor or prevent prescription drug misuse.

The review is divided into the following sections:

- Overview of the size and nature of the problem across key countries – United States, United Kingdom, Australia, Canada and New Zealand on key drugs of abuse (opioids, benzodiazepines and stimulants).

- Harms associated with prescription drug misuse.

- Access to prescription medicines via primary care.
Examples of interventions that have been implemented to monitor or prevent prescription drug misuse.

3.1.2 Review Methodology
A combination of published and unpublished (‘grey’) literature was included in the review. This also incorporated web-based publications.

For published literature, several databases / search engines were utilised, including MEDLINE, CINAHL, PsycINFO, EMBASE, and Google Scholar. Articles published from 1997 onwards were accessed. Following these initial searches the lead researcher for the study reviewed the article abstracts and deleted those that were not relevant. This included articles concerned with prescription drug misuse that sat outside of the scope of this study (e.g. within non-primary healthcare settings such as hospitals). ‘Grey’ literature was accessed via internet searches, relevant email lists, and through contacting research institutions and individual researchers with specialist knowledge in this field.

It should be highlighted that two key documents were rich sources of data in undertaking this review: the recently published ‘Inquiry into the misuse/abuse of benzodiazepines and other forms of pharmaceutical drugs in Victoria’ [6] and the 2005 CASA publication ‘Under the counter: the diversion and abuse of controlled prescription drugs in the U.S.’ [5].

3.2 Overview of the size and nature of the problem
Prescription drug misuse has been highlighted as a worldwide problem [4]. The theme of the 2006 report from the International Narcotics Control Board (INCB) was ‘internationally controlled drugs and the unregulated market’. In their report, the Board states that:

While there is no precise figure on the amount of internationally controlled substances reaching patients through the unregulated market, it is believed to be increasing rapidly. In some regions, people abuse licitly produced prescription medicines in quantities similar to or greater than the quantities of illicitly manufactured heroin, cocaine, amphetamine and opioids that are abused. (p. 6)

They also highlight:

This is a serious situation that requires action from all those concerned, including Governments, professional organisations, the pharmaceutical industry and international organisations. (p. 5)

The difficulties of estimating the prevalence of misuse of prescription drugs has been highlighted [18, 19]. This is usually due to a lack of data, or availability of information that provides only part of the picture (e.g. statistics on levels of use – rather than misuse – of different prescription medicines). In March 2007, the INCB noted that ‘most countries do not have any mechanism to systematically collect data to document this abuse, and are not aware to what extent drugs are being diverted and abused’ [4].
Despite this, there is a wealth of literature on the topic which provide some insight into the nature and extent of the problem, including which prescription drugs are more commonly misused. Much attention has been given to increasing rates of misuse of opioids across a number of countries – OxyContin®, for example, has been highlighted as a particular concern in countries such as the United States and Canada [20, 21]. Whilst the focus of the INCB’s latest report is broader than the current study³, two of the ‘special topics’ in the report include the increasing trafficking in and abuse of fentanyl (including its diversion via theft, fraudulent prescriptions and illicit distribution by patients and healthcare practitioners) and the diversion of substances (such as buprenorphine and methadone) from substitution treatment [4].

The misuse of benzodiazepines would also appear to be an issue in many countries across the world, with much written about the potential for dependence and the negative consequences of long-term use of these substances [4-6, 22-24]. Furthermore, prescription stimulants, in particular the abuse of methylphenidate (Ritalin®) has received growing attention [4, 25, 26]. This is especially the case with regard to youth use of the substance in the United States [5, 27, 28]. Whilst the abuse of anti-depressants has been noted in the literature [29, 30], these substances tend to have a lower profile than those noted above. In Australia for example, there have been reports that intravenous use of these substances is not commonplace amongst injecting drug users, and likely to be experimental rather than routine behaviour [29].

The following sections report on patterns and prevalence of misuse of the key prescription medicines noted above across the following countries:

- United States
- United Kingdom
- Australia
- Canada
- New Zealand.

### 3.2.1 United States (U.S.)

Approximately six percent of the U.S. population (15.1 million people) reported abusing controlled prescription drugs in 2003, higher than the combined number abusing cocaine (5.9 million), hallucinogens (4.0 million), inhalants (2.1 million) and heroin (328,000). Abuse of controlled prescription drugs has been increasing at a rate twice that of marijuana, five times greater than cocaine and 60 times greater than heroin. (CASA 2005, p. 24)

There is a vast amount of literature from the United States on prescription drug misuse. Not withstanding the size of the county, it would also appear to be a reflection of the extent of the issue and the media attention it is receiving, given reports that prescription drug abuse has become prevalent in the United States [5, 19, 20]. Indeed, recent statistics suggest that levels of abuse are second only to the abuse of cannabis/marijuana [4, 15, 19] and a recent report estimated that the number of people abusing controlled prescription drugs increased by 94% between 1992 and 2003 [5].

³ The INCB report covers drugs entering the unregulated market through a number of channels outside primary healthcare (e.g. the Internet).
In addition, contrary to patterns of illicit drug use, there have been reports that it is most widespread in suburban, rural and smaller urban areas [20, 26]. The most prescribed – and diverted – narcotic drug in the United States has been reported to be hydrocodone [4]. Another study has highlighted that the abuse of OxyContin® (as well as hydrocodone products) as being the most prevalent and widespread, with abuse of OxyContin® evident almost exclusively in Caucasian individuals [20]. The authors of this study also note that whilst OxyContin® abuse is exhibiting an ongoing upward trend, it appears to be a general pattern of increasing prescription drug misuse and they hypothesise that this substance may simply be the ‘drug of choice’ among recreational users and addicts, with the potential that levels of use may decrease over time [20].

The National Survey on Drug Use and Health (NSDUH) is the primary source of information on both legal and illicit drug use amongst the U.S. population aged 12 years and over. Conducted annually, nearly 70,000 individuals are interviewed each year, on their use of a range of substances, including nonmedical use of prescription-type drugs [15]. The 2006 NSDUH identified that 7.0 million people aged 12 years or over (2.8% of the population) had misused prescription-type psychotherapeutics in the past month. Of these, three quarters (5.2 million) had misused pain relievers (whilst this was an increase from 4.7 million in 2005, the change is not statistically significant). Other psychotherapeutics misused included tranquilisers (1.8 million), stimulants (1.2 million) and sedatives (385,000) [15]. Last year misuse of tranquilisers has remained constant (at around 2%) across each year of the survey. Stimulants were the only psychotherapeutic which showed a significant increase in the number of past year initiates between 2005 and 2006 (from 647,000 to 845,000) [15].

Table 1 displays past-month use of psychotherapeutics relative to other illicit drugs amongst people aged 12 years or older. The ‘non medical use of psychotherapeutics’ grouping within the table includes ‘the nonmedical use of pain relievers, tranquilizers, stimulants, or sedatives and does not include over-the-counter drugs’ [15].

**Table 1: Types of illicit drug use in the past month among persons aged 12 or older: numbers in thousands, 2006**

<table>
<thead>
<tr>
<th>Drug</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana and Hashish</td>
<td>14,813</td>
</tr>
<tr>
<td>Cocaine</td>
<td>2,421</td>
</tr>
<tr>
<td>Crack</td>
<td>702</td>
</tr>
<tr>
<td>Heroin</td>
<td>338</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>1,006</td>
</tr>
<tr>
<td>LSD</td>
<td>130</td>
</tr>
</tbody>
</table>

4 ‘Nonmedical use of prescription-type psychotherapeutics’ included the nonmedical use of pain relievers, tranquilisers, stimulants, or sedatives (did not include over-the-counter drugs). ‘Nonmedical use’ was defined as use without a prescription of the individual’s own, or simply for the experience or feeling the drugs caused.

5 ‘Past year initiates’ are defined as persons who used the substance for the first time in the 12 months prior to the date of the interview.
Data from the NSDUH survey undertaken in 2006 show that 1.1% of adults aged 26 or older reported lifetime\(^6\) nonmedical use of OxyContin®. In addition, males and females had similar rates of past month misuse of OxyContin® (0.1% for both) [15].

Prescription drug misuse amongst youth has received much attention in the United States [31-37]. Whilst the NSDUH data show a decline in non-medical use of prescription drugs amongst 12-17 year olds between 2002 and 2006 [15], CASA reports that there was a 212% increase in the number of young people in this age range abusing controlled prescription drugs between 1992 and 2003 [5]. A press release of key findings from the Monitoring the Future Study\(^7\) (2007) highlighted that annual prevalence of use of Ritalin® has declined since 2001 when its non-medical use was first measured in the study – with total declines overall of between 25 and 42 percent during this time period at each grade level [28]. When considering the overall use of prescription psychotherapeutic drugs amongst this youth population, it is reported that:

> While most of the illicit drugs have shown considerable declines in use over the past decade or so, most prescription psychotherapeutics did not; in fact, a number of them showed steady increases in use outside of their legitimate medical use (amphetamine being the single exception). These include sedatives, tranquillisers, and narcotic drugs other than heroin (most of which are analgesics). As a result, they have become a relatively more important part of the nation’s drug abuse problem. Fortunately, most of them have shown signs of levelling or even of beginning a gradual decline over the past couple of years (Johnston et al, 2007, p. 3).

### 3.2.2 United Kingdom

There are limited data available on the extent of prescription drug misuse within the United Kingdom. Some household surveys have collected information on the prevalence of misuse of selected prescription drugs (particularly tranquillisers) [38, 39] and there are some data on patterns of use and diversion techniques amongst drug users in treatment [40, 41], but an overall picture of the magnitude of the problem is lacking. Fountain and colleagues (2000) note that despite the size of the market of diverted prescription drugs being ‘substantial’, that systems for ‘monitoring and

---

\(^6\) ‘Lifetime use’ was defined as use of a specific drug at least once in the respondent's lifetime. This measure included respondents who also reported last using the drug in the past 30 days or past 12 months.

\(^7\) This study, which began in 1975, comprises of surveys of nationally representative samples of American high school students. The 2007 survey involved nearly 50,000 students in over four hundred schools.
reporting on the extent of prescription drug diversion in the United Kingdom are ‘poorly developed’ [40]. A recently announced ‘Inquiry into the Misuse of Prescription and Over-the-Counter Drugs’ suggests, however, that some attention is being given to this issue. The All Party Parliamentary Group on Drug Misuse which launched the inquiry is seeking to identify the scale of the problem in the United Kingdom, identify associated harms, and review the adequacy of help and support for people affected by prescription drug misuse [42].

A survey of private households (involving 8,580 participants) carried out in 2000 included questions on illicit drug use (which was defined as ‘excluding use prescribed by a doctor’). One of the drugs included was non-prescribed methadone. The lifetime prevalence rate for use of this substance was less than 1%, with last year use one per thousand population. Data on the use of (non-prescribed) tranquillisers was also collated. Prevalence of lifetime use for tranquillisers across the total sample was 3%, with the largest number of ‘lifetime’ users in the 20-24 year category.

The British Crime Survey is a nationally representative survey of adults living in private households in England and Wales [39]. Over 47,000 adults participated in the 2006/2007 wave. As part of data collection on a number of crime-related topics, participants were asked about their use of a range of illicit substances. Those relevant to this review include ‘tranquillisers’, which are either classified as Class B (e.g. barbiturates) or Class C (e.g. benzodiazepines) drugs under the Misuse of Drugs Act in the United Kingdom. It should be noted that in the survey the specific tranquilliser used was not specified by respondents. Thus, it is not known what proportion of use in the following information relates to benzodiazepines specifically. The latest report of findings (2007) show that 2.9% of 16-59 year olds had ever used tranquillisers, 0.4% had used them in the last year, and 0.2% had used them in the last month. When looking at young people’s use of tranquillisers specifically, the data reveal that 0.6% had used the substances in the last year, and 2.3% reported having ever used them in their lifetime. Lifetime use across the total sample (i.e. 16-59 year olds) differed according to gender, with 3.4% of males and 2.5% of females reporting this behaviour. The report also includes a summary of drug trends between 1998 and 2006/7. These data show that there was a decrease in last year use of tranquillisers amongst 16-59 year olds (0.7% to 0.4%). This was similar for those aged 16-24 years, with a statistically significant decrease in last year use over the same time period (1.5% to 0.6%) [39].

A survey of arrestees in England and Wales aged 17 years and collected information on drugs taken in the last month, including unprescribed methadone. Five percent of the sample had used the substance during this time period with the greatest proportion from the 25-34 year age category [43].

There are some data available on drug users in treatment and their behaviour with regard to prescription drug misuse. For example, it has been estimated that the

---

8 The question on use of these drugs (which was completed by the respondent on computer) listed ‘temazepam’ and ‘valium’ as examples of the type of substances that this referred to.

9 Respondents aged 16 to 59 years only were eligible for the drugs module of the survey.

10 The eligible population was defined as people aged 17 and over in England and Wales who had been arrested on suspicion of committing an offence and who had not participated in the survey previously.
proportion of drug users in treatment who sell prescribed drugs ranges from 5% to 34%, and that there is some variation in the type and amount of diverted substances across geographical areas [40]. The National Treatment Outcome Research Study (NTORS) “investigates outcomes for drug misusers treated in existing services in residential and community settings” [41]. Findings from the study published in 2003 identified that more than half the drug misusers entering the programmes were using non-prescribed benzodiazepines [41].

3.2.3 Australia
There is a growing body of literature from Australia on the issue of prescription drug misuse. Whilst focussing on benzodiazepines and narcotic analgesics (opioids) specifically, the recently published ‘Inquiry into the misuse/abuse of benzodiazepines and other forms of pharmaceutical drugs in Victoria’ [6] provides a thorough overview of the current ‘state of play’ with regard to this issue. The Illicit Drug Reporting System (IDRS) [29, 44] and national household surveys [45] also contribute important data on the nature and extent of the problem.

It has been reported that an increasing number of prescription medicines are being misused within Australia [6, 29]. The latest findings from the Illicit Drug Reporting System (IDRS) highlight that a reduction in the availability of heroin and low purity of this drug has contributed to injecting drug users using a wide array of diverted prescription medicines (e.g. morphine, oxycodone, benzodiazepines, methadone and buprenorphine) both in place of, or as well as, heroin. In 2006, the most commonly injected pharmaceutical reported by injecting drug users (IDUs) was morphine, and there were increases in the prevalence of use of this substance across several jurisdictions [29].

Data from the 2004 National Drug Strategy Household Survey11 reveal that 3.8% of Australians aged 14 years and over had used pharmaceuticals for non medical purposes12 within the preceding 12 months, and 7.6% had used them in this way at least once in their lives [45]. It is important to note, however, that ‘pharmaceuticals’ was not exclusively medicines obtained by prescription; thus, some of these data will include non medical use of OTC drugs. Of those who had used the drugs recently (i.e. in the last 12 months) around one third (30.1%) did so once or twice a year, and a quarter were using them on a daily or weekly basis. The pharmaceutical most likely to be used in the last 12 months (by 3.1% of the sample) was pain-killers/analgesics, followed by tranquillisers/sleeping pills (1%). Pain-killers/analgesics were the second most used substances overall (behind marijuana/cannabis), and levels of last year use of tranquillisers/sleeping pills were similar to that of cocaine [45].

As displayed in Table 2 below, those aged 20-29 years were more likely than any other age group to have used pharmaceuticals for non-medical purposes in all time periods.

---

11 Around 30,000 people aged 12 years and over participated in the 2004 National Drug Strategy Household Survey, which explored both licit and illegal drug use behaviour.

12 Pharmaceuticals used for non-medical purposes is defined as ‘the use of pain-killers/analgesics, tranquillisers, barbiturates and/or steroids for non-medical purposes’.
Table 2: Pharmaceuticals for non-medical purposes use, persons aged 14 years and older, by age, by sex, Australia, 2004

<table>
<thead>
<tr>
<th>Period</th>
<th>14-19</th>
<th>20-29</th>
<th>30-39</th>
<th>40+</th>
<th>Males</th>
<th>Females</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>In life time</td>
<td>6.3</td>
<td>10.8</td>
<td>9.0</td>
<td>6.4</td>
<td>8.2</td>
<td>7.0</td>
<td>7.6</td>
</tr>
<tr>
<td>In the last 12 months</td>
<td>4.0</td>
<td>5.1</td>
<td>3.9</td>
<td>3.3</td>
<td>3.6</td>
<td>3.9</td>
<td>3.8</td>
</tr>
<tr>
<td>In the last month</td>
<td>1.6</td>
<td>2.4</td>
<td>2.0</td>
<td>2.0</td>
<td>1.9</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>In the last week</td>
<td>0.8</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.1</td>
<td>1.3</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: Adapted from [45], p. 47

The Australian equivalent\textsuperscript{13} of the Illicit Drug Monitoring System in New Zealand is the IDRS. This was established to gather information on illicit drug trends and has been conducted across all jurisdictions and territories in Australia since 2000. The three components of the IDRS include interviews with IDUs, interviews with ‘key experts’ and analysis of relevant indicator data sources [29].

Table 3 displays data from the 2006 IDRS on selected prescription drugs that were used by injecting drug users in the preceding six months. This is presented by jurisdiction and provides an overview of both licit\textsuperscript{14} and illicit\textsuperscript{15} use of the substances.

In addition, findings reveal that around one third (36\%) of the national sample reported having used illicit benzodiazepines in the preceding six months and nearly half (47\%) had used illicit morphine during this timeframe. Levels of use of the different prescription drugs varied across the different jurisdictions. For example, recent illicit use of pharmaceutical stimulants was reported by 40\% of IDUs in Tasmania, compared with 5\% in New South Wales. Similarly, only 7\% of the Northern Territories sample reported using illicit oxycodone in the preceding six months, whereas 42\% of IDUs in Western Australia had recently used this substance. Of note are the data on buprenorphine, with between 6\% and 30\% having used illicitly obtained buprenorphine-only formulations and up to 9\% having used buprenorphine-naloxone formulations in the preceding 6 months [29].

\textsuperscript{13} Whilst the drug monitoring systems across the two countries are similar, a key difference in the sampling is that whilst the IDRS involves interviews with injecting drug users only, the IDMS gathers information from frequent drug users, a proportion of which (but not all) are intravenous drug users.

\textsuperscript{14} ‘Licit’ is defined as ‘pharmaceuticals (e.g. methadone, buprenorphine, morphine, oxycodone, benzodiazepines, antidepressants) obtained by a prescription in the user’s name. This definition does not take account of ‘doctor shopping’ practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner’.

\textsuperscript{15} Illicit is defined as: ‘pharmaceuticals obtained from a prescription in someone else’s name, e.g. through buying them from a dealer or obtaining them from a friend or partner. The definition does not distinguish between the inappropriate use of licitly obtained pharmaceuticals, such as the injection of methadone syrup or benzodiazepines, and appropriate use’.
### Table 3: Selected prescription drugs used by injecting drug users (as a percentage) in the preceding six months, by jurisdiction, 2006

<table>
<thead>
<tr>
<th>Form of drug</th>
<th>NSW n=152</th>
<th>ACT n=100</th>
<th>VIC n=150</th>
<th>TAS n=100</th>
<th>SA n=100</th>
<th>WA n=100</th>
<th>NT n=100</th>
<th>QLD n=112</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methadone syrup %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>47</td>
<td>40</td>
<td>31</td>
<td>49</td>
<td>33</td>
<td>23</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Illicit</td>
<td>26</td>
<td>38</td>
<td>10</td>
<td>46</td>
<td>21</td>
<td>21</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Methadone (Physeptone) %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Illicit</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>48</td>
<td>20</td>
<td>18</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Buprenorphine %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>20</td>
<td>16</td>
<td>32</td>
<td>4</td>
<td>21</td>
<td>16</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>Illicit</td>
<td>19</td>
<td>34</td>
<td>29</td>
<td>6</td>
<td>14</td>
<td>32</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>Buprenorphine-naloxone %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>&lt;1</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>8</td>
<td>9</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Illicit</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Morphine %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>4</td>
<td>10</td>
<td>12</td>
<td>31</td>
<td>11</td>
</tr>
<tr>
<td>Illicit</td>
<td>31</td>
<td>52</td>
<td>31</td>
<td>58</td>
<td>48</td>
<td>51</td>
<td>70</td>
<td>51</td>
</tr>
<tr>
<td>Oxycodone %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Illicit</td>
<td>18</td>
<td>22</td>
<td>24</td>
<td>29</td>
<td>20</td>
<td>42</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td># Other Opiates %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Illicit</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>* Pharmaceutical Stimulants %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>&lt;1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Illicit</td>
<td>5</td>
<td>35</td>
<td>8</td>
<td>40</td>
<td>10</td>
<td>44</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Benzodiazepines %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>26</td>
<td>31</td>
<td>53</td>
<td>48</td>
<td>55</td>
<td>54</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td>Illicit</td>
<td>37</td>
<td>36</td>
<td>31</td>
<td>46</td>
<td>32</td>
<td>32</td>
<td>34</td>
<td>41</td>
</tr>
<tr>
<td>Antidepressants %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licit</td>
<td>22</td>
<td>18</td>
<td>22</td>
<td>28</td>
<td>16</td>
<td>36</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>Illicit</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

* ‘Other opioids’ include codeine preparations, opium and pethidine.

* IDUs were asked about their use of ‘pharmaceutical stimulants’ or prescription amphetamines (including dexamphetamine).

Source: Adapted from [29], pp. 22-23

It is particularly relevant to examine data from the Tasmanian component of the IDRS, given the state’s similarity to New Zealand in that heroin has traditionally not been widely available and the region has a history of opioid-based pharmaceuticals being injected. The most recent findings from the 2006 wave of the Tasmanian IDRS\(^{16}\) identified an increase in use of oxycodone, and that nearly two thirds (62%) of the sample reported recent use of morphine. Injection of benzodiazepines remains an ongoing problem, with rates higher in this region than those identified in other Australian states. In addition, use of alprazolam is highlighted as a particular concern,

\(^{16}\) This involved interviews with n=100 injecting drug users, information gathered from n=31 professionals working with substance-using populations, and a review of drug use indicator data.
with evidence that it has replaced temazepam gel capsules\textsuperscript{17} and is being used in similar ways to this formerly-available substance. The authors state that ‘patterns of benzodiazepine use and injection in the state continue to warrant very close attention’ [44].

Between 2003 and 2006, the IDRS recorded use of pharmaceutical stimulants (including dexamphetamine and methylphenidate) under the ‘methamphetamine’ category. From 2006, however, they comprise their own category and thus the most recent report from the IDRS presents these data separately. In 2006, 18\% of IDUs reported using (in the last six months) pharmaceutical stimulants that had not been prescribed to them, and 13\% reported injecting these substances, compared to those that were accessed licitly (2\% used and <1\% injected). A quarter of the national sample also reported having ‘ever injected’ pharmaceutical stimulants that were not prescribed to them. Prevalence of use was highest\textsuperscript{18} in Western Australia (45\%), Tasmania (40\%) and the Australian Capital Territory (38\%), and lowest in New South Wales (5\%) [29].

\subsection*{3.2.4 Canada}

In 2007 the INCB reported that Canada was experiencing an increase in the diversion and abuse of pharmaceutical preparations containing opioid analgesics, such as codeine, hydromorphone, morphine, pethidine and oxycodone. They highlight that the abuse of OxyContin\textsuperscript{®} is a particular concern. They also note, however, that the exact extent of the overall level of prescription drug misuse within Canada is unknown [4]. This has also been reported elsewhere:

\begin{quote}
...there are few Canadian statistics on the number of people who use prescription drugs for non-medical purposes. Indeed, there is minimal research information regarding the extent of prescription drug diversion and abuse in Canada... As a result, indirect inferences about the extent of prescription drug abuse in Canada are usually limited to examining distribution and sales statistics, and year-to-year trends in prescribing practices for specific classes of drugs (Weekes et al, 2008, p.2).
\end{quote}

Concerns raised over the abuse of OxyContin\textsuperscript{®} were sufficient that in 2003 the Government of Newfoundland and Labrador implemented a communications strategy (to inform the general public on the risks of OxyContin\textsuperscript{®} misuse and abuse) and put in place a Task Force to ‘make recommendations on a comprehensive strategy for the management of OxyContin and other related narcotics abuse’. Information collected by the Task Force has suggested that an increasing number of young people are misusing this substance [21].

The OPICAN cohort was established in Canada in 2001 to assess opioid use patterns and behaviours of users of these substances outside of treatment [46]. With participants recruited from seven\textsuperscript{19} different locations, the study sought to produce a cross-section of illicit opioid use in both large and medium sized cities across the

\textsuperscript{17} Given concerns over injecting-related harms temazepam gel capsules were removed from the market in Australia in 2004.

\textsuperscript{18} Prevalence of injecting pharmaceutical stimulants was also highest in these three jurisdictions.

\textsuperscript{19} Originally drawing participants from five study cites, two additional cities (Fredericton and St. John) were added in 2005.
country. Data from the 2005 follow-up reveal that heroin was the most commonly used opioid in only two of the study sites, and was nearly absent at four sites. In these four cities, the predominant opioids used by the majority of participants were prescription opioids (e.g. oxycodone, morphine, hydromorphone). The authors assert that these and other findings suggest that heroin use has become increasingly marginalised, with the use of prescription opioids having become the predominant form of illicit opioid use. They also highlight that, whilst study participants reported that heroin was purchased from drug dealers, a large proportion of prescription opioids used were accessed either directly or indirectly (e.g. via friends) from supplies in the medical system [47].

The misuse of benzodiazepines in Canada has also been raised as an issue [4, 18]. Whilst this review did not identify any data on misuse of prescription stimulants from Canada, it has been reported that prescriptions for methylphenidate (Ritalin®) increased by 46 per cent between 1999 and 2003 [4].

3.2.5 New Zealand

There are no data available which provide an overview of the extent of prescription drug misuse in New Zealand. Existing information is generally restricted to prevalence of use (or misuse) of a small number of prescription medicines and there is a lack of information on the overall size of the problem.

National drug surveys²⁰ undertaken in 1998 and 2001 [48] collected information on ‘recreational use’ of tranquillisers and morphine. Findings from the 1998 survey showed that just over two percent of the sample had ever used tranquillisers²¹ for recreational purposes, and less than one percent had used the substances in this way in the preceding 12 months. The 2001 national survey revealed no change in ‘ever used’ or ‘last year’ use of the drug, but identified a decrease in the current use of tranquillisers (which reflected a decrease in use amongst males) [48].

Findings across the 1998 and 2001 household surveys indicate that levels of morphine use remained constant, with the proportion of the sample who had ‘ever tried’ the drug static at around 1%, and current use at <1% percent both years [48]. The Illicit Drug Monitoring System (IDMS) findings from 2006 also report on “opiate use” in the general population – drawing on data from the 2006 National Survey of Legal Party Pill Use. This reveals that the proportion of the New Zealand population aged 13-45 years who had ‘ever tried’ opiates did not change between 2003 and 2006, as did the proportion who had used opiates in the previous 12 months (although it is acknowledged that these results should be viewed with caution due to the low numbers involved) [10].

---

²⁰ Both the 1998 and 2001 surveys used the Computer Assisted Telephone Interviewing (CATI) method for interviewing people living in private dwellings within New Zealand. The 1998 survey sampled 15-45 year olds, with the 2001 survey extended to include people aged 13-45 years.

²¹ Examples of tranquillisers given in the survey included: ‘downers, valium, blues, serepans’. (From http://www.aphru.ac.nz/projects/drugs%202001%20Append%203.htm#Appendix%203).
The 2003 “New Zealand Health Behaviours Survey – Drug Use”\textsuperscript{22} was undertaken to provide information on recreational drug use and to identify drug-related harms within the New Zealand population \textsuperscript{[8]}. Findings revealed that males were significantly more likely than females to have used (amongst other drugs) ‘tranquillisers\textsuperscript{23},’ and ‘poppies, morphine and other opioids’. Māori were also significantly more likely than non-Māori to have used tranquillisers at least once during their lifetime. Prevalence of ‘lifetime use’ of morphine (0.7\%) was slightly lower than that of tranquillisers (1.7\%) \textsuperscript{[8]}.

The IDMS is designed to “provide ongoing and timely information on changes in drug use and drug-related harm in New Zealand” \textsuperscript{[10]}. Established in 2005, it draws on three sources of information: face-to-face interviews with frequent drug users (FDUs), interviews with ‘key experts’, and secondary data sources on drug-related statistics. Although not the focus of IDMS, some data on prescription drug use are collected. Data from 2006 can be found in Section Five of the report where they are further described.

The 2006 IDMS found that 55\% of FDUs had ever tried “other opiates”\textsuperscript{24}, 32\% had used in the last 6 months, using on average 68 days in that time period. Of those who had used, 81\% had injected in the last 6 months. It was also noted that just over half (51\%) of the sample had ever used benzodiazepines and around a third (30\%) had used in the last 6 months with an average use of 39 days in that time period. Four percent of the FDUs named benzodiazepines as the drug type most responsible for their legal/police problems and 10\% reported that they had driven under the influence of benzodiazepines (in comparison, 15\% stated that they drove under the influence of ‘opiates’). In addition, it was reported that there was an increase of 90\% in the number of calls to the Alcohol and Drug Helpline\textsuperscript{25} in relation to the use of benzodiazepines (from 187 in 2002/3 to 356 in 2005/6), with calls relating to use of these substances accounting for 6\% of all approaches to the helpline in 2006 \textsuperscript{[10]}.

The latest IDMS report provides insight into the price, purity and availability of opioids in the previous six months \textsuperscript{[10]}. Whilst this includes opioids such as heroin and poppies (i.e. not just prescription opioids), when asked to specify the types of opioids for which they had knowledge, morphine derivatives (MST®, M-Eslon®, Kapanol®) were the opioids FDUs most commonly were informed about. Eighty six percent of FDUs reported the current availability of opioids as being either ‘easy’ or ‘very easy’, with nearly three quarters (73\%) reporting that this had been ‘stable’ in the previous six months. The price of these substances was also reported as having been ‘stable’ during this time period by around two thirds (65\%) of the sample. Just under half (46\%) thought ‘about the same’ number of people they know were using opioids and 40\% described the current purity of these substances as ‘high’.

\textsuperscript{22} The target population for the survey was people aged 13-65 years living in private residential dwellings and it was conducted via a computer-assisted telephone interview (CATI) system.

\textsuperscript{23} Drugs referred to as tranquillisers in the questionnaire included sedatives/hypnotics (e.g. benzodiazepines).

\textsuperscript{24} “Other opiates” – examples given – morphine, misties, homebake, M-Eslon, Kapanol.

\textsuperscript{25} The helpline is a free 0800 telephone information, referral and intervention service run by the Alcohol Drug Association of New Zealand (ADANZ).
The IDMS reported that just over half (53%) of FDUs had ever tried Ritalin® and 25% had used in the last 6 months, using on average 27 days in that time period. Overall, injecting was the most common route of administration (66% of the whole sample, although amongst ecstasy users as opposed to IDUs or methamphetamine users, snorting was the most popular route) [10]. When looking at the IDU sample specifically, 43% had used Ritalin® in the past six months, and 90% of those who had used it had done so intravenously in this time period [49].

Additional data from the IDU sample specifically reveal that 85% had ‘ever used’ benzodiazepines, with just over half (52%) ever having injected these substances. Ninety five percent of IDUs had ‘ever used’ ‘other opiates’ (morphine, MST, homebake, M-Eslon, Kapanol), with a similar figure (97%) reporting that they had ‘ever injected’ ‘other opiates. Around one in five (19%) had ever used anti-depressants. With only a quarter of the IDU sample having used internationally sourced heroin in the last six months, the authors state that [49]:

“The findings concerning the drug use patterns of injecting drug users support the understanding that pharmaceutically sourced opioids, such as morphine, methadone and ‘homebake heroin’, are the main opioids currently used in New Zealand”. (p.4)

A review of opioid poisoning deaths in New Zealand between 2001 and 2002 revealed that, of the 92 deaths, morphine – closely followed by methadone – was the most frequently reported opioid [50]. The authors highlighted that it was not possible to identify whether individuals who died had obtained the substance illegally or via a legitimate prescription. In a letter to the New Zealand Medical Journal (in response to the aforementioned report on opioid poisoning deaths) the Lead Medical Officer from the Auckland Methadone Service stated that 83% of clients entering the programme between 1998 and 2004 were using morphine sulphate tablets [51].

3.3 Harms

In considering the harms related to prescription drug misuse, it is worth noting the comments of the Drugs and Prevention Crime Committee in their recent report [6]:

When most people think of drug-related harm they tend to think of harm due to illegal drugs. Over the last 20 or so years there has been a concerted push to have the wider community recognise the adverse effects of the legal, and most widely-used drugs, namely alcohol and tobacco. But prescription drugs, whilst of great benefit to many ill people in the community, are also increasingly being misused and associated with serious harms. Indeed, as efforts to disrupt illicit drug markets and further restrict their use continue, we can expect the non-medical use of diverted pharmaceuticals to grow. This should be of concern to us as a community, not least because evidence suggests that pharmaceutical drug misuse may be an early pathway into misuse of a range of drugs, but also because the misuse of these drugs in themselves poses major risks to health and wellbeing at an individual, family and community level (p.89).

The National Center on Addiction and Substance Abuse assert that the abuse of controlled prescription drugs has had ‘serious consequences’ and highlight a range of harms associated with this behaviour. These include the risk of addiction and dependence, drug-related deaths, visits to hospital emergency departments and financial, emotional, social and other health problems [5].

This section provides an overview of some of the key harms associated with prescription drug misuse.
3.3.1 Dependence
Much has been written about the risk of dependence as a result of misusing prescription drugs, particularly benzodiazepines and opioids [5, 6, 22, 24, 36, 52-56].

Blanco and colleagues reported that in the United States there have been substantial increases over the past decade or so, both in the prevalence of non-medical use of prescription medicines, as well as prescription drug use disorders (i.e. abuse and/or dependence). Their review of data from two large national surveys undertaken 10 years apart identified that the prevalence of drug use disorders increased by 67% and was due to increased (non-medical) use of these drugs, rather than an increase in the frequency of such disorders amongst users [52].

3.3.2 Intravenous use of prescription medicines
Prescription drugs used non-medically may be injected, particularly where the form of the drug (e.g. gel-filled capsules) facilitates this process. There has been widespread reporting of intravenous use of benzodiazepines and opioids (e.g. morphine) and to a lesser extent stimulants (e.g. methylphenidate) [4, 13, 22, 29, 57, 58].

Injecting behaviour carries with it a number of risks, regardless of the substance involved. These include the risk of transmission of blood-borne viruses. Other harms linked specifically to prescription drugs include those related to the injection of medicines designed for oral administration [57, 59]. Risks associated with this behaviour include venous thromboses, vascular damage, and tissue damage leading to ulcers and gangrene [13, 59, 60]. The 2007 INCB report highlighted the incidence of methylphenidate products being crushed for injecting and the associated health risks with this [4].

IDU in Australia reported injection-related problems due to the injection of oral preparations such as benzodiazepines, buprenorphine and morphine. The main problems reported included ‘difficulty injecting’ and ‘scarring and bruising’ [29]. Another Australian study which also drew on IDRS data (2001-2004) explored the harms of injecting amongst IDU who had recently used morphine intravenously. The most commonly reported harms included morphine dependence (reported by 38% of the sample), difficulty finding veins into which to inject (36%) and scarring and bruising (27%). A proportion of IDU had also experienced swelling of the arm hand or foot, a ‘dirty’ hit and abscesses or infections. Other risk-taking behaviours identified within this population included borrowing and lending of needles and injecting in public places [57].

In a study of benzodiazepine injecting behaviour amongst heroin users, Ross and colleagues reported that the harms experienced by current benzodiazepine injectors were greater than for oral users of the substances. They included greater polydrug use, criminal involvement, injection-related health problems, and psychological distress, in addition to an increased likelihood of a heroin overdose and poorer health overall [59].
3.3.3 Overdose and drug-related deaths

Data on drug-related deaths do not usually distinguish between prescribed and non-prescribed drugs; however, such data provide an insight into potential harms related to PDM. The misuse of prescription medications have been implicated in overdose fatalities [50, 61-64], with one of the key risk factors for fatal opioid overdose being the co-administration of central nervous system depressants, for example benzodiazepines [61, 65]. Research carried out in the United Kingdom identified that methadone and heroin overdose fatalities were more likely to have benzodiazepine positive urine samples, compared with a group of controls who were matched for gender and age [61]. Another study explored ‘drug seeking’ behaviour patterns amongst a group of young people who died of heroin-related overdose. Findings identified that, in the years before death, there was an escalation in levels of this behaviour – particularly with regard to increased doctor-visitation rates, the number of prescriptions obtained and the number of different doctors seen. The drugs most sought were benzodiazepines, opioids and antidepressants [64, 66]. The INCB reported that in North America and Europe there have been an increasing number of deaths related to abuse of narcotic drugs, including oxycodone and fentanyl [67].

Data presented by the Office for National Statistics in the United Kingdom in a 2007 publication provide a broad overview of deaths related to drug poisoning in England and Wales between 2002 and 2006 [68]. In some cases, specific substances are recorded on the death certificate, including prescription medicines. In total, the number of drug poisoning deaths in 2006 was 788 for females, and 1,782 for males. Findings reveal that the number of deaths involving methadone increased between 2002 and 2006 (from 199 to 241), whilst the number of deaths which mentioned benzodiazepines fell from 241 in 2002 to 177 in 2006 (of the benzodiazepines, diazepam recorded the most mentions across the entire time period). Another study from the United Kingdom explored the role of prescription medication in drug-related deaths and identified that the two most commonly detected substances were the heroin metabolite morphine and benzodiazepines. Of the 17 cases where benzodiazepines were identified, at the time of death 12 of these were being prescribed the drug [62].

A study from the United States which analysed death certificate data identified that there was a 55% increase in the number of deaths listed as having a prescription drug as the underlying cause between 1999 and 2003. Whilst the author notes the limitations of death certificate data (e.g. individual drugs are not specified), and the fact that prescribing increased during this time period probably account for a proportion of the increases in deaths, the need for prevention strategies is highlighted [69].

---

26 It is noted in the report that the figures need to be treated with caution. For example, where more than one drug is mentioned on the death certificate, the substance primarily responsible for the death is not always known. In addition, some deaths may be counted in more than one drug category (e.g. if methadone and diazepam are recorded on the death certificate, the death will be recorded once under methadone and once under diazepam).
CASA’s analysis of 2002 data from the Drug Abuse Warning Network (DAWN)\textsuperscript{27} showed that controlled prescription drugs (excluding sedatives) were cited in around one third (29.9\%) of all drug-related deaths\textsuperscript{28} [5]. Analysis of DAWN data between 1997 and 2002 revealed that the number of reports of opioid analgesics among deaths during this time period increased nearly one hundred percent (96.6\%) [70]. Within this category, large increases occurred for oxycodone, fentanyl, methadone and hydrocodone – with methadone and oxycodone accounting for around half of the overall increase. The author of this study notes that the large contribution that oxycodone and methadone make to mortality figures may be due to the long duration of action of these substances, with drug users accidentally overdosing due to overlapping doses [70].

With regard to non-fatal overdoses, Australian researchers identified a strong association between the number of prescription drugs used and overdose history amongst young heroin users. This included benzodiazepines, opioids, tranquilisers and antidepressants [66].

### 3.3.4 Emotional and social problems

Data relating to the emotional and social consequences of prescription drug misuse from the National Survey on Drug Use and Health (NSDUH) were analysed by CASA. Findings, as presented in Table 4, reveal that 7.4\% of prescription drug abusers experienced ‘emotional or mental health problems’. Other key harms identified included ‘family/friendship problems’, and ‘serious problems at home, work or school’ [5].

<table>
<thead>
<tr>
<th>Problem</th>
<th>All Controlled Prescription Drugs</th>
<th>Opioids</th>
<th>Tranquilizers</th>
<th>Sedatives</th>
<th>Stimulants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional or mental health problems</td>
<td>7.4</td>
<td>6.6</td>
<td>4.5</td>
<td>9.5</td>
<td>10.7</td>
</tr>
<tr>
<td>Family/friendship problems</td>
<td>5.1</td>
<td>4.6</td>
<td>3.9</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Serious problems at home, work or school</td>
<td>4.6</td>
<td>3.9</td>
<td>3.8</td>
<td>6.7</td>
<td>7.6</td>
</tr>
</tbody>
</table>

Source: Adapted from [5], p. 43

\textsuperscript{27} DAWN is operated by the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. Department of Health and Human Services. It includes “data on drug—related visits to emergency departments in a national sample of non-federal, short-stay hospitals”.

\textsuperscript{28} This included both single drug and multiple drug deaths. With regard to single-drug deaths, controlled prescription drugs were involved in one fifth of these cases in 2002.
Other studies have also identified ‘relationship breakdowns’ as a negative consequence of prescription drug misuse [22] and it has been asserted that social and emotional problems experienced can be at rates similar to those suffered by users of ‘hard drugs’ [6].

3.3.5 Other harms
A range of other prescription drug misuse-related harms have been reported, as presented below:

- The cost of prescription opioid abuse in the United States in 2001 was reported by Birnbaum and colleagues as around $9 billion, with half of this related to lost productivity [71]. In Australia it has been estimated that ‘doctor shopping’ costs the Pharmaceutical Benefits Scheme (PBS) in excess of $30 million dollars a year [72].

- A study which investigated the sources of prescription medicines amongst a sample of undergraduate students in the United States identified that those who obtained the substances from peers reported significantly higher rates of alcohol and other drug use than students who obtained the medication from family members (or did not use prescription drugs illicitly) [73].

- Individuals receiving medicines illicitly (e.g. via family members or other non-practitioner sources) do not receive prescribing information such as drug interactions and dosage [36].

- With regard to drug-related emergency department (ED) visits, data from the DAWN was analysed to assess the number of associated drug mentions. Findings reveal that there was a 78.9% increase in the number of controlled prescription drug-related ED mentions between 1994 and 2002 – with the greatest increase evident amongst prescription opioids [5].

- An examination of the relationship between benzodiazepine and pharmaceutical opioid misuse and crime undertaken by The National Drug Law Enforcement Research Fund (NDLERF) identified that there may be an association between the use of prescription drugs and some criminal activity. This included, amongst others, shoplifting, property crime and drug dealing [22]. CASA also reported ‘trouble with the law’ as being one of the negative outcomes of misuse of prescription drugs [5].

- Links between misuse of prescription drugs and (verbal and physical) aggression and violence have been reported, particularly with regard to abuse of benzodiazepines [22, 29, 74].

- Driving whilst under the influence of prescription medications has been highlighted as a potential risk. For example, drowsiness due to use of benzodiazepines may impact negatively on driving ability [6].
3.4 Access to Prescription Drugs via Primary Care

This section provides an overview of the sources of prescription medicines for people seeking them to misuse them. The focus of this information is on diversion from primary healthcare – i.e. people accessing the drugs (either directly or indirectly) from doctors and community pharmacies. Whilst other illicit sources of medicines have been widely documented in the literature, including theft from wholesalers [4, 5], internet-based purchases [6, 17, 75-78], and diversion by healthcare practitioners themselves [5, 17] it is beyond the scope of this review to include these.

The CASA study (2005) explored pharmacists’ and physicians’ reports of the top three methods of diversion [5]. As evident in Table 5, both groups indicated that ‘doctor shopping’, ‘forged or altered prescriptions’, and ‘patient deception or manipulation of doctors’ were the most common diversion techniques.

**Table 5: Top three methods of diversion as reported by physicians and pharmacists in CASA (2005)**

<table>
<thead>
<tr>
<th>Method of Diversion</th>
<th>% of practitioners reporting a method of diversion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pharmacists</td>
</tr>
<tr>
<td>Doctor Shopping</td>
<td>89.2</td>
</tr>
<tr>
<td>Forged or altered prescriptions</td>
<td>75.2</td>
</tr>
<tr>
<td>Patient deception or manipulation of doctors</td>
<td>65.4</td>
</tr>
</tbody>
</table>

Source: [5]

It has been reported that non-medical users of prescription drugs may utilise a range of methods to access their desired substances. In a study of prescription drug abusers in Miami (Florida), an extremely diverse array of sources for the drugs were utilised by participants in the study. These included, amongst others, their physicians and pharmacists, ‘doctor shopping’, parents and relatives, leftover supplies following an illness or injury, direct sales on the street and in nightclubs, flyers advertising telephone numbers to call and friends or acquaintances [79].

The main avenues for accessing prescription drugs for illicit purposes are summarised below. It is interesting to note that a review of the international literature identified that many of the same techniques are used across different parts of the world. ‘Doctor shopping’, in particular, was a widespread and commonly identified phenomenon amongst prescription drug misusers.

3.4.1 ‘Doctor shopping’

As noted above, ‘doctor shopping’ is a widely used term, both within the southern hemisphere [6, 64] and further afield, including North America and the United Kingdom [17, 79-81]. It has also been referred to as ‘multiple scripting’ [81].

---

29 This included club drug users, street-based illicit drug users, methadone maintenance patients, and HIV positive individuals who abuse and/or divert drugs.
‘prescription shopping’ [72] and ‘double doctoring’ [17]. It typically involves patients accessing prescriptions from more than one healthcare practitioner, and may involve the same drugs from different sources or different drugs from a range of services [81]. In their study of the diversion tactics of drug misusers in treatment, Fountain and colleagues reported that two or three concurrent prescriptions was the norm for most of the subjects in their study who were involved in this behaviour [81]. Globally, it has been highlighted as one of the most common methods of obtaining prescription medicines for illicit purposes [5, 19, 81].

3.4.2 Friends and family

Friends and family have been reported to be common sources of prescription medicines for misusers of these substances [17, 36, 73, 82]. This may include accessing (legitimately obtained) personal supplies of other individuals’ medications, or may entail sourcing the substances from an individual who has, themselves, illicitly acquired the drugs. It has been reported that drugs may either be sold or given away within social or drug-taking networks [36, 40, 79].

Interestingly, the U.S. National Survey on Drug Use and Health [15] added a follow-up question in 2006 which asked respondents who reported accessing prescription medications from friends and relatives\(^\text{30}\) where their ‘supplier’ had obtained the drugs. Four out of five (80.7%) people who reported accessing the drugs from a friend or relative for free indicated that their friend or relative had obtained the drugs from just one doctor. Less than two percent stated that the person supplying the medicines had bought them from a drug dealer or other stranger [15].

In the United States it has been reported that young people typically source prescription drugs from other people (e.g. their classmates) or by stealing them from family members [19, 73]. A study involving school students identified that approximately a quarter of students who had been prescribed stimulant medication had been approached at least once to sell, trade or give away their medication [37]. In addition, a web-based survey of full-time undergraduate students in the United States identified important gender differences in sources of prescription opioids among non-medical users. Of note, parents were the leading single supplier of these substances for women, whereas men were more likely to access prescription opioids from friends not at the same university [36].

Participants in the 2004 Australian National Drug Strategy Household Survey [45] were asked if they had been offered or had the opportunity to use selected drugs in the past 12 months. Findings reveal that pharmaceuticals\(^\text{31}\) were available to around four in ten (42.8%) Australians – but the proportion of this group who had used the drug (i.e. taken up the offer) was only one in ten (10.7%), the lowest uptake of all the substances recorded. Findings from the survey also indicate that around four in ten

---

\(^\text{30}\) In both 2005 and 2006, over half of the nonmedical users of prescription-type pain relievers, tranquilizers, stimulants, and sedatives said they obtained the drugs they used most recently ‘from a friend or relative for free’.

\(^\text{31}\) This was defined as ‘pain-killers/analgesics, tranquilisers/sleeping pills, steroids and barbiturates, used for non-medical purposes’. 
(41.8%) of people who had recently used tranquillisers obtained them from a ‘friend or acquaintance’ [45].

3.4.3 Fraudulent prescriptions
The use of fraudulent prescriptions to illicitly obtain prescription medicines has been widely reported [5, 17, 60, 81, 83, 84]. The way in which this is carried out can vary and includes techniques such as altering a legitimate prescription to insert new medicines or increase the amount prescribed, creating a computer-generated fake prescription, or utilising stolen prescription forms.

The CASA report (2005) contains a list of the type of fraudulent prescriptions that have been reported by the Drug Enforcement Administration, Diversion Control Program in their guide to prescription fraud developed for pharmacists (see http://www.deadiversion.usdoj.gov/pubs/brochures/pharmguide.htm). These are detailed in Table 6 below.

Table 6: Types of fraudulent prescriptions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Legitimate prescription pads stolen from physicians’ offices and prescriptions are written for fictitious patients</td>
<td></td>
</tr>
<tr>
<td>The physician’s prescription is altered</td>
<td></td>
</tr>
<tr>
<td>Prescription pads from a physician are printed with a different call-back number that is answered by an accomplice who verifies the prescription</td>
<td></td>
</tr>
<tr>
<td>Drug abusers call in their own prescriptions and give their own telephone number for confirmation</td>
<td></td>
</tr>
<tr>
<td>Computers are used to create prescriptions for non-existent physicians or to copy legitimate prescriptions.</td>
<td></td>
</tr>
</tbody>
</table>

Source: [5], p. 51 (from ‘A Pharmacist’s Guide to Prescription Fraud’)

In the United Kingdom, Fountain and colleagues reported in 1998 that, whilst previously having been more widespread, incidents of forging prescriptions after having stolen (or bought) blank forms had decreased. This was primarily due to changes to prescribing procedures and increased security at GP practices [81]. In Australia, 85% of forged prescriptions reported to the Department of Human Services Victoria were for temazepam [85].

3.4.4 Patient deception
Whilst ‘doctor shopping’ and fraudulent prescriptions clearly involve deception on the part of the patient, there are a range of other ruses employed by prescription drug misusers in their attempts to ‘trick’ doctors and pharmacists into supplying prescription medicines. These are fairly wide-ranging, but generally involve deceiving practitioners in relation to the legitimacy of the need for a particular medication.
The types of ‘stories’ identified in the literature include incidents of ‘lost medication’ (in an attempt to secure a replacement), ineffectiveness of specific medicines for a pain condition (in order to obtain supplies of a particular drug) and fabricated pain symptoms [72, 81, 86].

Fountain and colleagues in their study of how drug misusers in treatment obtained surplus drugs to sell on the illicit market identified that patients sometimes used false identities (an aid to ‘multiple scripting’), exaggerated their use of a particular drug (e.g. benzodiazepines in order to get a prescription for them from a GP), feigned symptoms, or told ‘sob stories’ as a means of eliciting sympathy from a prescriber [81].

Other ‘manipulative approaches’ reported by CASA (2005) included ‘feigning psychological problems’, ‘concealing or pretending to take medications’ and ‘requesting refills for medicines early’ [5].

3.4.5 Thefts from pharmacies
Thefts from pharmacies have been reported in the literature [4-6, 79]. Whilst there is anecdotal evidence that community pharmacies in New Zealand have suffered break-ins and thefts [87-89] prescription drugs are not always the target of these robberies. Indeed, given the rise in methamphetamine use and the subsequent manufacture of this substance in New Zealand in recent years, pseudoephedrine-containing products would appear to be the focus of many of these incidents.

3.4.6 Other methods of sourcing prescription medicines from primary healthcare
Other ways of illicitly accessing prescription medicines that have been reported include patients ‘bargaining’ with prescribers (e.g. claiming that they were having to commit crimes in order to buy illicit drugs and if they were prescribed a certain medication, they would not have to do so) [81], residential burglary (e.g. stealing from the home of someone suffering from a chronic disease and thus requiring strong pain medication) [79] and purchases from dealers or ‘on the street’ [79, 90]. There have also been reports of healthcare practitioners diverting substances themselves [4, 6].

3.5 Interventions
This section provides examples of interventions that have been implemented in other countries to reduce and monitor supply, reduce the incidence of prescription drug misuse and demand. Treatment and harm reduction interventions have not been covered in this brief overview.

This section is by no means exhaustive and comprises examples from a number of countries, including those where the healthcare system is similar to that in New Zealand. Although regulatory and drug subsidy interventions are likely to impact on supply, and potentially impact on harms (both positively and negatively) a detailed review of this area is beyond the scope of this report.
3.5.1 Monitoring and surveillance systems

Monitoring and surveillance programmes typically use electronic data on prescriptions written and drugs dispensed, or multiple copy prescriptions. The United States has a vast array of monitoring and surveillance programmes, but given the differences between states, and between the U.S.A. healthcare system and that in New Zealand, it is difficult and less relevant to make comparisons. In addition, as noted by the Drugs and Crime Prevention Committee in their recent inquiry, due to the diversity of the different programmes in place in the United States, it would not be possible to define the common aspects that make up such a programme [6]. The authors provide an informative list (pp.179-180) of the nature of differences in approaches that have developed in the United States. These include, amongst others, the range of drugs covered, the design of programmes, how data is collected and who has access to it, whether or not a prescription drug monitoring programme is viewed as a disciplinary or therapeutic tool, and how stringent different States are in regard to protecting the privacy and confidentiality of patients. Interestingly, they also highlight the fact that there is evidence that the existence of a prescription drug monitoring programme in one state may increase prescription drug diversion or abuse activities in adjacent locations that do not have such programmes [6].

It has been reported that prescription drug monitoring systems can be effective at reducing prescription drug abuse, fraud and diversion [6, 40]. However, concerns have been raised regarding the privacy and confidentiality of patients on whom information is collated [6, 91]. In their inquiry into the misuse/abuse of benzodiazepines and other forms of pharmaceutical drugs in Victoria (2007), the Drugs and Crime Prevention Committee note that the projects they reviewed (PharmaNet, e-Kasper and CURES) have been developed in such a way that “these concerns are now negligible”. Indeed, they state that they were “very impressed with the operation and effectiveness of the overseas prescription monitoring models” that they reviewed [6].

The data from these programmes may be difficult to evaluate. Simoni-Wastila and Tompkins [92] have described, through research, the benefits and negative consequences of such diversion control mechanisms. They explored outcomes on diversion including reducing deliberate over-prescribing and inappropriate dispensing by PHCPs, ‘doctor shopping’ and forgeries. They noted that such programmes can reduce overall prescribing, and a proportion of this is believed to be due to a reduction in inappropriate use of prescription drugs. However, proxy measures for reduced diversion such as the number of prescribers reported for over-prescribing or a reduction in the number of prescriptions written are unlikely to be accurate measures, in particular with regards to prescription numbers. For example, doctors may switch to prescribing drugs not covered under the surveillance system to protect patient confidentiality, or in order to prevent the doctors themselves being monitored. There may also be a reduction in appropriate prescribing, which may be to the detriment of patients who may indeed need such medications [92].

Below are descriptions of two electronic monitoring and surveillance systems – one from Canada and one from Australia. Multiple copy prescriptions are explored later under “Changing prescription formats”.

42
3.5.1.1 PharmaNet (Canada)

In Canada, nine out of ten provinces have some form of prescription monitoring system, some which are well developed such as WellNet, PharmaNet and DPIN and can monitor issues such as doctor shopping. Furthermore, Health Canada has attempted to tackle the PDM problem through workshops with experts [17].

One such prescription monitoring programme in based in British Columbia. PharmaNet, was developed in 1995 as a result of a Royal Commission on Health Care completed in 1992 which identified that approximately 10,000 people in the province were hospitalised annually because of adverse drug reactions [91]. One of the recommendations of the commission was that a networked electronic database be developed with the aim of reducing harm and prescription fraud and abuse [6].

PharmaNet is a province-wide network that links all British Columbia pharmacists to a central database. It is managed by the Ministry of Health and its purpose has been defined as [93]:

- to prevent over-consumption of prescription drugs by unintended duplication or fraud;
- to prevent inappropriate therapies by drug interaction checking and dosage range checking;
- to promote cost-effective usage of drugs and other therapeutic alternatives.
- to improve standards of practice by offering comprehensive drug information and complete patient information;
- to streamline claims payments by offering immediate adjudication for pharmacies and the public.

Whilst it is also available to hospital physicians, community pharmacists are able to access medication information in the performance of their professional duties[32]. In addition, authorised medical practitioners[33] can request PharmaNet records of medications dispensed to a patient. Various types of information are maintained on PharmaNet, including patient medication histories and demographic profiles, drug information, historical patient claims, and drug interactions [6].

There are a number of features of PharmaNet which have been developed to protect the confidentiality and privacy of patients. For example, pharmacists are required to sign a confidentiality form and agree to certain conditions (e.g. not to access or use any clinical or patient information for any purpose other than those authorized in associated legislation). Technical and other staff are also required to sign confidentiality undertakings, and all pharmacists and doctors are required to have a unique identifier when accessing the database. In addition, patients have the option of

---

32 If a medication history is accessed when a prescription is not dispensed, the pharmacist must keep a record of the reason for the access.

33 Dispensing physicians (e.g. those practicing in a remote area without a community pharmacy) can also access PharmaNet, following approval by the College of Physicians and Surgeons of B.C. and the College of Pharmacists of B.C.
having a keyword attached to their record which limits access to selected pharmacies and physicians.

Whilst a number of steps were put in place to overcome security concerns about the PharmaNet programme (e.g. encryption of data, option for patients to password their records and limit access to selected pharmacists/pharmacies) critics remained concerned that the general public would not be aware of such measures or even that the database existed [91].

It is also interesting to note that pharmacists in Canada had concerns about the PharmaNet system when it was first introduced. These included the increased time it would take to fill a prescription, access to suitable hardware, software and training (with associated costs) and the potential for their professional practices to be monitored [91].

3.5.1.2 The ‘Prescription Shopping Program’ and ‘Prescription Shopping Information Service’ - Australia

It has been reported that several prescription shopping programmes have been implemented within Australia [6], with the most recent – the ‘Prescription Shopping Program (PSP)’ – established by Medicare Australia in 2005.

In a submission to the Drugs and Crime Prevention Committee [6], a representative of Medicare Australia defined the PSP as seeking to identify patients who (over a period of three months) have:

- PBS items prescribed to them by six or more different prescribers (excluding specialists and consulting physicians); or
- Obtained a total of 25 or more target PBS items; or
- Obtained a total of 50 or more target PBS items

(p.214)

An information service, accessible to registered doctors 24 hours a day, provides data on patients suspected of receiving medicine in excess of medical need. When doctors contact the service they are able to find out if their patient has been identified under the PSP, and can receive data on the amount and type of PBS medicine that has been (recently) supplied to the patient. More detailed information can also be accessed in a patient summary report, including the drug names, quantities supplied and the number of prescribers for each item [94]. In addition, a practitioner may be alerted by Medicare Australia to alert them in cases where a patient may be obtaining PBS medicines “in excess of medical need”. In contrast to the PharmaNet system in Canada, the service has been established for prescribers and is currently unavailable to pharmacists [94]. The Drugs and Crime Prevention Committee reported that after approximately 18 months in operation, there were 11,705 medical practitioners registered with the service which was responding on average to over 250 inquiries per week [6] (p. 215).

34 The target PBS medicines include analgesics, antiepileptics, anti-Parkinson medicine, psycholeptics, psychoanaleptics (including antidepressants), and all other nervous system medicine.
The report detailing the findings of the inquiry into the misuse/abuse of benzodiazepines and other forms of pharmaceutical drugs in Victoria [6] highlighted a number of criticisms of the PSP, which can be summarised as follows:

- its reliance on telephone and faxing, and lack of ‘real-time’ data;
- the most relevant information not always being available to practitioners due to legislative constraints (despite it being collected);
- information not passed on to relevant units in timely manner;
- lack of streamlined processes (e.g. reliance on paper-based systems);
- lack of data collection on drugs which are not subject to entitlement for a benefit under the PBS;
- the reliance on prescribers to initiate contact with the service;
- its lack of focus on inappropriate or negligent prescribing practices among health professionals;
- the service has not been evaluated.

3.5.2 Changing prescription formats

In New Zealand, and many states in the USA, controlled drug prescriptions must be written on multiple copy forms, with a copy staying at the pharmacy whilst other copies are sent to regulatory bodies. This is designed to reduce the possibility for forgery or altering prescriptions. Multiple copy prescriptions have been shown to reduce prescribing more than electronic data, as prescribers are reminded of surveillance each time they write a multiple copy prescriptions (but may be unaware of being monitored electronically) [92]. However, there has been criticism of such systems in that whilst they appear to control or reduce prescribing of benzodiazepines, for example, this can lead to patients with a medical need for these drugs not being prescribed them [95].

Another type of prescription system intervention is the use of numbered prescriptions to help prevent forgery. This also allows prescribers to monitor the number of prescriptions they write and be monitored, although again this may lead to a fall in prescribing as doctors become more conscious they are being monitored, which may have adverse consequences for bona fide patients [5].

3.5.3 Educational interventions designed to change prescribing patterns

The importance of training and education for health-care professionals is highlighted by the INCB as having an important role to play in ensuring narcotics are used in an appropriate fashion, and that the risk of diversion of the substances is lessened. In their most recent Annual Report, the Board recommended that this be included in the university curricula of health-care professionals [4]. Closer to New Zealand, the need for educational input in managing the issue – particularly for less experienced practitioners – has been highlighted in Australia [6, 72].
This recommendation would appear to be appropriate given the findings of a survey of physicians undertaken by The National Center on Addiction and Substance Abuse. The results revealed that despite the majority feeling confident they could spot prescription drug abuse, only 19% received medical school training in prescription drug diversion (although higher numbers accessed training at a later stage via continuing medical education and whilst in residency). Of those who had undergone this training in the medical school setting just over half had received a few hours or less. A little under half of pharmacists who took part in the survey indicated that they had received instruction (since graduating pharmacy school) in identifying prescription drug abuse/addiction. Similar figures were reported with regard to the number who had received instruction in preventing diversion. Overall, a little more than a third of physicians and half of pharmacists rated the education or training they had received as ‘good’ or ‘excellent’. Interestingly, the vast majority of both physicians and pharmacists cited work experience as one of their most valuable sources of information regarding controlled prescription drugs. Colleagues also rated highly in this regard (second after work experience), with around half of both professional groups agreeing that they were one of the most valuable sources of information [5]. Despite an appearance of confidence in their ability to diagnose PDM, another study showed that only 1% of physicians identified prescription drug misuse in their top five diagnoses when presented with a hypothetical case of a mature patient with signs of PDM [96] and when asked, most physicians and pharmacists were interested in receiving training in prescribing or dispensing controlled drugs [5].

Another US-based survey of pharmacists (the majority of whom were in attendance at a continuing education programme) found that around two thirds had participated in two hours or less of addiction or substance abuse education whilst in pharmacy school [12]. The survey included questions which tested the respondents’ knowledge of issues related to addiction. Results indicated that many did not have an understanding of scientific knowledge of addiction and abuse relating to prescription medications. In addition, just over half indicated that they had never referred a patient to a specialist drug treatment agency, and a low percentage reported that they counselled patients on the issue [12].

However, whilst there seems to be a dearth of undergraduate education and continuing professional development available for primary health professionals, it is important to recognise that training and educating PHCPs needs to balance the need to prevent PDM, whilst still allowing access to medicines for patients who need them [97].

With concerns over PDM increasing worldwide, there have been attempts to alter prescribing habits amongst GPs. In particular, attention has been focussed on the prescribing of benzodiazepines, and also on the prescribing of opioid and benzodiazepines for the management of chronic non-malignant pain. A selection of studies illustrating some of these issues are described below.

One study in Canada attempted to increase physicians’ confidence and competence at prescribing opioids and benzodiazepines to patients with chronic non-malignant pain, through an educational intervention. The educational intervention comprised a three hour didactic session which covered prescribing protocols, and reviewed treatment effectiveness. All physicians completed a survey which explored their current practice, confidence, motivation, expected outcomes for patients and optimism about
treatment. After attending this, physicians were randomised to two groups, with both groups being given a comprehensive syllabus, and the intervention group receiving 10 weeks of emailed case studies with expert discussion facilitation. At the end of the study a researcher blind to the randomisation posed as a fellow physician and telephoned the study physicians to ask advice in relation to two cases. Advice was recorded. A post test survey was also completed. There were no inter-group differences with regards to pre and post testing; however, all participants were more optimistic about treatment outcome, including that of opioid dependent patients, and the intervention group, when responding to the cases, asked more questions and gave more advice. Limitations of this study included a number of participants failing to complete the educational intervention and the number overall being small [98].

In a study in the Netherlands, researchers explored the use of educational intervention with GPs. GPs attended a postgraduate course on benzodiazepines, which included how to slowly and safely withdraw someone from these drugs. GPs then were non-randomly allocated to two groups – the intervention group sent educational letters to their patients (who were chronic benzodiazepine patients) advising them to reduce or stop their benzodiazepine use, whilst the control group did not. The study showed a reduction in the defined daily dose of benzodiazepines amongst patients in the intervention group, and a 16% overall reduction in benzodiazepine prescribing at 6 months, and 14% after 1 year [99].

In Denmark it has been estimated that around 2% of the population (100,000 patients) is benzodiazepine dependent. In this study, 13 medical practitioners at 10 medical practices (18,500 patients) were given an intervention based on official Danish regulations. This meant a maximum of a month supply, and only after a consultation with the use of telephone prescriptions being prohibited. Using the Danish prescription monitoring system there was a reduction in over 40% of benzodiazepine prescribing. Interestingly, workload did not increase for GPs, in that very few additional consultations were required, and the use of specialist support was generally not needed. Patients who reduced their use did not suffer any serious side effects [100].

3.5.4 The use of guidelines in altering prescribing

Guidelines, whilst not legally enforceable, provide advice and guidance to healthcare practitioners on aspects of service delivery. One of the areas of prescribing which has seen the development of guidelines, which as part of their remit includes the control of prescription drug diversion, is the management of chronic pain. The mainstay of treatment is opioids, and as such there is potential for patients to obtain medications for fraudulent purposes. In the USA, the Federation of State Medical Boards of the United States (FSMB) has developed and refined guidelines which provide parameters for assessment and treatment, supporting prescribers to provide appropriate care to pain patients. Whilst having a focus of preventing PDM, they do allow for opioid prescribing to people who have substance misuse problems [101]. In New Zealand, the New Zealand Guidelines Group does not have guidelines for the management of chronic pain, although there have, in the past, been calls for them and interim guidelines proposed [102, 103].
3.5.5 Public education and demand reduction

Although two decades old, research into the impact of Government campaigns to reduce the misuse of abusable prescription drugs provides useful evidence for the planning of similar campaigns. In an attempt to reduce the misuse of propoxyphene, an analgesic with addiction potential and implicated in overdoses, the Food and Drug Administration and the drug company provided mail-outs and face to face education with prescribers, and required warnings to be placed on packaging and advertising (and recommended it on patient information inserts). Furthermore one of the drug manufacturers made educational visits to 125,000 heavy prescribers of the drug. The aim was to convey to physicians, pharmacists and patients the risks over overdose of the drug by advising that it was not taken with alcohol or other CNS depressants and health professionals were advised not to prescribe the drug to high risk groups, such as those with substance misuse issues or who were suicidal. However, FDA audits later revealed less than perfect compliance of the drug company, with drug company representatives still promoting the drug as safe. A further regulatory change required that prescriptions were not allowed to be ‘refilled’. The results of research into prescription numbers, refill rates and overdose deaths indicated a fall in prescription numbers which was not maintained after the campaigns, with little change in refills or overdose death rates. The authors concluded that “sharper declines in misuse of such drugs will require stronger, more sustained regulatory or educational measures” [104].

In 2001, National Institute on Drug Abuse (NIDA) initiated a public education campaign in conjunction with many organisations including the American Pharmaceutical Association, the Pharmaceutical Research and Manufacturers of America, and the American Academy of Family Physicians [105] and also published a report which was aimed at PHCPs and patients [106]. The report covered an outline of community based drugs, prevention and treatment strategies plus outlined the roles of PHCPs and patients. As part of this campaign, NIDA distributed nearly half a million postcards in a variety of settings such as restaurants, gyms and record stores in major cities and college campuses.

In 2007 White House Office of National Drug Control Policy (ONDCP) issued guidance to the American public to reduce prescription drug misuse by safely disposing of unwanted medicines. The guidelines urge the public to:

- “Take unused, unneeded, or expired prescription drugs out of their original containers;
- Mix the prescription drugs with an undesirable substance, like used coffee grounds or kitty litter, and put them in impermeable, non-descript containers, such as empty cans or sealable bags, further ensuring that the drugs are not diverted or accidentally ingested by children or pets;
- Throw these containers in the trash;
- Flush prescription drugs down the toilet only if the accompanying patient information specifically instructs it is safe to do so;
• Return unused, unneeded, or expired prescription drugs to pharmaceutical take-back locations that allow the public to bring unused drugs to a central location for safe disposal” [107].

Local U.S. campaigns to reduce prescription drug misuse have focussed on opioids for the management of pain. A campaign announced in Utah in 2007 aimed to tackle the issue of deaths related to prescription drug misuse and included recommendations to develop guidelines for the prescription of opioid painkillers, provide education for health professionals and develop educational materials for patients. Finally they recommended a media campaign aimed at the public. No data currently exist on the progress of this campaign [108].

There are other reported efforts, mainly from the USA to educate health professionals and law enforcement officials, in prescription drug misuse, and diversion prevention, and these include courses, pamphlets on how to identify prescription fraud and questions for prescribers on identifying PDM [5].

It appears that there are currently few public health campaigns designed to raise awareness and to reduce demand and harm relating to PDM in general, although information exists for certain specific issues such as the dangers on the use of benzodiazepines for insomnia (see http://www.dassa.sa.gov.au/site/page.cfm?u=149).

3.5.6 Altering availability of different drugs and dosage forms

Whilst not specifically relevant to primary care, changing the formulation (tablet, capsule, modified release, matrix formulation, patch etc) can impact on the abuse potential of a particular drug. For example, a slow release tablet is likely to be less attractive to users (especially injectors) as the drug is released slowly and does not produce an initial rush. Thus an understanding of formulation issues, and making evidence based choices on which formulations to have available may impact on the level of misuse of that particular drugs. However, of note is that altering regulations, or changing the availability of certain dosage forms or formulations can have an impact on the prevalence of use, route of use and harms associated with use. Fountain et al noted that removing one benzodiazepine from the market resulted in users switching to other benzodiazepines and continuing to inject [40].

In 2006 a Conference on drug formulations and abuse liability was held in America. As part of the conference papers were presented on the evaluation of modified dosage forms. Table 7 below outlines modified formulations which theoretically have less abuse liability [109].

Table 7: Formulation strategies to decrease abuse liability

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled/delayed/mixed</td>
<td>Matrices, gels, beads, osmotic pump, bioerodible hydrogels; colloidal systems; liposomes and microspheres; Transdermal technologies (e.g., layers)</td>
</tr>
<tr>
<td>release</td>
<td></td>
</tr>
<tr>
<td>Tamper resistant</td>
<td>Matrices, gels, beads, osmotic pump, bioerodible hydrogels, nasal gel, implants, lockout devices; Transdermal technologies: layers</td>
</tr>
</tbody>
</table>
Researchers have explored the relative attractiveness of different drugs and dosage forms, in an attempt to find out whether it is possible to make available on prescription only those which are less attractive and less likely to be tampered with. In a study which compared controlled release formulations of methylphenidate against immediate-release and placebo, immediate-release formulations were perceived as subjectively better than placebo, whilst the normal dose of controlled release formulation was little different from placebo (although much higher doses were perceived more positively) [110]. In another study, recreational users of opioids were asked to rate the attractiveness and tampering potential of a range of opioids (fentanyl, hydromorphone and oxycodone) and formulations (some hypothetical: matrix patch reservoir-type gel patch, and tablet). There were definite preference for different products and the authors concluded that “comparative risk management programs should be part of the development of any new narcotic delivery system” [111].

3.5.7 Examples of New Zealand-specific interventions

In 1991, in New Zealand, PDM came to the attention of healthcare practitioners with the publication of two reports – one from the Medical Council of New Zealand (MCNZ) and the other from the Pharmaceutical Society of New Zealand. The MCNZ report made a number of recommendations in areas covering education (professional and public), professional support, management, data collection and surveillance, changing prescribing habits, use of Medical officers of Health, regulation and creation of a Substance Abuse Council. A search through the literature has revealed very little published information on progress within this area. However, the National Drug Policy 2006–2011 Consultation Document noted prescription drug diversion an issue [14] including lack of ability to monitor and carry out surveillance, and this is now part of current national drug policy [7].

At a practical level, professional bodies provide advice to health professionals when dealing with issues of PDM, as does Medicines Control. One of their practical support tools is the document “Surgery Support” which provides a standard operating procedure for prescribers when prescribing controlled drugs or medicines with known abuse potential and advice on managing requests for such medicines (personal communication). Of note is the fact that, currently, overseas doctors entering New Zealand do not undergo training in this field (personal communication), leaving them particularly vulnerable to becoming involved in problematic situations.

Treatment and advice interventions include the availability of the Alcohol and Drugs helpline, treatment at community alcohol and drug services, treatment specifically for benzodiazepine problems via Tranx in Auckland, and support provided through charitable organisations such as City Mission, Drug ARM, the Bridge and Narcotics

<table>
<thead>
<tr>
<th>Agonist antagonist combinations</th>
<th>Pentazocine-naloxone, buprenorphine-naloxone, morphine-naltrexone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro-drug CYP P450 inhibitor combination</td>
<td>Codeine, methylenedioxyamphetamine</td>
</tr>
<tr>
<td>Inclusion approaches</td>
<td>Colorants, opacifiers (e.g., in zaleplon), aversive/toxic agents (e.g., inclusion of capsaicin or apomorphine)</td>
</tr>
</tbody>
</table>

Source:[109], p. s53
Anonymous. Residential rehabilitation is also provided through a range of NGOs. Examples of print and web education and information for the public can be found at organisations such as FADE. A texting service offered through the New Zealand Drug Foundation provides brief harm reduction text responses about a range of drugs, although information on many prescription medicines is not currently available as a standard response.

At the 2007 APSAD/Cutting Edge conference, a session was held which explored PDM an issue. This well attended session heard presentations from New Zealand and Australia. One of the subjects focussed on was the management of chronic non-malignant pain, and issues relating to PDM. As is the case overseas, pain management provides challenges for both primary and secondary care, and an example of a local initiative set up in this field comes from Rotorua. A group of pain specialists concerned with opioid misuse has set up the Opioid Action Group whose stated goal is to: “map current treatment / health services / educational and school services / community initiatives / youth initiatives and current social services involved in problem use of opioids”. The group has set up continuing professional education and reports a growing interest and attendance (see: http://painspecialists.co.nz/Opioid%20Diversion.htm). Beyond this, the issue of PDM is not one which attracts much attention in terms of education and training for PHCPs or the public.
4 SEMI-STRUCTURED INTERVIEWS WITH GENERAL PRACTITIONERS, COMMUNITY PHARMACISTS AND ‘KEY EXPERTS’

This part of the report provides the methods, results and summaries of our research into issues for primary healthcare – specifically community pharmacy and general practice. Findings are drawn from semi-structured qualitative interviews with GPs, CPs and KEs.

4.1 Methodology and sample

4.1.1 Methodology
A qualitative approach was undertaken for this stage of the study, which consisted of a series of semi-structured interviews. A mixture of face-to-face and telephone interviews were conducted.

4.1.2 Sample
The study sought to interview up to 20 CPs, 20 GPs and 20 KEs, or until data saturation was reached.

4.1.3 Sampling
Sampling for each participant group was purposive. This approach seeks to select individuals due to their knowledge, experience or specific characteristics [2]. The sampling process was ongoing throughout the study, as the data collection, reflection and review processes informed the need for particular information from specific sources.

In order to access a range of views and experience, a broad range of GPs and community pharmacists was sought in the research. This included those working in different geographical areas (e.g. rural vs. urban), a mix of genders, and PHCPs with varying levels of experience. In addition, GPs employed in practices of varying sizes, and CPs working in different types of pharmacies (e.g. mall vs. strip pharmacy) were purposively recruited.

KE interviewees were sought for their experience and expertise in a number of areas, including alcohol and drug treatment, needle exchange, advice services, health or drug policy, law enforcement, and for their connections to the GP and pharmacy professional bodies. Others were also sought for their knowledge of, or access to, secondary data sources. It should be noted that a number of participants from this sample group were also practicing PHCPs (e.g. GPs). Thus, they brought dual perspectives to the research.

4.1.4 Recruitment of Participants
Interviewees were recruited via a range of avenues. Flyers advertising the research were distributed at relevant PHCP events (e.g. a CME meeting). Other interviewees were identified via research(er) networks, through contacts obtained through the
advisory group, internet and media searches on the subject of prescription drug misuse, practitioner directories and through other informal networking.

Potential interviewees were contacted directly by the lead researcher (sometimes via email in conjunction with a member of the advisory group) and provided with an explanation of the research, what their participation would involve and how the information would be used. If they agreed to take part, an interview was scheduled. In addition, a ‘snowballing’ technique was used, whereby those interviewed (or who declined to take part) were asked to recommend other potential participants.

4.1.5 Data Collection

All interviews were carried out using a topic guide developed by the research team, which was adapted depending on the participant’s professional role and area of expertise. The key questions were shaped by the current literature at the time of the research and the broad research aims, and were developed with input from the project advisory group. Topics covered included current prescription drugs of abuse, ‘drug seeking’ behaviour, role of diverted pharmaceuticals, impact of prescription drug misuse and PHCPs response to the issue. Written informed consent was obtained prior to each interview.

Interviews were carried out between June 2007 and January 2008 and lasted between 25-75 minutes. All interviews were tape-recorded and participants were offered vouchers (cinema, book, petrol, or gardening) to the value of $30 as a ‘thank you’ for their contribution to the study.

4.1.6 Data analysis

Interviews were transcribed verbatim by experienced transcribers who were provided with background information on the research study. Following this, the lead researcher who had conducted the interviews listened to the recorded discussions, checked the accuracy of the transcription, and made amendments where appropriate.

Data were analysed utilising a general inductive approach [112], a systematic procedure for analysing qualitative data which draws on grounded theory [113]. A selection of transcripts was first read through by the lead researcher and a coding frame developed, which was reviewed by a second researcher. To ensure reliability, at the start of the coding process a small number of transcripts were coded twice by two different people, and the coding was compared to check interpretation. Transcripts were then coded by one of three members of the research team with the aid of computer-assisted qualitative data analysis software (N-VIVO). The coding frame was developed, amended, and refined where appropriate during this process, through continued discussion and negotiation between the researchers. Furthermore, key themes and significant issues arising from the data were presented to the project advisory group members for feedback, who also peer reviewed sections of this report.

[35] The majority of CP and GP interviews were around half an hour in length. KE interviews tended to be longer, with most lasting around one hour.
4.2 Results

4.2.1 Description of the sample

A total of 51 semi-structured interviews were undertaken with GPs, CPs and KEs. A decision to cease data collection for these groups was made when no significant new information was being obtained. A breakdown of each sample group is provided below.

4.2.1.1 General Practitioners

Seventeen interviews were conducted with GPs. Table 8. displays the sample composition, according to location, gender, length of time the GP had been practicing, the size of the practice\(^{36}\), and whether or not the interviewee was authorised to prescribe methadone.

<table>
<thead>
<tr>
<th>Int. No.</th>
<th>Location</th>
<th>Gender</th>
<th>Time practicing</th>
<th>Practice size / type</th>
<th>Methadone prescriber?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rural</td>
<td>Male</td>
<td>15-20 years</td>
<td>Large</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Urban</td>
<td>Male</td>
<td>15-20 years</td>
<td>Medium</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>Urban</td>
<td>Female</td>
<td>15-20 years</td>
<td>Large</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>Rural</td>
<td>Male</td>
<td>20+ years</td>
<td>Medium</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>Small</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>Urban</td>
<td>Female</td>
<td>15-20 years</td>
<td>Large</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>Medium</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>Large</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>Urban/rural(^{37})</td>
<td>Male</td>
<td>20+ years</td>
<td>Medium</td>
<td>Y</td>
</tr>
<tr>
<td>10</td>
<td>Urban</td>
<td>Female</td>
<td>20+ years</td>
<td>Medium</td>
<td>N</td>
</tr>
<tr>
<td>11</td>
<td>Urban</td>
<td>Male</td>
<td>10-14 years</td>
<td>Large</td>
<td>Y</td>
</tr>
<tr>
<td>12</td>
<td>Rural</td>
<td>Female</td>
<td>5-9 years</td>
<td>Medium</td>
<td>N</td>
</tr>
<tr>
<td>13</td>
<td>Urban</td>
<td>Male</td>
<td>5-9 years</td>
<td>Large</td>
<td>Y</td>
</tr>
<tr>
<td>14</td>
<td>Rural</td>
<td>Female</td>
<td>5-9 years</td>
<td>Small</td>
<td>N</td>
</tr>
<tr>
<td>15</td>
<td>Urban</td>
<td>Female</td>
<td>10-14 years</td>
<td>Large</td>
<td>N</td>
</tr>
<tr>
<td>16</td>
<td>Urban</td>
<td>Male</td>
<td>15-20 years</td>
<td>Large</td>
<td>N</td>
</tr>
<tr>
<td>17</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>Medium</td>
<td>Y</td>
</tr>
</tbody>
</table>

\(^{36}\) Small practice = 1 GP; Medium = 2-3 GPs; Large = 4+ GPs

\(^{37}\) Interviewee nine was employed in two practices.
4.2.1.2 Community Pharmacists

Sixteen interviews were conducted with CPs. Table 9 displays the sample composition, according to location, gender, length of time the CP had been practicing, and whether or not methadone was dispensed from the pharmacy where the CP was employed. In addition to the information displayed in the table, interviewees from a range of pharmacy ‘types’ (e.g. mall vs. strip, franchise vs. independent ownership) participated in the research.

Table 9: Breakdown of CP Sample

<table>
<thead>
<tr>
<th>Int. No.</th>
<th>Location</th>
<th>Gender</th>
<th>Time practicing</th>
<th>Dispenses methadone?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urban</td>
<td>Female</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Urban</td>
<td>Female</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>Rural</td>
<td>Male</td>
<td>15-20 years</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>Rural</td>
<td>Female</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>Urban</td>
<td>Female</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>N</td>
</tr>
<tr>
<td>8</td>
<td>Urban</td>
<td>Female</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>Urban</td>
<td>Female</td>
<td>0-5 years</td>
<td>N</td>
</tr>
<tr>
<td>10</td>
<td>Urban</td>
<td>Male</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>11</td>
<td>Urban</td>
<td>Male</td>
<td>10-14 years</td>
<td>Y</td>
</tr>
<tr>
<td>12</td>
<td>Semi-rural</td>
<td>Male</td>
<td>20+ years</td>
<td>Y</td>
</tr>
<tr>
<td>13</td>
<td>Urban</td>
<td>Female</td>
<td>20+ years</td>
<td>N</td>
</tr>
<tr>
<td>14</td>
<td>Urban</td>
<td>Female</td>
<td>0-5 years</td>
<td>Y</td>
</tr>
<tr>
<td>15</td>
<td>Urban</td>
<td>Female</td>
<td>0-5 years</td>
<td>Y</td>
</tr>
<tr>
<td>16</td>
<td>Rural</td>
<td>Female</td>
<td>5-9 years</td>
<td>Y</td>
</tr>
</tbody>
</table>

4.2.1.3 Key Experts

A total of 18 interviews were conducted with KEs. These included people working in drug treatment, regulatory bodies, law enforcement, non-government organisations, and representatives of primary healthcare professional organisations. Other KEs were interviewed due to their specialist knowledge of relevant issues (e.g. secondary data sources or consumer views).

4.2.2 ‘Drug seeking’ behaviour

This section presents findings in relation to ‘drug seeking’ behaviour. This includes trends in prescription drugs sought illicitly, how GP and CP interviewees perceived
patients involved in this activity, their experiences of how the substances were obtained, and what they considered to be indicative of ‘drug seeking’ behaviour. Information from KEs is also included in section, where appropriate. The source of the information (i.e. from which sample group) is indicated in the text.

4.2.2.1 Drugs of abuse

GPs and community pharmacists were asked about their experiences in relation to which prescription medicines were targeted by individuals seeking the drugs for their psychoactive effects. KEs also provided input on this issue, some of which incorporated information provided by ‘drug seekers’ themselves.

Several PHCPs highlighted the changes that had occurred over the years, with regard to the prescribing of potential drugs of abuse. Whereas previously some medicines had been given out freely, increased awareness of the harms of such substances (including the potential for dependence) and restrictions on prescribing had meant that PHCPs’ habits had changed somewhat:

Well when I first started, about the only controlled drugs basically were the opiates. And in those days we actually did have the likes of heroin and cocaine, which we made mixtures, Brompton cocktail and that type of think. ... and things like, well things like Ritalin, things like methylamphetamine, dexamphetamine, basically we bought them in cans of 5000 at a time and just, you know, counted them out and gave them out to the depressed housewife. [Interview CP12]

I suspect they [benzodiazepines] are not as abused now as they were, not in our area. I think it just generally tightened up because there again they’re on a 30 day supply maximum and doctors are a bit reluctant to supply some of these things now. I mean it works in reverse – I was talking to a lady yesterday who was moaning the fact that whenever she went to the doctor saying she couldn’t sleep, he gave her seven sleeping tablets. I mean, that’s the pendulum swung completely. [Interview CP7]

When discussing trends in relation to potential drugs of abuse, pseudoephedrine was generally considered to be the most high profile development in recent times. Whilst it was believed that the majority of supplies of this substance had been illicitly obtained via over-the-counter products, interviewees reported that they were also alert to ‘drug seekers’ who sought to access it via prescriptions. The apparent fall in ‘homebake’ production and New Zealand’s restricted heroin market was also noted by some interviewees:

As I said, morphine sulphate is the number one and it’s pretty well stuck there because, you know, in New Zealand we don’t have a huge availability of heroin so that isn’t the number one IV user drug. Homebake, which was big a few years ago, which was derived from codeine, that still goes on I believe around the [south island town], but we don’t hear a lot of that anymore. [Interview KE17]

Beyond this, different PHCPs and KEs had diverse experiences in relation to which drugs were targeted in their practice or pharmacy. For example, some reported a problem with benzodiazepines, whereas others stated that the substances were not a major issue in their area.

Across the sample, three main groupings of medications were identified as being targeted by ‘drug seekers’ – opioids, benzodiazepines and stimulants. A description of the main medicines sought within each category is provided below.
4.2.2.1 Opioids

The main drugs sought within this category included codeine, dihydrocodeine tartrate (DHC), morphine (including morphine sulphate, LA-Morph® and m-Eslon®), and methadone. Other opioids less commonly reported included dextropropoxyphene with paracetamol (Paradex®), tramadol and pethidine:

There’s still some that go after the narcotics, yeah sort of pethidine seems to be a very common one. [Interview GP4]

Probably the situation that we would strike most commonly and the last one that I can remember would be a patient that’s on regular codeine medication and we’ve alerted the doctor to the fact that these people are presenting early to pick up repeats. [Interview CP10]

A number of KEs from a treatment background raised concerns about increasing problems with the use of Nurofen Plus (an OTC medicine not a prescription drug) containing ibuprofen and codeine:

We’ve had a little range of people coming on through eating a lot of Nurofen Plus, and I’m talking about a lot of Nurofen Plus, like up to 48 tablets of Nurofen Plus a day, which is not good for them [Interview KE12]

There are a number of clients who are addicted to non-prescription medicines that they get in the pharmacy like Nurofen Plus with codeine, and that’s easily obtainable and, you know, I’ve seen a few people in the last few months who have been consuming large quantities of Nurofen that they’re just buying from different pharmacies [Interview KE14]

One KE also highlighted that they had recently heard about drug users injecting oxycodone hydrochloride (OxyContin®).

4.2.2.1.2 Benzodiazepines (or ‘benzos’)

Benzodiazepines were a key group of medicines cited by all interviewees as being widely sought by ‘drug seekers’. Some spoke about benzodiazepines as a group as being targeted, whereas others cited individual medicines within this category. The main benzodiazepines highlighted included diazepam (Valium®), clonazepam (Rivotril®) and temazepam (Normison®, Somapam®, Euhypnos®):

And benzodiazepines, particularly I think I find clonazepam in particular seems to be a bit abused. A couple of others but that one in particular sticks out. [Interview CP14]

Benzos are the worst, they’ve always been popular and Rivotril® is about the most popular of all now. [Interview KE12]

Anything with a ‘pam’ on the end of it. Anything in the Pam’s range will be abused! [Interview KE2]

Those mentioned less often included midazolam (Hypnovel®) and triazolam (Halcion®). Zopiclone (Imovane®) was also mentioned38. One KE felt that the increase in misuse of zopiclone was linked to an apparent escalation in prescribing rates:

It was interesting how the trend [of prescribing], how it titrated up, yeah especially zopiclone, it was amazing. The other benzos, they [prescribers] were really quite mindful of those, you

---

38 Although it is not a benzodiazepine, it is included here as it is a sedative.
could see the prescribers were actually going, ‘right we’re not really meant to be doing these for this level’, so they jumped over to zopiclone. [Interview KE9]

4.2.2.1.3 Stimulants

The key stimulants sought by patients for their psychoactive effects, as reported by interviewees, were pseudoephedrine-containing products\(^{39}\) and methylphenidate (Ritalin®):

Well it’s interesting because Ritalin seems to be quite an issue down in the sort of Christchurch kind of area so we’re making sure that we’re talking to pharmacists down in that area. [Interview CP10]

One KE reported that they had seen a drop in the number of approaches to their service related to use of methylphenidate, whilst others indicated that it had become a problem in recent years. An interviewee working in a drug treatment service in the south island believed that the popularity of methylphenidate (and other substances) was due to methamphetamine’s limited availability in the region:

Ritalin’s the big one at the moment... I know a lot of people who use Ritalin, they will use BZP if they can’t get hold of that but we don’t see a lot of P, for example, down here so, you know, other crap is the norm. [Interview KE13]

4.2.2.1.4 Other drugs

A minority of participants mentioned other prescription medicines including Ventolin® inhalers and anti-epileptic medications. A small number of KEs also commented on people misusing anti-depressants:

A range of antidepressants, yeah. Amitriptyline seems to be around a lot. [Interview KE7]

4.2.2.2 Primary healthcare practitioner views of ‘drug seekers’

GPs’ and community pharmacists’ perceptions of the type of people involved in misusing prescription medicines were explored in the research. The research identified that ‘drug seekers’ were not considered a homogenous group. Indeed, analysis of qualitative data revealed that PHCPs often considered that there were two ‘types’ of ‘drug seekers’. For the purpose of this report they will be referred to as ‘abusers’ and ‘over-users’, and a description of each, as an interpretation of interview findings, is provided below.

\(^{39}\) There are no pseudoephedrine products which can only be supplied on a presentation of a prescription (i.e. none of them is classified as “Prescription Only”). Furthermore, of those which are available, (e.g. Sudomyl® and Sudafed®), none is subsidised by Pharmac. However, GPs can also prescribe non-funded products where the patient pays the full cost. In this case, whilst they are all available without a prescription as they are classified as “Pharmacy Only”, because many pharmacists will not sell them to people they do not know, patients sometime get prescriptions from their doctors in order to assure themselves of a supply. This may be for legitimate or PDM purposes. The most commonly prescribed is probably Sudomyl®, but doctors could also prescribe Sudafed®, or even combination products such as Codral®.
4.2.2.2.1 ‘Abusers’

For GPs and CPs, ‘abusers’ were often the immediate association made with prescription drug misuse, and many considered them to be the archetypal ‘drug seeker’.

‘Abusers’ were believed to acquire prescription medicines for their own use or for selling on to the illicit market. It was assumed that this group of patients sought the drugs for recreational substance use, for the ‘high’ obtained from the drug, or to knowingly feed an addiction. This theme was broadened by KEs who said ‘abusers’ would also be using prescription medication for staving off withdrawal symptoms when their illicit drug of choice was not available. Most CPs and GPs believed that the prescription medicines obtained by these individuals were never used for their intended purposes.

GPs and CPs usually positioned known addicts or drug abusers in this category; thus, methadone patients or individuals known to be receiving treatment from specialist AOD services were generally considered ‘abusers’ rather than ‘over-users’. They perceived ‘abusers’ as having a history of drug abuse (often poly drug users) and some with co-existing mental health issues. Some GPs and community pharmacists also spoke about these patients leading transient or chaotic lifestyles, and having criminal or gang connections.

Several PHCP interviewees commented on the appearance of ‘abusers’ as being untidy or dishevelled. Where it was highlighted (by a minority of research participants) that these patients were also sometimes well-dressed or “business-like”, this was noted as being the exception rather than ‘the rule’. As evident in the following excerpt from an interview with a community pharmacist, some were reluctant to be seen as passing judgement on these patients:

> It’s like, I don’t know, this sounds real mean, drug users like they’re really skinny and really pale and got like tattoos, that’s really bad, but they’ve got tattoos. There’s just something that you can just pick them. Don’t ask me why, you just know after a while. [Interview CP9]

As a rule, CPs and GPs considered ‘abusers’ to be more ‘devious’ in the way that they accessed substances from primary care, and there were varying degrees of empathy for these patients:

> Well, the ‘drug seekers’ are taking advantage of you, they’re liars and manipulators. [Interview GP11]

4.2.2.3 ‘Over users’

This second group of ‘drug seekers’ tended not to be at the forefront of most PHCPs’ minds when considering prescription drug misuse. Indeed, it was often only in the latter stages of an interview that GPs or CPs started to talk about a different category of patients involved in ‘drug seeking’ behaviour – and some even questioned whether or not ‘over-users’ should be classified as prescription drug misusers:

> I mean there’s a lot of, I mean unfortunately there’s still a lot of people addicted to sleeping tablets and benzos [benzodiazepines] that are prescribed every month. I’ve got patients like that that I can’t get off and I wouldn’t call them ‘drug seekers’, but they are dependent on benzodiazepines. [Interview GP3]
In contrast to ‘abusers’, this group of patients were believed to have – initially at least – sought prescription medicines for their intended purpose (e.g. opioids for pain relief). However, their misuse had developed over time and was evident in their long term use of medicines associated with abuse potential (e.g. morphine). Many of the patients described in this category were older individuals, and often users of drugs such as benzodiazepines.

Many interviewees did not consider these patients to be ‘drug seekers’ in the same way as the previous group. They were often perceived to be less ‘underhand’ and did not fit the stereotypical drug ‘addict’. Additionally, it was believed that these individuals sought medications for their own use only, and no PHCPs interviewed believed that they were selling their supplies on the illicit drug market.

At the same time, a number of interviewees spoke about the pathway to addiction for these people, with many considering that the medical profession needed to take some responsibility for this. In particular, issues such as inappropriate prescribing and a lack of monitoring of these patients were raised:

\[I\text{ mean I have a patient myself who’s on morphine that started in the hospital and now, you know four or five years later she’s still taking them and there’s no way she’s ever going to get off it. You know, we’ve tried, she’s been under the pain clinic and, you know she’s basically a drug addict at the hands of the medical profession. And you know, we have to take some, sometimes we have to take some blame for these things starting.}\]

\[I\text { mean some years ago there was a preponderance of middle aged and older people being on them. And so that’s probably a bit less common now but with some of the older ones who have been on them a while who are resistant to coming off you might think, well, you know, if they’ve been on them this long and they’re going to die in a few years, why bother getting them off?}\]

As evident in the following interview extract, whether or not a patient was considered an ‘over user’ vs. an ‘abuser’, sometimes impacted on the PHCP’s response to the issue:

\[But I didn’t do it [contact Medicines Control] for that guy in the end because I think that he’s actually not a ’drug seeker’. Well he’s a ’drug seeker’ in that he’s totally addicted to these things but he’s not, I don’t believe he’s passing them on or using them for any purpose other than to manage his day-to-day back pain.\]

One GP reported that she had decided not to contact Medicines Control regarding her concerns about a patient misusing their medication due to the individual being considered an ‘over user’ rather than a typical ‘drug seeker’ (i.e. an ‘abuser’):

\[Well, I mean it’s very hard to tell which is which when you first meet people. I think there are signals you pick up when dealing with people. If there’s a dependence then it’s a matter of trying to sort of trace back to where and how it started and getting evidence of that. No I don’t think I know the difference always.\]
In line with the above, a community pharmacist highlighted that identifying an appropriate response based on the type of patient was more difficult for CPs, given their restricted access to background information on patients:

> So overuse needs some help around appropriate use and maybe alternative therapy, and abuse is just simply wanting to get it for its effects and that’s hard as pharmacists to see, because you don’t have that diagnosis underlying it. [Interview CP2]

One GP commented that because prescription drugs are legally obtained, users would feel that overuse was in some way valid, in a similar way to use of alcohol, and might indeed mean a wider range of people became involved:

> It never takes the people into the situation of criminality, it’s not illegal, so a broader range of people can become addicted who might be deterred from using drugs otherwise. Okay so yeah, you know, they can all feel validated that it was given to them by their GP and that’s fine. The same way alcohol is sort of, you know, and the harms that that does. It’s, you know, there’s no, there’s no feeling that it’s not wrong, you know. [Interview GP6]

### 4.2.2.4 Perceived demographic profile of ‘drug seekers’

The research sought to explore whether there were any trends with regard to the demographic profile of ‘drug seekers’. Some GP and CP interviewees spoke about this spontaneously (particularly in relation to the age of patients involved in this activity). Others, however, did not and were prompted in relation to the age, gender, and ethnicity of ‘drug seekers’. It should be noted that none of this information is based on a quantitative analysis of the demographic profile of ‘drug seeking’ patients on the part of PHCPs – it is fundamentally their perceptions of the characteristics of this group, either gained through experience or based on preconceptions and anecdotes. This information is important as these views influenced GPs’ and CPs’ attitude towards this patient group, and subsequent response to the issue (see later section).

Some interviewees were quick to point out that it was difficult to generalise about the characteristics of patients involved in this kind of activity, as they came from “all walks of life”, and included both males and females, and younger and older individuals. However, when explored further, a number of common perceptions were identified, and these are presented below.

For the most part, GPs and CPs stated that the ethnicity of ‘drug seekers’ was predominantly New Zealand European. A number reported that they had no known Pacific patients involved in this activity, and few or no Asian and Māori patients. Whilst some acknowledged that this was a reflection of the demographics of the area in which their practice or location was based, others with higher numbers of Māori, Pacific and Asian patients also stated that they perceived it as a New Zealand European issue.

Many interviewees felt that illicitly accessing prescription medicines from primary care was the domain of both males and females, with no particular bias towards either gender. Some, however, did state that the approaches used by men and women to access the drugs differed. For example, it was perceived that males would be more likely to use ‘standover tactics’, whereas females would be more successful at fabricating ‘stories’ as to why the medicine was required.
The age of ‘drug seekers’ was also reported to vary with no particular age range closely associated with prescription drug misuse. However, some interviewees did report that they more commonly saw younger people (i.e. between 20 and 40 years old) rather than those aged fifty plus involved in this activity. Others highlighted that patients in the older age ranges (e.g. 60+) were more likely to be misusing drugs such as benzodiazepines. Only two interviewees reported that they had concerns about teenagers potentially misusing their prescribed medication.

It is interesting to note that KEs commented on the apparent preconceptions that some PHCPs had of ‘drug seekers’. In particular, they believed that this created the potential for ‘drug seeking’ patients who did not fall within the presumed profile to be overlooked:

*The discussions I’ve had with Medsafe over some clients, it’s not difficult to get drugs particularly if you’re plausible and articulate, reasonably smart. And I think personally, well a lot of the stereotypes that doctors, like other people have about ‘drug seekers’ or drug addicts – obviously somebody, you know, who’s unkempt and dishevelled and has got long hair and wearing a hood and so on, immediately the alarm bells [start] ringing. But somebody walking in looking smart and shaking your hand and it’s very easy I think to have a very plausible story, and some of the clients I’m dealing with, you know, are really highly skilled… and people who seem very respectable and well-spoken and educated and articulate and there’s plenty of doctors in [name of city] I guess you could just go round with the same story for quite a long time till the penny drops. [Interview KE14]*

*They’re [prescription medicines] not actually hard to get from either source – illicitly or from your doctor, particularly if you look middleclass, you know, white middleclass and say ‘doctor I can’t sleep, I’ve got so much stress in my life’ and times nine that’s not hard. [Interview KE3]*

A number of KEs – particularly those working in treatment services – were also quick to point out that ‘drug seeking’ patients came from a wide range of backgrounds:

*We’ve got a really broad range of people here. And I’ve got a client who is doing a pretty high university degree at the moment, more than a bachelor anyway…Her main thing is Ritalin one day and BZP the next so it’s common, like education is no barrier to indiscriminate drug use. [Interview KE12]*

*A whole spectrum, you know, from high flying business people and successful professional people to folk who are, you know, on benefits and struggling and have been in prison and come from very deprived backgrounds with maybe lots of co-morbidities and have other problems, so there’s no typical patient. [Interview KE14]*

Some KEs did, however, also highlight gender differences with regard to prescription drug misuse behaviour (e.g. methods of accessing the medicines), as evident in the following interview excerpts:

*Probably the first thing that springs to mind is the guys tend to be much more into physical injury, and perhaps the women are more the emotional stuff. The women, a lot of the women tend to go for migraine type reasons for requiring pain relief, or you know the women’s type thing because I think that they think it frightens the doctors off asking too many questions! Whereas the men are much more kind of you know they’ve been assaulted or they’ve had a car accident… I think also the women are more likely to turn on the tears and the guys are perhaps a bit more likely to be aggressive. [Interview KE8]*

*I don’t see any gender difference particularly in the polysubstance users. Maybe more women are ‘doctor shopping’ than men, I would think in my experience. Men might be more inclined to buy them, in my experience they buy their drugs rather than ‘doctor shop’. [Interview KE9]*
Gender, we’re currently about 25% men and 75% women. Three years ago, three or four years ago, it was 40% men and 60% women. And I think that some of the issues that play out there are round I think women are prescribe these more commonly and I think that men are less likely to ask for help, so I think those two things. A lot of the men we see feel quite shameful about being dependent on what’s traditionally seen as a women’s drug. [Interview KE3]

4.2.2.5 How substances are obtained

The research explored interviewees’ experiences with regard to how prescription medicines were illicitly obtained. GPs and CPs were able to describe incidents and events based on their experiences as PHCPs. KEs drew on information they had obtained within their respective roles – e.g. via clients who reported this information when presenting at treatment services.

It should be noted that these methods of obtaining prescription medicines for illicit purposes were often only identified retrospectively. For example, the PHCP found out at a later date that the patient had been accessing the substances from other sources or that the prescription was in fact forged. In some cases, this was after the medications had been supplied to the patient. In other instances, however, the GP or CP had refused to supply the drugs due to concerns over the legitimacy of the request and later found out that their assessment of the situation had been correct. In addition, some interviewees highlighted that the true intentions of the patient sometimes became clear during the actual consultation, for example, when they became aggressive or intimidating.

The main ways of obtaining the substances, as reported by research participants, are outlined below. In reporting the findings in this section, greater emphasis has been given to the information collected from GPs and CPs, due to their direct experience of the issue. However, where relevant, data from KE interviews is included. Importantly, KE views on how ‘drug seekers’ obtain substances from primary care were very similar to the methods reported by GPs and CPs.

4.2.2.6 Picking up repeat prescriptions early

A very common method of attempting to obtain prescription medicines, as reported by interviewees, was patients returning early to pick up repeat prescriptions. Repeat prescriptions are prescriptions which are written for longer periods of time (a three month supply) where a month is dispensed at a time. Patients can be early for repeat prescriptions either by requesting a new prescription early at the GP, or turning up early for an instalment at the community pharmacy. In the case of a 90 day prescription given in three lots of 30, regulations allow patients to collect the next instalment after 20 days (although whether it is dispensed is at the discretion of the CP). The following account is typical of some of the examples provided by interviewees of ‘drug seeking’ patients’ behaviour:

I’ve got a patient now who’s always, she’s on codeine tablets, 30 mg tablets BD, and she’s in, has been getting her repeats. She’s on the repeats generally within three weeks of dispensing.

40 This includes some KEs who were also practicing community pharmacists and GPs.
So she’s shortening it – the worst we had was she was within 10 days, saying she wanted to go off on holiday. [Interview CP12]

As evident in the above interview extract, patients who returned early for their medication generally provided a reason to their pharmacist as to why this had occurred. Those most commonly reported by interviewees either stated that the medication had been lost or stolen, or that the patient was going on holiday and therefore needed to take additional supplies with them. One CP reported that, in some cases, patients were open in acknowledging that they had taken more than the prescribed dose and, as a result, used up their supplies early.

In response to these requests CPs stated that, in some cases, they did dispense the medication early. This was usually dependent upon how well-known the patient was to the pharmacy, their history (e.g. known ‘drug seeking’ behaviour), how commonly the behaviour occurred (e.g. if a rare event, then it was more likely that they would dispense the medicine), and the perceived credibility of the reason. One CP reported that they required patients to sign their prescription to state that the reason for needing the medication early was legitimate.

4.2.2.7 ‘Doctor Shopping’

Patients accessing multiple prescriptions from different doctors was highlighted as one method of illicitly obtaining prescription medicines. This was commonly referred to as ‘doctor shopping’. It either involved people attending various GPs in the same town or city – or even practice – or across different regions. In some cases, it was reported that people used fraudulent identities to do this. However, particularly when accessing doctors across different regions, GPs and CPs asserted that some patients did not attempt to hide their true identity.

Interviewees stated that when patients accessed prescriptions from different doctors, they sometimes presented the prescriptions at different pharmacies (see ‘pharmacy hopping’ below). Whilst this made it difficult to track such activities (given the lack of data sharing across individual pharmacies) a number of interviewees highlighted that locums working across different sites had been successful at identifying ‘doctor shoppers’:

And it’s very interesting actually, because of the nature of this business a lot of our pharmacists work in other businesses in [name of suburb] and work nights in the weekend and they will see people that they’ve seen in their pharmacy here, so that we’ve actually picked up a few things like that when people are shopping around. [Interview CP2]

Alternatively, some patients presented multiple prescriptions at the same pharmacy. Some CPs reported that this was less common following the development of more sophisticated pharmacy IT systems:

Sometimes it’s multiple prescribers if it’s prescription stuff and that’s sort of an unusual thing really because with computer systems and things like that it’s a bit daft to bring it to the same pharmacy so I’m not sure that many of them do that now. I think they’ve got the message about that… because [in the past] we didn’t have the computer software which prompted us if we’d had a prescription dispensed, the same thing in the last 20 days. [Interview CP7]
4.2.2.8 ‘Pharmacy hopping’

It was reported that ‘drug seekers’ sought to access substances via presenting prescriptions at different pharmacies. The research identified two main scenarios where this occurred. One involved patients taking different prescriptions to different pharmacies to prevent individual CPs knowing the full extent of their medication. The second involved prescriptions that a CP had refused to dispense being re-presented at another community pharmacy:

I know of one gentleman that was getting a prescription, he was getting morphine from me for a supposed crook knee that he had, and he was actually getting a solid base, a solid base, a solid morphine prep from me like a long-acting morphine tablet – but he was actually picking up a morphine elixir from another pharmacy. [Interview CP10]

I can think of one chap that was with us for about six months. In the end the doctor just kept on writing prescriptions and he was coming more and more regularly to pick up his medicines. So when we talked to him [the GP] he said to us ‘look just don’t dispense that one’. And of course we said ‘you have to go back to the doctor, we won’t dispense the prescription’. And he took the prescription out of our hand and just went to another pharmacy. [Interview CP1]

As evident in the second account above, it was believed that patients refused their medicine were likely to try their luck at another pharmacy. Some interviewees felt that this was unavoidable as the prescription belonged to the patient and they did not have the authority to withhold it. Others, however, reported that they marked the prescription in some way (e.g. with the pharmacy stamp and the words ‘not able to verify’) to prevent this from happening.

‘Pharmacy hopping’ patients were often identified via networking between CPs (e.g. if suspicious they sometimes contacted colleagues in their area to see if they had had any prescriptions from the patient) or through locums recognising drug-seeking individuals from other pharmacies that they had worked in.

4.2.2.9 Fabricated medical conditions or symptoms

Interviewees described incidents where patients had obtained prescription medicines for their psychoactive effects by fabricating medical conditions. This mostly involved ‘inventing’ pain symptoms in order to obtain opioids, or faking psychological states (e.g. grief) to facilitate access to benzodiazepines:

Well I guess I mean in a place like [name of town], I mean it’s a small town and we see these people elsewhere and they come into the pharmacy hunched over and apparently in a lot of pain, but we also see them elsewhere you know, upright and quite mobile. [Interview CP11]

Some GPs reported that these patients were often from another practice, mostly out of the area, and so generally also had a reason as to why they could not access the medicine via their usual GP; this included being on holiday, an inability to contact their regular GP, or that the medication had been lost or forgotten. Whilst this often alerted GPs to potentially suspicious behaviour, there were a number of ways in which GPs identified the fraudulent nature of such requests. This included patients being very specific about the medication that they needed (and a refusal to accept an alternative), a mismatch between clinical signs and patient descriptions of the symptoms, and apparent discomfort at being asked for the name of their regular GP in
order to verify the request. One GP also discovered, after the consultation, that a patient they had prescribed morphine for was ‘restricted’:

I’ve once been totally duped myself by a guy who was about 70 and he came in with a very plausible story. He had cancer and was on opiates, came up from [North island town] had left his morphine behind and I, you know, gave him a prescription for morphine on a weekend and then later realised he’s a restricted person....He was very cachectic-looking and he had scars on his tummy and, you know, it was all very plausible. [Interview GP1]

4.2.2.10 Fraudulent prescriptions

A number of CPs had experience of patients presenting falsified prescriptions, including forged ‘special authority’ letters for drugs such as methylphenidate. In some cases, individuals had altered a bona fide prescription from a doctor. This either entailed inserting additional medicines on the original prescription (sometimes in hand-written form), changing the name on a ‘special authority’ letter, or amending the dose so that a larger amount of medicine was recorded:

I’ve had prescriptions in the past that have been changed from 14 tablets to 44 which always sets bells ringing. Forty four is not a standard amount. [Interview CP13]

One interviewee recalled an incident where a patient had altered a prescription for a controlled drug by inserting an additional digit in front of the correct dose, and highlighted that this was possible due to the way in which the prescription had been written by the GP:

The doctor had been writing it for 30 [milligrams], he’d [the patient] been putting a one in front of it so it read 130. The doctor on the script was not writing the amount in words or the dose in words. Like a lot of, most of, our doctors will write like LA Morph, 10 mg, and then put ten milligrams in words. But he wasn’t, he was just using numerals. They were very cleverly putting ones in front of them. It was about six months before they got caught. [Interview CP16]

Some CPs had been presented with computer-generated fake prescriptions, and KEs working in treatment services were aware of clients who had been involved in this activity. It was noted that technological advancements in recent years meant that these were often of a very high standard, making it difficult to identify those that were not genuine:

You know with computers and colour photocopiers these days it’s much harder to pick up. And, yeah, in the days when things were hand written it was a bit easier often to pick up because sometimes they were trying to write what they thought the doctor had written but it didn’t actually make sense because they don’t understand what the doctor’s instructions in Latin are. [Interview KE8]

One CP had been presented with a prescription that was written on a form and had been ‘verified’ with a stamp, both of which were stolen from a hospital. A GP interviewee had also had an old prescription pad stolen from her home but it had not, at the time of the research, been recovered and was not known to have been presented at a community pharmacy.
4.2.2.11 Theft

A number of interviewees reported that they had had supplies of prescription medicines stolen from their pharmacy or practice (this included KEs who knew of patients who had committed such offences). In most cases they were obtained either via a burglary when no-one else was on the premises or as a result of a ‘hold-up’ during business hours:

Well some people do pharmacy burglaries and that’s still happening. I mean, in the 14 years that I’ve been here we’ve had pharmacists held up. We had a person on methadone who stood there with a gun and held up the pharmacy…We had one patient who robbed a pharmacy two weeks in a row. [Interview KE12]

In some cases earlier on when people were desperate they just swiped a whole shelf. You know, of drugs – they don’t know what they’re looking for but they just grab everything…and take everything that they can fit in there, whatever container they brought, and then run off. And half the time they’ve got things that were terribly dangerous and things that were useless. [Interview CP1]

Most GPs whose practices had been broken into reported that this had not occurred for some time (often years). This was sometimes attributed to having installed more sophisticated security systems. One KE reported that GPs from their practice had had their cars broken into on several occasions in the past:

We’ve had cars broken into at least three times, and bags taken with drugs. Having said that we haven’t had it for years and we have security systems and all sorts of options as a result. [Interview KE5]

4.2.2.12 Methadone

There were specific ways of obtaining methadone for diversion compared with other prescription medicines, with most CPs of the view that they were fairly adept at spotting attempted diversion techniques. On the whole, it was believed by both CPs and KEs working in treatment services that the biggest source of diverted methadone was via ‘takeaway’ doses:

It [diversion of methadone] is mainly through takeaways, I mean that’s the easiest way and the purest way... I mean, there’s still issues around clients retaining the methadone in their mouth and passing it on then. But that’s a high risk sort of stuff so it’s mainly through takeaways and that’s one of the constant tensions within the service trying to care for people and support them, but not be duped or deceived into being a dealer for them really. [Interview KE14]

As highlighted above, diversion of supervised doses could also occur with patients not swallowing the medicine and spitting it into a container once having left the pharmacy, regurgitating it, or pretending to drink the methadone whilst trying to secrete it into another container. The following account from a CP highlights the often complex steps undertaken by some methadone patients:

The other way they do it is much more obvious to us and that’s when they, the dose that they supposedly drink, and this is more common really, the dose that they drink they divert. And they do that by either not drinking it and in front of you they will have a little cup in a pocket on, you know the chest pocket on a shirt, they will have a little cup placed in there and they’ll pretend that they drink it but instead of tipping it in their mouth they’ll tip it into the cup. .. Or they get it in their mouth and then they have all sorts of stories about what they have to drink afterwards and it’s hilarious because they think we’re completely stupid. Some of them have milk shakes, some of them have Just Juice things, some of them will have a little cup of
water – generally stuff they’ve all brought in themselves and they say, oh I have to have this milk shake after my methadone because it tastes so horrible. But it’s the same milk shake container every day and they’re spitting it back into the milk shake container and then they’re either selling it or injecting it. [Interview CP3]

4.2.2.13 Other people’s supplies of prescription medicines

Another means of obtaining drugs identified in the research included patients who had accessed other people’s supplies – thus they were obtained indirectly from the primary healthcare setting. Examples given by interviewees included an individual picking up someone else’s medication by pretending that they were the named patient, stealing drugs off family members, a landlord who was ‘blackmailed’ into obtaining drugs of abuse for his tenants, access via pain medicine patients, and adults diverting a child’s or teenager’s supply of methylphenidate (Ritalin®) for their own use. Some of these methods are described in the following interview extracts:

Well often, you know, people with cancer get morphine so they might get a bottle of it or a bottle of pills and if people’s uncle, grandfather, mother, whatever, has got a stack of pills there, then they just take a few. [Interview KE3]

Local people actually talk about, some of the elderly people talk about concerns about whanau members getting, like how do they keep their medication, you know, because they obviously use certain medications that for their illnesses and stuff, especially older generation and that, and they worry about meds being stolen from their property and stuff like that. Like this has been raised in kind of community meetings, talked about how they can keep medications safe and locked away and if they’re worried about a certain medication, having a place where no one else knows – not even your own family, you keep it. [Interview GP12]

Just through people that you’ve met within the services or through being in the unit or it’s just connections, drug connection that they’ve had over the years. And say you’ve got someone who is actually being maintained through the methadone programme on benzos, but they don’t take them all. And they may sell some. [Interview KE2]

One KE working within law enforcement reported that prescription drug misusers often came to their attention due to having supplies of medicines that had been prescribed for somebody else:

Quite often you know when you’re dealing with offenders on the street, for example if you come across people smoking cannabis or something like that, you’ll go into a Section 18 to search the person without warrant and you know you’ll got through their pockets. You may find cannabis, you may not find anything, but quite often, well not often by occasionally you find a vial or some pills in their pocket which don’t belong to them. [Interview KE17]

They also indicated that sometimes family or other associates were ‘forced’ to hand over their medications:

There’s always people who do get pressured into selling them as well you know. Pressured I suppose is the word you use, people who are using pain relief are vulnerable because of their medical condition. A lot of them are too scared to come to the Police and they do get pressured to maybe up their script and hand it over. [Interview KE17]

4.2.2.14 Other ways of obtaining substances

Whilst not directly related to this study, one interviewee spoke about PHCPs who had inappropriately supplied medicines to patients with whom they had become “too friendly”. Some research participants also spoke about historical cases of “dodgy”
practitioners who knowingly handed out medicines “willy nilly”, and to their personal gain, although this was generally considered to be a fairly rare occurrence in today’s environment.

4.2.2.15 Indications of ‘drug seeking’ behaviour

In addition to the behaviours identified in the previous section (i.e. ‘how substances are obtained’) GPs and CPs reported that there were further factors that they considered to be indicative of suspicious behaviour in this regard. These were mostly picked up via what patients did (i.e. behaviour), how they were perceived by PHCPs (i.e. characteristics) and the prescription itself, and are summarised in the list below.

It should be noted that, in some cases, it was evident that one of the following factors in isolation resulted in GPs or CPs becoming suspicious about the intended use for the medication (e.g. specific request for a potential medicine of abuse). In other instances, it was a combination of issues that raised doubts (e.g. a known drug user presenting a prescription with an unusually high dose).

The main indications of ‘drug seeking’ behaviour included:

- Specific requests for potential medicines of abuse and/or an unwillingness to accept an alternative (non-abusable) medication
- Requests for dose increases of potential medicines of abuse
- Uneasy or agitated manner exhibited during the consultation
- Visits to GPs at recognised busy periods (e.g. late in the day)
- Targeting of new PHCPs within a practice or pharmacy (including locums)
- A new or unknown patient
- Known (or perceived) drug users, known to have drug-using associates
- Known (or perceived) transient lifestyle
- Unkempt or dishevelled appearance
- Suspicious looking prescription (e.g. marked or crumpled, unfamiliar hand writing, hand-written additions)
- Unusual dosage (e.g. unexpected increase, high dose, different to GP’s usual prescribing pattern).

The following accounts from interviewees provide further insight into what PHCPs considered suspicious behaviour:

“Well I mean the patient’s demeanour, agitation, shiftiness, well anxiety especially if you start talking about not giving them what they want, you know, and offering alternatives – yeah, and they’re adamant there’s only one thing that will work for them. [Interview GP1]

I suppose even we’re a bit suspicious if someone’s address is North Shore and they’ve come to bring their prescription to us sort of thing, you know, to our pharmacy because there might be something fishy there as well…so strange doctors and strange clients are a good indication for us. [Interview CP1]
Oh they’re always a new patient, never known to the practice before and they’ve always got some story of, you know, having lost things, having been discharged from the hospital without being given enough to see them through to their appointment... And then on top of it it’s sort of, “oh by the way and I need some sleeping pills as well”. [Interview GP10]

Well, for example, the chappie who was taking 240 milligrams of codeine all of a sudden was needing and claiming he was taking 300 milligrams of morphine, and the fact that he seemed to be functioning just fine makes you a bit suspicious. I mean you wouldn’t ordinarily be able to make that switch without being you know asleep for several days I would have thought. [Interview CP11]

4.2.2.16 What steps do primary healthcare practitioners take to help identify the legitimacy of a request?

Interviewees spoke about different steps taken when attempting to find out whether or not a patient was ‘drug seeking’. These mostly sought to gather further information on the patient and involved one or all of the following actions:

- **contact the prescriber:** Well I think if it was somebody they knew who was usually a regular customer they would contact the prescriber in the first place and then say, you know, ‘I’ve got a prescription from Mrs Brown and this is the second lot of x, y, z tablets that she’s had in two weeks – is there a reason for this or you know has she lost them or what’s the issue’? [Interview KE1]
- **contact other colleagues in the local area:** If we had any reason to believe that perhaps a patient had seen multiple GPs, you know, if there was a clear pattern of it, we would definitely phone other pharmacies and say ‘hey look, we’re a bit suspicious of patient ‘X’, you know, have you done much in the way of controlled drugs in the last month or two? [Interview CP11]
- **consult the register of known ‘drug seekers’**: The other thing that we have of course if the register of, as you know ‘drug seekers’. I would find that very useful, our nurses look them up. So I’ll scare them [the suspected ‘drug seeking’ patient] and the nurse will look them up, and we often find them there. [Interview GP8]

4.2.2.17 Drug seeking behaviour: summary and implications

- There was a high level of awareness of PDM as an issue.
- The most common drugs outlined by respondents were opioids, benzodiazepines and stimulants. Although not prescription medicines, pseudoephedrine and Nurofen Plus® (ibuprofen and codeine) were commented on as problematic.
- General perceptions were of two distinct groups of ‘drug seekers’ who were viewed quite differently and may elicit a different response from PHCPs. Indications were of greater levels of empathy with ‘over-users’ rather than ‘abusers’. Most of the discussion centred around the group perceived to be ‘abusers’ or ‘drug seekers’. There was an awareness by some PHCPs that drug misuse/abuse can be iatrogenic.
- Some respondents (particularly KEs) did note that you could not tell who might be a drug user as they could come from a range of backgrounds.
- However, there is evidence of a stereotypical view of prescription drug misusers as
‘addicts’, with associated, often negatively viewed, lifestyles and appearance. This may mean that PHCPs overlook individuals who fall outside of this image (e.g. those are ‘well-presented’ and articulate) while ‘scruffy’, tattooed individuals may be unfairly suspected, and possibly denied legitimate treatment.

- GPs and CPs viewed PDM as a predominantly New Zealand European issue; however, as with other demographic factors, these did not draw on quantitative data and views were formed based on perceptions only. KEs highlighted some gender differences with regard to how people illicitly obtained medicines.
- It was reported that ‘drug seekers’ attended a number of doctors to obtain medications (also known as ‘doctor shopping’). They might also go to more than one pharmacy in order to not alert suspicion.
- False identities were used by some. Fabricating stories around symptoms, lost prescriptions, and the need for emergency supplies were other tactics used to obtain prescription drugs.
- Forged and altered prescriptions were noted by a number of community pharmacists.
- Thefts from GP practices and community pharmacies were reported by both CPs and GPs, but were not a regular occurrence.
- Picking up repeat prescriptions earlier than the normal time was also mentioned, and was believed to indicate escalating misuse among ‘over-users’.
- There were reports that some ‘drug seekers’ were also accessing supplies of medication ‘indirectly’ – i.e. via friends or family, or other drug-taking associates.
- Many of the ways of illicitly obtaining substances, as reported by GPs and CPs, were confirmed by KEs.
- As pharmacists and GPs do not have centralised information on patients and prescriptions it is not possible to identify ‘doctor shoppers’ and ‘pharmacy hoppers’ in this way.
- As picking up repeats early was an issue, there may be a role for further regulating drugs liable to misuse with regards to the size and frequency of instalments on repeat prescriptions.
- A variety of factors, taken alone or with others, alert PHCPs to suspect people of PDM, including specific tactics used and the demeanour of the patient. New patients, patients presenting at the end of the day, knowledgeable patients and those who refuse alternative medicines also alert suspicion, as well as a person’s appearance.
- As highlighted previously, there were indications of stigmatisation and value judgement influencing GPs and CPs in terms of what alerts them.
- CPs in particular talked about a sixth sense with respect to forged prescriptions, although it is likely they are picking up on appearance and behaviour of patients, often potentially influenced by subconscious value judgements.
- Many of the issues mentioned in this section can be used as part of health professional training around the issues of ‘drug seeking’, with the caveat that PHCPs also need to be made aware of, and vigilant to, their own internal judgements and preconceived views of drug misuse and drug misusers.
4.2.3 What happens to these prescription medicines?

This section discusses interviewees’ perceptions of what happens to prescription medicines when they are accessed by patients for their psychoactive effects.

There was a diverse level of knowledge and understanding of what happened to prescription drugs obtained from primary care. In general, GPs and CPs were aware that many of the medicines were misused and that some were used by the person who had obtained them, but that the medicines also ended up being sold onto the illicit market. To a certain extent, many made an educated guess when answering the question, whilst others – often those who were involved in prescribing or dispensing methadone – had personal experiences to back up their knowledge.

KEs, on the other hand, and as would be expected, had a higher level of awareness of the fate of these drugs. Many of the KEs had experience of working in drug treatment services, and thus often their responses related to methadone (see later).

Two major themes were identified. The first was that the medicines were kept for a range of personal uses. The second was that they were sold onto the illicit market, or swapped for other drugs, also known as ‘diversion’:

They [‘drug seekers’] will often swap the drugs. Often they’re given it for nothing, often there’s no money exchanged – they’re just given...You don’t hear a lot about money exchanging hands. Occasionally, but you would hear more about handing it out on the street, knowing who has it out there and exchanging it for other drugs in a barter system. [Interview KE7]

Personal use may be for a number of purposes and may depend on whether the person is addicted to the drug in question and whether they are wanting to use it to ‘feel normal’, to stave off the withdrawal effects from other drugs, to get away from their problems, save up for a binge, mix with other drugs for the effect or whether they need to sell them for money or swap for other goods.

Respondents described people who had become dependent as a result of having been prescribed drugs for a legitimate reason such as pain, a bereavement or stress. For those who are addicted, this may have developed over time, the drug having been prescribed them for a longer and longer period, sometimes at gradually escalating doses.

I think that in general they’re taking it. And I think that some doctor in their wisdom has prescribed codeine for them, for perhaps a chronic pain situation, and codeine appears to be a chemical that, a chemical drug that really creates more and more dependence and requires ever increasing doses of it, and so I don’t see it, I mean it’s misuse in the sense that it’s not being taken perhaps as prescribed, but it’s not, it’s not being used in any other way. [Interview CP10]

Others may be using the drug to enable them to come off substances, or to stave off withdrawal symptoms when their drug of choice is not available:

See you meet a lot of clients who have been prescribed those drugs as well by GPs, for instance, that are just ‘drug seeking’. Yeah, they say they don’t really need to be on this but they can’t access their drug of choice, which might be meth or opiates because that’s where, you know, if they’re arrested, you know, the consequences are very much higher in accessing the other drugs. So they’ll get the prescription drugs to take the edge off a meth withdrawal, take the edge of an opiate withdrawal. So they won’t be using them all the time but they’ll be abusing them. [Interview KE7]
4.2.3.1 Routes of administration

Overall, GPs and CPs were not knowledgeable about how prescription drugs were used, although some assumed that the intravenous route was popular. One pharmacist commented that “… they do have a bit of a fixation with needles and that’s why they prefer, a lot of the time, to inject and being a quick way”. This quote also highlights the issue here of value judgement, in that the respondent spoke of “they” implying IV drug users, and showing a bias in the response towards the ‘abuser’ as opposed to the ‘unintentional addict’.

Most of the information on routes of administration came, understandably, from KEs. In general it was accepted that IV use of opiates was common and had been so for a while. One KE described anecdotal information about morphine tablets being “….just crushed up and dissolved and filtered and injected”. They acknowledged that there was also a group who might convert morphine chemically to heroin.

The injecting of oral methadone liquid was also described, with one KE being concerned that providing an injectable liquid to IV drugs users was setting them up to fail. However, it is generally acknowledged in the AOD field that providing a less injectable form of methadone (thick syrup, tablet) might not act as a deterrent and would result in more harm overall for those who continued to inject. In practice, this issue is often accompanied by further discussions on whether or not to dilute take home doses, an activity which some believe again leads to greater harm with a larger volume being injected and often containing an unknown quantity of methadone raising risks of accidental overdose41.

The injecting of Ritalin® was mentioned on a number of occasions, with one KE describing it as an emerging issue of concern. One KE commented on the use of Ritalin® with BZP although it was not clear whether this involved injection of both substances at the same time. Methadone, in particular take home doses, was known to be amassed by patients and then injected rather than being taken orally.

With regards to benzodiazepines, use was generally believed to be by the oral route. However, KEs discussed the injection of temazepam gel filled capsules when they had been available, and the significant injecting related harms that could result.

4.2.3.2 Prices of prescription drugs on the illicit market

In general GPs and CPs had no real idea of the street value of diverted pharmaceutical drugs. Where information was available it was generally anecdotal through the KE interviews (some research participants specifically asked their clients for pricing information for the purposes of the study). Table 10 below summarises some of the prices provided by interviewees. As can be seen there is considerable variation in the reported costs. The variation might be regional (e.g. one KE talked about Ritalin® being much cheaper in some parts of the country), but may also be due to incorrect estimations made by KEs.

---

41 Dilution of methadone should occur according to manufacturers’ guidelines.
Table 10: Reported street prices of prescription medicines taken from interviews across the three sample groups (GPs, CPs and KEs*)

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Price per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>$1/mg</td>
</tr>
<tr>
<td>Morphine sulphate tablets</td>
<td>$10/mg</td>
</tr>
<tr>
<td>Morphine 60mg tablets</td>
<td>$80-$100/tablet and morphine 100mg</td>
</tr>
<tr>
<td>Morphine $100 per tablet</td>
<td>Morphine $2.5/mg</td>
</tr>
<tr>
<td>Morphine $10/mg</td>
<td>Methadone</td>
</tr>
<tr>
<td>Methadone tablet</td>
<td>$100/tablet</td>
</tr>
<tr>
<td>Ritalin®</td>
<td>$7-$8/10mg and $15-$25/20mg</td>
</tr>
<tr>
<td></td>
<td>$10/pill</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>$5 for a blue ‘rivie’</td>
</tr>
<tr>
<td>Temazepam</td>
<td>$3/tablet and diazepam $1-$1.5mg/tablet</td>
</tr>
<tr>
<td>Clonazepam 2mg</td>
<td>$8-$10/tablet and clonazepam 0.5mg $3-$5/tablet</td>
</tr>
</tbody>
</table>

*Data from Police can be found under secondary data

4.2.3.3 Harms associated with prescription drug misuse

When discussing potential harms of prescription medicines respondents fell into two distinct groups. One included those who knew very little about the associated harms, and included the majority of the GPs and CPs, and some of the KEs who did not have direct contact with clients misusing prescription medicines. The second group included those who worked with drug and alcohol clients and were very knowledgeable about drug related harms in general and prescription drugs in particular, although it was acknowledged by some that the harms from prescription drug misuse use alone might be different from illicit drugs and that not that much was known specifically about harms related to prescription drugs.

It was also recognised by those in the second group that problematic prescription drug misuse was often not an isolated issue and that the medicines were often taken with other substances, including alcohol.

Many of the harms discussed were specifically related to those people who used in a problematic way, as opposed to those who either used ‘recreationally’ or those who were dependent on a single medication through having been prescribed it for years and where a continued supply through the prescriber was not an issue.

In general, harms were those which one would associate with substance misuse and addiction in general. These included physical harms mainly related to injecting, for example:

- necrosis of tissue associated with injecting temazepam gels (no longer available in New Zealand);
Well temazepam’s not available in footballs anymore now, but we did have a woman who, when it was available in gel caps, she injected that and we’ve got photographs of her arm because she’d been hitting up with Ritalin all day and then she took one of those to come down on and she just about lost an arm. She had this death of tissue. It was very nasty. [Interview KE12]

- abscesses not at injecting sites, apparently related to injecting drugs such as Kapanol®;
- formication (sensation like insects crawling under the skin) associated in particular with Ritalin® and resulting in scabs and sores on the skin.

Other medical and health-related harms identified by interviewees included:

- Poor eating and sleeping associated with stimulants such as Ritalin®
- Lack of exercise, weight gain, reduced social contact and injury such as setting oneself on fire:
  
  They put on weight, they stop them from being active, they can nod off and burn themselves really badly, burn their hair. I’ve seen a girl with a half a head of hair because she nodded off with all the hairspray and the hair caught on fire. They stop them from driving safely, the anxieties that they create stop them from interacting in life. They don’t get socially involved – they’ll only stick to the ones that they know that act the same as them. What else? Yeah they isolate a person off, they definitely do that. That whole cognitive behaviour that comes into play. [Interview KE2]

- Overdose risk especially when sedating substances such as opioids and benzodiazepines are mixed together. One KE also indicated that police were sometimes called out when people attempted an intentional overdose involving prescription medicines:

  Suicide attempts, you know, we might get called to an address where there’s been a suicide attempt and there’s an overdose and you usually find a pill bottle lying around. But that could be their own drugs, could be family drugs out of the medicine cabinet. [Interview KE17]

- Convulsions with benzodiazepines when stopped abruptly
- General harms such as having unsafe sex, driving whilst intoxicated, sharing injecting equipment
- Paradoxical aggression and irritability with long term use of benzodiazepines.
- One KE made a specific comment about zopiclone and issues of memory loss as result of using high doses:

  With the zopiclone, which isn’t a benzo, but it’s one that we commonly use, there’s a lot more coming out now overseas about that family of drugs and there have been reports of people driving in an amnesic state so they have no recollection whatsoever or cooking or making agreements, you know, like just completely blackout on what you’ve said you’ll do and so on. But if you’re cooking or driving or parenting in an amnesic state, you know, this is potentially dangerous, potentially lethal actually. [Interview KE3]

Social harms associated with PDM included isolation, a loss of employment and relationships, criminal activity, and a negative impact on family or whanau, including a lack of connectedness. One KE commented on the lack of emphasis on dealing with family and child-related issues for drug misuse in general, acknowledging a lack of specific knowledge about prescription drug misuse:
I think that the new issue now that we’re quite aware of now is children growing up in households whose parents are addicted and I think there’s a bit of an unmet need around that issue. So that’s a general comment around drugs and I don’t know if prescription meds would be the same kind of thing, but yeah sort of treatment focusing on the individual rather, and sort of the kids growing up. You know, and also kids growing up in households where mum and dad is an alcoholic as well – it’s the same issue I think. A lot of the impacts that isn’t addressed in this country is support for families, especially children. [Interview KE6]

Whilst a number of KEs felt that the harms from prescription drug misuse were equal to that of illicit drug use, one interviewee indicated that they believed the impact was less:

I think the illicit drugs have got a much higher impact cause of some of the seriousness of some of them. I’m talking about methamphetamine which is our number one problem at the moment but any, any misuse of any medicine or drug is serious and I think the impacts, the impact of prescription medicine is probably a lot lower at this point. Whereas illicit drugs are, you know the impact is higher for us, and not only in the harm, the harm category that it causes society but you know it’s, there’s a huge demand out there which we’re trying to reduce and we, our other mandate is to try and control the supply. [Interview KE17]

### 4.2.3.4 What happens to the prescription medicines? - summary and implications

- There was a diverse level of knowledge and understanding of what happened to prescription drugs obtained from primary care.
- GPs and CPs were aware that the medicines were obtained for self use, or ended up on the illicit market. Those involved in prescribing and dispensing methadone often had more insight into this due to contact with clients who were knowledgeable in this area. KEs generally had a higher level of knowledge regarding this issue, particularly those working directly with individuals misusing illegal or prescription drugs.
- Personal use of prescription medicines was usually considered to be either: ‘to feel normal’, to stave off withdrawal symptoms when a drug of choice was not available, or for recreational use and ‘getting high’.
- Interviewees believed diverted medicines were purchased on the illicit market for a number of reasons including recreational use, topping up the effects of prescribed methadone and using when a drug of choice not available.
- GPs and CPs were generally unaware of how the drugs were used, the prices of drugs on the illicit market, and the harms associated with prescription drug abuse, when compared with KEs. A lack of clear understanding by GPs and CPs of the destination and use of prescription drugs might impact on the way they manage their responses to suspected misuse: for example when it is appropriate to instigate an intervention. This indicates that there may be a need for educating PHCPs.
- Interviewing drug users would provide useful data on routes of administration, drug preparation techniques, patterns of use etc, which could be used in the development of harm reduction interventions. Information on price and availability of individual products, which is currently collected as part of the IDMS, should also be utilised.
- There was a wide range of street prices for opioids, indicating either that prices vary regionally or that some interviewees lacked accurate knowledge of this issue. Also, due to the large number of brands of morphine tablets it is
possible that certain products are preferred and attract a higher price.

- Perceived harms were of the type one would expect from problematic use of drugs in general and, in the main, related to the misuse of illicitly obtained prescription medicines, injecting dosage formulations not designed for this purpose, and harms associated with dependent use.
- Harms associated specifically with opiates and benzodiazepines included overdose, risky driving, and seizures on abrupt cessation of benzodiazepine use. Harms specifically associated with stimulants such as methylphenidate included formication and skin problems. Other harms associated with prescription drug misuse in general, were related to lifestyle, lack of income and route of administration.
- Little information was obtained in respect to harms associated with ‘overuse’ indicating that patients considered to be ‘over users’ may be a hidden population who may not present with overt harms. They – or their PHCP – may be unaware of the availability of appropriate services, or the patient may be unable to access them where they are not locally available.

### 4.2.4 Primary healthcare practitioners’ response to the issue

The research explored the response of PHCPs when they believed that a patient was looking to access prescription medicines for their psychoactive effects.

Under their respective professional codes of conduct, GPs and CPs are bound to act within the laws of New Zealand and have professional and ethical obligations to prevent the misuse of medicines. Some interviewees commented upon the role that these played within their response to prescription drug misuse:

> Oh I think when there are blatant cases a pharmacist will definitely withhold, I mean we’re bound, we’re obliged, where we have reason to believe that the supply of medicine is inappropriate whether it be a controlled drug or not, that we have an obligation to contact the prescriber and address those concerns. [Interview CP11]

> We have certain rules in our code of ethics that help us focus on whether what we’re doing is the correct and proper thing to do and I guess that’s the guiding principle in actual fact, this code is our code of ethics. How would you behave? What expectation would you have of the behaviour of the pharmacist in a particular situation? And you know, our code of ethics says that you don’t supply medicines if you believe that they are being abused and all those kinds of things. And that kind of is the guiding principle really. [Interview CP13]

One interviewee commented that even though there were clear professional guidelines, this did not mean that the response to an incident of prescription drug misuse was always straightforward. In the following passage, a CP is commenting on the strains that ‘following the rules’ can put on GP–CP relationships:

> I mean I think that all pharmacists probably grapple with the issues of how to raise the issue with the GP if they thought that a GP was being a soft touch, and I guess I mean obviously pharmacists have a certain legal obligations where we could step in, but just that the early intervention in how to approach that in a manner that doesn’t compromise relationships. [Interview CP11]

Beyond underlying professional and legal obligations, there was a perception by some interviewees that there was no overt strategy in place to deal with prescription drug
misuse issues. Whilst it was widely acknowledged that Medicines Control had a key role to play, some GPs and CPs felt that it was up to the individual health practitioner as to what course of action they took in responding to ‘drug seeking’ behaviour.

Furthermore, it was clear from the findings that not all practitioners responded in the same way. Underpinning their responses was a range of factors that influenced the action that they took. These included an individual’s personality, general attitude towards illicit drug use, whether they classified the patient as an ‘over user’ or ‘abuser’, level of confidence, level of exposure to ‘drug seeking’ patients, and the model of health care that they subscribed to.

This section provides a summary of the different responses identified in the research, which can be grouped under two main categories:

- Supply control interventions
- Other interventions.

### 4.2.4.1 Supply control interventions

In line with legal and professional obligations, the predominant response by both GPs and CPs involved attempts to control the supply of prescription medicines. For the most part, this entailed either a refusal to prescribe or dispense, or limiting the amount of substances provided. It should be noted that PHCPs sometimes varied their response, depending on the circumstances (e.g. if they felt threatened) or the nature of the therapeutic relationship (e.g. if it was an unknown patient).

In addition, underlying this, there was evidence of a continuum with regard to approaches to supply control. Some PHCPs took a fairly ‘hard-line’ approach to any suspected ‘drug seeking’ behaviour, with their main response being an outright refusal to supply the medicines if there was any hint that they were not going to be used for their intended purposes. At the other end of the spectrum were GPs or CPs who spoke about being “gullible” or too trusting of people, and who acknowledged that they were sometimes ‘taken for a ride’ by ‘drug seeking’ patients. In the middle were PHCPs who took a ‘two strikes and you’re out’ approach, whereby they were prepared to give the patient the ‘benefit of the doubt’ initially if they were unsure of their intended use for the medication, but who would quickly stop supplies if it became clear that they were being taken advantage of:

> I mean generally my approach is sort of ‘two hits and you’re out’. In other words I will probably, probably accept the story the first time – and I warn them ‘this is never going to happen again’. [Interview GP5]

The main ways of controlling the supply of drugs identified in the research are outlined on the following pages.

### 4.2.4.2 Direct refusal to supply the drugs

In some situations GPs and CPs refused outright to supply prescription medicines to patients suspected of (or known) to be ‘drug seeking’. This generally occurred when the PHCP was confident that the patient was sourcing the drugs for illicit purposes, and the GP or CP felt comfortable refusing the request (e.g. they did not feel
threatened by the patient). Some GPs also reported that they never prescribed certain drugs under any circumstances (usually pseudoephedrine-containing products). Others said that they did not supply any potential drugs of abuse to unknown patients (i.e. people from out of the area). In the case of CPs, refusal to dispense was sometimes on the ‘direction’ of the GP (e.g. after alerting the doctor of their concerns, they were informed not to supply the medication). One CP reported that (in an extreme case) they had not dispensed the medicine despite the doctor giving the go-ahead to do so. Alternatively, CPs sometimes refused to dispense when patients turned up early to pick up their prescription:

“If it’s just downright abuse we will just go out and say to them, ‘no, you had this ten days ago, that was meant to last you 30 days so I’m sorry, we cannot give anymore inside that time and it’s just non-negotiable, that’s it’”. [Interview CP4]

4.2.4.3 Supply medicines in restricted amounts

Both GPs and CPs reported prescribing or dispensing small amounts of medicines to known or suspected ‘drug seekers’ in some situations. For CPs, this often occurred when they were unable to verify the legitimacy of the prescription with the GP and did not feel confident refusing to dispense (either because they felt intimidated or they were unsure as to whether they had accurately identified the patient as a ‘drug seeker’). In such cases, they often pretended that they had limited supplies of the medicine and informed the patient that they would need to come back to pick up the remaining supply. The fact that most did not return was viewed as evidence that the PHCP’s suspicions were justified:

I might have just liked stalled them and said, look we’ve only got a few tablets and we’ll owe you the rest and can you come back another day and we might have just given them a few. At that stage I couldn’t confirm that the prescription had been forged, like that was just a stall tactic, so they took them but they never came back for those because they’d obviously sensed something wasn’t right. [Interview CP9]

Some GPs reported that they prescribed small amounts when they were unsure of the legitimacy of the request, but were willing to give the patient the “benefit of the doubt”, as they felt more comfortable if patients were not given access to large quantities of drugs in case it turned out to be an illegitimate request.

4.2.4.4 Ban the patient from the practice or community pharmacy

This was generally carried out for repeat drug-seekers and/or those who were aggressive or threatening to staff. Some GPs reported that they informed such patients that they were no longer prepared to treat them and they would need to access health services elsewhere. One CP had served trespass notices on these types of patients. A number of interviewees acknowledged that whilst this approach was effective at removing the ‘problem’ from their business, it was likely that the patient then simply moved on to other GP practices or pharmacies and thus was not successful at resolving the issue overall:

I think some GPs deal with it by just denying it and saying ‘we don’t want patients like that’. I mean that just means the patient moves down the road to somebody else. It shifts the problem, but it’s not addressing the problem. [Interview KE14]
4.2.4.5 Seek for patient to be restricted

Some interviewees reported that if they had concerns about a patient they contacted Medicines Control asked for them to be ‘restricted’ to one GP and/or one pharmacy.

4.2.4.6 Contact Police

Many interviewees stated that they contacted the police when faced with an incident of prescription drug misuse. This was most often described by CPs in relation to fraudulent prescriptions. In some cases, they would employ stalling tactics in an attempt to detain the patient until the police arrived. One GP reported that if he was directly threatened by a patient he informed them that he would prescribe the drugs, but that as soon as they left the practice he would be contacting the police.

Interestingly, feedback from Police indicated that PDM was not a big issue for them, although they are aware that a considerable amount of prescription drug diversion occurs. When they get involved, it tends to be reactive, for example in response to finding diverted prescription drugs on arrestees or being called out by health professionals.

4.2.4.7 Other interventions

A number of other (non-supply control) interventions were identified in the research, although they appeared to be less commonly undertaken. A number of factors could influence whether or not a PHCP undertook one of the actions outlined below. These included how well-known the patient was to the GP or CP, their expected response (e.g. how open the patient might be to receiving additional support), the PHCP’s level of interest in the issue (e.g. some interviewees had a greater interest in drug misuse issues than others) and their capacity to provide extra input. A description of each of the main other interventions identified in the research is provided below.

4.2.4.8 Question patient about their drug use

In some situations GPs and CPs had confronted patients directly about their use of prescription medicines and, in contrast to some of the strategies discussed above, sought to find out more about the individual’s behaviour. This predominantly included asking them if there were any particular reasons why they were accessing the medications early, or why they were using so much of the medicine. In some cases, this led onto discussions around what else was happening in their life that may be causing the problem. In the example below, the CP reported that such an approach had resulted in a successful outcome for one of their patients:

I said, you know, ‘what’s the problem here? You’re coming back and getting these too soon’. I said ‘what is it that’s in there that’s causing the problem?’ and I identified the diazepam really. And he said he’s just so stressed out with the kids and grandkids and that. So I said well what we should do is if you’d like to come in twice a week and I’ll give you half a pack so you’re not tempted to take too much’. But he elected to do something else – he said, no, he’d give the stuff to his wife and she’d give it to him each day, so he’s been very compliant since. [Interview CP12]
Another CP interviewee also highlighted the benefits of addressing the issue early on with patients:

Well they just present more, if you give them 30 nights of a sleeping tablets, it should last you 30 nights and if it’s less than that then you should be asking the patient why they’re here earlier. And you should be doing that with any prescription but particularly abusive things – things like diazepam and hypnotics, for their own safety because they’re addictive and people don’t recognize that. Some people do and some people don’t. And so you’re better off to help them in the early stages before the addiction becomes too engrained and try and help them with it, rather than become the big ogre, yeah. [Interview CP]

4.2.4.9 Offer help or assistance to the patient

Some GPs and CPs had worked with patients to try and reduce the harm caused by the misuse of prescription medications. This included counselling individuals, advising on appropriate use, suggesting alternative (non-abusible or non-pharmaceutical) therapies and offering to restrict the patient to one pharmacy or practice. One GP had suggested trialling drug-free days to one patient. A few interviewees had worked with other practitioners in this process (generally with the patient’s permission) to maximise the effectiveness of such strategies:

I got him [the patient] off seeing the surgeon. I made the surgeon and the GP aware of the loop so that one of them only was prescribing and he [the patient] knew I did all that. And I also was going through a whole lot of things with him like ‘you’re throwing these down the hatch and they’re not alleviating your problem are they? So there must be better ways around this’. [Interview CP]

4.2.4.10 Provision of information

Whilst not widely reported in the research, some interviewees had provided information to patients on prescription medicines of potential abuse. Where this was undertaken it was either at the patient’s request (i.e. they asked for information on a medicine they were taking) or was offered unsolicited. The types of information provided included drug effects, and potential for dependence and misuse of specific medications. One GP highlighted that there was a lack of information resources to give out to patients on the issue:

Like in the good old days if you came and said I’ve got a cold, I want antibiotics, look 99% of these things are viruses – here’s five pamphlets that Pharmac and everybody else has given me, go and read those, okay, come back and see me next week if you’re still …Whereas if you come in with your sleep disorder I’ve got no pamphlets to give you a little run down of, you know, exercise, no caffeine, you know, I can do all those things but it’s not quite as formulated for people and so it’s easy – oh no, just take here’s temazepam, take 30, oh I had trouble last time, I need to take two, okay take 60, go you know. They’re much harder, they’re not so concrete issues and it’s, and there’s nothing to follow them up with as far as information I suppose and education from our point of view to then pass on to you guys is the problem you see. [Interview GP]

4.2.4.11 Refer patient to a specialist service

Some PHCPs (mainly GPs) had referred (or offered to refer) patients to a specialist service. This predominantly was drug treatment agencies such as CADS (or methadone clinics), with some interviewees from Auckland also reporting that they
had referred patients to TRANX (an assessment and treatment service for people dependent on benzodiazepines). A small number of PHCPs had referred patients who were misusing opioids to a pain clinic. Interviewees generally reported that it was patients that they had an ongoing relationship with that they would offer a referral to, and/or those who had specifically asked for help:

Interviewer: So what kind of patients would it be that you tend to refer?

Respondent: Well the ones that I do have a kind relationship with and, you know, often they’re ones who come to the conclusion that they need to do something about their habit and so they will often come in confessing and seeking help and, you know, you’ve probably got a greater chance that they are going to carry through with it. [Interview GP9]

On the whole, it was reported that getting patients to take up a referral offer could be challenging, as evident in the following excerpts from two GP interviews:

“It does involve quite a bit of time and energy sort of setting it up. Once it’s set up hopefully it runs smoothly, but yeah it’s setting them up, it’s getting them interested and going to places like TRANX and having the transport to get there. I mean, that’s quite a burden for them sometimes, they just can’t get there. [Interview GP10]"

“And I said I didn’t think that was particularly appropriate and that she should be, you know, going through methadone clinic and I gave her the numbers for that and also that there’s now a rapid detox available and also gave her the name of a counsellor who works with addictive problems and of course I haven’t seen hide nor hair of her since. [Interview GP6]"

Some PHCPs also discussed the difficulty in knowing where to refer patients to. One GP highlighted that some patients would be resistant to being referred to a drug treatment service as they did not see themselves as having a substance misuse problem.

4.2.4.12 Restructure frequency of prescriptions

Some GPs and CPs had arranged for short-term supplies of drugs to be provided to patients who they felt were overusing or abusing certain medications (e.g. benzodiazepines) as a means of monitoring and restricting their access to the substances. This usually involved daily, twice weekly, or weekly ‘pick-ups’:

“The girl that we’re quite sure is diverting and she comes in three times a week and picks up a medico pack with two or three days supply, because if she has a week’s supply, she’s always short at the end of the week. [Interview CP12]"

4.2.4.13 Supervise consumption of the medication

One CP had arranged for a patient to consume daily doses of clonazepam in front of the pharmacy staff. This was set up in conjunction with the patient’s lawyer and GP.

4.2.4.14 Other actions taken

In addition to the responses outlined above, GPs and community pharmacists often took other action to ensure that the patient was prevented from accessing further supplies of prescription drugs. This mostly involved alerting colleagues – both within and outside of their immediate profession – to the issue.
Some interviewees reported that they ‘subscribed’ to a ‘fax alert’ system, whereby information on suspected or known ‘drug seekers’ was disseminated to colleagues in the region. One community pharmacist reported that their arrangement was linked to the police, in that pharmacists who were suspicious about a patient sent the information to the local station who then forwarded this on (via fax) to all the pharmacies in the area, and a GP said that their system was administered by their Primary Health Organisation. Others spoke about being part of a ‘fax tree’, whereby each community pharmacist who received the information then faxed it out to all their contacts. The speed at which information was circulated and the up-to-date nature of the data were highlighted as two key advantages of a fax-based scheme. One CP also said that when they received the information they inserted it into their computer so that if the suspected ‘drug seeker’ presented a prescription at the pharmacy, the information would be flagged up electronically with details of who to contact (e.g. the police).

Several interviewees reported that they contacted Medicines Control if they had concerns about a particular patient. In contrast to putting more formal supply control measures in place, (e.g. seeking for the patient to be restricted – see above) this was undertaken as a way of formally voicing their concerns and highlighting to the organisation that the patient may need to be monitored. Some PHCPs also contacted the organisation in this way if they were uneasy about the prescribing behaviour of another health professional.

Many research participants spoke about alerting colleagues more informally. This included calling GPs or CPs in their local area to inform them of an issue. As evident in the following passages, this was often undertaken when a patient was presumed to be ‘drug seeking’, but the behaviour had not actually been confirmed:

*It might be that with another pharmacist they might choose to dispense that prescription, but certainly bring it to everyone’s attention that it’s happened and that they weren’t one hundred percent happy about it.* [Interview CP10]

...it’s usually people who are new to town so if somebody comes in and they’re asking for anything like that, we’ll make our colleagues aware there’s somebody ‘drug seeking’ or that we think is ‘drug seeking’, and we’ll give a description of the person or, you know, let everyone know the name of the person. We’ve had a couple of issues over the last two or three years and we’ve usually eventually told the people they can’t come here anymore and they disappear, they leave town once they know there’s no, there isn’t a ready supply of what they want. [Interview GP1]

Within an individual practice or pharmacy, some interviewees reported that they inserted information in patient records so that other PHCPs would be alerted if they were approached by the suspected ‘drug seeker’.

Local alcohol and drug treatment staff were also sometimes contacted by PHCPs involved with the methadone programme:

*Probably because most of the ones that do abuse these sort of medications tend to be people that I’ve encountered, tend to be people on the methadone programme and we do have a good relationship with the methadone clinic and the counsellors there and we’re often calling each other. So I find it very easy to talk to them about anything. So I would say if I thought that, you know, something like their benzodiazepines or something like that was being abused just to probably to the same extent that their methadone was being abused.* [Interview CP14]
A number of KEs employed in drug treatment services also reported that they were working closely with PHCPs in an attempt to facilitate a stronger link between primary and specialist care. Some, for example, provided telephone advice to GPs or CPs who contacted them about specific patients (some of whom were already in treatment, but others who were not). In other cases, KEs indicated that they worked alongside the PHCP (particularly GPs) to support a patient. The following examples illustrate the type of joint working reported by KE interviewees:

I’ve had three or four GPs who have said to me, they’ve rung me up and said ‘look I’ve got this person who keeps coming wanting certain scripts and I’d really like him assessed from an alcohol and drug point of view’. So I go out to their offices and the person comes in and they [the GP] say ‘now I’ve got [name of interviewee] in my office’…So I’m there to support the doctor. [Interview KE12]

I like to involve the pharmacist and how I do that is by informing them a), that the client’s on a treatment programme – we -have to have the client’s permission to do that. And also sending them whatever I send the doctor, so whatever recommendation I’ve made to the doctor it’s going to get to the pharmacist sooner or later so they might as well have it from me at the outset. So there’s that and pharmacists vary in how much they communicate with me too but I’ve had pharmacists ringing me to talk to me about, you know, the client that you’re withdrawing off this has started using more of that - and we’re not necessarily talking illicit things - but if it’s something like, in that case it was Paradex®, well it’s really clear that there’s issues of cross addiction for that client. So information sharing both ways. [Interview KE3]

4.2.4.15 KE views on GPs’ and CPs’ response to the issue

KE interviewees were generally of the view that most PHCPs responded to the best of their ability with regard to preventing prescription drug misuse, and that there were very few practitioners who would willingly supply medicines knowing that they were going to be used illicitly:

In amongst the doctors and like anywhere else in the world there’s probably people who don’t follow the rules quite as tightly as they should. And then again they get patients who probably lean on them too... but I don’t think that any, generally I wouldn’t think any doctor would knowingly write out a script that he didn’t think you know he thought was going to be illicitly used you know. So, they’re all pretty professional people and understand the cost that misuse of prescription medicines can cause and personal harm. I think generally, generally they’re all they acting in good faith. [Interview KE17]

The high profile of methamphetamine use in New Zealand in recent years, and associated targeting of practitioners with regard to securing supplies of precursor substances, was felt to have contributed to a greater awareness amongst PHCPs of prescription drug misuse and general illicit drug behaviour:

It seems to me with what has happened with methamphetamine, just from personal experience they [PHCPs] really are getting clued up about, you know, asking why people are using drugs that can be bought of a shelf etc. [Interview KE10]

Despite this, KEs highlighted the fact that there was some variation with regard to the prescribing or dispensing habits of PHCPs. Particularly in relation to GPs, it was felt that some were more alert to when they were being deceived by a patient, whereas others were either unaware – or less bothered – about the fact that they were being targeted by ‘drug seekers’:
I think, you know, doctors aren’t as possibly easy to get some of these drugs off, and then there’s others that are. Like there’s a doctor here in [name of place] who people just say he’s just a lolly machine. So it depends on the individual GP. [Interview KE2]

I mean I think it’s like anybody, most of them are pretty good…I think most of them overall are trying to do their best and there are some doctors who are really annoyed if they find they’ve been conned and there are some who don’t seem to get phased by it at all. And there are others who, if you look at what they’ve dispensed, it’s absolutely horrifying. [Interview KE8]

I know my doctor, in her practice they are absolutely resolute about not prescribing any new benzodiazepines and if they do, it’s for no more than five days. But then, other GPs, and they’re well known to us, we know that their clients can roll up there and pretty much get what they want as long as they pay their bill. [Interview KE9]

This lack of awareness or lack of willingness to tackle the problem was sometimes attributed to ‘naivety’ on the part of the CP or GP, seen to be a result of restricted knowledge of patterns of drug use, or due to PCHPs’ not viewing it as integral to their role:

The difference is that when doctors prescribe drugs and they say take one in the morning and one at night, that’s how they imagine people use them. My clients don’t use them like that – they’ll take 10, and get very dribbly on it. [Interview KE12]

I think GPs are really busy and I think they can either be like a factor thing or they can be like – I don’t think it’s just GPs – I think people are often scared to, don’t like to ask about the use of alcohol or other drugs. I’m just amazed at how many professionals are wary of asking questions about that, because it’s not what you do. [Interview KE11]

Whilst a desire was expressed for some GPs and CPs to be better informed on the issue, and more alert to incidents of ‘drug seeking’ behaviour, one KE commented that this should not happen at the expense of patients who have a legitimate need for their medications:

It’s complex isn’t it. GPs are trained to help people with whatever illness they have, so you don’t want every GP being really suspicious, looking at everyone who comes through their doors to see if they’re ‘drug seeking’. You do, however, expect a reasonably sophisticated range of knowledge in your GPs. So that they might think that if someone has come back for the third time in six weeks for the same substance they might actually think I might just do a screen, and that maybe there’s a different intervention here than writing a prescription. [Interview KE10]

Several KEs believed that the prescribing habits of some GPs contributed to incidents of prescription drug misuse and associated harms. This was generally linked to over-prescribing (e.g. continued supply of medications over a long period and/or in large amounts), mis-prescribing (e.g. prescribing a medication when there is no legitimate need for it) or GPs failing to fully inform patients of the risk of dependence:

What I find really disconcerting is the fact that they must be aware that these people that they’re prescribing to are addicts - they’re creating a dependence - and they don’t seem to do anything about it. They neglect to let people know that if you do become dependent on this, this is what we can do for you. They miss that piece out completely because I don’t know, I don’t know, if I tried to count them all I’d lose count of the amount of people that I know in my life and around me right at this moment that are on these kind of drugs and I’ve asked them – they [GPs] have neglected to mention it at all. [Interview KE2]

I think that they [benzodiazepines] are too easily prescribed in terms of inappropriately prescribed in terms of the presenting issue. I think that there is a myth that people will only become dependent to benzos if they have a history of other dependence and that isn’t our experience at all... I mean, I got offered benzos when I had a miscarriage because I was
upset. Well to my way of thinking that’s grief – it’s a perfectly normal human emotion and we don’t need to medicate it, you know. And unless it’s severe and debilitating, anxiety is pretty normal too. Most of us feel some anxiety and I’m not talking about in the realm of disorders, but just the general run of the mill stuff. [Interview KE3]

My sense is that diazepam particularly is being prescribed more than it used to be because about maybe six or seven years ago I think, this was never, you know, you wouldn’t be hearing about this very much. Now I don’t know whether that’s because the resources out there aren’t as good, like the inpatient unit for detox, there’s such a big waiting list to get in there now, whether there’s more dysfunction in the community going on now and things are getting worse, or whether GPs are kind of trying to tackle it in another way. But my sense is that there is a lot more happening than there was. [Interview KE7]

### 4.2.4.16 Primary healthcare practitioners’ response to the issue – summary and implications

- The majority of responses by GPs and CPs involved minimising the prescribing and dispensing of prescription drugs to those they believed would misuse them. This is in line with their professional responsibilities. This involved direct refusals, or the supply of limited amounts.

- PHCPs varied in the way they responded, but seemed to fall into three main categories – those who refused outright to supply when there was a suspicion of prescription drug abuse or ‘drug seeking’, those who might give someone the benefit of the doubt but cease after repeated requests, and those who were often a ‘soft touch’ or gullible and easily duped.

- Very little harm reduction intervention was described by GPs and CPs. Partly this was due to a lack of time and resources, as well as not knowing what resources or services are available; however, responses sometimes indicated that it was simpler to refuse outright to avoid having to manage the problem.

- KE interviewees felt that most PHCPs acted responsibly with regard to preventing prescription drug misuse. However, they believed that there was some variation with regard to the quality of prescribing or dispensing habits of GPs and CPs, often due to a lack of knowledge, a level of naivety, or a reluctance to take responsibility for the issue. Concerns were raised about some GPs over-prescribing, mis-prescribing or failing to inform patients fully on the potential harms of prescription drugs.

- CPs faced often significant problems in attempting to verify prescriptions and GP instructions, when GPs were unavailable and often had to use stalling tactics.

- This raises the issue of the importance of the GP – CP professional relationship and to the lack of clinical information that CPs have on which to base decisions.

- CPs were more likely to contact the Police, in particular with respect to forged prescriptions.

- GPs and CPs spoke about alerting colleagues through formal and informal networks, using phone and fax.

- PHCPs reported contacting Medicines Control and also local drug services if a methadone patient was involved.

- Overall, there seemed to be a lack of a coordinated or standardised response, and a lack of local and national guidance on responding to these issues, leaving CPs and GPs to respond according to their own judgement or local practises.
4.2.5 Impact of prescription drug misuse on primary health care practitioners

The research explored how PDM had impacted on PHCPs who participated in the study. This included both the level, and the nature, of the impact. It should be noted that when discussing this issue, most interviewees focussed on the ‘abuser’ category of ‘drug seekers’, as they were generally considered to have a greater bearing with regard to the impact of prescription drug misuse.

4.2.5.1 Level of Impact

The level of impact of PDM was not considered to be significant by most PHCPs, when considering how frequently they dealt with this issue in the context of their professional roles. A number of research participants reported that it was something that they faced a “few” times a year, with most considering it to be a fairly infrequent occurrence.

It was noted, however, that there were likely to be many undetected cases that slipped under the radar, with interviewees acknowledging that they had probably been unknowingly “duped” on a number of occasions. As such, some acknowledged that it was difficult to quantify the exact volume of the problem.

A few interviewees noted that there was a cyclical pattern to the issue, with ‘drug seekers’ sometimes coming in ‘waves’ (although incidents were generally not considered to be linked). One GP reported that they received more illicit approaches during holiday periods. Others discussed their experiences as a new GP in a practice, whereby they had been consistently targeted by ‘drug seeking’ patients when they first arrived. It was believed that this was common practice, with patients ‘testing the water’ with new PHCPs in order to ascertain their stance on the issue. It was reported that this usually continued for the first year, and then diminished if ‘drug seekers’ were unsuccessful at acquiring their desired substances.

There was a sense amongst some PHCPs that the level of impact of this issue could be ‘controlled’ to a certain extent. A number of interviewees spoke about the importance of confronting ‘drug seekers’ directly (particularly ‘abusers’) and refusing to grant their requests from the outset. If this was not undertaken, they believed that PHCPs created a difficult situation for themselves, in that patients would identify them as a ‘soft touch’ and continue to target them. It was also asserted that once word got out into the wider ‘drug seeking’ community that these PHCPs would be sought out by other individuals.

This was confirmed by some KEs working with drug users, who reported that once a prescriber earned a reputation as being easily deceived or manipulated, they were likely to be sought out by individuals seeking prescription medicines for illicit purposes:

Well word of mouth is huge of course, and people talk about going to ‘so and so’ because they describe them as a ‘writer’. So they’re a ‘writer’ and they [‘drug seekers’] know who to go to and I’m not sure why sometimes. I mean, maybe the GP’s just a nice guy who was a bit of a sucker for a good story and people know how to put them across. They [‘drug seekers’] are often really good storytellers. [Interview KE12]
Say if that person, she can go along and score 30 ten milligram Valiums®. Now, ‘tens’ are really up there because it means you only have to take the one or you can break it in half and make it last a bit longer. And she goes and sells those to somebody and they say ‘where did you get tens, how did you get those locally? Did you buy them off somebody?’ And she just happens to slip into the conversation where they’ve come form, they’ll go and hit him. The doctor will cop it. [Interview KE2]

Interestingly, however, one KE interviewee working closely with drug users explained that she had heard anecdotally that if people found a doctor who was a ‘soft touch’ they sometimes preferred to keep this information to themselves:

When someone, I mean this is hearsay – when someone gets a good doctor they have a long term relationship with, they don’t like to tell other people about it because they don’t want to jeopardize that either..yeah, and having other people going and trying to score because it could jeopardise it for everyone in the long run. [Interview KE13]

Another KE commented that it was the “nice” doctors who were often most at risk of being deceived:

It depends on our personalities which particular hazard we’re at most risk of; threat or manipulation, or the really, really, nice caring doctor who is the easiest hit of all. The really good quality doc who is empathetic to the nth degree, that is the easiest con that they [‘drug seekers’] can work...They [the doctors] have no idea that people out there do this sort of thing. [Interview KE5]

4.2.5.2 Nature of the impact

The way in which prescription drug misuse impacted on PHCPs varied – both across different practices and pharmacies, as well as individual patients. The different types of impacts identified in the research by CPs and GPs are summarised below.

4.2.5.3 Time and effort

It was reported in the research that dealing with prescription drug misuse required additional input on the part of PHCPs. This principally involved time and effort in ascertaining whether or not a patient’s need was legitimate and, in the instances where it was not, an often complex response from the GP or CP to the situation (see section later section which details the range of responses identified in the research):

And it [the consultation] actually takes longer than normal. You still have to assess them, make sure that there’s a genuine condition and things. And then let them know that this is the course of action and ‘I’m happy to refer you, goodbye’. And it takes longer, yeah it takes up a lot of your time. [Interview GP2]

Interviewer: What are the difficulties for you as a pharmacist in dealing with prescription drug misuse?

Respondent: Time! Well that takes, that was hours of and outside of the square stuff, you know, emailing colleagues and saying, you know could he be a fast metaboliser and, you know, those sorts of questions. A whole lot of stuff that I was doing and how do you think I should handle x, y, z, you know, and what should be my next approach and proactive work beyond the core of $5.60 and ‘I’m dispensing your prescription, and here take this three times a day with food until it’s finished’. There was a whole lot more, there’s a whole lot more thinking around those sorts of things. [Interview CP5]
One CP described how, given her involvement with methadone clients in the pharmacy, she generally also dealt with issues around prescription drug misuse, and that this sometimes overshadowed other facets of her role:

> It seems to go through phases, I probably am sort of reasonably active in the misused drug side of things in this pharmacy, I tend to look after the methadone clients, I tend to get their stories. So certainly if it’s related to one of those [methadone] clients, then it’s me that deals with it, so I do tend to be the one that deals with all of that. So it does, at times especially if they’re playing up, I know that it feels like it’s all I ever deal with. [Interview CP16]

Another CP highlighted that some of the regulatory processes involved with potential drugs of abuse were time-consuming, and became more frustrating when the patient was fraudulently accessing the medicines:

> And the Ritalin® thing is there’s a lot of wasted time and effort and money in the paperwork of giving a Ritalin® script out if they’re abusing it. Well why do we write in a book and why do we have three copies of everything and go through all the palaver of trying to do it properly as a pharmacist when it’s not a genuine case? [Interview CP8]

### 4.2.5.4 Emotional impact

Interviewees highlighted that ‘drug seeking’ patients could be difficult individuals to treat, and that they sometimes felt intimidated or threatened by them. As a result there was evidence that such behaviour had an emotional impact for PHCPs:

> You think, well am I going to sort of potentially really expand my workload in this sort of, because the other thing I mean they’re actually a huge emotional burden as well. You know, when you see certain names come up on your appointment list, you know, there’s quite a degree of heart sink involved with some of them that they’re such an amount of work and energy going into dealing with them that it’s quite exhausting. And if you’ve got a lot, that’s very exhausting. [Interview GP10]

Interviewees reported feeling scared and frightened in some situations, and many had experienced anxiety with regard to the uncertainty over how patients would react to their attempts to restrict the supply of medications:

> Because obviously all my staff panic as well. They think, ’oh my god, you know, this person’s going to go off their tree’, especially if it’s a psychotropic or something and you’ve refused to dispense it. So you’ve got staff in a hyper adrenaline sort of situation and you’ve got other customers, patients at the same time so on a one to one - but you don’t really want to take the person alone into your counselling room in case they one to one give you a punch in the nose or something like that. So it is a bit of a balancing act, yeah I’m very aware of my staff being frightened of someone like this. [Interview CP1]

There were also pressures identified in relation to accurately identifying incidents of misuse. One CP described the stress of contacting Police in regard to a suspected case of prescription fraud without being absolutely certain her assessment of the situation had been correct:

> We had a case about oh seven years ago where a woman presented a script, she looked more believable than I would be. She was nicely groomed, middle aged woman, had a child with her. She presented a script for dextropropoxyphene combination and because we’d had a locum the week before who spoke about this middle aged woman seeking, our tech just said ‘that’s her’. And she had, she’d picked up a good street to give her address to the doctor and that was a tough one, you know. I made a call that I’d back this girl, I rang the doctor and he said, no he had no history – he just had to assume she was genuine, so we called the police. Now the police came and, I mean, up until the moment they arrived and she admitted that it
was, you know, she’d been seeking for an addiction of hers, I just saw us all over the front page of the Sunday papers to be quite honest. [Interview CP4]

4.2.5.5 Financial impact

It was reported that misuse of prescription medicines had a financial impact for health PHCPs, and included both direct and indirect costs.

Interviewees stated that ‘drug seeking’ patients generally did not pay their consultation fees, particularly where GPs refused to prescribe sought after medications. One GP highlighted that he did not have a problem with this, and in fact preferred that no financial transaction took place for a consultation of this type. Another direct cost reported by interviewees included expenses incurred as a result of break-ins.

Indirect costs identified by research participants included the extra PHCP input for these patients (given the generally longer consultation time required) and the potential loss of income through refusing to treat patients:

I think the ethical and the moral considerations ultimately would override, but one must think, gosh, you know, am I going to turn this person away – what are the business implications of that? [Interview KE1]

A small number of interviewees highlighted that there was the possibility of alienating (legitimate) patients through wrongly accusing someone of being a ‘drug seeker’.

4.2.5.6 Challenges faced by primary healthcare practitioners

There were a number of challenges identified in the research that PHCPs faced in relation to dealing with prescription drug misuse. These related to the management of ‘drug seeking’ patients, the difficulty of assessing whether or not a request was legitimate, other work pressures, and managing relationships with other PHCPs. The main issues identified by GPs and CPs are summarised in the following section. Where appropriate, comments from KEs on this issue are inserted in the text.

4.2.5.7 Prescription drug misusers as ‘difficult’ patients

Interviewees spoke about individuals involved in prescription drug misuse as often being “difficult” patients to treat. It was reported that they sometimes had multiple or complex health issues (e.g. both mental and physical health disorders) and, in some cases, required additional time and resources from PHCPs.

In terms of their conduct and behaviour, a number of GPs and CPs stated that these patients could be aggressive and threatening, particularly when challenged about their request for a medication, or if the PHCP refuses to supply the drugs:

Well they often get quite angry with you. And first of all, I mean it seems to follow a regular pattern – they start off really nice and, you know, polite and often say something quite complimentary and then they tell you about this dire situation they’re in and if they can see you’re not going to prescribe for them they often get more and more irritated with you. Some of them can get quite threatening. [Interview GP15]
Well they just get quite threatening and demanding and it’s quite difficult to be able to just keep saying no and try and get rid of them. [Interview CP8]

This was also noted by KEs who had either heard of reports of threatening behaviour from their clients or from PHCPs that they worked with. In the following example, a drug treatment worker received a call from a GP in the middle of a consultation seeking her advice on what to do with a patient that they felt intimidated by:

I’ve got one GP and he rung me up one time and said ‘I just want to check with you because I’ve got this person here and I’m not quite sure what to do’. And I asked him a series of questions and I said ‘just say yes or no’. And so, one of the questions I asked him was ‘are you scared of him?’, and he said ‘yes’... And the [GP] was afraid and I think this is what happens – a lot of the doctors they get afraid and there’s clients who will say ‘well I know where you live’. And really try to put the frighteners into them. [Interview KE12]

It should be noted that there were no reports of direct physical violence towards PHCPs who participated in the research. However, there were reports of armed hold-ups and many had been threatened or verbally abused, and had felt frightened by the attitude or behaviour of some ‘drug seeking’ patients.

4.2.5.8 Time and workload constraints

It was acknowledged by most GPs and CPs that dealing with issues around prescription drug misuse required additional input on the part of the PHCP (see section ‘Nature of the Impact’ above). Interviewees highlighted that, particularly during busy periods of the day, time and workload constraints sometimes impacted on the way in which they responded to the issue:

I mean I guess it’s common sense, but then if you’re rushed and there’s lots of people waiting for you everything goes out the window in the rain and it’s like ‘oh’. And you don’t think of these things until after it’s happened and then it’s too late. [Interview CP9]

I guess most of the time at the moment you just kind of want to get them out the door, get rid of them. That would, that would mean suddenly you’re spending maybe 45 minutes seeing this person, forking through their psychological woes and try to come up with something that might be of better use to them. That’s a big thing. [Interview GP10]

A couple of interviewees acknowledged that it was easier to “say yes” to patients, as opposed to investing additional time and effort to resolving the problem:

I mean you can either ignore it and say ‘well this has actually got nothing to do with me’, and save yourself an awful lot of stress and hassle. [Interview CP12]

This was also recognised by a KE:

Some of the stories [from patients] are just so incredible that often they’re really things that would be difficult to disprove without a huge amount of effort. And I can see how easy it is for a GP, just as a one-off, particularly if you’re busy or running late. Some of these clients turn up at 25 past five just as the surgery is closing. And, you know, you’re just about ready to go and it’s so easy, you don’t want to get caught up in all this, ‘oh just the one script’ and hopefully you won’t see them again. [Interview KE14]

4.2.5.9 Identifying ‘drug seekers’

A number of interviewees highlighted that it was difficult to identify some ‘drug seekers’, and it was only after they were alerted to the issue by another party (e.g. Medicines Control) that they became aware of what was going on. In some cases, this
was attributed to the fact that patients exhibited no overtly suspicious behaviour (e.g. provided ‘plausible’ reasons for requiring medication or displayed a relaxed manner during the consultation). On other occasions, it would appear that this transpired because the patient did not fit the PHCP’s view of a typical ‘drug seeker’:

“Well I guess sometimes, if they have a plausible argument and they come in and they’re well presented, you think they may actually be genuine. Because they don’t all come in as your typical drug addict – track marks up the arm, dishevelled looking.” [Interview GP15]

Some interviewees highlighted that regular patients who were well known to the pharmacy or practice may also be ‘overlooked’ as potential ‘drug seekers’.

4.2.5.10 Ascertaining the legitimacy of a suspected ‘drug seeker’s’ request

A key challenge identified in the research was the ability to identify whether or not a suspected ‘drug seeker’s’ request for medication was legitimate. Both GPs and CPs raised a number of issues in this regard – some of which were particular to their specific professional group, and others which spanned both groups of PHCPs.

GPs discussed the difficulty in assessing the plausibility of symptoms – for example, measuring the degree of a pain described by a patient and whether, indeed, it was authentic. CPs spoke about the fact that they were not party to the GP-patient consultation, and thus lacked background data on the patient’s medical history, and the reasons why a medication was initially prescribed. This posed a challenge in situations where there were concerns over the legality of a prescription or the legitimacy of a patient’s request (e.g. if a patient was receiving a particularly high dose of a potential drug of abuse) as sometimes CPs felt that they did not have enough information to make a judgement call:

“They [GPs] know more about the history than we do. It’s quite hard for us because we’re only seeing the, you know, the item at the end – we’re not hearing the consultation that delivered the item.” [Interview CP2]

“We don’t have any patient history. All we get is a prescription. Now there’s no way you can be involved in the treatment of that patient without knowing what the diagnosis is, and/or some of the history being it all.” [Interview CP8]

As detailed earlier, if there were concerns over the authenticity of a request, both GPs and CPs sometimes attempted to contact a patient’s usual GP in order to verify or query a prescription. However, interviewees reported that it was sometimes not possible to get hold of the doctor – often because they were busy in consultations with other patients or were unavailable due to the approach being outside of normal working hours (e.g. evenings or weekends). One GP also described how prescribers (or practice nurses) were sometimes not willing to provide information over the telephone due to confidentiality concerns (i.e. suspecting that the person telephoning the GP may not be who they say they are).

Another challenging situation for GPs and CPs identified in the research was when PHCPs were certain that the patient was misusing the medication but were unable to categorically prove that this was the case. In the following account, a CP described the difficulties involved:

---

42 A small number of interviewees also highlighted that it was difficult to verify requests from patients from Australia, due to the lack of paperwork and inability to contact the prescriber in another country.
The main thing I guess is the degree of proof that you’ve got that a product is being misused and abused. And that’s very difficult to see really. You know, there’s that level of proof because then when you ring the doctor and say ‘I believe Mrs Smith is abusing Paradex’, then the doctor’s going to say, or the doctor may say ‘Well, why do you think that?’. And you have to go through your evidence and you don’t really have anything concrete – you only have the facts that they’re picking up their repeats every five days, and that means they’re like taking 12 to 15 tablets every day. [Interview CP3]

4.2.5.11 Ability and confidence to confront ‘drug seekers’ directly

One of the challenges for PHCPs identified in the research was being able to confront suspected (or proven) ‘drug seekers’.

Many interviewees acknowledged that, at some stage in their professional life, they had felt intimidated by a prescription drug misuser. In some cases, this was due to a fear of the patient reacting negatively to being confronted or refused the medication (e.g. becoming abusive). One GP recalled that in the case of one patient who she suspected of seeking medicines for illicit purposes, she was afraid of the repercussions if she subsequently saw the patient in the local area. Alternatively, some interviewees reported that they had felt directly threatened due to the behaviour of the patient (e.g. been subject to ‘standover’ tactics). As a consequence, they were, on occasion, reluctant to directly confront patients suspected of drug-seeking behaviour:

I think one of the difficulties is actually a bit of fear factor. Sometimes these people can be quite aggressive, and we have a lot of female pharmacists nowadays and I think some of them could actually be, well I suspect some of them could be quite, you know not scared, well yes certainly apprehensive because they can be a bit unpredictable some of these people…I mean they can shout and rant and rave and push stuff around and they can be abusive and things like that. [Interview CP7]

As evident in the above interview excerpt, issues were raised with regard to the gender of PHCPs, and the potentially greater threat to female GPs and CPs. This was commented upon by male research participants who perceived that their female counterparts (particularly those who were less experienced) were at greater risk of intimidation by ‘drug seekers’. Some female interviewees acknowledged that this indeed was the case, especially when working alone:

I think it definitely does make a difference probably being female as well. My boss is obviously a male and he’s probably more aggressive than I can be. But yeah, it does, it does occasionally, you know make me feel a bit uncomfortable working sole charge as a female. [Interview CP15]

A number of interviewees highlighted that they were unsure what to do in situations involving a potential prescription drug misuser, including knowledge of appropriate approaches for diffusing a tense interaction with an aggressive patient.

Furthermore the research indicates that PHCPs often did not know whether or not they should follow up on their suspicions, and were uninformed in many cases of the appropriate avenue for referring on patients:

It’s sometimes not knowing where the best place to send them is... like should they go to the pain clinic, should they go to Drug and Alcohol [services]. [Interview GP15]

Findings from the research suggest that the degree of knowledge and skills base was mostly (but not always) associated with the level of experience of the PHCP – both in
terms of their role overall, and their level of exposure to drug-seeking behaviour. For example, more experienced PHCPs reported that many of the skills they had developed in this area had been learnt ‘on the job’ and they had become more comfortable dealing with the issue over time. In contrast, some newly qualified GPs and CPs acknowledged that they lacked confidence confronting these patients, and often relied on their more experienced counterparts for guidance. PHCPs were also often more highly skilled if they worked with methadone patients.

4.2.5.12 Maintaining professional relationships

GPs or CPs described situations where they had had concerns over the professional habits of another PHCP (e.g. that they were prescribing high levels of a potential drug of abuse). In such instances, they sometimes contacted the prescriber to raise the issue. CPs in particular, highlighted that this could create tension in the relationship, as evident in the following interview excerpt:

I think, I mean obviously most prescribers wouldn’t knowingly you know prescribe inappropriately. I think they’d be horrified to think that, that pharmacies were out there thinking that they were, you know, supplying druggies for example – and so to actually approach that issue sensitively is extremely difficult…..at what point do we actually you know phone them up and say ‘you know do you have any suspicions or are you concerned about the amount of morphine [being provided to a patient]? [Interview CP11]

This was particularly an issue when the two PHCPs involved had different views on the situation – e.g. the GP did not feel that they were ‘over prescribing’. The situation could be further exacerbated if they felt that their professional judgement or skills were being questioned, in particular by CPs. Indeed, CPs indicated feeling the difference in professional status between them and GPs made these situations more difficult, although one commented that younger GPs seemed much more comfortable about discussing things with CPs.

CP interviewees who discussed this issue reported that it could be a sensitive issue to manage as they were reluctant to put their professional relationships at risk (e.g. it could impact on their business), whilst also recognising that they had ethical obligations to maintain patient safety.

One KE who worked closely with drug users also felt strongly that CPs needed to be careful that they did not overstep their duties with regard to questioning the prescribing behaviour of GPs. In particular, she raised concerns about CPs making judgement calls on patients and then exerting influence on prescribers to amend doses:

They [CPs] seem to be or think of themselves as the gatekeeper, you know they have the power to stop or say no. I mean I’ve heard of a couple of pharmacists who people have taken prescriptions to get filled and they’ve rung the doctor and said ‘oh this is terrible, this is too much. I’m going to change it’. And I mean I don’t think it’s their right to do that if a doctor has prescribed something…I think it just comes across that they’re power tripping, you know, and that they are, again it’s judgemental. [Interview KE13]
4.2.5.13 Inherited patients

GP interviewees commented on the challenges associated with patients that they had ‘inherited’ from other PHCPs. This generally occurred when they bought a practice and took over an existing patient base. For the most part, it was reported that patients were ‘handed over’ with no integration. Only one example was identified in the research where this did occur, with the interviewee reporting that the patient was introduced in a co-ordinated manner, with another GP who had previously been working in the practice able to provide additional background information on the patient. This was believed to have had a positive impact in relation to effectively managing the patient:

*There was another GP here who’d been here for four years who was well aware of the patient and was able to kind of introduce me to her in a staggered effect…. But it definitely made a difference having his, like his knowledge with working with her in the past being able to kind of double check things, stories, well information that was being given…clarifying what was actual and what was kind of made up really.* [Interview GP12]

GPs asserted that patients they ‘inherited’ often had pre-existing issues with misuse of prescription medicines. The most commonly cited example was long-term users of benzodiazepines, frequently older patients, who had been prescribed the drugs over a significant time period. Interviewees highlighted that it was sometimes challenging to treat these patients who were usually resistant to changes to their medications being implemented. Additionally, some GPs reported that the misuse of the drugs by these patients – or inappropriate prescribing by the previous GP – was not always immediately obvious and only became apparent after some time:

*Sometimes you take them on board without realising that you’ve got yourself into it and you’re redoing the repeat scripts and it’s only a few months down the track when you’ve got time to get to know them better that it doesn’t seem to fit in with what they’re on.* [Interview GP6]

4.2.5.14 Challenges specific to practitioner type

There were a number of challenges identified that were linked with specific groups of PHCPs. These included rural GPs or CPs, locums, and sole PHCPs.

4.2.5.15 Rural (and smaller town) primary healthcare practitioners

GPs and CPs who were working in rural areas were purposively sampled to explore issues for PHCPs based in these types of settings. This incorporated both small towns in rural locales and more isolated settings (e.g. a sole PHCP in a very small settlement). Some of the KEs (e.g. from national GP or CP organisations) also commented on the issues and challenges facing rural PHCPs.

There were a number of negative aspects – or challenges – of working in rural communities identified in the research. These were mostly linked to the isolated nature of the rural environment. Interviewees spoke about limited access to specialist services (e.g. pain clinics), increased risk of violence, and restricted cover from Police, particularly if there were non-urgent incidents outside of normal working hours:
When we want the police, especially in weekends, we don’t have them up there with full force, seven days a week. Like if you ring our police station after hours you get transferred to [name of town two hours away] so it’s very hard to get hold of somebody. [Interview CP16]

Physical threat of violence, you know, because they’re on their own, we’re on call at night time on our own and these people either have an implied threat or threatening tone – or will stand over you, literally, physically come and stand over you until you write for them...make you feel personally uncomfortable in your own personal space. And I mean that happens elsewhere as well, but because of your isolation that’s a risk. [Interview KE5]

Another issue raised was in relation to patients having limited access to healthcare in such regions, and the obligation of rural PHCPs to ensure that services are accessible for all patients. As evident in the following interview extract, this could sometimes be challenging with regard to managing ‘drug seeking’ behaviour:

When you’re a rural primary healthcare practitioner you’re a monopoly provider and there is a, if you like, an ethical obligation to be therapeutic for everybody – they don’t have another option. You can’t just say 'piss off noddy because you’re annoying me’ because that person still has health needs and will still need to access my service on an ongoing basis and for other reasons. [Interview KE5]

Other challenges identified for rural PHCPs included the requirement to carry medicines in vehicles when visiting patients, the need to dispense drugs in larger amounts (due to patients’ distance from a community pharmacy), and the potential knock-on effects of alienating patients (e.g. by refusing to dispense medication) in a small community.

It should be noted that a number of advantages of working in a rural community were also highlighted in the research. Given the smaller population base, this included detailed knowledge of patients and their backgrounds – and awareness of new additions to the local community. This information was either gained via direct observation on the part of the health PHCP, or via third party sources (e.g. through the ‘grapevine’). Some respondents stated that this meant it was easier to identify drug-seeking behaviour:

So I mean, in a small town like this it’s really very easy – these people stick out like a sore thumb because we know everybody. Anybody new is, you know, we know right away they’re new and if there’s any warning signs, you know, blatantly easy to pick them up. [Interview GP1]

A number highlighted that the smaller size of the community meant that health PHCPs in the area generally knew one another, which resulted in greater networking and collaboration across GPs and community pharmacists. One rural GP interviewee spoke positively about their peer review group which included the local community pharmacist.

4.2.5.16 Locums

Although a number of interviewees were employed in part-time roles at the time of the research, none reported that they were currently working as locums. However, several were employing – or had recently worked with – locums within their business.

These interviewees reported that ‘drug seekers’ often targeted locums, particularly those working in community pharmacies which were open extended hours. It was
believed that patients who sought to misuse prescription drugs viewed locum staff as a potential ‘soft touch’, given their lack of familiarity with the patient base. As such, PHCPs (particularly CPs) described how ‘drug seekers’ would attempt to either deceive the locum or, at least, plan their visit to a practice or pharmacy to ensure that they were seen by a temporary or part-time staff member:

I think the locum, certainly through the methadone programme, the locum is always put under more pressure. You’re the new guy there, and they’ll generally sort of try and see whether they can bend the rules you know, they’ll have a takeaway dose, they’ll come back in half an hour later and say oh I dropped it or spilled it or the cap wasn’t on properly or there was nothing in it, in the hope that you might given them another dose. [Interview CP11]

I think when you’re part time sometimes you get more ‘drug seekers’. Because they see that maybe you’re, like when you’re a locum you get more of them, because they see you as sort of fresh blood and so they think they can pull the wool over your eyes more easily. [Interview GP15]

Interestingly, findings from the research suggest that locums also played a role in helping to identify ‘drug seekers’ within a community. A number of interviewees reported that, given the fact that they moved around different practices and pharmacies, they came into contact with a wide range of patients. Consequently, they were often effective at detecting ‘drug seeking’ behaviour, particularly with regard to patients who were ‘doctor shopping’ and/or ‘pharmacy hopping’:

And it’s very interesting actually, because of the nature of this business a lot of our pharmacists work in other businesses in [name of suburb in city] and work nights in the weekend and they will see people that they’ve seen in their pharmacy here, so that we’ve actually picked up a few things like that when people are shopping around. [Interview CP2]

4.2.5.17 So le primary healthcare practitioners

Two GP interviewees were working as sole PHCPs in a practice (one was urban-based and the other was situated in a fairly isolated rural area). In addition, several CPs reported that they were sometimes the only dispensing pharmacist on the premises at certain times during the working week (e.g. on the weekend).

There was evidence that, for some CPs, working alone created additional pressure with regard to dealing with ‘drug seeking’ behaviour. Some comments were made about increased stress due to concerns over personal safety, a greater reluctance to confront ‘drug seekers’ if working solo, and the strain of managing other patient requests at the same time. In the following account, a CP is describing what can happen when she is on the phone to a GP to confirm the legitimacy of a suspected ‘drug seeking’ patient’s prescription:

It is harder [working alone] if you know people, other people are waiting in the store. Because you know that they’re like impatient and they want to be served straight away and you don’t want to like seem rude, like talking on the phone when you know that they’re waiting for you. [Interview CP9]

Whilst not sole PHCPs themselves, a small number of interviewees commented on the challenge of working alone without support from colleagues, the fact that these individuals may be more easily intimidated, and that they were sometimes perceived (by ‘drug seekers’ and their peers) as a ‘soft touch’ in the community:
I think a lot of them are sole practitioners, they’re older, it’s good for business and I guess some them are easily intimidated, more easily intimidated. They might be physically small people or they might be, you know, they’re just sort of solo practitioners. [Interview GP11]

I think they’re known as being a softer touch, certainly…and in this part of the world it’s the GP who practices in isolation in a medical centre practice who appears to be the softer touch. [Interview CP11]

4.2.5.18 Impact of prescription drug misuse – summary and implications

- The level of impact of PDM was not considered to be huge overall for GPs and CPs, as it did not comprise a huge part of their workload, although such events could be emotionally distressing. There was an acknowledgment that possibly many cases of ‘drug seeking’ went undetected.
- GPs and CPs new to a practice, locums and part time staff felt they were more likely to be targeted by ‘drug seekers’.
- To this extent, many GPs and CPs felt it important to confirm and refuse to accede to requests or the situation might get out of control with other ‘drug seekers’ finding out they were a ‘soft touch’.
- One impact of PDM was the time and effort needed to ascertain legitimacy of requests, including taking time to contact other PHCPs and Medicines Control. This was a particular problem out of hours and at weekends, when people could not be contacted to verify or otherwise a situation.
- CPs commented on the particular difficulties they faced when validating prescriptions, as they were not party to the GP patient interaction, nor did they have access to clinical notes, resulting in them having to make judgement calls that they were often not comfortable with.
- The relationship between GPs and CPs could also become strained when they held different views about the nature of ‘drug seeking’ requests and this may have potential business and financial consequences for pharmacists.
- Drug seeking patients were considered complex and took more time to manage
- Pharmacists in particular commented on not liking the ‘policing role’ they were often expected to perform with regards to forged prescriptions and ‘doctor shopping’.
- GPs faced challenges with ‘inherited patients’ where the patient had been over prescribed by another doctor, and were transferred often with no handover. Chronic pain patients and patients on long term benzodiazepine prescriptions were particularly highlighted.
- Regulatory processes designed to reduce PDM were also considered to be time consuming, especially when the patient turned out to be a ‘drug seeker’
- Many interviewees highlighted the difficult nature of many ‘drug seekers’ (mainly the ‘abusers’) and often felt intimidated and threatened. This resulted in PHCPs becoming emotionally exhausted and sometimes scared. It was suggested that this might be more of an issue for female PHCPs.
- Financial impacts were noted, in particular by GPs who lost consultation fees when they refused to supply a ‘drug seeker’ who was then asked to leave the practice, and also the impact of break-ins and hold ups, although these were rare events.
• PHCPs commented on their ability to confront ‘drug seekers’, with older, more experienced CPs and GPs feeling better equipped. However, many commented on the need for training in the management of aggressive behaviour.

• Rural PHCPs faced a number of challenges. Despite working in a small locale providing benefits through close working relations between PHCPs and having good local knowledge, the lack of specialist services for support posed problems. Furthermore, distances travelled by patients to pharmacies meant that large instalments of drugs liable to misuse were often supplied to reduce patient travel costs.

• Many KEs acknowledged, and were sympathetic to, the vast range of challenges faced by GPs and CPs.

4.2.6 Support for primary care health practitioners

The research explored the various support mechanisms that interviewees were aware of – and utilised – when faced with the misuse of prescription medicines within their roles. An analysis of interviewee responses shows that support was considered in terms of emotional backing during difficult times, guidance and advice on how to resolve or confront the problem (including training and information) and the development of a collaborative approach to prevent or manage prescription drug misuse.

Whilst most interviewees emphasised the importance of outside support being available for PHCPs with regard to prescription drug misuse, others questioned how important this was. It should be noted that these individuals either were not significantly impacted by the issue, or were well supported within their individual practice or community pharmacy:

Because it’s such a small problem, I’ve never felt I don’t know what to do in a situation. And my colleagues, we’re all very supportive to each other, never had any worries about patients

[Interview GP1]

Some interviewees commented that there was no clear pathway for accessing support for this issue, with one interviewee reporting that they “thought long and hard about where do I go to get help?” when faced with a ‘drug seeking’ patient. One CP was frustrated at the current situation:

It’s been like quite frustrating at times, quite annoying. And I do feel that we don’t have a system in place for addressing it. Like you stated right at the start about mechanisms in place to help with the issue and I think it has impacted and it makes our lives difficult at times – not a major impact, but it definitely has an impact, and it’s just one more thing that adds to the stress of the job or the stress of the business and we don’t have a strategy available to us to address the problem. I don’t have a good answer to that but yeah we don’t have a strategy in place. [Interview CP3]

Other interviewees who were more positive about the range and nature of support mechanisms in place tended to either be more confident accessing help or were more informed as to the options available.

The main ways that research participants accessed support, and their views on each mechanism, are outlined below.
4.2.6.1 Support within their own practice or pharmacy

GPs and CPs drew support from other colleagues within their practice or pharmacy. This usually involved seeking advice on a suspected drug-seeking patient, with issues discussed at staff meetings or during more informal talks with individual co-workers. Some interviewees reported that they had a practice policy on the issue which they referred to when necessary. Other support mechanisms identified within this setting included security devices which could be activated by a GP or pharmacist in circumstances where they felt threatened, or were assaulted by a patient (this was set up to alert others in the practice or pharmacy, rather than an outside organisation, such as Police).

Interviewees reported that support from colleagues played an important role, both in terms of specific information or advice, as well as emotional support if they had an unsettling encounter with a patient:

*I think it’s huge [the difference it makes having supportive colleagues]. I mean I would hate to be a solo doctor and I think it’s vital for your sanity, not just in relation to ‘drug seeking’ patients, but to every aspect of being a GP you need that support when you’re not sure what you’re doing with a patient.* [Interview GP1]

The close proximity of other staff, and the ability to draw on support as and when needed, was cited as a key advantage. In some cases, PHCPs were able to access and consult with individuals within a practice or pharmacy who had specialist knowledge of the area (or a related field). Less experienced GPs and CPs reported that they often relied on more skilled colleagues for advice and guidance on issues they faced around prescription drug misuse. In some cases, this involved observing how more experienced co-workers dealt with ‘drug seeking’ patients. As evident in the following interview extract, one CP interviewee acknowledged that she had been fairly uninformed with regard to this issue prior to her first role in the workplace, where much of her learning had occurred:

*I think the newly graduated ones don’t really realise it [prescription drug misuse] is happening. They just come out from pharmacy school and you don’t think much of the world, it’s like a sheltered world. And for me, I personally didn’t even realize that people wanted like syringes to inject themselves. That’s like how sheltered I was. So it’s not until you start working until you start dealing with these issues that you realize that you know the world is definitely more broader than you realised.* [Interview CP9]

4.2.6.2 Support from other colleagues

GPs and CPs usually had professional relationships with other PHCPs in their local area (this was particularly the case in smaller, rural locales). Where appropriate, they liaised with their peers on issues around prescription drug misuse. This usually involved informing others of a suspected ‘drug seeker’ and consulting colleagues to confirm whether or not their suspicions were justified. They also received information from other health professionals on issues in their region, via fax alerts etc.

It was reported that ‘joint working’ between PHCPs worked well, and was viewed very favourably by those who had formed effective relationships (including GP and CP collaborations). Findings from the research suggest that the close proximity of
different health practitioners – either located in the same building, or in a small town – facilitated closer relationships. This was mostly due to a greater familiarity with each other and the ability to consult in a more informal manner on an ad hoc basis.

4.2.6.3 Support from national and regional organisations

This included professional bodies (e.g. the Pharmacy Guild) and Police. Support provided from these bodies included information and advice and, in the case of Police, assistance in the form of apprehending suspected ‘drug seekers’ (mostly in relation to fraudulent prescriptions). A CP reported that one of the national pharmacy organisations organised information evenings with input from the Drug Squad (e.g. they provided data on the value of illicitly obtained prescription medicines). One GP had also received support from their PHO on this issue, in the form of an information evening where someone from Medicines Control spoke on the issue and disseminated pamphlets.

Interviewees had mixed experiences with regard to support provided from Police. Some reported that they were very quick to respond to requests for help or assistance. Others said they did not appear to have a great interest in issues pertaining to prescription drug misuse, evidence of which included a lack of feedback on the outcome of prescription drug misuse-related investigations.

It was less common for interviewees to talk about accessing support from other local and national organisations (e.g. professional bodies). However, where this had occurred, they reported that assistance provided had been beneficial.

4.2.6.4 Support from specialist services

This predominantly included drug treatment agencies, and was usually mentioned by interviewees who had methadone patients. These PHCPs reported that if they had concerns about a particular individual (not necessarily their methadone patient) or they were unsure what to do to resolve an issue, they sometimes contacted someone from their local drug treatment service. This was usually a GP, nurse or case worker with whom they already had an established relationship:

If I ever have any issues, I mean certainly relating to my methadone patients I frequently chat to him [Doctor from methadone Service] when it’s relevant and I think if I had any other patients that I was worried about I know I could ring up [name of doctor] and he would be able to give some useful advice or put me in the right direction. [Interview GP1]

4.2.6.5 Support from Medicines Control

A number of interviewees had contacted Medicines Control seeking support on this issue. This generally occurred when they were seeking advice on what to do about a drug-seeking patient or were concerned about the prescribing habits of a GP. Some had also sought for specific patients to be restricted and, at the time of the research,

---

43 Until recently, Medicines Control was under the umbrella of Medsafe and thus many participants used the two terms interchangeably. In this report, we will use the correct term of Medicines Control in relation to these data, except where quoting interviewees verbatim.
one GP was considering asking Medicines Control to write to them to say they were concerned about their prescribing in relation to a particular patient – to enable the GP to present this information to the patient as evidence why they could no longer prescribe for them. Additionally, many research participants had read the restricted patients list disseminated by Medicines Control.

Medicines Control was viewed by some interviewees as helpful and supportive when approached for advice. Findings from the research suggest that some GPs felt better supported by Medicines Control – in particular those who had got to know staff well through their dealings with the organisation (not always just to do with prescription drug misuse issues). In contrast, a number of CPs reported that they had been frustrated by the response from Medicines Control on some issues. One interviewee felt that they had been unfairly reprimanded by Medicines Control when they had approached the organisation for assistance, and another said that their reported concerns over the prescribing behaviour of a GP had not (as far as they knew) been investigated. Some comments were also made about Medicines Control being restrained by bureaucracy, lacking in practical solutions to combat prescription drug misuse, and not taking a proactive approach to the issue:

Respondent: Yeah and they sort of in theory govern the misused drugs but I question really, I don’t believe they actually do anything. I believe they just sit round pushing paper. I don’t think they do anything about the misuse of drugs.

Interviewer: What gives you that impression?

Respondent: Because we don’t send our controlled drug forms in very often and no one ever asks where they are. [Interview CP3]

I don’t think Medsafe understand the real world. They don’t have a clue what goes on out there. I could be wrong but my frequent contact over the years has not impressed me. [Interview GP5]

A couple of CPs were reluctant to contact Medicines Control in circumstances where they were concerned about the prescribing of a GP (but it was not believed to be too serious a problem) as this was considered too “extreme” a response and felt like a “whistle-blowing” exercise. One said they would prefer some kind of “middle man” who could deal with such issues, and another reported that they felt it was more appropriate for a ‘doctor to approach a doctor, [rather] than a chemist to approach a doctor’ due to the sensitivities involved.

The utility of the ‘restricted persons’ booklet was discussed by several interviewees. Whilst many had consulted this resource – and supported the concept of a centralised list of patients – its value was believed to be limited due to the infrequency with which it was published and its current paper-based format. Some PHCPs commented on the difficulty in remembering the names of individuals listed in the booklet and the fact that patients may change their identity, thus rendering the information worthless. Looking up the resource during a consultation with a suspected ‘drug seeker’ was also considered impractical by some:

Well, I mean, it would be unusual in the middle of a consultation, you know, to say ‘excuse me, I just want to look up and see if your name’s in this book you know’. That would be kind of uncomfortable in a flow of consultation to do that. It would seem fairly weird. [Interview GP9]
4.2.6.6 Counselling support

One interviewee reported that they had been offered counselling following an armed hold-up in which prescription medicines had been stolen. A number of staff from the pharmacy had taken this up and the CP interviewed felt that the process had been valuable in helping staff overcome some of the trauma associated with the incident.

4.2.6.7 Support for primary healthcare practitioners – summary and implications

- Support for GPs and CPs was described in relation to a number of areas including guidance and advice on managing issues and emotional support. Less experienced PHCPs were able to ‘learn’ how to manage PDM issues by observing the responses of their more experienced colleagues.
- Not all GPs and CPs felt they needed support, but many did not consider PDM to be a major issue.
- When support was needed many PHCPs did not know where to go. In the main, methadone providers were more knowledgeable about accessing support and usually turned to alcohol and drug services for advice.
- GPs and CPs cited the importance of support from within their practices and pharmacies, in terms of emotional back-up, help in decision making, the benefit of staff with local knowledge and institutional memory.
- Support from other colleagues was often in the form of alerts about local issues. The benefits of close collaborative working, including between CPs and GPs were noted, and this worked better in smaller towns and between GPs and CPs located in the same building.
- With regards to support from national professional organisations, this was usually in the form of guidance and legal advice. Some PHOs provided their GPs with training.
- Support from Police was not always considered to be timely or supportive, and CPs commented the lack of feedback on PDM enquiries.
- Specialist services were often used to support decision making and provide advice on substance misuse. Patients with PDM problems were sometimes referred to specialist services for treatment.
- Medicines Control provided support to CPs, GPs and specialist services. Many GPs felt well supported and often used the restricted patient system, although problems with the booklet were identified by some PHCPs. However, some CPs did not feel so well supported, indicating that they were uncomfortable taking on the policing role they felt Medicines Control expected of them. Some also felt uncomfortable reporting what they considered to be unethical GP prescribing to Medicines Control.
4.2.7 Suggestions for better management of prescription drug misuse

GP and CPs discussed what they felt would assist them with regard to identifying and dealing with patients misusing prescription medicines. KEs also commented on this issue, particularly with regard to providing support for individuals involved in prescription drug misuse. Three broad categories were identified – ‘Training and Education’, ‘Electronic access to information’ and ‘Improved Support or Systems’. A summary of these is presented in the following section.

4.2.7.1 Training and education

Many interviewees identified a need for training and education around prescription drug misuse in primary care. However, it should be noted, that some CP and GP respondents questioned whether it was a ‘big enough’ issue to warrant specific training initiatives, and others felt the training they had received was adequate (including that which was obtained ‘on the job’). These were people who felt more confident with regard to their ability to confront ‘drug seekers’, as evident in the following interview extract:

I mean it’s the sort of thing that could be included in CME programmes. I don’t think there would be a huge interest in, you know, a programme just for that purpose because apart from the few who succumb, most of us by one means or another have sorted out what we’re going to do. [Interview GP5]

Regardless of their view on the issue, it was highlighted that any training provided needed to be practically based, and ideally incorporated into other professional commitments (e.g. CME sessions):

The problem with GPs though is that they’re so busy and they’re so trained, there’s so much training in so many areas. It’s finding a way that incorporates it so that is not difficult, that doesn’t take extra time. Because if someone said to me, ‘look there’s this great course on to help you work through the issues of ‘drug seekers’ da da da and it’s in Auckland and you can go there on Wednesday’. I mean there’s no way I can do that. If you maybe incorporate some of it into some of the already organized sessions like, you know, the conferences to present them – that sort of stuff might work. Possibly, I guess in the inner city practices where it’s an issue they would prioritize it. Whereas I wouldn’t necessarily prioritize it because it’s just not a big issue. [Interview GP14]

One GP also felt that PHCPs with high prescribing rates should be identified and specifically offered training on this issue. KEs also spoke about training for PHCPs and one interviewee felt that it needed to be introduced in systematic way to overcome some of the potential barriers to participation:

And it’s actually been very hard to penetrate through to GPs, has been my understanding, to do any ongoing training with them...because they run a business, they’re paid a lot, and they’re certainly not that keen on having touchy-feely people come along and suggest they screen their people a bit more. I think it has to come from within the institution. [Interview KE10]

The main topics that interviewees felt would be beneficial included:

- Latest trends in which medications being targeted and/or misused, patterns of use and ‘street’ prices gained, and recent innovations in ‘drug seeking’ behaviour (including forgery techniques);
- How to identify ‘drug seekers’;
• Managing aggression, setting boundaries, negotiation skills;
• Awareness-raising of the what to do and who to contact if the issue arises (including information on alternative medicines without abuse potential);
• Sharing of experiences amongst PHCPs, including strategies undertaken by GPs and CPs;
• Some KEs also mentioned training or education for GPs and CPs on understanding addiction and drug users could be beneficial in helping to break down some of the judgemental attitudes evident amongst some PHCPs, and facilitate a more informed response to the needs of their patients. One KE reported that they organised for medical students to visit their service each year, in an attempt to dispel some of the preconceptions that trainees often had about drug users. As evident in the interview extract below, the interview felt that it was sometimes successful in breaking down barriers:

> Just seeing them, you know, they come in for an hour and seeing them change from, you know, ‘ooh ooh a druggie’. And you know, they just open up and get more comfortable. Not all of them – some of them still sort of, you can see they retain that judgemental attitude a bit – but at least they still get to see that we’re people, just people. [Interview KE13]

The following interview excerpts provide further background on the type of training and education requested by interviewees:

> And around, you know, I mean one, we don’t really know what works, I mean our restricted patient that we work with is one of my more difficult patients to really keep stable, you know, and has multiple interventions from Mental Health Drug and Alcohol, you know, every wraparound service we can access and things and but ultimately we’re the ones that are what, you know, where she has access from all these other patients but we are the ones still have to dispense for her or manage her medical condition and medication access and things like that, in an appropriate way and there’s not a lot of training around that in medical school, let alone even once you’re out there working for people. [Interview GP12]

> You know, like my experience with the controlled drug where someone started putting ones in front of the dose. I wouldn’t have thought, you know, it didn’t occur to me that somebody would do that. You know, having heard it now, and like I – when we discussed it with other pharmacists, it’s kind of like, oh, you know, they hadn’t thought of it either and you know, you can be a bit more vigilant on that sort of thing so it’s a bit of information sharing about what tricks are being played. And yeah, I guess, it’s important for the training on what to do in a, sort of – when you’ve had somebody, or a threatening customer, dealing with threatening customers. [Interview CP16]

> So the nature of dependence, but I think they do need to know that the process of withdrawing or gradual reduction from benzodiazepines, you know, that it’s a really painful or majority life affecting process for the clients... That’s an issue too, a lot of education about why we might reduce you off something in ten weeks, and somebody else it might take four years. [Interview KE3]

> Oh, understanding addiction, theories of substance abuse, you know subjects similar to those. And the other one I'd seriously throw in there is motivational interviewing because a lot of people get quite aggressive and when they become aggressive sometimes that can cause problems between what was a reasonably therapeutic relationship... And motivational interviewing to me is how to deal with conflict with words. [Interview KE2]
Electronic access to information

Requests for electronic information sources were mostly driven by a desire to have instant access to up-to-date information on ‘drug seeking’ patients, to enable PHCPs to identify these individuals and respond appropriately. The main requests were as follows:

- An up-to-date national database of known ‘drug seekers’ able to be accessed by GPs and community pharmacists within the work environment (although it was acknowledged that this raised “immensely complex privacy issues”).

- Networked information across community pharmacies and GP practices. This would involve a database which is able to identify whether a person is sourcing potential medicines of abuse from different locations (this was a particularly common suggestion amongst community pharmacists):

  *If we had a system in New Zealand whereby pharmacies were in actual fact capable of accessing data, you know, a national database – that would be brilliant.* [Interview CP6]

  One KE felt that the benefits of a networked system would be enhanced if Medicines Control also had access to the information (in addition to CPs and GPs). In particular, they believed this would assist in monitoring incidents of aberrant prescribing:

  *Because if people are ‘doctor shopping’ they put in their NHI, they can see that person’s been to two other doctors within thirty days, chances are they’re not going to prescribe. Pharmacists can do the same. And Medicines Control, if they were linked in, they would soon pick up the trends of which doctors are prescribing which drugs. If they had the resources to monitor, they’d have a kind of cut-off level that would then alert them. And they may go out and see that doctor and sit down and talk to them and may recommend to the Board that this doctor goes and does retraining in benzodiazepines and keep an eye on him. Doctors have got free range out there.* [Interview KE9]

- Online access to the ‘restricted persons’ list

- In-house computer systems (within individual practices or pharmacies) which identified patients who misuse (e.g. when their name is typed in, a warning pops up). Some interviewees reported that they were already doing this within their own practice or pharmacy, but it was not networked to other practices or pharmacies.

- Better links between CPs and GPs, including networked systems so that CPs have access to GP patient info:

  *I guess it would be in an ideal world – In an ideal world all our systems could be linked up together with the pharmacist and the medical surgeries and just that sharing of information about people that you’re concerned about, you have worries about and so alerts should be put out, or pop up automatically and you could just be aware. But I guess there’s a lot of privacy issues around that because you could easily get into the system and people would misuse that, but that would be ideal.* [Interview GP15]

4.2.7.3 Improved support or systems

Interviewees expressed a wish for improved support and systems with regard to prescription drug misuse. The main issues identified included:
• The development of a set of standardised protocols or guidelines on what to do when faced with prescription drug misuse:

  It’s not something that you can just learn from reading a text book or following a protocol. Although, if there was a guideline on what you should do, if you suspect a forged prescription, that would probably be of help. Like what you should do like contact the doctor or contact the surgery and confirm – just little things, tell them like just what you should consider doing if you suspect something yeah. I mean I guess it’s common sense but then if you’re rushed and there’s lots of people are waiting for you everything goes out the window in the rain and it’s like oh. And you don’t think of these things until after it’s happened and then it’s too late. [Interview CP9]

  I think we’d probably just have to have a policy and be very well aware of the policy and be able to say to the patient straight away, yeah so I guess if we had some assistance with some sort of policy or if something like the Royal College gave us some sort of pamphlets that we would just immediately give out to the patient and some sort of rule setting. So for instance, you could set a rule whereby you just would not prescribe any benzos to any new patients until they’d established themselves as bona fide patient. [Interview GP10]

• Specialised support for PHCPs on dealing with ‘drug seekers’:

  You know this thing has become more prevalent in society, just having someone more specialised, sort of a team to provide support and particularly more at the time, like a number that you can call to get somebody basically, you know within five minutes rather than having to wait, a couple of hours to a day or two to get any sort of help. [Interview CP14]

  It’s a specialty area, that there was easy referral to somebody who was, you know, specialized in dealing with it. Like you can get, you know, drug and alcohol counselling but mostly that’s not for prescription medication. It’s around people that are specifically trained available to ring them up and say, hey this is what’s happening here. That would be advantageous. It’s so hard, aye, when you don’t see a lot of it. [Interview GP14]

• Some interviewees expressed a desire for a more formal, localised structure to tackle prescription drug misuse. Suggestions included a group that included a range of relevant stakeholders (e.g. Police, AOD treatment representatives, GPs, CPs, etc.), or peer groups which involved a range of PHCPs. KEs also spoke about closer working between PHCPs and specialist drug treatment services:

  I’d like to see them working with services like us a lot more and a lot of them are really delighted to be able to do so. It’s so much, it’s just much better to have two professional people to look at an issue with a client than to handle it on your own. And I know that we’ve had doctors say, ‘oh thank god that there’s somebody that I can share this with’, particularly with a client who is being quite aggressive. [Interview KE3]

• Several interviewees (particularly KEs) commented on the need for improved support for people misusing prescription medicines. This involved the provision of information (e.g. on available treatment services or potential harms), as well as greater access to (specialist) treatment:

  It’s a specialty area, if there was easy referral to somebody who was, you know, specialised in dealing with it. Like you can get, you know, drug and alcohol counselling but mostly that’s not for prescription medication. It’s around people that are specifically trained available to ring them up and say, ‘hey this is what’s happening here’. [Interview GP14]

  One of the big ones would be having our cards in the doctor’s, in the surgery – either at the reception or for the doctor to have them handy as well. So that when they go perceive [a problem] they can always give the card and it becomes a whole part of the menu of options type thing where you’re saying ‘well, some people find this helpful’. [Interview KE11]
We’ve got one tiny specialist agency in New Zealand called TRANX Services, who have five staff. We don’t do benzos here, we have a hat at it but none of the other staff here would have a clue where to start. So this is what I’m talking about, you couldn’t actually change the law immediately without beefing up your agencies and your training. [Interview KE9]

Some highlighted that part of this may involve increasing the awareness amongst primary healthcare practitioners of the support options available:

Well I don’t know what kind of awareness raising goes on around drug behaviour and signs. You know, are GPs aware of their local treatment services that they could refer people to? And what role as a GP they might have in some early intervention or brief intervention around that? [Interview KE6]

As evident above a small number of KEs highlighted the potential for PHCPs to provide brief interventions with regard to this issue. One interviewee felt that staff other than GPs could also assist in the delivery of these:

I think it should probably not sit with GPs, but with their nurses, practice nurses. You know, GPs are very busy. They have to get through these things in 15 minutes, so even if a GP identified an issue, if it could then drop to a practice nurse who could do a little more proactive, you know seeing people, see how they’re getting on, because they will have a wee bit more time. [Interview KE10]

- Improved feedback from Police, with some CP and GP interviewees proposing a specialised team to deal with prescription drug misuse, and/or a more formal relationship with their local Drug Squad. Some similarities were drawn with current systems in place for monitoring the sale of over-the-counter pseudoephedrine-containing products where community pharmacists inform Police of suspected pseudoephedrine ‘shoppers’, with suggestions that something similar could be introduced for potential prescription medicines of abuse within New Zealand.

- One interviewee commented on the current legislation concerned with people misusing prescription medicines, and indicated that they would like to see this reviewed and improved:

It’s quite loose at the moment and like I mentioned we’ve got two Acts, the Medicines Act and the Misuse of Drugs Act. They’re both doing the same thing, but with the Medicine’s Act obviously the penalties are a bit lower, and if we could tighten that up and make it a bit more definite for the investigators so that you know that you’re not having to decide between two pieces of legislation as to which one you’re going to use. [Interview KE17]

- Information on prescribing patterns – e.g. BPAC data – to enable PCHPs to look at how they are doing compared to others in their region, and on a national basis.

## 4.2.7.4 Additional support sought – summary and implications

- Training and education for GPs and CPs was an issue noted by PHCPs and KEs. Although not all felt it was necessary, some believed it should start within the undergraduate curriculum and others felt it would be more useful after a period of time working in the community.

- Training and education for PHCPs was seen to be challenging with the amount of other competing areas of training. One suggestion was to target training at GPs with high prescribing rates of drugs of concern.
Suggested topics for training were: drug trends, how to identify and manage ‘drug seekers’, where to get help and support, and managing difficult and aggressive patients.

Shared training between CPs and GPs was suggested as a way of improving networks.

IT solutions were seen as a way to help CPs and GPs access timely and accurate information on current ‘drug seekers’ and drugs being sought. However, the issue of privacy, who decides when someone goes on this list, and for how long they remain, pose considerable ethical and legal challenges.

CPs commented on the IT programme ‘Project Stop’ which had been implemented in Australia to combat pseudoephedrine ‘shoppers’ in pharmacies.

Some PCHPs wanted access to an electronic list of ‘restricted patients’.

Although not commented on by many CPs, the notion of CPs having limited and ‘need to know’ access to GP patient notes was suggested as a way of managing the problem of checking on potential ‘drug seekers’ and validating prescriptions.

Participants from all three groups commented on the need for standard protocols or guidance on managing PDM, to be developed either nationally or regionally.

The need for targeted, appropriate and timely specialist support was also suggested. GPs thought traditional AOD services were often not appropriate for some of their PDM patients. KEs in particular commented on the need for improved support for people misusing prescription medicines, including both information provision and access to (specialist) treatment. They also indicated that increasing the awareness amongst PHCPs of support options available may assist with this.

One suggestion was for closer local networking between GPs, CPs, specialist services and Police to provide timely advice, support and feedback. In particular, better relationships with Police and local Drug Squads were suggested.

4.3 Limitations of qualitative data

This study has used a qualitative methodology to capture data on prescription drug misuse issues for primary care. As such, the data do not represent a generalisable view of all GPs and CPs in New Zealand, nor was the study set up to do this. However, by using a structured approach to recruitment and ensuring a range of health practitioners were recruited based on gender, age, location, and years of experience, this has helped to ensure a broad range of issues and views have been captured. One major limitation of this study is likely to be the lack of data from health practitioners who might be amongst the rare group who fall outside of normal accepted practice. For example, GPs who knowingly over-prescribe or who prescribe to drug misusers for financial gain are unlikely to have responded to calls for participation; likewise pharmacists who supply prescription drugs without a prescription. In addition, it was decided at the outset of the study to focus on PHCPs’ personal experiences with ‘drug seeking’
and PDM. Therefore, information on other PHCPs who were involved in illicitly diverting substances or intentionally over prescribing have not been captured in this study.

With key experts we have also sought to capture a range of experience, expertise and backgrounds, and thus we have the views of drug and alcohol treatment professionals, members of professional bodies, policy groups, helpline staff, and regulatory bodies. We recognise that other KEs or organisations may also have been able to contribute to the research. Some who were contacted were either unavailable or unable to take part.

The results of this study also pertain only to issues around primary care and prescription drug misuse. We have not explored Internet as a way of obtaining such medicines, nor the role of secondary care services and pharmaceutical supply warehouses and their staff.

Another limitation, and one which deserves future investigation, is the lack of a consumer voice. Qualitative data from consumers and patients is likely to provide a valuable added dimension to the issue of prescription drug misuse, in particular around the reasons these drugs are misused, how they are obtained and the types of interventions and treatment respondents which might be useful. In particular, the voices of those who have become dependent on prescription drugs through inappropriate GP prescribing deserve to be heard; the result of this study indicate they are a hidden and forgotten group with little access to help and support.

Finally, the results from this study need to be seen in the context of New Zealand’s illicit drug market, and thus many sections of this report will not necessarily prove to be useful to those from other countries where illicit opiates and stimulants are widely and cheaply available.
5 REVIEW OF SECONDARY DATA SOURCES

5.1 Methodology

Secondary data were sought from a number of different sources. Some of these were initially known to the researchers (e.g. Pharmhouse, CADS, NZ Drug Foundation), whilst other data sources were recommended by the project advisory team. Furthermore, research participants were asked about any data sources they were aware of and, for participants who worked at specific organisations, whether that organisation collected data that might be useful for the study.

Once obtained, data were reviewed for usefulness in proving information on which drugs are misused, trends in PDM, and the size of the PDM problem. The usefulness and limitations of the data sources were then summarised. The data themselves were NOT analysed to provide specific information on the PDM problem, although some of the data we present may shed light on this issue.

5.2 Results

Secondary data were obtained from a number of sources. Some of these data sources related to primary care prescribing such as the Pharmhouse database. Other data sources provided data on help and information seeking activities around prescription drugs. In most cases the data are likely to be useful in terms of trends over time or emerging new issues. The range of data sources reviewed includes:

- Prescription data
- Help and information-seeking data
- Treatment data
- Research data
- Police data
- Pharmacy break-ins
- Medicines Control data.

5.2.1 Prescription data

Theoretically, it should be possible to be able to obtain and analyse data around prescription drugs liable to misuse from a number of sources to provide an overview of drug prescribing trends and also - using NHI numbers – potentially collate data on ‘doctor shopping’. However, each potential data source has both data limitations in terms of what is collected and how, and legal and ethical constraints.
5.2.1.1 Pharmhouse data

Each prescription dispensed at community pharmacies enters that pharmacy’s computer records. At the end of the month, all data on these prescriptions is sent to Healthpac for processing and payment back to the pharmacy. The prescription data are then sent to Pharmhouse where they can be used for analysis of prescribing trends.

The data however, do not represent all prescriptions dispensed. Those prescriptions which fall below the threshold for a government subsidy, or which are not funded at all by the government (via Pharmac) are not included.

Data on prescriptions from the Pharmhouse data can be obtained in aggregate and also broken down by individual drug, DHB patient code, deprivation level, age group of patient, and gender of patient. This allows for a detailed analysis to be carried out exploring prescription numbers for specific drugs by specific demographics. These data allow for trend analysis to be carried out. They do not, however, provide any indication on what proportion of any of the prescriptions might be considered to be for drug misuse, or relate to ‘doctor shopping’.

Example of simple analysis can be found in Graphs 1 and 2.

Usefulness

- Trend data on prescribing – may give an idea of increased requests for drugs being misused.

Limitations:

Prescription numbers give no idea of how many tablets/capsules have been prescribed, the duration of treatment, the daily dose, and whether these prescriptions are for different patients.

Only prescriptions which attract a subsidy, and come above the level for subsidy for pharmacists to obtain reimbursements are included in Pharmhouse data. Thus, a large number of prescriptions which fall below the $15 subsidy level, and would include a large number of prescriptions for diazepam for example, are not included. Thus, data for these specific prescription items can only be used for trend analysis and not be treated as an absolute number. Prescription items which need to be treated with caution are, for example:

- Benzodiazepines
- Tricyclic antidepressants
- Tramadol (not subsidised)
- Paracetamol and codeine preparations
- Non-subsidised brands of morphine sulphate
- Non-subsidised methylphenidate and prescriptions without a special authority.

Breakdowns by age, sex and ethnicity are available, but have not been analysed in this report. They are based on the reported patient NHI numbers, some of which may link to incorrect information. Numbers lower than 1% of total prescriptions could be a result of random error and may not represent what is actually prescribed. Accordingly, caution should be taken when interpreting low volumes.
Graph 1. Number of prescriptions per year for drugs with potential for misuse from Pharmhouse database (opioids)*

*Dextroropxyphene = Dextropropoxyphene, and dextropropoxyphene with paracetamol.
Morphine = morphine hydrochloride, morphinesulphate and morphine tartrate

Graph 2. Number of prescriptions for drugs liable to misuse from Pharmhouse database (stimulants, benzodiazepines and zopiclone)

Data prior to 2005 are likely to have incomplete NHI number and New Zealand Medical Council (NZMC) numbers for prescribers, and so analysis which might look at individual doctors’ prescribing rates, or ‘doctor shopping’ amongst patients is not possible prior to that point. Furthermore, exploring ‘doctor shoppers’ using this method is unlikely to be successful in many cases, as people may have more than one
identity and thus NHI number. There are also ethical and privacy issues relating to the use of this information in this way.

In addition, the subsidy level which determines whether prescription items get included in this database change. For example, there have been recent changes to subsidies available for patients – more people are entitled to a greater prescription subsidy – for example, going from $15 per item down to $3 per item if the patient is enrolled in a PHO and the prescription is from that doctor or practice. In effect, this means that medicines that were once paid for totally by the patient (and were not included in the database) will not be included as the government will be paying for part of the cost of that medicine.

Furthermore, increases in prescription numbers per specific drug over time may be influenced by a number of things, including:

- increase in population level;
- a drug moving from being subsidised to not subsidised;
- a drug falling below the threshold for being included in the Pharmhouse database;
- changes in prescribing guidance to doctors both locally and internationally.

Finally, it is not possible to ascertain from Pharmhouse data whether medicines have been prescribed for appropriate or inappropriate purposes, thus giving no indication of potential levels of abuse.

5.2.1.2 BPAC data

BPAC is an independent organisation which, amongst its many functions, provides resources for GPs to inform them about their prescribing practices. BPAC also “promotes healthcare interventions which meet patients needs and are evidence based, cost effective and suitable for the New Zealand context”. [http://www.bpac.org.nz/Public/admin.asp?type=about%20us](http://www.bpac.org.nz/Public/admin.asp?type=about%20us)

BPAC uses data from the Pharmhouse database and thus has the same limitations (see above).

An example of an analysis which has been undertaken by BPAC of drug/drugs liable to abuse has been a review of prescribing in ADHD. 6583 individuals had been prescribed methylphenidate between 1.9.2005 and 31.8.2006. However, whilst BPAC has the ability to undertake further analysis of this, very little thus far has focused on drugs liable to abuse such as opioids and benzodiazepines, and all such analyses have resource implications.

Annual reports are also provided to each GP against which they can measure how they perform against their PHO, DHB and nationally with respect to the top 20 drugs. National data on top 20 drugs prescribed is useful and can be compared year on year. However, this needs to be interpreted with caution as per Pharmhouse data. Of note is that the reports are based on prescription ‘items’ where an ‘item’ is one dispensing of a single medicine. Thus the data for medicines such as methadone which appear very high up the list, should be treated with caution, as the large number of items is due in

---

44 Best Practice, Issue 3, Feb 2007, ii.
part to an item being counted for each time the drug was dispensed. For drugs like methadone, many patients receive it in daily instalments thus artificially inflating the item count. This is different from Pharmhouse data above which is based on the first instalment of a prescription, thus only counting a complete prescription once.

Nonetheless, assuming no change in prescribing patterns in terms of instalment dispensing, yearly trends are useful as the annual report shows individual doctors how they are prescribing in comparison with the average GP in their PHO, DHB and nationally. Thus this information, if turned around could provide national per GP data for all GPs and this would highlight GPs who were over-prescribing drugs of concern.

Usefulness

- Data can be obtained down to prescriber level.
- Can provide data on GPs compared with national, PHO and DHB average.
- In theory could provide mean data for each GP in New Zealand and be used to highlight potential over-prescribers.

Limitations:

- See Pharmhouse above.
- Individual doctor prescribing may not be generally available to outside organisations.
- There is no indication of the purpose for which the drug was prescribed. Even where a GP might seem to have a much higher average than his/her peers, there may be legitimate reasons for this, for example working as part of a pain clinic and thus having a large number of opioid prescriptions compared with the national average.

5.2.2 Prescription data from research

A number of New Zealand research projects are currently being conducted which have explored data from GP patient databases. Such research could provide data on prescriptions ‘written’ for patients, but will not necessarily translate into prescriptions dispensed at pharmacies. Other studies are exploring data extracted from community pharmacy patient databases and include all prescriptions dispensed. These data do not give any indication of whether the dispensed drugs having been consumed, consumed inappropriately, passed on to others or sold onto the illicit market.

These studies have been set up for purposes which do not include the monitoring of prescription drugs liable to misuse and so the data they collect are potentially further limited in this respect. Nonetheless they provide an indication that it is possible to collect data in this way. Such data are likely to be useful in analysis of trends, but may be difficult to obtain due to legal and ethical issues pertaining to the Privacy Act and Patient Code of Rights.
5.2.3 Help and information seeking data

5.2.3.1 Alcohol and Drug Association of New Zealand (ADANZ) Alcohol and Drug Helpline

ADANZ “aims to facilitate cohesion in the addiction treatment sector through coordination, alcohol and other drug information and intervention services, advocacy and research” (http://www.adanz.org.nz/ADANZ/Home). In addition to its coordination and support services ADANZ also provides early intervention services through the Alcohol Drug Helpline. Callers are offered free confidential information, and insight and support on their own or someone else’s drug or alcohol concerns.

ADANZ collates data on call types. There were 15,180 valid calls to the Helpline in the 2006/07 year, with 17,765 queries about alcohol or other drugs, indicating some callers discuss more than one substance.

Alcohol is the most commonly discussed drug. The next most called about drug group is cannabis (14%) followed by “P”, methamphetamine (11%). Cannabis is more frequently mentioned in the secondary drugs being 14% of “all drugs” but 11% of “primary drugs” (see Table 11)

Table 11: Comparison of the number and percentage of alcohol and other drug related calls: 2003/04-2006/07 (ADANZ Annual Report 2006/7)

<table>
<thead>
<tr>
<th></th>
<th>2003/04 Total</th>
<th>2003/04 %</th>
<th>2004/05 Total</th>
<th>2004/05 %</th>
<th>2005/06 Total</th>
<th>2005/06 %</th>
<th>2006/07 Total</th>
<th>2006/07 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>8261</td>
<td>49%</td>
<td>8323</td>
<td>61%</td>
<td>8966</td>
<td>61%</td>
<td>9685</td>
<td>64%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>1523</td>
<td>9%</td>
<td>1489</td>
<td>11%</td>
<td>1941</td>
<td>13%</td>
<td>1695</td>
<td>11%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>1861</td>
<td>11%</td>
<td>1930</td>
<td>14%</td>
<td>2244</td>
<td>15%</td>
<td>2108</td>
<td>14%</td>
</tr>
<tr>
<td>Opioid</td>
<td>576</td>
<td>3%</td>
<td>662</td>
<td>5%</td>
<td>585</td>
<td>4%</td>
<td>673</td>
<td>4%</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>251</td>
<td>2%</td>
<td>349</td>
<td>3%</td>
<td>183</td>
<td>1%</td>
<td>129</td>
<td>1%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>312</td>
<td>2%</td>
<td>457</td>
<td>3%</td>
<td>356</td>
<td>2%</td>
<td>557*</td>
<td>4%</td>
</tr>
<tr>
<td>Solvents/Inhalants</td>
<td>273</td>
<td>2%</td>
<td>358</td>
<td>3%</td>
<td>263</td>
<td>2%</td>
<td>134</td>
<td>1%</td>
</tr>
<tr>
<td>Cocaine/Crack</td>
<td>188</td>
<td>1%</td>
<td>289</td>
<td>2%</td>
<td>93</td>
<td>1%</td>
<td>74</td>
<td>1%</td>
</tr>
<tr>
<td>BZP</td>
<td>n/a</td>
<td></td>
<td>81</td>
<td>1%</td>
<td>162</td>
<td>0%</td>
<td>256</td>
<td>2%</td>
</tr>
</tbody>
</table>

* Note from ADANZ - part of the increase from 2005/6 to 2006/7 might be attributable to two frequent callers over a period of some months, rather than an increase in random unrelated calls.

Another indication of increasing problems might be seen in requests for drug-related resources. In the 2006/7 year 2774 were sent in response to 1,162 calls. Table 12 indicates that leaflets relating to prescription drugs which might be misused are not requested, or such resources possibly do not exist. However, it is not clear whether the pamphlet for amphetamine contains any information about prescribed stimulants such as Ritalin and dexamphetamine. There are no ADANZ pamphlets on prescription drugs which would suggest to that they are not often asked for this kind of information.
Table 12: Leaflets and other information sent out to callers (ADANZ Annual report 2006/7)

<table>
<thead>
<tr>
<th>Category</th>
<th>2006/07</th>
<th>2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CANNABIS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What’s The Deal On Quitting?</td>
<td>337</td>
<td>458</td>
</tr>
<tr>
<td>Cannabis &amp; Your Health</td>
<td>267</td>
<td>449</td>
</tr>
<tr>
<td>Cannabis</td>
<td>216</td>
<td>383</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>820</strong></td>
<td></td>
</tr>
<tr>
<td><strong>METHAMPHETAMINE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>329</td>
<td>414</td>
</tr>
<tr>
<td>Info For People Concerned About Someone’s Methamphetamine Use</td>
<td>238</td>
<td>425</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>567</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ADANZ PAMPHLETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BZP &amp; TFMPP</td>
<td>758</td>
<td>1080</td>
</tr>
<tr>
<td>NOS</td>
<td>422</td>
<td>437</td>
</tr>
<tr>
<td>Parent Information</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>51</td>
<td>37</td>
</tr>
<tr>
<td>Sleeping Tips</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Volatile Substances</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>34</td>
<td>50</td>
</tr>
<tr>
<td>Heroin</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Relaxation Techniques</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>32</td>
<td>52</td>
</tr>
<tr>
<td>Drugs &amp; Driving</td>
<td>29</td>
<td>40</td>
</tr>
<tr>
<td>Cocaine</td>
<td>27</td>
<td>47</td>
</tr>
<tr>
<td>Amyl/Butyl Nitrates</td>
<td>22</td>
<td>33</td>
</tr>
<tr>
<td>Drugs Overview</td>
<td>20</td>
<td>39</td>
</tr>
<tr>
<td>Steroids</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1855</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OTHERS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Things To Do</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Change Plan</td>
<td>128</td>
<td>306</td>
</tr>
<tr>
<td>Drugs in Focus</td>
<td>200</td>
<td>155</td>
</tr>
<tr>
<td>Solvent Abuse Sheet</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>466</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Only sent resources of 20 or more are recorded

**Usefulness**
- Data can be used to explore trends in substance use.

**Limitations**
- Calls to Helpline on pharmaceutical drugs are not always recorded by drug name (except benzodiazepines and Ritalin) and are covered under ‘other’.
- Call to helpline are generally for illicitly obtained drugs.
- It is not possible to distinguish between drugs obtained illicitly and those obtained on prescription.
5.2.3.2 New Zealand Drug Foundation - Get the Msg! Information for generation text

This service is completely confidential. Users text the name of a drug they are concerned about to “DRUG” (3784). They “then receive a short factual health and safety message about that drug, as well as links to further information and help” (http://www.nzdf.org.nz/get-the-msg).

Examples of two monthly reports are shown in Table 13. However, it is important to remember that a significant number of error messages are received every month. These contain words which are not currently recognised or coded within the service, and thus are not counted.

Usefulness
The usefulness of the text service is probably to look at trends and the emergence of new drugs of concern, possibly relating to those available in the illicit market, or available through primary care. The data, from a quantitative perspective, are limited.

Limitations
The major limitation is the number of error messages and drug names either not recognised or misspelled, and thus not being counted in the monthly report.
### Table 13: Get the Msg! Monthly Report

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Count Nov 2007</th>
<th>Count Oct 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Count</td>
<td>5729</td>
<td>5579</td>
</tr>
<tr>
<td>2-cb</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Alcohol</td>
<td>922</td>
<td>903</td>
</tr>
<tr>
<td>Amanita Muscaria</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>6471</td>
<td>6339</td>
</tr>
<tr>
<td>AMT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Amyl Nitrite</td>
<td>181</td>
<td>173</td>
</tr>
<tr>
<td>Analgesics</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Anticonvulsant</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Antidepressant</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Antipsychotic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ayahuasca</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>361</td>
<td>349</td>
</tr>
<tr>
<td>Beta blocker</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cactus</td>
<td>147</td>
<td>142</td>
</tr>
<tr>
<td>Caffeine</td>
<td>219</td>
<td>208</td>
</tr>
<tr>
<td>Cannabis</td>
<td>5633</td>
<td>5478</td>
</tr>
<tr>
<td>Catnip</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Cocaine</td>
<td>3048</td>
<td>2987</td>
</tr>
<tr>
<td>Datura</td>
<td>126</td>
<td>116</td>
</tr>
<tr>
<td>Depressant</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>DMT</td>
<td>70</td>
<td>66</td>
</tr>
<tr>
<td>Ecstasy (MDMA)</td>
<td>2858</td>
<td>2809</td>
</tr>
<tr>
<td>Ephedrine</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GHB</td>
<td>597</td>
<td>572</td>
</tr>
<tr>
<td>Hemlock</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Heroin</td>
<td>1394</td>
<td>1364</td>
</tr>
<tr>
<td>Kava</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>Ketamine</td>
<td>949</td>
<td>932</td>
</tr>
<tr>
<td>Ketamine</td>
<td>949</td>
<td>932</td>
</tr>
<tr>
<td>Khat</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>LSA</td>
<td>46</td>
<td>39</td>
</tr>
<tr>
<td>LSD</td>
<td>2168</td>
<td>2120</td>
</tr>
<tr>
<td>Magic mushrooms</td>
<td>1119</td>
<td>1095</td>
</tr>
<tr>
<td>Medicines</td>
<td>629</td>
<td>617</td>
</tr>
<tr>
<td>Methaqualone</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Nitrous oxide</td>
<td>329</td>
<td>327</td>
</tr>
<tr>
<td>Nutmeg</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Opiates</td>
<td>913</td>
<td>877</td>
</tr>
<tr>
<td>Pain killer</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Party pills</td>
<td>1018</td>
<td>982</td>
</tr>
<tr>
<td>PCP</td>
<td>286</td>
<td>268</td>
</tr>
<tr>
<td>Poppy seed tea</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Pseudoephedrine</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Ritalin</td>
<td>13</td>
<td>10</td>
</tr>
</tbody>
</table>
5.2.4 Treatment data
5.2.4.1 CADS Auckland

CADS Auckland collects data using the Severity of Dependence Scale for a number of substances when clients enter adult treatment services. This includes the level of use and route of administration in the last 6 months. Simple data manipulation can be used to count how many people had used these substances in the previous 6 months, and their main route of administration at triage, by year. From these data it is possible to extract two sets of data: data on opiates and data on benzodiazepines (see Tables 14 and 15). As there is little illicit heroin in New Zealand one could postulate that opioid use originates from diverted morphine or methadone. There is an additional category of information which looks at ‘other substances’ and on occasion street methadone is mentioned.

Data were obtained from CADS for 2003-2007.

Complete datasets for the years 2004 (N=2354) triages, 2005 (N=2627 triages) and 2006 (N=2554 triages) were available. These represent triages and not patients as some patients have come into services more than once.

**Table 14: Percentage identifying using benzodiazepines in previous 6 months**

<table>
<thead>
<tr>
<th>year</th>
<th>used benzos %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>4.5</td>
</tr>
<tr>
<td>2005</td>
<td>4.1</td>
</tr>
<tr>
<td>2006</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Data below are based on available data for people who identified their route of use for that drug, and percentages for route of use are for within the group of users. There are people for whom drugs had been used, but they had not identified their main route of administration.

**Table 15: Percentage identifying using opiates in previous 6 months and route of use at triage**

<table>
<thead>
<tr>
<th>year</th>
<th>% used opiates</th>
<th>% of users using orally</th>
<th>% of users using iv</th>
<th>% of users smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>6.0</td>
<td>24.4</td>
<td>69.0</td>
<td>6.7</td>
</tr>
<tr>
<td>2005</td>
<td>6.9</td>
<td>23.8</td>
<td>66.7</td>
<td>9.5</td>
</tr>
<tr>
<td>2006</td>
<td>4.9</td>
<td>26.8</td>
<td>57.1</td>
<td>16.1</td>
</tr>
</tbody>
</table>

Uses
- Can provide data on trends with regards to people entering AOD treatment.

Limitations
- Data are not always obtained on all triaged consumers.
- Data represent problematic use in a group of treatment seeking individuals and thus are not representative of general population.
- Data do not distinguish between prescribed and illicitly obtained data.
- Current system does not robustly collect information regarding specific details on the source and formulation of illicit opioid use.

5.2.5 Research Data - Illicit Drug Monitoring System (IDMS)

The IDMS is run annually by SHORE, Massey University. The IDMS “was established in 2005 to provide ongoing and timely information on changes in drug use and drug related harm in New Zealand. The 2006 IDMS interviewed 318 frequent drug users, (up from 181 interviews in 2005) in Auckland, Wellington and Christchurch using purposive sampling and snowballing. The 2006 IDMS sample included 114 frequent methamphetamine users, 111 frequent ecstasy (MDMA) users and 93 frequent injecting drug users” [10].

Although exploring illicit drugs, the IDMS also reports on the use of pharmaceutical drugs such as methylphenidate, morphine, methadone and benzodiazepines. As the survey is repeated annually, such data are useful in the provision of trend data relating to the availability of these drugs and in some cases cost of drugs, on the illicit market.

As an example, the following tables provide information from the 2006 IDMS report on aspects of pharmaceutical drugs (please see Section 3.2.5 for further discussion of the IDMS data).

Table 16: The use of specific substances in last 6 months (N=318 combined sample) (N/A = figures not available)

| Substance                  | Used | Days used | % IV  
|----------------------------|------|-----------|-------
| “Other opiates” 45 | 32%  | 68        | 81%   |
| Methadone             | 28%  | 90        | 65%   |
| Benzodiazepines       | 30%  | 39        | 9%    |
| Methylphenidate       | 25%  | 27        | 66%   |
| Antidepressants       | 5%   | 11        | Not available |

Table 17: Drugs used concurrently with methamphetamine, ecstasy and IV drug use (IVDU)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Methamphetamine</th>
<th>Ecstasy</th>
<th>IVDU</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Other opiates” 46</td>
<td>4%</td>
<td>5%</td>
<td>52%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>9%</td>
<td>3%</td>
<td>40%</td>
</tr>
</tbody>
</table>

The majority believed that opiates were relatively easy to obtain and that availability had remained stable over the previous 6 months. Cost is difficult to assess as different

---

* the days used is an average for the frequent drug users over 6 months

# means of injecting in the last six months, as a proportion of those who had used a drug

45 morphine, ‘misties’, homebake, M-Eslon, Kapanol

46 morphine, ‘misties’, homebake, M-Eslon, Kapanol
types are available, but the IDMS quotes a median $100/100mg (mean $280/100mg) for ‘opiates’ with price being relatively stable in the last 6 months. Purity was relatively high and overall was seen by some as fluctuating and by others as stable. There was a general perception that the number of people using was stable.

IDMS data are collected to indicate trends, and the process does not use a large sample nor random sampling. Thus, absolute figures need to be treated with caution. As the sampling process and inclusion criteria changed between 2005 and 2006, only the most recent data have been presented.

5.2.6 Police data

Police make monthly reports on all drugs seized, through arrests, or through customs. This includes prescription drugs liable to misuse. These data are available for analysis from bona fide sources, from the National Drug Intelligence Bureau (NDIB).

Examples of other data from Police are provided below.

5.2.6.1 Data on prescription drug possession from arrests

The following data were obtained from Occurrence ID, Police National Database, New Zealand National Drug Intelligence Bureau (NDIB). They represent data on prescription drugs in the possession of arrestees at the time of arrest. At arrest, prescription drugs found are entered into the database using specific codes for each drug type.

The data were obtained from the Health Analyst at NDIB, who first had discussions with community drug and alcohol and needle exchange services, and had read through relevant literature to obtain a picture of the drugs which might be expected to be found in the possession of arrestees. The availability of prescription drugs on the Pharmac schedule was also considered, with funded drugs being explored. The Police National Database was then searched for these drug names and the following tables produced for 2004-2007 (as of end November 2007).

The data presented below represent a sample of the data available. Drugs not listed below (e.g. dihydrocodeine) have not been searched for, thus an absence of a specific drug or medicine in the presented data should not be construed as an absence of prescription drugs found at arrest.

<table>
<thead>
<tr>
<th>Year</th>
<th>Drug Name</th>
<th>Drug Form</th>
<th>Volume/Quantity</th>
<th>Reporting Member District</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>5</td>
<td>Central</td>
</tr>
<tr>
<td>2004</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>4</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>24</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>18</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004 Total</td>
<td></td>
<td></td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>11</td>
<td>Central</td>
</tr>
<tr>
<td>2005</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>6</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005</td>
<td>Clonazepam</td>
<td>Tablet</td>
<td>24</td>
<td>Canterbury</td>
</tr>
<tr>
<td>Year</td>
<td>Drug Name</td>
<td>Drug Form</td>
<td>Volume/Quantity</td>
<td>Reporting Member District</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>2004</td>
<td>Codeine</td>
<td>Tablet</td>
<td>5</td>
<td>Wellington</td>
</tr>
<tr>
<td>2004</td>
<td>Codeine</td>
<td>Tablet</td>
<td>5</td>
<td>Waikato</td>
</tr>
<tr>
<td>2004</td>
<td>Codeine</td>
<td>Tablet</td>
<td>254</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004</td>
<td>Codeine</td>
<td>Tablet</td>
<td>11</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Codeine</td>
<td>Tablet</td>
<td>16</td>
<td>Tasman</td>
</tr>
<tr>
<td>2005 Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>1</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>150</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>40</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>8</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>2</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>21</td>
<td>Waikato</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>18</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>10</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005</td>
<td>Codeine</td>
<td>Tablet</td>
<td>6</td>
<td>Bay Of Plenty</td>
</tr>
<tr>
<td>2005 Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>19</td>
<td>Southern</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>60</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>40</td>
<td>Bay Of Plenty</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>80</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>4</td>
<td>Wellington</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>5</td>
<td>Central</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>82</td>
<td>Tasman</td>
</tr>
<tr>
<td>2006</td>
<td>Codeine</td>
<td>Tablet</td>
<td>23</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006 Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>108</td>
<td>Central</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>4</td>
<td>Eastern</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>8</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>2</td>
<td>Southern</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>75</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>166</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>5</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>17</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>200</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>53</td>
<td>Southern</td>
</tr>
<tr>
<td>2007</td>
<td>Codeine</td>
<td>Tablet</td>
<td>43</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007 Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>681</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>1541</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Drug Name</td>
<td>Drug Form</td>
<td>Volume/Quantity</td>
<td>Reporting Member District</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>2004</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>6</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>7</td>
<td>Wellington</td>
</tr>
<tr>
<td>2004</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>16</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004 Total</td>
<td></td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Wellington</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>15</td>
<td>Eastern</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Waikato</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>4</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Waitakata</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>18</td>
<td>Eastern</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>5</td>
<td>Eastern</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>4</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Wellington</td>
</tr>
<tr>
<td>2005 Total</td>
<td></td>
<td></td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>2</td>
<td>Waitakata</td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>6</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>6</td>
<td>Wellington</td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>4</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>32</td>
<td>Central</td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Central</td>
</tr>
<tr>
<td>2006</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>5</td>
<td>Counties/Manukau</td>
</tr>
<tr>
<td>2006 Total</td>
<td></td>
<td></td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>117</td>
<td>Southern</td>
</tr>
<tr>
<td>2007</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Tasman</td>
</tr>
<tr>
<td>2007</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>7</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Diazepam</td>
<td>Tablet</td>
<td>3</td>
<td>Wellington</td>
</tr>
<tr>
<td>2007 Total</td>
<td></td>
<td></td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>279</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Drug Name</th>
<th>Drug Form</th>
<th>Volume/Quantity</th>
<th>Reporting Member District</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>0.1ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>20ml</td>
<td>Wellington</td>
</tr>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>20ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>15ml</td>
<td>Southern</td>
</tr>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>0.1ml</td>
<td>Wellington</td>
</tr>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>35ml</td>
<td>Eastern</td>
</tr>
<tr>
<td>2004</td>
<td>Methadone</td>
<td>Liquid</td>
<td>22ml</td>
<td>Waikato</td>
</tr>
<tr>
<td>2004 Total</td>
<td></td>
<td></td>
<td>112.2ml</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Methadone</td>
<td>Liquid</td>
<td>100ml</td>
<td>Waikato</td>
</tr>
<tr>
<td>2005</td>
<td>Methadone</td>
<td>Liquid</td>
<td>16ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005 Total</td>
<td></td>
<td></td>
<td>116ml</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Methadone</td>
<td>Liquid</td>
<td>0.5ml</td>
<td>Waitakata</td>
</tr>
<tr>
<td>2006</td>
<td>Methadone</td>
<td>Liquid</td>
<td>1ml</td>
<td>Wellington</td>
</tr>
<tr>
<td>2006</td>
<td>Methadone</td>
<td>Liquid</td>
<td>50ml</td>
<td>Waitakata</td>
</tr>
<tr>
<td>2006</td>
<td>Methadone</td>
<td>Liquid</td>
<td>2ml</td>
<td>Southern</td>
</tr>
<tr>
<td>Year</td>
<td>Drug Name</td>
<td>Drug Form</td>
<td>Volume/Quantity</td>
<td>Reporting Member District</td>
</tr>
<tr>
<td>--------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>2006</td>
<td>Methadone</td>
<td>Liquid</td>
<td>14ml</td>
<td>Auckland Metro Crime &amp; Ops Support</td>
</tr>
<tr>
<td>2006</td>
<td>Methadone</td>
<td>Liquid</td>
<td>10ml</td>
<td>Central</td>
</tr>
<tr>
<td>2006 Total</td>
<td></td>
<td></td>
<td>77.5ml</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Methadone</td>
<td>Liquid</td>
<td>100ml</td>
<td>Training Service Centre</td>
</tr>
<tr>
<td>2007</td>
<td>Methadone</td>
<td>Liquid</td>
<td>140ml</td>
<td>Southern</td>
</tr>
<tr>
<td>2007</td>
<td>Methadone</td>
<td>Liquid</td>
<td>2.5ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2007 Total</td>
<td></td>
<td></td>
<td>242.5ml</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>548.2ml</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Drug Name</th>
<th>Drug Form</th>
<th>Volume/Quantity</th>
<th>Reporting Member District</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.001 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.5 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>1.5 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.1 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>1.5 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.02 ml</td>
<td>Southern</td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Liquid</td>
<td>3 ml</td>
<td>Southern</td>
</tr>
<tr>
<td>2004 Total</td>
<td></td>
<td></td>
<td>6.621 ml</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>Liquid</td>
<td>0.1 ml</td>
<td>Wellington</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>3 ml</td>
<td>Waitemata</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>150 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>5 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.00001 ml</td>
<td>Central</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.12 ml</td>
<td>Bay Of Plenty</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>240 ml</td>
<td>Northland</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>1 ml</td>
<td>Tasman</td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>Liquid</td>
<td>1 ml</td>
<td>Southern</td>
</tr>
<tr>
<td>2005 Total</td>
<td></td>
<td></td>
<td>400.22 ml</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Liquid</td>
<td>1.5 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Liquid</td>
<td>20 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Liquid</td>
<td>3 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Liquid</td>
<td>1 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Liquid</td>
<td>15 ml</td>
<td>Central</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Liquid</td>
<td>10 ml</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2006 Total</td>
<td></td>
<td></td>
<td>50.5 ml</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>4 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>10 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>2 ml</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.001 ml</td>
<td>Waitemata</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>20 ml</td>
<td>Central</td>
</tr>
<tr>
<td>2007</td>
<td>MST</td>
<td>Liquid</td>
<td>19.2 ml</td>
<td>Wellington</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>30 ml</td>
<td>Wellington</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Liquid</td>
<td>0.01 ml</td>
<td>Tasman</td>
</tr>
<tr>
<td>2007 Total</td>
<td></td>
<td></td>
<td>85.211 ml</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>542.552 ml</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Drug Name</th>
<th>Drug Form</th>
<th>Volume/Quantity</th>
<th>Reporting Member District</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>Tablet</td>
<td>4</td>
<td>Auckland City</td>
</tr>
<tr>
<td>Year</td>
<td>Type</td>
<td>Tablet</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>2</td>
<td>Waitemata</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>13</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>1</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>7</td>
<td>Southern</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>7</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>326</td>
<td>Wellington</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>1</td>
<td>Northland</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>2</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>5</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>4</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>2</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>1</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>4</td>
<td>Bay Of Plenty</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>30</td>
<td>Waikato</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>1</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>1</td>
<td>Southern</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>5</td>
<td>Central</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>7</td>
<td>Central</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>1.5</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MST</td>
<td>18</td>
<td>Waitemata</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Morphine</td>
<td>3</td>
<td>Bay Of Plenty</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Total</td>
<td>446.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>1</td>
<td>Wellington</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>1</td>
<td>Tasman</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>2</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>1</td>
<td>Waitemata</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>4</td>
<td>Waikato</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>1</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>2</td>
<td>Central</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>2</td>
<td>Central</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>1</td>
<td>Tasman</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>1</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>5</td>
<td>Waitemata</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>5</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>9</td>
<td>Waikato</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>12</td>
<td>Waikato</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>79</td>
<td>Tasman</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>20</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>1</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>1</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>2</td>
<td>Waikato</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>56</td>
<td>Central</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Morphine</td>
<td>2</td>
<td>Waitemata</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>56</td>
<td>Wellington</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>4</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>1</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MST</td>
<td>21</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Total</td>
<td>237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>56</td>
<td>Wellington</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>1</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>5</td>
<td>Auckland City</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>9</td>
<td>Canterbury</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>26</td>
<td>Eastern</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Drug Name</td>
<td>Drug Form</td>
<td>Volume/Quantity</td>
<td>Reporting Member District</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Tablet</td>
<td>1</td>
<td>Eastern</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Tablet</td>
<td>10</td>
<td>Bay Of Plenty</td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>Tablet</td>
<td>2</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>Tablet</td>
<td>9</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>Tablet</td>
<td>2</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>Tablet</td>
<td>18</td>
<td>Northland</td>
</tr>
<tr>
<td>2006</td>
<td>Morphine</td>
<td>Tablet</td>
<td>1</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006</td>
<td>MST</td>
<td>Tablet</td>
<td>2</td>
<td>Wellington</td>
</tr>
<tr>
<td>2006 Total</td>
<td></td>
<td></td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>MST</td>
<td>Tablet</td>
<td>6</td>
<td>Waikato</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>47</td>
<td>Waikato</td>
</tr>
<tr>
<td>2007</td>
<td>MST</td>
<td>Tablet</td>
<td>15</td>
<td>Eastern</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>2</td>
<td>Auckland City</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>1</td>
<td>Central</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>1</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>5</td>
<td>Tasman</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>6</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>MST</td>
<td>Tablet</td>
<td>20</td>
<td>Wellington</td>
</tr>
<tr>
<td>2007</td>
<td>Morphine</td>
<td>Tablet</td>
<td>19</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007</td>
<td>MST</td>
<td>Tablet</td>
<td>100</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007 Total</td>
<td></td>
<td></td>
<td>223</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>1048.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Drug Name</th>
<th>Drug Form</th>
<th>Volume/Quantity</th>
<th>Reporting Member District</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Wellington</td>
</tr>
<tr>
<td>2004</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Southern</td>
</tr>
<tr>
<td>2004 Total</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>34</td>
<td>Southern</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Tasman</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>9</td>
<td>Central</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>4</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>2</td>
<td>Bay Of Plenty</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>11</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>57</td>
<td>Tasman</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>7</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Wellington</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>2</td>
<td>Wellington</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>23</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2005</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>4</td>
<td>Wellington</td>
</tr>
<tr>
<td>2005 Total</td>
<td></td>
<td></td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>50</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2006 Total</td>
<td></td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>1</td>
<td>Southern</td>
</tr>
<tr>
<td>2007</td>
<td>Temazepam</td>
<td>Tablet</td>
<td>100</td>
<td>Canterbury</td>
</tr>
<tr>
<td>2007 Total</td>
<td></td>
<td></td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>309</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Drug Name</th>
<th>Drug Form</th>
<th>Volume/Quantity</th>
<th>Reporting Member District</th>
</tr>
</thead>
<tbody>
<tr>
<td>13/09/2004</td>
<td>Pethidine</td>
<td>Tablet</td>
<td>24</td>
<td>Bay Of Plenty</td>
</tr>
<tr>
<td>29/08/2006</td>
<td>Pethidine</td>
<td>Liquid</td>
<td>100</td>
<td>Canterbury</td>
</tr>
</tbody>
</table>
Usefulness

- The data provide a national picture of prescription drugs of interest found in the possession of people arrested. These are data for any arrest – not just arrests made in relation to drug abuse.
- The data indicate the relative level of availability of different prescription drugs in New Zealand.
- Codeine and morphine tablets seem to be the most available based on these data.
- Relative regional availability might possibly also be estimated as the district where the arrest took place is provided.

Limitations

- The data do not indicate whether these drugs were legally in the possession of the person arrested.
- The accuracy of the data are dependent on all drugs found been reported and accurately quantified. As can be seen from some of the liquid dosage forms, the quantities entered (e.g. 0.00001ml morphine liquid) are not logical and thus should be treated with caution.
- Liquid dosage forms do not indicate whether they are liquids for oral consumption, or ampoules for injection.
- The strength of the tablets is not provided so quantifying the actual amount of drug is not possible.
- The accuracy of the data are dependent on the accuracy of identification of drugs and respective coding within the database.
- The data may over-represent the incidence of arrests, as an entry is made for each drug found on the arrestee, so one person may appear as more than one entry. However, in terms of prescription drugs found this is an accurate picture of data noted by Police, for the drugs searched in the database.

Drug prices on the illicit market

The following data have been provided by Police on the price of prescription drugs on the illicit market. The data are currently being updated, but they provide an indication of recent prices. They also provide an indication of the respective availability/desirability of these products.

Table 19: Drug measures and prices - maintenance table

<table>
<thead>
<tr>
<th>Drug</th>
<th>Classification</th>
<th>Unit of Sale</th>
<th>Quantity</th>
<th>Street Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clonazepam (anticonvulsant)</td>
<td>Class C</td>
<td>1 x tablet</td>
<td>0.5mg or 2mg</td>
<td>$5 or 3 for $20</td>
</tr>
<tr>
<td>Codeine (analgesic)</td>
<td>Class C</td>
<td>1 x tablet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diazepam (anticonvulsant)</td>
<td>Class C</td>
<td>1 x tablet</td>
<td></td>
<td>3 for $20</td>
</tr>
</tbody>
</table>
Diazepam (Valium)  
Class C  
1 x tablet of 5mg (yellow)  
$3-$4  
1 x tablet of 10mg (blue)  
$5-$6  

Ephedrine  
Class C  
1 kilogram  
1kg  
$5,000  

Fentanyl (analgesic)  
Class B  
1 x patch  

Halcion (sedative)  
Class C  
1 x tablet  

Ketamine (anaesthetic)  
Prescription  
1 gram  
1g  
$150  

Methadone  
Class B  
1 mg (one milligram)  
1mg  
$1  

Morphine  
Class B  
1 Cap/Sachet/Packet  
0.2g  
10 x Caps  
2g  
$100  

Morphine Sulphate Tablets  
Class B  
1 mg  
1mg  
$1  

(NOT AVAILABLE, see next entry)  

(Naloxone hydrochloride)  
Prescription  
1 x dose (injection)  
8.6mg/ml  
$25  

Nitrazepam (sedative)  
Prescription  
1 x tablet  

(Ritalin (stimulant))  
Class B  
1 x tablet of 10mg  
$10-$15  
1 x tablet of 20mg  
$20-$30  
1 card of 10 x tablets (10mg)  
1g  
$20-$100  
1 card of 10 x tablets (20mg)  
2g  
$205-$280  

Rohypnol (depressant)  
Pharmacy  
1 x tablet  

Temazepam (sedative)  
Class C  
1 x tablet  

5.2.7 Pharmacy break-ins

Data were sought on community pharmacy break-ins to see if this could inform the bigger picture. Pharmacies use a wide range of insurance companies so obtaining data from them was not possible. Furthermore, as insurance policy excesses are relatively high, many pharmacies do not make claims on break-ins. However, they are asked to make voluntary reports to the Pharmaceutical Society of New Zealand (PSNZ) about hold-ups or break-ins, although this does not routinely occur. The PSNZ does have some data, but as these are supplied to the PSNZ ad hoc they are not useful in terms of quantitative data.

The PSNZ has indicated an interest in exploring this issue in a more systematic way in the future.

5.2.8 Medicines Control

Medicines Control has information which is potentially useful when considering prescription drug misuse.

For example, the data relating to Class B controlled drug prescriptions (the prescriptions required to be written on the triplicate forms) are collected from pharmacies in a file accompanying their electronic claim to HealthPAC. This means that Medicines Control can review data as recently as the last submitted claim.

With this type of electronic prescription data Medicines Control can track data quickly in response to a particular prompt (e.g. inquiry from doctor, a need to track a specific ‘drug seeker’, etc). Data up to 18 months old is readily available; data older than can be obtained from archives. However, Medicines Control does not have the capacity yet to fully monitor and produce trends or analysis of this high volume of
data. Further IT development is being considered. Inconsistencies in the accuracy and detail of entries by pharmacists into their pharmacy computers is also a problem that requires consideration.

In addition, Medicines Control disseminates information on restricted people to doctors and pharmacies via two 0800 numbers. A complete list in booklet form is mailed out twice a year.

Medical Officers of Health can also collect/request information from medical practitioners under Section 35 of the Misuse of Drugs Act and Section 44 of the Medicines Act. This information is part of the core work of Medicines Control and is carried out when considering inappropriate or unusual prescribing, or when specific information is required in relation to a particular patient.

5.3 Summary

Other data sources were unavailable to the research team, for example data from Police on forged prescriptions, and seizures of prescription drugs. Whilst a number of data sources exist, no one source is able to provide a complete picture. Even when viewed as a whole, limitations and biases are likely to exist making interpretation difficult, and extrapolation impossible. Furthermore, prescription data itself, whilst interesting, provides no indication of the appropriateness of the prescribing itself nor the subsequent use of the medication. Significant ethical and confidentiality issues also relate to these data.

Data from help and information seeking might be able to provide a more relevant indication of where problems are occurring or where people are having concerns. In addition, such data sources can be specifically primed to collect prescription drug data and provide a more relevant picture at least of the issues relating to significant concerns of harms.

All data, however well collected and interpreted, do not, provide a picture of the human issues which surround problematic use of prescription drugs and thus should be supplemented by qualitative data.
6 SUMMARY AND RECOMMENDATIONS

6.1 Summary
In common with many other countries worldwide, there is a market in New Zealand for prescribed pharmaceuticals such as benzodiazepines and opioids which are obtained from primary healthcare settings either for misuse or abuse by the patient, or for diverting onto the illicit market. PDM is an issue in New Zealand, not least because illicit drugs such as heroin, ecstasy and cocaine are not commonly available, and are expensive. This has led to drug users utilising available pharmaceuticals to manufacture drugs of choice – for example codeine to ‘homebake’, morphine to heroin and pseudoephedrine to methamphetamine. In addition, they may be used in their original form – albeit in larger amounts or in ways that they were not intended – in place of or in addition to illicit substances.

As one significant potential source of prescription drugs is primary care, this study has focussed on issues for this group of health professionals, and has focussed specifically around PDM within primary care in New Zealand. This has been accomplished through a literature review, qualitative interviews with GPs, CPs and KE, and also an exploration of secondary data sources.

This summary will be structured according to the initial aims of the study.

6.1.1 Which drugs get misused / are the main substances of concern?
Based on the review of secondary data from CADS and the NDIB, it would appear that opioids and benzodiazepines are the most commonly misused prescription drugs in New Zealand. This is similar to what was noted in the literature review in the USA, and closer to home in Australia. Indeed, the recent Victorian review focussed on these two drug groups as being the ones of most concern [6]. In addition, New Zealand also appears to have a small, but significant, prescribed stimulant misuse problem. All of these were identified by GPs, CPs and KEs. More rarely, misuse of other drugs were discussed, including Ventolin® inhalers, antiepileptic medicines and antidepressants. Amongst GPs, it would appear that opioids and benzodiazepines are of most concern, both in terms of what they considered to be ‘over use’ and also ‘abuse’.

6.1.2 How are such substances obtained?
A wide range of methods of obtaining these drugs through primary care was discussed by interviewees, including deception, forgery and theft. All of these are similar to those found in overseas literature. PHCPs in particular appeared to classify drug seekers as either ‘abusers’ and ‘over-users’ and whilst some methods of obtaining prescriptions drugs were noted to be common to the two perceived groups, some were considered to be more likely to be undertaken by ‘abusers’ – for example, forgery and ‘doctor shopping’. This distinction between the two groups is in itself problematic and highly subjective. Such stereotypes are not particularly useful, can lead to inappropriate decisions and responses to the problem, and may mean that PDM is being overlooked amongst people who do not appear to fit the ‘abuser’ stereotype. Highlighting these two distinctions, and the inherent dangers in subscribing to them, is probably an important component of any awareness-raising exercises.
6.1.3 What do GPs and CPs do when they suspect there is a problem?
As discussed previously, responses are often based on the PHCP view of the patient. Beyond that, many responses are those which would be expected of health professionals who have a legal and ethical obligation to ensure that drugs are appropriately prescribed and used, and do not fall into the ‘wrong hands’. Thus, many of the responses described by PHCPs relate to minimising the instances of inappropriate requests for prescriptions drugs, refusing to supply when a request occurred, and attempting to be one step ahead of ‘abusers’ in order that PHCPs do not end up prescribing or dispensing medicines which might inadvertently be in breach of the law or ethical obligations. Data from the international studies we obtained noted similar strategies used by PHCPs.

Less commonly cited in our study were attempts to support patients, to instigate harm reduction interventions and to make referrals to treatment services. Barriers to this certainly exist, not least due to there being a perceived lack of external support, and the fact that it is a time-consuming and often difficult issue to deal with. Very little materials such as leaflets were available for PHCPs to use with patients, and it appeared that there was a view that there was a lack of availability of services for the ‘over-users’, in particular outside of the major centres such as Auckland. It was generally considered not appropriate to send the ‘over user’ to a drug and alcohol clinic. This raises the question of what is actually available in terms of interventions for these patients, and whether they are being widely promoted to PHCPs.

6.1.4 What happens to the drugs after being diverted?
In the main, PHCPs had a poor awareness of the details of what occurred with any diverted drugs they had prescribed or dispensed, beyond the drugs being used by the patient themselves or given or sold to others. KEs working in treatment services, as would be expected, were far better informed and provided useful data on this issue. The importance of providing PHCPs with information on this should not be underestimated. If PHCPs know for example, that certain drugs or formulations are more likely to be desirable and diverted and why, or are more easily injected, then this may have positive influences on their prescribing practices.

6.1.5 How much prescription drug diversion occurs?
It is difficult to answer this question objectively. The review of secondary data has established that there is, like in other countries, no one set of data which can accurately answer this. Furthermore, potential data sources – either separately or in combination – have too many limitations, not least because they have not been set up for this purpose. It leaves the question to be answered subjectively. As New Zealand has little in the way of illicit heroin and has a not insignificant opioid problem, mainly relating to the use of morphine sulphate, the questions remains ‘how is this obtained?’ It would seem reasonable to assume that it comes, in part, from prescriptions written and dispensed in primary care. Interestingly, whilst PDM was a recognised issue by PHCPs in this study, it was generally not considered to be a major problem for each practitioner. This raises the issue of how much PDM and illicit requests for prescription drugs goes undetected by PHCPs, and whether there can be anything done about this. It is also likely that individual ‘drug seekers’ are approaching several
GPs and CPs, and thus the problem is spread across different PHCPs, with individual practitioners suffering little impact.

6.1.6 What harms does it cause?
PHCPs often lacked knowledge of which drugs were injected, harms that this might cause and other harms associated with PDM although many suspected it would be similar to that caused by illicit drug misuse, a view supported by KEs. Overseas literature focussed on a number of significant harms such as overdose and overdose deaths, social and emotional impacts, injecting risks and drug-related deaths. Being able to attempt to reduce harm or initiate treatment for PDM requires an understanding of the potential harms and how they might be assessed and managed.

6.1.7 How effective do GPs and CPs feel they are in preventing prescription drug misuse?
This question is difficult to answer, in that many PHCPs did not feel they had a particular issue with PDM. This was sometimes due to a belief that their ‘hard-line’ stance was known out in the community, whilst others believed that it was not an issue in their local area. Alternatively, some interviewees maintained that their personality hampered their ability to prevent PDM – that they were too trusting for example. PHCPs and KEs noted the lack of clear guidance on managing PDM, which included having clear prescribing policies, alongside adequate staff training and support. This lack of training is in line with findings from the literature, in particular the CASA study – “Under the Counter”.

6.1.8 How easily accessible and accurate are current prescription data in New Zealand?
The data are reasonably accessible, and provide a relatively accurate picture of what is being prescribed, but only for subsidised medicines. This means that obtaining a full picture of prescribing practices in New Zealand is not possible through currently available data. Furthermore, trend analysis, whilst feasible, is confounded by changes to the subsidy rules and which drugs are subsidised, making year on year comparisons tricky. Numerous systems have been developed overseas which attempt to collect usable, comprehensive prescription data in order to monitor doctor sopping and inappropriate PHCP prescribing and dispensing. Some of these are available to only one group of PHCPs, and in many cases are only set up in one jurisdiction. For example, in the United States many states have monitoring and surveillance systems for prescription drugs, but these vary and thus monitoring across borders is impossible. Furthermore, these systems, whilst potentially impacting on prescribing and diversion, may also have negative consequences for bona fide patients. New Zealand, being a small country, should be able to develop a single usable system available to all relevant PHCPs, with clearly defined levels of access to data based on need, and which protect patient confidentiality.

6.1.9 A final note
Finally, we would like to reiterate that this report has focussed on primary care. PDM is not solely an issue within primary care. In order to fully understand PDM, it is essential to investigate all environments – other healthcare settings (e.g. hospitals),
illegal markets, the internet, customs, impact of ‘over use’ and ‘inappropriate prescribing’ on patients and PDM on communities, etc.

The recommendations from this report relate to the findings as they pertain to primary care, but a number have wider implications; for example, those relating to systems and to public health campaigns. However, further research is required into other areas of PDM in order to be able to see the full picture.

### 6.2 Recommendations

The Medical Council of New Zealand’s 1991 report "Strategies for Action on the Misuse of Addictive Prescription Drugs" made a number of recommendations, many of which appear to be similar to those that will be found below, indicating that whilst action may have occurred in the intervening period, the problems remain broadly similar and unresolved. This significant international health and social issue requires future central Government support.

The following recommendations (which are based on the literature review, research and review of data sources) have been broadly categorised into recommendations around systems, primary care practitioner practices, treatment services and harm reduction, and education and continuing professional development. They come from a harm minimisation perspective and thus cover supply, demand and harm reduction.

#### 6.2.1 Systems

It is recommended that a New Zealand framework or guidelines about responding to PDM in primary care be developed, supported by central funding, and that the guidelines include:

- prescribing and dispensing protocols;
- support for patients with PDM problems;
- strategies to minimise PDM;
- areas for training and education.

Relevant professional bodies would need to be included in the development of guidelines for the management of PDM, and associated training available to PHCPs on an on-going basis.

Also recommended are:

- an in-depth review of a variety of international monitoring and surveillance systems, both electronic and multiple prescription;
- an in-depth analysis of the outcomes of these systems on diversion, inappropriate prescribing, appropriate prescribing (in terms of negative consequences to patients with real medical need), cost, patient and PHCP confidentiality issues.

In line with findings from the review recommended above, it is recommended that the following are considered:

- the development of a ‘real time’ prescription drug recording system which is inclusive of subsidised and non-subsidised drugs (and possibly OTC drugs);
the development of a system which could be used to monitor prescribing patterns, whilst taking into account that some GPs will necessarily have legitimate reasons for prescribing large amount of opioids, for example patients receiving treatment from community alcohol and drug services;

that Medicines Control are requested to develop an online ‘restricted persons’ list (while recognising the privacy obligations around that);

encouragement for PHOs to ensure that GPs have access to accurate information about PDM;

a requirement for pharmacists to mark ‘refused’ prescription in some way in order to minimise the chance of them being presented and ‘filled’ elsewhere;

raising of awareness amongst GPs of the “Surgery Support” service from Medicines Control;

that Medicines Control develop a parallel “Pharmacy Support” pack for community pharmacists.

6.2.2 Primary care practitioner practices

- Form regional and national committees comprising representative GPs, pharmacists and other relevant members of the primary healthcare team with a remit that includes:
  - improving communication between GPs and CPs and other PHCPs around PDM issues;
  - keeping abreast of emerging issues with regards to PDM;
  - reviewing and providing feedback on desired curricula for undergraduate education and continuing professional development of primary healthcare practitioners;
  - working closely with local treatment and harm reduction services to ensure effective communication between these services and primary care;
  - the formation of appropriate networks with Police to provide two-way information on drugs of concern.

- GPs, CPs and other relevant members of primary healthcare need to find opportunities to discuss generic issues and problems they face when dealing with PDM and look for local solutions.

- It is essential that GPs and CPs are familiar with prescription drugs liable to misuse, and local treatment and harm reduction services available to them and their patients.

---

47 In Auckland, the Auckland Drug Advisory Committee (ADAC) meets regularly and discusses issues relating to prescription drug and other drug misuse locally.
6.2.3 Health promotion, harm reduction and treatment
Central and regional government health departments should:

- develop printed and web-based support materials about the issues and repercussions of PDM for the community;
- investigate the availability of treatment for PDM beyond that which exists within CADS units, and if gaps are found, develop appropriate, relevant and accessible treatment interventions targeted at those who appear to slip through the gaps.

Furthermore, there is a need to:

- ensure PHCPs are aware of the wide range of resources available concerning drugs liable to be misused (e.g. Medsafe Datasheets and other web pages);
- encourage PHCPs trained in this field to work with ‘over-users’ to support them in reducing their prescription drug use;
- ensure PHCPs are aware of the AOD services available in their area and what the services provide to correct a lack of knowledge and/or misconceptions;
- promote, and provide additional funding (if required) for the Alcohol and Drug Clinical Helpline for doctors and other health professionals.

6.2.4 Training and education

- Provide training to encourage prescribing that aims to minimise PDM.
- Professional bodies need to work closely with undergraduate and postgraduate educators to ensure that issues around PDM are integrated into curricula.
- Encourage participation in de-escalation training for GPs and CPs and self defence, particularly for all additional staff.
- Encourage PHOs to utilise their internal existing 'experts' to provide mentoring, advice and leadership.
- Facilitate the formation of links between PHCPs local and local and national AOD organisation to enable informal training to occur.

The following is a suggested (but not exhaustive) list of potential areas of training and education to be covered:

- which drugs get misused;
- what types of PDM exist;
- common methods of illicitly obtaining prescription drugs;
- risks associated with long term use of benzodiazepines;
- the need to review medications regularly;
- management of drug withdrawal;
- harm reduction interventions;
- identifying PDM and making appropriate referrals;
• prescribing that aims to minimise PDM.

6.2.5 Research
Further research is required, including:

• comparison of actual prescribing with Pharmhouse database data to see what the correction factor needs to be;
• an investigation of ways of targeting information about PDM to communities;
• research with prescription drug misusers to better understand reasons for misuse, access to help and support, and impact on family and whanau;
• research into the incidence of ‗doctor shopping‘ and ‗pharmacy hopping‘;
• an investigation of issues specific to rural communities, including the impact of rurality on access to medicines, and on access to help, advice and treatment for PDM.

Consider including questions on availability, use and price of illicitly obtained prescription medicines in National Household Surveys.
7 APPENDICES

7.1 Appendix One: Classification of Medicines within New Zealand

In New Zealand, medicines are classified into four groups under the Medicines Act 1981:

- **Prescription Medicines**, POM, or Prescription Only Medicines: medicines in this category may only be sold or supplied pursuant to a prescription from a New Zealand registered medical or dental practitioner, veterinarian, registered midwife, designated prescriber or in accordance with a standing order.

- **Pharmacist Only Medicines** or Restricted Medicines: medicines in this category may be sold or supplied by retail only by a pharmacist in a pharmacy or hospital, or by prescription or in accordance with a standing order. Patient details must be recorded as part of the supply.

- **Pharmacy Medicines** or Pharmacy Only Medicines: these medicines may be sold by retail from a pharmacy or a hospital, or any shop licensed to sell such medicines, or by prescription or in accordance with a standing order.

- **General Sale Medicines**: These medicines may be sold from any retail outlet.


Some medicines are also included in the Misuse of Drugs Act 1975 and Misuse of Drugs Regulations 1977. Drugs are classified into the Classes – A, B and C. Class A (Schedule 1) drugs include heroin, thalidomide, LSD, PCP (angel dust) and methamphetamine\(^{48}\). Class B (Schedule 2) drugs are divided into three parts. Part 1 includes morphine (MST®, LA Morph®, Kapanol®, m-Eslon®, Sevredol®, RA Morph®) dexamphetamine\(^{49}\). Part 2 includes methylphenidate (Ritalin®, Ritalin SR®, Rubifen®, Concerta®). Part 3 includes alfentanil (Rapifen®), dextromoramide (Palfium®) fentanyl (Sublimaze®, Durogesic®), oxycodone (OxyContin®, OxyNorm®, Prolodone®), methadone (Biodone®) and pethidine.

Class C (schedule 3) are divided into a number of parts. With respect to prescription on medicines, Part 2 includes dihydrocodeine (DHC), codeine powder, injection, tablets, Part 4 includes barbiturates (except those in Part 5), buprenorphine (Temgesic®), buprenorphine with naloxone (Suboxone®) and Part 5 includes benzodiazepines, meprobamate (Equanil®), diethylpropion (Tenuate Dospan®), phentermine (Duromine®), phenobarbital, barbiturates in combination dextropropoxyphene (Doloxene®, Paradex®, Capadex®).

A special triplicate prescription form (CD prescription form H572 or CD prescription form H572 M for methadone) is required for medicines in Class B (all parts) and Class C part 4 (except where buprenorphine is combined with naloxone).

\(^{48}\) Ministerial approval (in general or for an individual patient) is required for prescribing, dispensing and administration of methylphenidate and dexamphetamine

\(^{49}\) See 48.
### 7.2 Appendix Two: List of prescription drugs mentioned in this study with generic names and their respective New Zealand brand names.

<table>
<thead>
<tr>
<th>Generic name</th>
<th>drug Brand name</th>
<th>Indications for use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clonazepam</td>
<td>Paxam, Rivotril</td>
<td>Most clinical forms of epilepsy in infants and children, in particular typical and atypical absences (Lennox-Gastaut syndrome), nodding spasms, primary or secondary generalised tonic-clonic seizures. Clonazepam may also be used in epilepsy of adults and in focal seizures.</td>
</tr>
<tr>
<td>Diazepam</td>
<td>Diazepam injection, Depam, Propam, Stesolid</td>
<td>Tension and anxiety states, status epilepticus, as preoperative medication, skeletal muscle spasm and motor unrest, cerebral palsy, athetosis, stiff-man syndrome, tetanus, acute agitation due to alcohol withdrawal (diazepam injection) Treatment of anxiety and tension states, as a sedative and in the control of skeletal muscle spasm (tablets). Febrile and childhood convulsions (Stesolid)</td>
</tr>
<tr>
<td>Temazepam</td>
<td>Euhypnos, Normison, Somapam</td>
<td>Severe or disabling insomnia Premedicated taken 30-60 minutes prior to surgical or other procedures.</td>
</tr>
<tr>
<td>Triazolam</td>
<td>Halcion, Hypam, Trypam</td>
<td>Transient up to 7 days, and short term 2 to 4 weeks, severe or disabling insomnia. Short term, intermittent adjunctive treatment in the management of selected patients with long term insomnia</td>
</tr>
<tr>
<td>Codeine phosphate</td>
<td>PSM, Cox, Douglas, Mersyndol</td>
<td>Analgesic for the relief of mild to moderate pain</td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>DHC Continus</td>
<td>Post-operative pain, and pain associated with cancer. Opioid-responsive, chronic severe pain of non-malignant origin</td>
</tr>
<tr>
<td>Methadone</td>
<td>Biodone, Methadone, Methatabs, Pallidone</td>
<td>Dependence on opioid drugs Relief of severe pain Antitussive</td>
</tr>
<tr>
<td>Morphine sulphate</td>
<td>RA-Morph, Kapanol, LA Morph, Biomed, Mayne, Medi-ject, Rapject, Sevredol</td>
<td>Prolonged relief of chronic, moderate to severe pain</td>
</tr>
<tr>
<td>Dexamphetamine</td>
<td>API</td>
<td>Narcolepsy, refractory hyperkinetic states in children specialising in child psychiatry.</td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>Concerta, Ritalin, Rubifen</td>
<td>Attention Deficit/Hyperactivity Disorder (ADHD). Narcolepsy</td>
</tr>
</tbody>
</table>

---

50 Mersyndol contains: Codeine phosphate, doxylamine succinate, paracetmaol

51 Different licenced indications for different brands and dosage forms
8 REFERENCES


