

**INTRAVENOUS  
OPIOID DEPENDENCE  
IN NEW ZEALAND**

**A Report for the Ministry of Health**

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# EXECUTIVE SUMMARY

The National Addiction Centre (NAC) was contracted by the Ministry of Health (MoH) to undertake research that addressed six key questions as follows:

- 1. How many people in New Zealand have opioid dependence, including consideration of opioid dependent people in prison?**
- 2. How many people with opioid dependence want treatment and in what form?**
- 3. What (if any) are the barriers to people with opioid dependence gaining the treatment they want?**
- 4. How many people are being treated using opioid substitution treatment (OST) in New Zealand, including the numbers of clients on authority to GPs and the number who have been discharged to ongoing GP care?**
- 5. How many people are waiting for OST treatment and how long (in time) are waiting lists for OST in the various treatment programmes?**
- 6. What has been the influence of the “methamphetamine epidemic” on the prevalence, presentation and treatment of people with opioid dependence in New Zealand?**

The research primarily consisted of two surveys, with an analysis of The New Zealand Mental Health Survey: Te Rau Hinengaro (Oakley-Browne et al 2006) augmenting the prevalence of opioid dependence estimate and a literature review supporting the overall work.

Key findings from the literature review are as follows:

- Direct methods of estimating prevalence such as those based on population surveys, are likely to underestimate the prevalence of opioid use and dependence and may do so to a substantial degree;
- The worldwide use of opioid drugs increased over the 1990s and has remained stable since 2000. New Zealand appears to have a high rate of opioid drug use in general relative to many other countries;
- The number of opioid dependent individuals on waiting lists for OST and the time on waiting lists is a significant problem. Increased utilisation of general practitioners (GPs) is currently

the primary strategy for reducing waiting list times for OST including interim prescribing and private treatment.

- It appears that many opioid drug users also use amphetamines, primarily amphetamines; and for some amphetamines may be a gateway into opioid use. The use of amphetamines in addition to opioids increases the risk of physical harm and complex psychopathology and is related to worse treatment outcomes.

## **1. How many people in New Zealand have opioid dependence, including consideration of opioid dependent people in prison?**

A two-arm survey of 97 regular opioid drug users (daily or almost daily) was conducted to provide the primary data to answer the question of opioid dependence prevalence by deriving a “multiplier”, ie the number to multiply the total number of people currently being treated with OST in New Zealand, in order to estimate the total number of people in New Zealand with opioid dependence. The two arms were OST (methadone treatment programmes) and needle exchange programmes in Auckland, Tauranga and Christchurch. The multiplier estimate overall was 2.16 (95% CI 1.94 – 2.38). There was a significant difference between the three research venues, with Christchurch (2.53) significantly higher than Auckland (1.83) or Tauranga (1.90) ( $p=0.01$ ).

A survey of the 18 specialist OST services in New Zealand was also undertaken which found that there are currently 4,608 people receiving OST in the community which includes 87 (best estimate) in prison.

Using the derived multiplier of 2.16, the number of people in New Zealand with opioid dependence (which would only include people who are using illicit opioids daily or almost daily) is estimated as 9,953 (95% CI 8,940 – 10,967).

This “multiplier method” provides an estimate of the total population prevalence of opioid dependence, excluding the prison population. Further, importantly, it should be noted that opioid dependence in this research does not include those with opioid dependence who might be using less than six or seven times a week and thus should be thought of as a conservative estimate of the true prevalence of opioid dependence, which would include those with milder

forms of dependence, but certainly includes all the people for whom OST would normally be considered the primary treatment modality.

Te Rau Hinengaro data were utilized separately to directly estimate the 12 month prevalence of opioid dependence. The prevalence of opioid dependence using these data was found to be 2,622 (95% CI 983 – 5,573). This is clearly a serious underestimate of the true prevalence when the number of people being treated for opioid dependence in New Zealand currently is at least 4,278. This demonstrates a severe limitation of expensive nationwide household surveys, such as Te Rau Hinengaro, for estimating prevalence estimates for uncommon but crucial disorders in hard to access sub-populations such as is the case for opioid dependence.

## **2. How many people with opioid dependence want treatment and in what form?**

Abstinence based treatment, other than therapeutic community models, in contrast to drug substitution treatment (OST) has poor outcomes for people with established opioid dependence and is favoured by such a small proportion of clients that this was not considered in this report.

Because of the variability in definitions of what constituted a waiting list person it was not possible to derive a meaningful estimation of the number of opioid dependent individuals waiting for OST by service or nationally. Instead a key indicator of demand for service is waiting time (see question 5 below).

Even though there continues to be in many localities considerable waiting time for treatment, the opioid user survey provided data indicating that there is considerable ambivalence, not only on the part of those not currently receiving OST but also those in treatment, about the delivery of OST. Only 20% of those who had never been in treatment had wanted to receive OST .

However, if certain barriers to treatment could be ameliorated then OST is likely to become considerably more attractive to people with opioid dependence. What are these barriers?

## **3. What (if any) are the barriers to people with opioid dependence gaining the treatment they want?**

Less than 5% of user survey respondents thought that OST in New Zealand could not be

improved. The remainder were asked for the three main things they thought would improve OST. The four main themes identified in this way were as follows:

- Better treatment by staff
- Better takeaway arrangements
- More flexibility/more peer involvement
- Decreased waiting time

Participants were then given a list of 12 potential barriers that might put people off coming on to OST. Five highly rated barriers were as follows:

- Restricted takeaways
- Being tied to staying in one place
- Being a registered drug addict
- Having to go on a waiting list for methadone
- Having to go to a chemist every/most days

Services were also given the same list and the top five were rated similarly as follows:

- Restricted takeaways
- Having to go to a chemist every/most days
- Having to go on a waiting list for methadone
- Being tied to staying in one place
- Methadone the only option

In the user survey, participants were asked if there were any other important barriers that might put people off. Eighty percent of these comments were in two categories:

- Judgement and stigma
- Hassle and bother

A picture that emerges from these data is that OST programmes are places that you first have to wait an unacceptably long time to access, which then causes you a lot of bother and hassle gaining treatment, including severely restricting your normal freedoms as a citizen, as well as exposing you to serious stigma and judgement by the public at large. Further, OST programme staff are often perceived as being unhelpful and paternalistic. This picture is reinforced by the services themselves (except for the user perception of staff) and makes it understandable that many people with opioid dependence are ambivalent about OST.

**4. How many people are being treated using opioid substitution treatment (OST) in New Zealand, including the numbers of patients on authority to GPs and the number who have been discharged to ongoing GP care?**

As outlined above, the number of people receiving OST in New Zealand currently is estimated to be 4,608. This includes about 87 being prescribed for in prison, 932 on authority to GPs and 208 through two separately gazetted GP methadone services in Tauranga and Christchurch. This indicates that 25.1% of OST clients are currently being prescribed for by GPs, including 4.8% being prescribed by GPs independently of specialist clinics.

Services were asked what percentage of OST clients should receive OST from GPs in primary care settings. The range reported was 3% up to 65% with a median of 48%. This is far below the recommended 80% in the 1996 report and just below the renegotiated target of 50% arrived at by the MoH following subsequent discussions.

A number of continuing barriers reported by services were: GP availability, client cost, client preference for clinic, clients “not ready”, staff reluctance and staffing resource issues. The two largest services, Auckland and Christchurch had the largest proportions of clients on GP Authority at 26% and 40% respectively.

**5. How many people are waiting for OST treatment and how long (in time) are waiting lists for OST in the various treatment programmes?**

It was not possible to make a valid estimate of the number of people waiting for OST because of a number of issues related to “waiting lists”. However, the waiting time for treatment from first presentation for assessment to the first dose of methadone was estimated in two ways.

Firstly, by asking about the waiting time generally for both assessment and from assessment to first dose, and then asking what the waiting time was for the last three clients who came onto methadone. Waiting times varied amongst service settings and were influenced by a range of factors including staff resources, clients keeping scheduled appointments, waiting time for urine test results and in some areas pharmacy availability. Some services with waiting times exceeding identified criteria provided interim methadone. Examining the specific client data the mean time across all services from first presentation to first dose was 90.3 days (sd 154.4)

range 2 – 990, median 30 days. The current waiting time guideline of two weeks, before interim prescribing is indicated, was met in less than a third of programmes.

Of the 18 services, six do not offer interim prescribing due to not have a waiting list. Six do arrange interim prescribing. The reported total number of clients treated with interim prescribing in the past 12 months was 46. Seven services do not offer interim prescribing for various reasons including the concern that it hides the problem of excess demand.

## **6. What has been the influence of the “methamphetamine epidemic” on the prevalence, presentation and treatment of people with opioid dependence in New Zealand?**

There has been no significant drop off in demand for OST over the past five years while the methamphetamine epidemic has taken hold in New Zealand, suggesting that the prevalence of opioid dependence has not been significantly influenced by the methamphetamine epidemic. From the user survey, about 30% of regular opioid users also use methamphetamine but this use is sporadic rather than daily. There were no significant differences in methamphetamine use in those on OST compared with those not being treated, but there is evidence of a decreasing methamphetamine use in regular opioid users over the past 12 months consistent with other data suggesting the methamphetamine epidemic may be levelling off and perhaps decreasing. The estimate of methamphetamine use of people presenting for treatment from the service survey was a mean of 31.3%, median 24% (range 0.1 – 80). There was no specific mention of the involvement of methamphetamine in any deaths. Two services included ongoing amphetamine use as a reason for withdrawing clients from treatment.

## **Conclusions**

The number of people estimated to have opioid dependence in New Zealand is smaller in this research than that estimated in 1996 (Sellman et al 1996). However, the estimate then relied entirely on international data and in part was extrapolated from opioid use to opioid dependence. The current estimate of about 10,000 people with opioid dependence in New Zealand does not include people with mild opioid dependence and doesn't account for prison numbers. However, the current figure suggests that the numbers of people who could benefit from OST is not nearly as overwhelming as has previously been thought and gives hope that with better processes and improved resourcing the problem of opioid dependence in New Zealand is well within reach of being brought under much

better control. A new era of OST in New Zealand could be embarked upon that is focused on attracting people with opioid dependence into treatment and increased treatment flexibility and responsiveness. However, new resources will be necessary for this to occur.

Although the data gained in this small programme of research gives more precision to previously known data, certain basic problems are again identified; problems that have been written about a number of times by various researchers for more than a decade. A philosophical change is required to bring OST into the mainstream of health care that drives a more flexible, person centred and wellness oriented approach to providing care. A specific focus on staffing resources and professional development together with a closer involvement of consumers in the running of services is urgently required.

## **Recommendations**

Primary recommendation:

*To energetically renew efforts to attract significantly more people with opioid dependence into treatment as part of a new era of OST in New Zealand, with the aim of integrating OST with mainstream health services and OST clients into their communities.*

Eight secondary recommendations:

- (i) Reduce OST waiting times to less than two weeks from presentation to first dose for those for whom this treatment is indicated.*
- (ii) Involve consumers in the running of OST programmes as paid peer support workers, in addition to the current consumer advisors (both specialist and primary care).*
- (iii) Introduce more flexibility regarding takeaway doses of methadone in promoting normal life integration of OST clients.*
- (iv) Fund buprenorphine as an opioid substitution alternative.*
- (v) Undertake a review of the educational qualifications, attitudinal base (including treatment philosophy) of all clinical staff in each OST programme as a prelude to ensuring that all OST services are operating with a therapeutic/recovery model of treatment.*
- (vi) Increase the numbers of primary care OST prescribers (incentivisation of GPs, NPs).*
- (vii) Ensure adequate primary care clinical case management resources are available to discharged OST clients for ongoing therapeutic and rehabilitation needs.*
- (viii) Increase the dispensing access in hard to service localities identified by specialist services (DHB).*



# **1.0 INTRODUCTION**

## **1.1 Opioid dependence**

Opioid dependence in New Zealand is a disorder that primarily involves the injection of illicitly obtained opioid drugs. As in other countries, injecting drug use, on average, commences in late adolescence and occurs within a context of multi-substance use (Gerstein and Harwood 1990). Commonly used substances reported by clients presenting for OST treatment in New Zealand have traditionally included nicotine, cannabis and benzodiazepines with lower levels of amphetamine type substances compared to other countries (Dore et al. 1997), although increased methamphetamine use in New Zealand has been reflected in more recent alcohol and drug treatment data, particularly in the North Island (Adamson et al. 2006).

Once established, opioid dependence is frequently chronic and relapsing in nature (Goldstein and Herra 1995; Haastrup and Jepson 1984; Hser et al 2001; Vaillant 1970). Opioid dependence is associated with high rates of premature mortality, overall estimated to be 13 times the rate of their peers (Hulse et al 1999) and for many individuals opioid dependence is associated with physical and mental ill health problems, criminal activity and significant impairments in personal, social and role functioning (Ward et al 1999); thereby limiting participation in community life. While New Zealand injecting drug users have low rates of HIV, New Zealand OST clients have high rates of hepatitis C virus (HCV) (Kemp et al. 1998). In regard to other substance use, New Zealand studies (Deering et al 2004; McMinn and Masters 2003; Todd 1996) have found associations between higher frequency of benzodiazepine use and poorer mental health and social functioning amongst OST clients reflecting findings from a series of Australian studies conducted with both treatment and non-treatment samples (Darke 1992; Darke, Swift and Hall 1994; Ross and Darke 2000).

## **1.2 Opioid substitution treatment**

### **1.2.1 Treatment goals**

Similar to other addiction treatment, opioid substitution treatment is expected to have an impact on reducing drug use, on alleviating distress, on addiction-related problems and on threats to public safety (Gerstein and Harwood 1990; McLellan et al. 1996). The New Zealand objectives for opioid

substitution (Opioid Substitution Treatment New Zealand Practice Guidelines: MOH 2003) are to: 1) Contribute to improving the health of service users as well as aspects of their personal and social functioning; 2) Reduce the spread of infectious diseases associated with injecting drug use, especially hepatitis B and C and HIV/AIDS; 3) Reduce the mortality and morbidity resulting from the misuse of opioid drugs; 4) Reduce episodes of illegal and other harmful drug use; 5) Reduce crime associated with opioid use; and 6) Assist withdrawal from methadone maintenance treatment (OST) if appropriate and desired by the service user.

## **1.2.2 Effectiveness of opioid substitution treatment**

The effectiveness of OST has been confirmed through a range of international efficacy trials, supported by findings from large-scale outcome studies (Ward et al 1999). Effectiveness is generally measured in terms of reduction in opioid use, drug use behaviours and criminal activity, and improvement in physical and mental health and achieved through treatment retention and adequate methadone doses.

New Zealand study results have confirmed the cost-effectiveness of OST (Sheerin et al 2004) and also identified that cost-effectiveness of OST as well as treatment for HCV could be enhanced by reducing barriers to admission to treatment and achieving stabilisation at an earlier age. Other New Zealand studies have identified high OST retention rates, reduced opioid use and injecting drug use during OST as well as reduced rates of benzodiazepine use (Deering 2007; Dore et al 1999; Gilmore 2005; McMinn and Masters 2003; Todd 1996; Townshend 2003). However, high continuing rates of cannabis and nicotine use have also been found amongst OST clients (Deering 2007; Townshend 2003) as well as high rates of ill health (Deering et al 2004; Sheridan et al 2005) and low rates of paid employment (taking into account full-time parenting) (Deering 2007).

## **1.2.3 Variation in client outcomes**

International literature shows that while OST is an effective treatment, it has been subjected to stigma, conceptual and philosophical tensions (harm reduction versus abstinence approaches) and political and economic pressures (Dole and Nyswander 1976; Rosenbaum 1995; Sievwright and Greenwood 1996) leading to resource issues, tensions and variations in treatment provision and client outcomes (Franey and Ashton 2002; Gossop et al 2000). Within real world clinical settings OST is not a standardised treatment and service provision varies cross-nationally and regionally (Gossop and Grant 1991; D'Aunno and Pollack 2002). While data were available for just over half

of the total reported OST clients (n = 2220), a New Zealand survey found, in general, that therapeutic doses of methadone were prescribed (median methadone dose of 85 mg) and also identified variation in prescribing and dispensing patterns (Clunie et al 2003). The most common dispensing pattern was of clients consuming methadone in front of their pharmacist on three days per week, with an average of two days between observed doses.

A key component of high quality OST is that it is flexible, responsive to the needs of clients and continues to adapt to changing circumstances (Bell 2000). The characteristics of more effective treatment services include adequate resources, a long-term maintenance approach versus an abstinence orientation; higher methadone doses, a focus on rehabilitation, experienced and therapeutically skilled staff with positive attributes (not rigid and abstinence orientated) and good staff/client relationships (Ball & Ross 1991; Bell et al 1995; Magura et al 1999) as well as individualised clinical case management that incorporates psychosocial interventions, including counselling, targeted specifically to meet clients needs.

In New Zealand, client rights are protected under the Code of Health and Disability Services Consumers' Rights (1996). The tension for OST providers in balancing public health objectives with individual treatment objectives and client rights has been acknowledged ([www.hdc.org.nz/publications/presentations](http://www.hdc.org.nz/publications/presentations)). New Zealand OST providers also face ethical dilemmas in respect to operationalising OST policies and balancing safety and risk-related concerns with individual client's rights in complex clinical situations (Kermack 2001).

#### **1.2.4 Consumer perceptions**

Findings from overseas studies of consumer perceptions of OST (treatment and non-treatment samples) show high levels of ambivalence amongst consumers about OST as well as misperceptions and a lack of understanding about methadone, other opioid substitutes and the treatment process (eg Brown et al 1975; Fischer et al. 2002; Hunt and Rosenbaum 1998; Mavis et al 1991; Murphy and Irwin 1992; Neale 1998; Rosenblum et al 1991). Commonly expressed concerns included stigma, treatment accessibility and variability in treatment provision, power discrepancies and control issues, restricted freedoms, differing client and staff expectations, as well as concerns about the addictive nature of methadone and severe withdrawal effects, side effects and potential health effects. Qualitative studies (eg Fischer et al 2002; Hunt and Rosenbaum 1998; Murphy and Irwin 1992; Neale 1998) have highlighted that relationships between clients and OST staff not infrequently involve a degree of conflict. While some clients expressed strongly positive views

about the value of OST and supportive and helpful staff many reported experiencing punitive responses in terms of rules and regulations. Aspects of regulations that engendered most concern were related to take-home methadone privileges, observed urine testing and treatment decisions based on urinalysis results rather than a more holistic understanding of a client's overall situation, and treatment termination. Consumers' views on the components of a good OST programme included high accessibility, individualised methadone doses, choice of medication and a therapeutic structure with not too many rules and within which clients could confide in staff without repercussions, were treated with respect and could gain access to health care and practical assistance as well as to staff with drug using experience (Fischer et al 2002; Jones et al 1994; Hunt and Rosenbaum 1998).

New Zealand data on perceptions of OST clients, in general, reflect these overseas findings in doctoral studies undertaken by Deering (2007); Sheerin (2004) and Townshend (2003). Deering utilised the Treatment Perceptions Questionnaire (Marsden et al 2000) and found that employed participants and those with higher levels of reported general and mental health and social functioning were significantly more satisfied with OST. Participants' comments referred to the quality of therapeutic relationships, adequacy of information received, involvement in decision making and the need to balance rules with an individualised approach, as well as a high level of concern about perceived negative treatment sanctions that further intruded on clients' daily life and internal conflict about divulging substance use. Townshend's doctoral work (2003) identified sources of potential staff/client conflicts and highlighted the importance of a preventative ethics approach to limit the prevalence and intensity of conflicts and paternalism which is inherent within any health and disability service, but particularly so in OST (Townshend et al 2001).

### **1.2.5 Treatment trends**

Within the international literature, in the last decade there has been a renewed call for OST to be conceptualised as a chronic care model of treatment (McLellan 2000) and greater integration with other health services, particularly primary care, similar to that for other chronic medical conditions. Findings from New Zealand studies have shown that there is a gradual evolution towards increased general practitioner involvement (Clunie et al 2003), but not nearly reaching the 80% or revised 50% suggested by Sellman et al (1996), as well as identified barriers to the transfer of OST clients to continuing general practitioner care (Goodyear-Smith et al. 2005; Sheridan et al 2008), including funding issues and misunderstandings and misperceptions amongst specialist OST staff and clients. For example, the quality of care has been cited as inferior to that provided by the specialist service,

even though nearly three quarters of the general practitioner clients interviewed in Auckland rated general practitioner care highly.

### **1.3 Previous Ministry of Health contracted research**

In 1996, the National Addiction Centre (NAC), then called the National Centre for Treatment Development (Alcohol, Drugs and Addiction), was commissioned by the Ministry of Health to produce a report on options and recommendations for the delivery of treatment for opioid dependence in New Zealand (Sellman et al 1996).

One of the concerns driving this commissioned work at the time was the appearance of OST waiting lists for the first time in New Zealand and concern that there were an escalating number of people beginning to present for opioid dependence treatment. The primary aim of the project was to advise on a new structure for delivering OST. However, an important secondary aim was to provide an estimate of the current number of people with opioid dependence in New Zealand, as well as an estimate of the likely growth in numbers in the foreseeable future.

Two methods of estimating the number of people with opioid dependence were utilised. Firstly, using the “multiplier method” and using the lower World Health Organization (WHO) multiplier factor of five, a figure supported by international experts (Strang & Farrell 1989), a population of 13,500 opioid dependents was estimated. At the time there were about 2,500 New Zealanders receiving OST for opioid dependence, however the multiplier was not derived from current (or past) New Zealand data at the time. Secondly, an extrapolated/combined method based on various survey data yielded an estimate of 26,600 people. The limitations of the two methods were stressed and the likely lack of even distribution of opioid dependence across the country pointed out. In any event, a significant gap between the numbers of people with opioid dependence in the community and the numbers receiving treatment for opioid dependence was highlighted. Further, based on the Australian experience at the time, it was estimated that opioid dependence numbers could grow by 15% per annum in the foreseeable future.

It was recommended that an urgent increase in the number of “methadone places” in New Zealand be actioned and that an integrated service model involving GP primary care with specialist clinic backup and support be promoted as a new structure for delivering treatment to people with opioid dependence in New Zealand. This new structure would involve about 80% of clients being cared for

directly by GPs following initial assessment at regional specialist clinics and the remaining 20% more complex clients cared for at the regional specialist clinics.

Neither of these recommendations was actioned. There was significant resistance to the proposed new model of service provision from both GPs and specialist clinics and following various consultations the MOH revised the aim of “80/20” to “50/50” in 1997, so that 50% of clients would be cared for directly by GPs and 50% in specialist clinics.

Further, despite the call for an increased rate of new “methadone places” in line with what had been occurring during the previous five years in response to increasing need, the rate at which new clients with opioid dependence were treated with methadone levelled off following the 1996 report. There had been more than a five fold increase in “methadone numbers” in the previous five years (from about 500 in 1991 to close to 2700 in 1996 (Sellman et al 1996)), but following the report there was subsequently less than a doubling of numbers of clients being treated over the next ten years, so that in 2006 fewer than 4,000 people were being treated despite the continuing waiting list problem in New Zealand.

In 2001, the NAC was again commissioned by the MOH to examine the provision of OST (Sellman et al 2001). The focus this time was the six OST programmes in the South Island in relation to concerns about waiting times and transfer policies between programmes. The main outcome of the research was the identification of a “serious crisis” that existed in at least half of the programmes with waiting times of around nine months. An immediate goal was recommended to reduce waiting times to less than one month and that if a comprehensive treatment programme was not able to be provided to achieve this goal, that interim methadone prescribing by GPs on authorisation from the regional specialist drug clinic be utilised, in line with the advice of others at the time (eg Cape 2001).

## **1.4 Interim methadone prescribing**

During 2002, the National Association of Opioid Treatment Providers subsequently became involved in the discussion and formulation of guidelines for interim methadone prescribing (IMP).

At that time there was just one randomised controlled trial (RCT) of interim methadone prescribing for opioid dependence in the literature (Yancovitz et al 1991), although there was a substantial literature indicating benefits from high access, low dose OST referred to as “low threshold”

programmes. These benefits appeared to be particularly related to the most important health indicator, mortality (Van Ameijden et al 1999).

In the key pioneering RCT study IMP was compared with a group remaining on a waiting list (Yancovitz et al 1991). The results were that heroin use significantly reduced in the experimental group but not in the waiting list control group and, moreover, were more likely to subsequently engage successfully into comprehensive methadone maintenance treatment.

The issue of interim methadone prescribing was subsequently discussed at various National Association of Opioid Treatment Providers (NAOTP) meetings over the next three years and support was given by the Association to a number of service development projects related to the provision of interim prescribing of methadone in various regions for the purpose of generating New Zealand data. A protocol developed primarily by Dr Alistair Dunn guided one of the first of these projects in Whangarei (Dunn 2003). This protocol was then influential in other demonstration projects.

Outcomes from six service development projects related to interim prescribing (Whangarei – Alistair Dunn, Wanganui – Tracey Fearn, Palmerston North – Martin Schroder, Nelson – Lee Nixon, Christchurch – Elle King, Dunedin – David Mellor) along with consumer opinion, were presented and discussed at a one-day conference in Wellington, December 15<sup>th</sup> 2005. A draft set of IMP guidelines was subsequently developed in the light of the literature and this New Zealand clinical and consumer experience.

At the outset of 2006, the results of a second randomised controlled trial of IMP appeared in the Archives of General Psychiatry (Schwartz et al 2006). This study largely replicated the first study by Yancovitz et al 1991 as well as confirming the draft New Zealand guidelines that had been developed at that stage. The main difference was that the draft guidelines were for a maximum dose of 60mg per day, whereas the Schwartz et al (2006) trial described a target dose of 80mg with further increases possible on an individualised basis. A conservative approach was decided by the NAOTP group to be the best strategy here in New Zealand in the first instance and 60mg was retained as the maximum dose for the IMP guidelines to begin with.

In 2007 the guidelines were finally adopted as formal policy of the MOH (MOH 2007). However, not all regions of New Zealand were willing to adopt the guidelines, despite the evidence for the effectiveness and safety of IMP. As a result, waiting lists have continued to be a feature of a number of methadone programmes in New Zealand, although the waiting times have been reducing from

months-years to weeks-months. A letter issued to all District Health Boards by the MOH, 25 October 2007 made it clear that the MOH will not tolerate waiting lists for OST any longer.

## **1.5 Current work**

Questions remain about how much real unmet need there is for OST services in New Zealand as well as questions about the changing nature of intravenous drug use in New Zealand.

The National Addiction Centre was contracted in 2007 to undertake work related to six key research questions (RQ) as follows:

- RQ1. How many people in New Zealand have opioid dependence (given the estimate in 1996 of 13,500 – 26,600) including consideration of opioid dependent people in prison?
- RQ2. How many people with opioid dependence want treatment and in what form?
- RQ3. What (if any) are the barriers to people with opioid dependence gaining the treatment they want?
- RQ4. How many people are being treated using opioid substitution treatment (OST) in New Zealand, including the numbers of clients on authority to GPs and the number who have been discharged to ongoing GP care?
- RQ5. How many people are waiting for OST treatment and how long (in time) are waiting lists for OST in the various treatment programmes?
- RQ6. What has been the influence of the “methamphetamine epidemic” on the prevalence, presentation and treatment of people with opioid dependence in New Zealand?

Three sections to the overall project were initially formulated to address these questions as follows:

1. Literature review
2. Survey of people with opioid dependence
3. Survey of treatment programmes

To these was added a further section as an additional way of using converging data to estimate the current population prevalence of opioid dependence in New Zealand. This was:

4. Analysis of extant New Zealand epidemiological data

## **2.0 LITERATURE REVIEW**

To set the scene for the two surveys as well as augment the data collected in these two surveys a literature review was undertaken, which examined three areas concerning opioid dependence: (i) epidemiological methods for determining population prevalence of drug dependence; (ii) international trends in opioid dependence prevalence and innovations for opioid substitution waiting lists; and (iii) the influence of the “methamphetamine epidemic” on the prevalence, presentation and treatment of opioid dependence. The full review is to be found in Appendix One.

### **2.1 Summary of literature review**

Opioid dependence is related to personal and social harm. The ability to prevent and reduce harm associated with opioid use relies on valid methodology and up-to-date information on the prevalence of opioid use and related problems. Direct methods of estimating prevalence such as those based on population surveys are likely to underestimate the prevalence of opioid use, and may do so to a substantial degree. While a variety of indirect methods have been devised for estimating opioid use, not one is without limitations. In the absence of a ‘gold standard’ convergence of estimates obtained from a variety of analytical methods and data sources is likely to give the most accurate results.

The majority of the research typically estimates the prevalence of opioid use but less is known about the prevalence of opioid abuse or dependence. Current research suggests that the worldwide use of opioids increased over the 1990s and has remained stable since 2000, and that New Zealand appears to have a high rate of opioid use in general relative to many other countries.

Opioid substitution is a harm reduction strategy which has a strong evidence-base for the treatment of opioid dependence. However, the number of opioid dependent individuals on waitlists for comprehensive opioid substitution treatment and the time on waitlists is a significant problem. Increased utilisation of general practitioners (GPs) is currently the primary strategy for reducing waiting list times for comprehensive opioid substitution treatment including interim prescribing and private treatment.

An additional concern facing the presentation and treatment of opioid dependence is the “methamphetamine epidemic”. It appears that many opioid users also use amphetamines and for some amphetamines may be a gateway into opioid use. The use of amphetamines in addition to opioids increases the risk of physical harm and complex psychopathology and is related to worse treatment outcomes. Additional or alternative treatment strategies may need to be adopted for individuals who present with problematic use of both opioids and amphetamines.

## **3.0 SURVEY OF PEOPLE USING OPIOID DRUGS**

### **3.1 Introduction**

A face to face survey of up to 100 people with opioid dependence recruited by a snowball technique from three venues - Auckland, Tauranga and Christchurch - was decided upon as the best pragmatic method of collecting New Zealand data that could relatively quickly provide an estimate of the prevalence of opioid dependence. This survey, therefore, primarily aimed to provide an answer to research question 1 (RQ1) related to estimating how many people in New Zealand have opioid dependence. Data from the survey aimed to provide this estimate using the multiplier method based on treatment data consistent with the research by Kraus and colleagues (2003) (see Appendix 3, Section 1.2.4.1). This survey also aimed to provide answers to RQ2 (number seeking treatment) and RQ3 (barriers to treatment).

### **3.2 Research team**

A research team consisting of Doug Sellman, Simon Adamson, Daryle Deering, Charles Henderson, Rhonda Robertson and Sheridan Pooley developed the materials for the survey including a Multisite Ethics application and survey questionnaire (see Appendix Two). Following ethics approval, further researchers in Auckland (Kelly Cockle) and Christchurch (Barbara Blackler) were recruited for surveying and several months later in Tauranga (Paul Zammit).

### **3.3 Methodology**

Subjects were recruited from two sources, OST programmes and needle exchange services, in the three cities, Auckland, Tauranga and Christchurch. Subjects recruited from needle exchange services were those who were using opioid drugs daily or almost daily, consistent with the pattern of opioid use of those on methadone programmes who were being dosed with methadone on a daily basis.

The snowball technique had several features to it. Firstly, it was initiated at each venue by the selection of four participants from the specialist OST programme and four participants from the

needle exchange programme using the following grid: two participants under the age of thirty/two over the age of thirty; two men/two women; and at least one of the four identifying as being Maori.

Each of these four participants were subsequently interviewed, which included the following three questions:

Q141. How many people on the methadone programme (here in AK/Tauranga/ChCh) do you know personally?

Q142. How many opioid users (people who use daily or almost daily) who aren't on the methadone programme (here in AK/Tauranga/ChCh) do you know personally?

Q143. How many of those (141 + 142) do you think would like to be involved in this survey?

The answer given to Q143 guided the researcher in terms of the number of pamphlets to give to the participant to distribute amongst those people who were known personally and five extra pamphlets were given as well. The pamphlet (see Appendix 3) was the way in which new participants could hear about the survey and access it through an 0800 number. Gold coloured pamphlets were distributed to those who were identified through the methadone starting point and white coloured pamphlets through the needle exchange, which along with the ID number of the person interviewed allowed for the specific tracking of the snowball pattern as it emerged.

### **3.3.1 Multiplier estimate (RQ1)**

Answers to Q141 and Q142 were the key data used to derive a “multiplier” that could then be used to make an estimate of the total opioid dependent population based on the number of clients being treated on methadone programmes. The survey was able to determine the proportion of opioid users who were in methadone treatment and the proportion of opioid users not in treatment. These proportions provide the “multiplier” which is then applied to the number of people nationally who are known to be in methadone treatment to yield the total number of people who are daily or almost daily users of opioids ie the total number of people nationally who have opioid dependence. An analysis of the two main stems to the survey – methadone programme and needle exchange – allowed for a check of adequate penetration of the snowball technique undertaken.

### **3.3.2 Number seeking treatment (RQ2)**

The questionnaire contained a number of questions about treatment and treatment seeking from:

Q89. Have you ever been on a methadone programme? through to Q99. Have you ever wanted to get on the methadone programme but for some reason couldn't or didn't?

### **3.3.3 Barriers to treatment (RQ3)**

Participants were first asked at Q87. Could methadone programmes be improved in New Zealand? And then if Yes, are asked at Q88. What are three main things that could help improve the effectiveness of methadone programmes in New Zealand? At Q100, they were asked, How long does it currently take to get on the methadone programme following assessment in your region? This is followed by Q101. How long do you think it should take to get on the methadone programme following assessment? Finally, participants are asked to rate on a 5-point Likert Scale (Not at all, A little, Moderately, A lot, Extremely) the following 13 potential barriers that put people off coming onto the methadone programme:

- Having to have an assessment
- Having to go on a waiting list for methadone
- Random urine drug screening
- Having to have counselling
- Restricted takeaways
- Needing to mix with other opioid users/drug users
- Having to go to a chemist every/most days
- Being tied to staying in one place
- Being given methadone as the only opioid substitution option
- Potential driving restrictions
- Being a registered drug addict
- Being worried about confidentiality of health information
- Other

## 3.4 Description of the sample

### 3.4.1 Demographics

Ninety-seven regular opioid users were interviewed as follows: Auckland n=21, Tauranga n=33, Christchurch n=43. Demographic information about these 97 participants is outlined in Table 1. The mean age of 37.5 years is close to the mean age of clients (35 years), generally being treated in New Zealand treatment services (Adamson et al 2006). No differences in current age or age when first used drugs intravenously were found in terms of gender or ethnicity.

**Table 1: Demographic information about a sample of regular opioid users recruited through a two-armed snowball technique in Auckland, Tauranga and Christchurch, n=97**

Age (years)	range 16 – 58, mean 37.5 (sd 9.1), median 37	
		%
Gender	male	55.7
	female	43.3
	transgender	1.0
Ethnicity	Maori	21.6
	Pacific	1.0
	Pakeha	61.9
	Other	15.5
Country of birth	New Zealand	85.6
	Other	13.4
Ever been on a methadone programme	Yes, on one now	45.3
	Yes, in the past	18.5
	No, never	36.1

Of those who were currently on a methadone programme, 45.5% were being treated for the first time. Those who had ever been on a methadone programme were significantly older than those who had never been on a methadone programme (39.5 years (8.8) vs 33.8 years (8.4),  $df=74$ ,  $p=0.003$ ), but there was no difference in the age at first intravenous drug use across these two groups.

Table 2 shows the OST history of participants according to whether they were recruited via the methadone arm or the needle exchange arm of the study. The proportion of people never on methadone was higher in those recruited through a needle exchange (44.8%) compared with recruitment through a methadone programme (17.2%), while the proportion of people currently on

methadone recruited through the needle exchange arm (35.8%) was lower than the proportion recruited through a methadone programme (65.5%).

**Table 2: The distribution of participants in terms of their OST history in relation to which arm of the study they were recruited from (n=96)**

<i>Arm</i>	<i>Currently on methadone</i>	<i>On methadone in the past, but not now</i>	<i>Never on methadone</i>
Methadone	19	5	5
Needle exchange	24	13	30

### 3.4.2 Drug use patterns

The age at which subjects first injected a drug ranged from 13 to 40 years old, with a mean of 19.4 (median 18).

Table 3 shows that the most commonly reported drug first injected by the sample was heroin, which is perhaps surprising given the general lack of imported heroin in New Zealand. An opioid of some sort was reported by 85.6% of the sample. This does not include two respondents in the Other category who used a combination of morphine/cocaine and morphine/rohypnol. The third Other respondent used Valium. Other stimulants reported were two who used Ritalin and two who used Cocaine. Only seven subjects reported the use of Amphetamines (Crystal, Pure, Speed, P) as their first drug ever injected.

**Table 3: Drug first injected, n=95**

	<i>%</i>
Heroin	27.8
Morphine	21.6
Opium from poppies	17.5
Homebake	5.2
Temgesic	5.2
Methadone	3.1
Other opioid	5.2
Amphetamines	7.2
Other stimulants	4.1
Other	3.1

The majority were introduced to injecting drugs by someone they knew well; 76.0% by a friend or partner, and 14.6% by a family member. The remaining 10% were various acquaintances, hospital experiences or alone. A minority (15.6%) said that the person who introduced them to injecting drugs subsequently became their dealer.

Table 4 shows the range of injecting drug of choice is a somewhat different pattern to that of participants' drug of first use. Heroin and morphine remain the highest two on the list, but opium from poppies drops away from being the third most common first drug of use (Table 2) to virtually zero in terms of injecting drug of choice, with only one participant citing it (in the Other category). In this sample, amphetamines remain much less preferred than opioid drugs in being the preferred drug of choice of only four participants. The Other category of drugs included omnopom, opioid generically, Ritalin (two subjects), heroin and cocaine cocktail (one subject) and heroin and mandrax or Rohypnol mixed (one subject).

	%
Heroin	33.3
Morphine	32.2
Homebake	12.5
Methadone	9.4
Amphetamines	4.2
Other	8.4

Subjects were finally asked when the last time they injected drugs was. This ranged from 0-365 days. 71.9% had injected in the past 24 hours (and recorded as 0 days), 19.8% had injected within the past week and 7.3% had last injected a week or more prior to interview. Significantly more currently receiving OST had not injected in the past 24 hours compared with those not currently in treatment (50.0% vs 20.5%, Chi square=7.38, df 2, p=0.025).

The severity of opioid dependence was measured using the Severity of Dependence Scale (SDS) (Gossop et al 1995), a 5-question instrument with four reply options (never/almost never, sometimes, often, always/almost always) scored 0-3 giving a total of 0-15. Two comparison groups of opioid users are described as follows: firstly, 222 clients on a Sydney methadone maintenance programme had a mean SDS of 5.2 (sd 5.0), median 5; and the second group was 408 London heroin users with a mean SDS score of 8.7 (sd 4.0), median 9. This current mixed sample of opioid

users both on methadone and not in treatment had intermediate statistics of a mean SDS score of 5.6 (sd 3.4), median 6, although closer to the Sydney methadone maintenance programme group.

Table 5 shows the range of drugs that were last injected. None cited heroin and nearly a third cited methadone. Amphetamines remain less than 10%.

	<i>%</i>
Morphine	45.3
Methadone	30.5
Homebake	4.2
Amphetamines	5.3
Other stimulant	8.4
Other	6.3

This ends the description of the user group survey sample. Data from the user survey specifically answering the research questions are described below in Chapter 5, following an outline of the specialist services survey.



## **4.0 OPIOID SUBSTITUTION TREATMENT SERVICES (SPECIALIST SERVICES) SURVEY**

The Specialist Services survey was designed to complement the survey of people using opioid drugs and to provide information on the following research questions from a Specialist Service provider perspective:

- RQ3. What are the barriers to people with opioid dependence gaining the treatment they want?
- RQ4. How many people are being treated using opioid substitution (OST) in New Zealand, including the numbers of clients on authority to general practitioners (GPs) and the number who have been discharged to ongoing GP care?
- RQ5. How many people are waiting for OST and how long (in time) are waiting lists in the various treatment programmes?
- RQ6. What has been the influence of non-opioid use, including the “methamphetamine epidemic” on the prevalence, presentation and treatment of people with opioid dependence in New Zealand?

### **4.1 Questionnaire development**

The questionnaire development was co-ordinated by Daryle Deering with input from project team members Doug Sellman and Simon Adamson (National Addiction Centre), Janie Sheridan (University of Auckland), Charles Henderson (Needle Exchange Programme), Sheridan Pooley and Rhonda Robertson (Aotearoa Alcohol and other Drug Consumer Network.). In addition, an early draft was provided for the South Island Consumer Advisor, Marc Beecroft and discussed with the members of the National Association of Opioid Treatment Providers (NAOTP). Feedback from Consumer Advisors and NAOTP provided input for the final draft, see Appendix 3.

### **4.2 Data collection**

The most efficient process of data collection in order to ensure the highest level of accuracy was agreed with NAOTP members. Surveys were sent out to all clinical managers/team leaders and clinical directors/senior medical staff of the 18 Specialist OST Services, as well as one approved

medical practitioner/service, a minimum of two weeks prior to the interview, in order to allow them to prepare requested information. The survey was undertaken between October 2007 and March 2008. Telephone interviews were conducted by an independent nurse with significant prior experience working as a clinician within a OST programme as well as extensive research interviewer experience with each service's clinical manager or team leader. Where "hard data" were not available, the research interviewer emphasised the importance of the respondent's best estimate based on what information was available.

The 18 specialist OST services in New Zealand from North to South are as follows:

Northland

Auckland

Waikato

Tauranga

Tairāwhiti

Napier Hawkes Bay

Midcentral

Lakes DHB

Taranaki

Wanganui

Wairarapa

Wellington

Nelson/Marlborough

Christchurch

West Coast DHB

Timaru

Otago

Southland

## 5.0 RESULTS

This section of the report is structured around the original six research questions. However, these have been re-ordered. This is mainly because the number of people currently being treated with OST in New Zealand are required to make an estimate of the total prevalence rate of opioid dependence as described below.

### **5.1 How many people are being treated using opioid substitution treatment (OST) in New Zealand, including the numbers of patients on authority to GPs and the number who have been discharged to ongoing GP care? (RQ4)**

Data from the service survey on the number of people receiving OST according to specialist service provider are shown in Table 6 below. A total of 4,608 clients are receiving OST in New Zealand. Eighteen specialist services provide treatment for 4,400 clients, including 87 individuals who are in prison and 932 on GP Authority (22%). GP Authority means that the client is seen in primary care and provided a methadone prescription by the GP along with ongoing care for all other health concerns, but the control of the methadone prescription remains with the specialist clinic, which authorises the prescription on a three-monthly basis. Another 208 clients receive OST from approved medical practitioners/services in Christchurch (123) and Tauranga (85). Therefore overall, 1140 (25%) clients receive OST within primary care settings. The Christchurch Specialist Service has the highest proportion of clients receiving OST through GP authority (40%). When the numbers of clients being prescribed for directly through a gazetted GP programme in Christchurch (123), the Christchurch total of OST clients is 688, of whom 354 (51%) are prescribed for by GPs, the only region which is at the current Ministry of Health guideline of 50%. Christchurch Dunedin and Auckland reported the highest numbers prescribed for in prison, 20, 17 and 10 respectively.

**Table 6: Number of clients receiving opioid substitution treatment in New Zealand via Specialist Services (n = 18)**

<i>Services/DHB</i>	<i>Total (n = 4400)</i>	<i>Specialist Service (n = 3463)</i>	<i>GP Authority (n = 932)</i>	<i>% GP Authority</i>
Auckland	1089	809	280	26
Christchurch	565	334	231	40
Wellington	374	306	68	18
Nelson/Malborough	338	265	73	22
Otago	317	282	35	11
Midcentral	305	266	39	13
Waikato	289	260	29	10
Northland	215	177	38	18
Taranaki	140	103	37	26
Napier Hawkes Bay	123	95	28	23
Wanganui	113	87	26	23
Tauranga	107	102	5	5
Wairarapa	91	85	6	7
Southland	91	81	10	11
Timaru	81	64	17	21
Lakes DHB	69	67	2	3
West Coast DHB	63	51	12	19
Tairāwhiti	30	29	1	3
<b>Total</b>	<b>4400</b>	<b>3463</b>	<b>937</b>	<b>21%</b>

In total, 542 admissions were reported for the previous 12 months. Table 7 provides a summary of admissions by service/DHB.

**Table 7: Number of admissions to OST in the previous 12 months by service/DHB (n=542)**

<i>Service/DHB</i>	<i>Number of Admissions</i>
Auckland	134
Wellington	68
Christchurch	56
Midcentral	40
Waikato	30
Taranaki	28
Otago	25
Napier Hawkes Bay	23
Nelson/Malborough	23
Northland	22
Wanganui	19
Timaru	19
Tauranga	15
West Coast DHB	12
Southland	12
Lakes DHB	7
Wairarapa	6
Tairāwhiti	3

## **5.2 How many people are waiting for OST treatment and how long (in time) are waiting lists for OST in the various treatment programmes? (RQ 5)**

These data were also obtained from the specialist service survey. Accessibility for admission to OST was estimated in waiting time only, as the number of individuals waiting for admission was generally too difficult for services to accurately ascertain.

Table 8 presents waiting times for assessment following initial presentation, and from assessment to first opioid substitution dose for a person not meeting special priority criteria such as pregnancy, by specialist service. As can be seen from this Table, waiting times varied, and some services arranged interim prescribing in order to provide accessibility. One service could not provide an estimate, advising that... *no medical time was available, no pharmacy was willing to take more clients and the service had no resources to take on more clients.*

Responses highlighted that variations in duration between first point of contact and admission to OST may be influenced by multiple factors. These include: staff availability, medical officer availability; clients attending all scheduled appointments; waiting for urinalysis results (eg 10 – 15 days wait for results and three urine tests required); availability of pharmacists and how prepared/able individuals are to travel in rural areas.

The waiting time in days for the last three clients (identified by each service) from first contact to first opioid substitution dose was estimated by all eighteen services except one, which provided an estimate for the past two clients, making a total of 53 clients. The median waiting time was found to be 30 days (range 2-290). Of these clients 16/53 (30.2%) met the criteria for admission within 14 days. Four clients had their admission to OST delayed for substance use related reasons.

Forty-nine out of region clients were estimated to be awaiting a treatment place on 11 of the 18 Specialist Programmes. These included: Otago 12 clients; West Coast nine clients; Northland seven clients; Tauranga four clients; Midcentral, Wanganui, Taranaki Christchurch and Southland three clients each; and Tairāwhiti and Nelson/Marlborough one client waiting in each service.

**Table 8: Estimated waiting time in days for assessment and from assessment to receiving first opioid substitution dose for clients not meeting priority criteria by specialist OST provider (n=18)**

<i>Service</i>	<i>Total days</i>	<i>Days for Assessment</i>	<i>Days from Assessment to dose</i>
Otago	260 *	35	225
Wellington	151	1	150
Taranaki	104	14	90
Christchurch	94	10	84
Northland	59 *	14	45
Midcentral	56 *	14	42
Wanganui	52	7	45
Nelson/Malborough	44 *	14	30
Timaru	40	10	30
West Coast DHB	**	8	**
Wairarapa	37	7	30
Southland	34	4	30
Tauranga	28 *	7	21
Napier Hawkes Bay	22 *	8	14
Lakes DHB	22	7	15
Waikato	14	7	7
Auckland	11	4	7
Tairāwhiti	4	0	4

\* Would arrange interim prescribing

\*\* Not taking admissions as no medical time, no pharmacy willing to take on more clients and the service had no resources to take on more clients.

### 5.2.1 Interim methadone prescribing (IMP)

A total of 46 clients were provided with interim prescribing in the past 12 months via the following specialist services:

- Otago 29 clients
- Northland 12 clients
- Hawkes Bay 4 clients
- Tauranga 1 client

In addition, Nelson/Marlborough reported providing IMP via the specialist clinics, although the number was not provided.

In regard to arranging interim methadone for individuals who were required to wait longer than the guideline of two weeks for admission to OST, five respondents said that their service had no

waiting list (Auckland, Waikato, Tairāwhiti, Wairarapa, Southland) and therefore interim prescribing was not necessary. Of the six respondents who advised that their service offered interim prescribing (Northland, Hawkes Bay, Midcentral, Tauranga, Dunedin, Nelson/Marlborough), one respondent commented that this would be provided via the specialist service if there was an admission delay and the client was known (Hawkes Bay), another said if there was a five week wait their service arranged interim prescribing (Northland) and another (Midcentral) said if an individual had an established GP who was willing that they would arrange interim prescribing.

Seven respondents said that their service would not/does not offer interim prescribing (Lakes DHB, Wanganui, Taranaki, Wellington, Christchurch, Timaru, West Coast DHB) The following reasons were provided:

- *Hides resource issues - funding proper treatment not low dose*
- *Services should be working to get more resources*
- *Would assess and admit to the programme*
- *It is not in our policy guidelines*
- *Clinical director doesn't approve*
- *No GPs willing*

### **5.3 How many people in New Zealand have opioid dependence, including consideration of opioid dependent people in prison?**

#### **5.3.1 “Multiplier” estimate**

The “multiplier” estimate refers to an indirect method of estimating a population prevalence of a disorder. The “multiplier” is the number that is used to estimate a total population prevalence of a disorder, in this case opioid dependence, based on the number with that disorder who are currently in treatment (OST). Two questions in the user survey (Q141 and Q142) provided the data on what the “multiplier” could be estimated to be in New Zealand (see Appendix One for more in-depth discussion of the “multiplier” method). The main assumption here is that the sample obtained in this study is representative of the total population of people with opioid dependence in New Zealand.

The number of other people that participants said they knew personally who were currently receiving OST (Q141), and other people who were regular opioid users (daily or almost daily) but not receiving OST (Q142) varied widely from 0-200 for currently receiving methadone and 0-400

for not currently receiving methadone. It is important to note that “knowing personally” was carefully surveyed in that the participant was encouraged to use their own definition consistently for each question. There were missing data for four participants. Table 9 outlines the findings for Q141 and Q142 respectively.

**Table 9: The number of people each participant said they knew personally who were currently receiving OST and who were regular opioid users (daily or almost daily) but not currently receiving OST (n=95)**

Currently receiving OST	range 0-200, mean 20.0 (27.5), median 10
Not currently receiving OST	range 0-400, mean 24.1 (51.4), median 7

There were nine further participants who said they did not know anyone currently receiving OST, or who said they didn’t know anyone who was a regular opioid user but not receiving OST. They were excluded from the analysis leaving a sample size of 86 (Auckland n=15, Tauranga n=24, Christchurch n=27). The multiplier obtained for this sample of 86 participants is 2.16.

It is important to note that there was no difference in the multiplier when comparing those who had been recruited from the needle exchange arm versus the OST programme arm of the snowballing technique (2.14 vs 2.22, p=0.73) which indicates that the research method resulted in adequate penetration of the broader opioid user population and no significant bias introduced by the method, in particular the ratio of OST : needle exchange initial recruits.

Table 10 outlines the multiplier obtained in terms of the methadone status of participants, that is whether they were currently receiving OST, had received OST in the past but not currently, and finally those who had never received OST. As would be expected, the multiplier estimate is significantly higher in those who have never been on methadone compared with those currently on methadone, with those who have been on methadone in the past intermediate between the two (F=3.61, df 2, p=0.03), which is further validation of the estimates obtained in this sample.

**Table 10: Multiplier estimate obtained from participants of different OST status (n=86)**

	<i>n</i>	<i>Mean</i>	<i>(sd)</i>	<i>95% CI</i>
Currently on methadone	37	1.84	(0.77)	1.59 – 2.09
Methadone in the past	17	2.27	(1.42)	1.60 – 2.95
Never on methadone	32	2.47	(0.96)	2.14 – 2.80
Total	86	2.16	(1.03)	1.94 – 2.38

Table 11 outlines the multiplier obtained in terms of the different locations from which the participants for the survey were recruited: Auckland, Tauranga and Christchurch. The multiplier estimate is significantly higher in Christchurch compared with the other two research locations (F=4.74, df 2, p=0.01).

**Table 11: Multiplier estimate obtained from participants of different research location (n=86)**

	<i>n</i>	<i>Mean</i>	<i>(sd)</i>	<i>95% CI</i>
Auckland participants	19	1.83	(0.46)	1.62 – 2.04
Tauranga participants	30	1.90	(0.77)	1.63 – 2.18
Christchurch participants	37	2.53	(1.29)	2.12 – 2.95
Total	86	2.16	(1.03)	1.94 – 2.38

The population estimate of those in New Zealand with opioid dependence based on this multiplier of 2.16 (95% CI 1.94 – 2.38) using data from the parallel specialist service survey showing the current OST number in New Zealand is 4,608, is therefore 9,953 (95% CI 8,940 – 10,967).

This 9,953 estimate is a community estimate and would not include the numbers of people in prisons with opioid dependence, where a higher prevalence rate of opioid dependence is anecdotally thought to exist. The numbers of people in prison with opioid dependence should be added to the community estimate to give a more complete national prevalence of opioid dependence.

### 5.3.2 Prison estimates

The prevalence of opioid dependence in New Zealand prisons has been determined previously from research conducted by Brinded and colleagues, which began with a pilot study (Brinded et al 1995). In this pilot work, the lifetime prevalence of opioid dependence was found to be an astoundingly high 31.2% and current use of opioids at 14.5%. However, the full national survey using a

structured clinical interview that lumps drugs other than alcohol and cannabis together (the CIDI-A) found a somewhat lower estimate. 3.6% were found to have abuse or dependence to another drug other than alcohol or cannabis (excluding nicotine) (Brinded et al 2001). When these data are further analysed, as they were for a report for the Department of Corrections (Simpson et al 1999), only 13.8% of these diagnoses were opioid related which indicates a current opioid abuse/dependence rate in prisons of 0.5%. If half of this morbidity opioid dependence then this study's estimate for the current prevalence rate of opioid dependence in prisons is 0.25%.

The current number of beds in New Zealand prisons is listed as 9010 (Wikipedia 2008). Extrapolating these proportions to the current day and assuming that there are close to 9000 current prisoners, the numbers of people with opioid dependence in New Zealand prisons currently would work out as only 23. However, the numbers of people now being treated with OST in prison was estimated in the current service survey as 87, which makes the National Prison Study estimates based on the CIDI-A somewhat suspect.

### **5.3.3 Te Rau Hinengaro estimate**

Between 2003 and 2004 a random population sample of 12,992 New Zealanders aged 16 and over was interviewed for Te Rau Hinengaro: The New Zealand Mental Health Survey (Oakley-Browne et al 2006). This was a household survey and interviews were face-to-face. Investigators achieved a 73.3% response rate and employed a design that was considered to be a nationally representative sample.

Areas covered by the interview included substance use and substance related disorders. All respondents were asked if they had used substances in a range of categories and were then assessed, using the CIDI diagnostic interview, for substance abuse. Only those meeting criteria for abuse for a given substance category were then assessed for dependence for that category. Substance use and diagnoses were identified for two timeframes: past 12 months and lifetime.

Substance use was enquired about using the following categories; alcohol, marijuana, cocaine, prescribed medication, opioids or heroin, and other. Prescribed medication included prescribed opioids but also includes medications such as benzodiazepines and methylphenidate (Ritalin). For the purposes of this report both the opioids or heroin and the prescribed medication use categories are of interest.

Substance diagnoses were made based on the following categories; alcohol, marijuana, and drug. For the purpose of this report it is the rates of drug dependence which are of interest.

The diagnosis of drug dependence excludes alcohol and nicotine but is undifferentiated for the remaining drug types (although marijuana dependence rates are also reported); that is to say a rate of opioid dependence is not generated and so an approximation of opioid dependence for the sample is the best that can be obtained. This can be done by looking at those with a 12 months drug dependence (i.e. meeting criteria for drug dependence in the past 12 months) and also reporting some opioid use in the past 12 months. This set can be enlarged by including those reporting some use of prescription medicines in the past 12 months.

### 5.3.3.1 *Prevalence of Substance Use and Substance Use Disorders*

For the sample as a whole the 12 month prevalence rates (and 95% confidence interval) for substance disorders was as follows:

#### 12 months prevalence of substance use disorder

Substance use disorder	% prevalence	95% CI
Alcohol abuse	2.6	(2.3-3.0)
Alcohol dependence	1.3	(1.1-1.5)
Drug abuse	1.2	(0.9-1.4)
Drug dependence	0.7	(0.5-0.9)
Marijuana abuse	0.9	(0.7-1.1)
Marijuana dependence	0.5	(0.3-0.6)

Note: Drug abuse and dependence are inclusive of marijuana abuse and dependence

#### 12 months prevalence of substance use

Substance use	% prevalence	95% CI
Opioids	0.3	(0.2-0.5)
Prescribed medications	1.2	(1.0-1.5)
Opioids or prescribed medications	1.3	(1.1-1.6)

#### 12 months prevalence of substance use for those with 12 months drug dependence

Substance use	% prevalence	95% CI
Opioids	0.08	(0.03-0.17)
Opioids or prescribed medications	0.23	(0.15-0.36)

The proportion of the sample with drug dependence and who used opioids in the past twelve months was 0.08% (95% CI: 0.03-0.17). The proportion with drug dependence and who used either opioids or prescription drugs was 0.23% (0.15-0.36).

Thus the Te Rau Hinengaro data provides an upper and lower estimate of the 12 month prevalence of opioids dependence in the surveyed sample as being between 0.03% and 0.36% (using confidence interval extremes) or between 0.08% and 0.23% (using prevalence estimates). With a total New Zealand population aged 16+ of 3,178,000 (Department of Statistics 2008) these figures translate to those contained in the following table:

12 months prevalence of substance use for those with 12 months drug dependence: estimated number of New Zealanders aged 16+

Substance use	Population size	95% CI
Opioids	2622	(983-5573)
Opioids or prescribed medications	7539	(4917-11800)

### 5.3.3.2 Treatment utilisation

Also of note is that the Te Rau Hinengaro survey asked about treatment contact in relation to substance use. Ten respondents were drug dependent and using opioids, four of whom reported some treatment contact in the past year, i.e. 40% (95% CI 10.2-75.5), while 30 respondents were drug dependent and using opioids or prescription drugs, nine of whom reported treatment contact, ie 30% (13.5-50.1).

The rate of treatment utilisation is higher for drug dependent opioid users than for any other group. While this group is particularly small (n=10) and therefore subject to sampling error the rate of treatment utilisation for substance users (irrespective of substance use disorder) reinforces this point: of 38 past 12 month opioids users 28.7% (95% CI: 11.6-51.8) received professional treatment in the preceding 12 months, with the next highest groups being cocaine users (11.2%, 2.0-30.9) and other drug users (9.7%, 4.8-16.8). Concerns that the prescribed medication group might not include a significant proportion of opioids users are reinforced by disparate rate of treatment utilisation in this group (6.8%, 3.4-12.0). Opioid dependent individuals being *prescribed* opioids may not consider themselves in need of treatment and therefore may be less likely to seek assistance. However, the majority of such individuals should be receiving this prescribing from an opioid substitution clinic and therefore have identified this as receiving professional treatment for the

purpose of the survey as, indeed, might a significant proportion of those prescribed opioids via other means, such as those prescribed opioids by a GP ostensibly for the treatment of pain.

### **5.3.3.3**     *Limitations*

The figures provided here should be interpreted subject to several critical limitations. Firstly, the low base rate of opioid use and dependence causes wide confidence intervals, even with a sample population as large as for Te Rau Hinengaro.

The response rate of 73.3%, whilst comparable to other national surveys, is likely to disproportionately influence representivity of a population such as opioid dependent drug users given psychosocial instability and distrust of authority. Compounding this is the absence of prison and inpatient populations, which will disproportionately exclude opioid dependent drug users.

The final area of concern is with the interview format. The abuse criteria skip rule is likely to lead to an underestimate of dependence rate, as acknowledged by the authors (Wells et al, 2007) while the ambiguity of the "prescribed drug" category means that it is impossible to know what proportion of opioid using respondents are captured by the "opioid use" category.

### **5.3.3.4**     *Conclusions*

Te Rau Hinengaro does provide an opportunity to examine rates of opioids dependence in the general population. The ability to recruit a representative number of such individuals is severely limited however by considering the response rate in conjunction with the characteristics of the opioid dependent population in New Zealand.

The limitations outlined above identify several factors that could lead to the survey underestimating the true population prevalence and one factor that will have the effect of over-estimation. This later factor is the failure of the diagnostic categories to separate opioid dependence from other drug dependences (excluding alcohol and nicotine). This problem was tackled in the analyses above by limiting the sample to past 12 month opioids users. The high rate of treatment utilisation in the resulting subset is consistent with the resultant subset including a high proportion of opioid dependent individuals. Therefore the estimated prevalence for this group (0.08%) is held to be a more likely lower bound than the lower confidence interval figure (0.03%). This produces a population estimate of 2622, which given the limitations outlined can be taken as a lower estimate of the true population size. An upper population estimate cannot be generated from the survey data,

as the larger figures were generated using the combined opioids and prescribed medications use categories, with the latter category highly likely to contain a high proportion of non-opioid users.

It is noted that the lower estimate provided here is in fact exceeded by the number of opioid dependent individuals engaged in methadone maintenance treatment.

#### **5.3.4 New Zealand Health Behaviours Survey 2003 Estimate**

The 2003 *New Zealand Health Behaviours Survey – Drug Use* (Ministry of Health, 2007) interviewed 8095 New Zealanders aged 13-65 using a computer-assisted telephone (landline) interview and achieving a 68% response rate. The survey identified a past year use rate of opioids of 0.4% (95% CI: 0.2-0.6), a figure which is compatible with that found for Te Rau Hinengaro outlined above. It is of note that differences by gender and ethnicity are reported (using age-standardised estimates), with higher rates for males (0.7%, 0.3-1.0) than females (0.2%, 0.1-0.3) and for Maori (0.8% 0.5-1.1) than non-Maori (0.4%, 0.2-0.6).

The survey does not measure frequency of past year use nor estimate rates of substance abuse or dependence. The difficulty of recruiting opioid users as outlined in the discussion of Te Rau Hinengaro would also apply here, with the added limitation that the survey sampled households with a landline telephone only. Although there is a very high penetration of landlines in New Zealand, experience of the current authors in methadone maintenance treatment and researching non-treatment engaged opioid users is that a high proportion (possibly even a majority) do not live at addresses connected by landline.

#### **5.3.5 Conclusion**

Large general population epidemiological surveys such as Te Rau Hinengaro and the New Zealand Prison study, and even those that have a focus on drug use, such as the New Zealand Health Behaviours Survey, produce data on the prevalence of opioid dependence that are clearly gross underestimates of the true population prevalence. Data from the two surveys reported here, the opioid users and opioid specialist services surveys, appear to provide a more valid estimate of the true prevalence rate using the “multiplier” method. This estimate is close to 10,000. However, this estimate refers to people with more severe opioid dependence because it focused on those users who were using opioid drugs daily or almost daily and therefore excluded those with less frequent use who, nevertheless, could still have a degree of opioid dependence.

## **5.4 How many people with opioid dependence want treatment and in what form?**

The sample in the user survey contained 44 participants who were currently on methadone, 35 who had never been on methadone and 18 who had been on methadone in the past, but not currently.

Of the 18 participants who had been on methadone in the past, 11 gave reasons why they are no longer on methadone as follows:

1. *Preferred MST*
2. *CYFS involvement with children*
3. *Didn't need it anymore \**
4. *Went on it to have a 10 day break from heroin*
5. *Had enough of the programme and jumped off 80mgs*
6. *Sick of liquid handcuffs*
7. *Had wanted to come off for ages then had problems with CADS*
8. *Had unreconcilable difference with CADS so walked off*
9. *Didn't like it, didn't work for pain*
10. *Missed appointments and kicked off*
11. *Never gave clean urine and also went to jail*

Of the 35 people who had never been on a methadone programme only seven (20%) said they have ever wanted to get on the methadone programme. Twenty-nine gave reasons for not wanting to get on the methadone programme as follows:

1. *Afraid family and friends would find out especially at work*
2. *Believes it is toxic on your system*
3. *Don't need to, don't have a habit*
4. *Don't want to have to play their games and too many rules \**
5. *Don't like it*
6. *Don't want to be tied down \**
7. *Don't want to be tied down \**
8. *Don't believe I've ever been addicted to a drug*
9. *Don't like what it does to people, it seems worse addiction than morphine to me*
10. *Don't want to be made to follow rules \**
11. *Don't want to get hooked on methadone*
12. *Have never wanted to and never will*

13. *Have a regular very cheap supply of morphine for last two years*
14. *I'm more addicted to alcohol than narcotics*
15. *If I go onto methadone I will have given up ever getting clean*
16. *I take benzos that are given by my doctor, they piss me around \**
17. *Never considered methadone*
18. *Never wanted to and never will*
19. *Never considered it*
20. *Never had a narcotic problem*
21. *Never thought about it*
22. *Only started using this year*
23. *People on the programme have very little control over their addiction or their lives. I don't want to be told to take a full dose everyday, I like to detox occasionally and also like to travel. None of these I could do if I was on the programme \**
24. *Takes too long to get on to it and the case workers etc rule your life, and waiting list too long \**
25. *Too many rules and lies being told \**
26. *Too much control over your life \**
27. *Waiting list too long*
28. *Wanted to do a rehab programme but then they changed the goal post rules \**
29. *Wanted to get off MST but afraid of being robbed*

\* Excessive programme rules and perceived control

It is sobering to note that a third of participants who had never been on methadone made overt comments that related in some way to the perception of excessive programme rules and perceived control. It would appear that one of the key reasons people with opioid dependence do not go on methadone is because of perceived unfavourable programme factors.

From these data it is clear that the people currently not on methadone have serious misgivings about being treated in a methadone programme as they are currently run.

Taking the population estimates of 9,953 and the number current in treatment 4,608, there is an estimated 5,345 people with opioid dependence currently not in treatment. From the data above only 20% clearly say they have wanted to receive OST – an estimated 1,069 people. However, the degree of ambivalence being expressed by everyone in this survey, both in and out of treatment, leads to the conclusion that if certain barriers to treatment can be removed then considerably more

would be attracted to treatment. What are these barriers? These are the described in more detail in the next section.

## **5.5 What (if any) are the barriers to people with opioid dependence gaining the treatment they want? (RQ3)**

Barriers to gaining OST were examined in both the user and the specialist service surveys. There was a considerable degree of agreement between the two sets of respondents about what these barriers are, except for comments about the quality of staff, which were mostly but not entirely user group comments rather than services survey feedback. As will be seen below, the user group identified better treatment by the staff as the highest area of need for improving methadone programmes in New Zealand.

### **5.5.1 Barriers from a user perspective**

These data are divided into two main sections. Opioid users were asked about how methadone programmes could be improved and then later in the survey were given a list of potential barriers and were asked to rate them in terms of how much they thought these put people off coming on to methadone treatment.

#### **5.5.1.1 *How to improve methadone programmes***

Participants were first asked at Q87. Could methadone programmes be improved in New Zealand? And then if yes, are asked at Q88. What are three main things that could help improve the effectiveness of methadone programmes in New Zealand?

Two participants did not answer this question, but of the 95 who did, the majority (76.8%) thought methadone programmes could be improved and only 3.2% thought they could not be, the remainder (20%) said they did not know.

In terms of listing three main things that could help improve the effectiveness of methadone programmes in New Zealand, 79 subjects gave at least one suggestion, 67 gave at least two suggestions and 61 gave three suggestions. These 201 suggestions were assembled into eight groups as shown in Table 12.

**Table 12: Eight groups of suggestions offered by regular opioid users that could help improve the effectiveness of methadone programmes in New Zealand (n=201 suggestions)**

	<i>n</i>	<i>%</i>
Better treatment by staff	57	28.3
Better takeaway arrangements	34	17.0
More flexibility/more peer involvement	29	14.4
Decrease waiting time	24	11.9
Improved general access	11	5.5
Different medication options	11	5.5
Better programme consistency and coordination	6	3.0
Miscellaneous	29	14.4

The four main themes cited at least 20 times by this group of regular opioid users were, better treatment by staff, better takeaway arrangements, more flexibility/more peer involvement and decrease in waiting time.

In terms of waiting time, participants were asked to estimate the time taken following assessment to get on to the methadone programme in their city (Auckland, Tauranga or Christchurch) and then how long they think it should take. The mean length of time estimated to get onto the methadone programme was 4.27 months (sd 5.10) compared with 0.34 months (sd 0.70) as the length of time it should take. In other words, as a group, users perceive waiting times to be a little over four months and consider they should be about 10 days.

The full list of 201 suggestions for improving OST in New Zealand are listed below in the eight respective groupings.

**Better treatment by the staff (28.3%)**

- *Better relationships with the case workers*
- *Case workers are always lying to you*
- *Case workers stay out of your personal life*
- *Case workers treating you as an individual with individual needs*
- *Clinic staff could be more understanding of peoples' needs*
- *Don't listen to gossip and assume the client is guilty of what is said*
- *Get to know clients better, their needs and change criteria for being put on methadone*
- *Getting rid of Dr X, getting someone that knows what they're doing*
- *Increased therapy and psychosocial support including housing and education*

- *Listening to clients' needs*
- *More knowledgeable case manager*
- *More open minded*
- *Staff having knowledge*
- *Staff need to be more tolerant*
- *Staff need to listen*
- *Staff to treat clients as individuals and assess them on a case by case basis*
- *Treat people as individuals*
- *Treating people as an individual, not all the same*
- *Understanding everyone is different*
- *Being able to tell case managers openly and honestly without fear of being knocked back*
- *Better caseworkers*
- *Better relationships with case workers*
- *Better staff attitudes*
- *Better understanding of peoples' needs for their doses, split/doses etc*
- *Caseworkers and doctors better relationships, listen to what they are being told*
- *Caseworkers need to be more realistic, stop talking bullshit and playing god*
- *Caseworkers need to listen instead of judging first, all addicts are not the same*
- *Case workers treat you better*
- *Communication skills*
- *Communications skills*
- *Counsellors too invasive in your life making it difficult to get takeaways etc if going out of town*
- *Have more trust in people on programme*
- *Less controlling*
- *Less crap from your doctor and case worker*
- *Not being treated as a lying criminal first off, get to know you first and then decide*
- *Not tell you one thing then lie and say they never said it*
- *Not to be punished for slip ups*
- *Not treating all clients in the same way*
- *Relationship with your case manager eg trust – some case workers don't know what they are talking about re literature – case workers need to keep up to date*
- *Staff being less judgemental and more cooperative*
- *Staff having a better understanding on the effects of it on your life especially health*

- *The clinic should go out of its way to assist a client if the client is trying to keep on the programme*
- *Treating people as an individual*
- *A more supportive attitude from CADS doctors instead of treating us like criminals*
- *Always being treated as a drug addict not as a person with a recognised illness that needs medications*
- *Being more flexible and listening*
- *Case workers need to be more understanding, better educated, have too much power*
- *Do what they say they are actually going to do*
- *Don't treat me like I'm a naughty school kid*
- *Give CADS staff lessons in manners and how to treat people instead of treating clients as assholes*
- *Keep their appointment times, not leaving us waiting for ages*
- *More empathic staff*
- *More trusting and individualised*
- *More trusting*
- *Not judging a client on their past of 10 years ago*
- *Stop all the bullshit game playing with our lives*
- *Treat people as individuals, we are not the same, our bodies all react differently*

#### **Better takeaway arrangements (17%)**

- *Able to ask chemist for takeaway once a month without asking CADS*
- *Better access to methadone whilst travelling especially overseas*
- *Better access to takeaways*
- *Better takeaway regimes*
- *Easier access to takeaways*
- *Easier to access, more flexible dosing*
- *Easier to get takeaways*
- *Get takeaways faster*
- *Make travel takeaways easier to get, having to give two days notice is ridiculous*
- *More leeway on pickup options ie not having to go to chemist everyday, instead maybe 2-3x per week for people who are stable and have clean urines*
- *More takeaways*
- *More takeaways to normalise people's lives eg work, getting job*

- *More takeaways*
- *No 48 hour requirement for takeaways*
- *Not having to give so much notice, occasional spontaneous pickups would be good*
- *Takeaway being more accessible*
- *Try dosing every second day as a try out*
- *Better access to takeaways*
- *Easier takeaway regime*
- *Easier to get scripted takeaways*
- *Make takeaways easier to get, especially when working*
- *More flexible around takeaways, changing pharmacies*
- *More helpful in accessing methadone when travelling overseas or in NZ*
- *More takeaways for working people*
- *Being able to go on holiday with all your meds, not have to piss about with other chemists*
- *Crap around takeaways and discretionary powers that aren't transparent*
- *Easier to get takeaways*
- *Easier to get takeaways in emergencies eg funerals, out of town etc*
- *Greater flexibility with takeaways eg more than two days in a row*
- *If in case of emergency your pharmacists should be able to dispense up to two takeaways with prior CADS consent, eg for tangi*
- *Make easier to get takeways*
- *Make getting takeaways a lot easier*
- *More takeaways*
- *No takeaways or limited takeaways, this sucks*

**More flexibility and more peer involvement (14.4%)**

- *More self control over dosage*
- *Observed urines*
- *Punitive structure of it all which makes one not want to engage their help*
- *Research – so that everyone has an understanding from us*
- *Research involving us*
- *Stop being so petty regarding cannabis*
- *Tell truth and you get punished*
- *Anything to give us more freedom*
- *Be able to miss a dose without it being a problem*

- *Being able to go to team meetings about my treatment*
- *Don't want to be known as a drug addict*
- *Less urine analysis*
- *Let more of us go out to doctor care*
- *Lying about what you say is confidential and usually its not*
- *More clients need to be involved with the rules, regulations and way programme runs, more client reps*
- *Stop testing for other drugs that they are not addicted to*
- *Too may rules to follow that you don't even know exist*
- *Ability to make my own appointments*
- *Allow us to have a life*
- *Concentrate on opiate use not all drugs ie BZP and drugs that aren't against the law*
- *Make the programme to suit person not person to suit programme*
- *Making people jump through hoops to get on methadone, like 3 clean urines*
- *More flexible for our lives*
- *More open to clients' suggestions*
- *More peers as case managers and support*
- *Not to be punished for being honest like tell truth then lose takeaways, no encouragement to tell the truth with case worker*
- *Only have observed urine testing if there is a need NOT as an automatic requirement, very degrading*
- *Restrictions on other meds including cannabis*
- *Total invasion of your life, you lose a lot of human rights*

#### **Decrease waiting time (11.9%)**

- *Availability, more places on programme waiting list*
- *Easier to get to programmes*
- *Get on it faster*
- *Get onto the programme when you need to*
- *Need to be able to go straight on to the programme and come off if need be*
- *No waiting list*
- *Waiting list shorter*
- *Waiting list too long*
- *Waiting list, getting on programme takes too long*

- *Waiting list, making it shorter*
- *Go straight on the programme*
- *No waiting list*
- *No waiting list*
- *Shorten length of time to get on methadone*
- *Shorter waiting lists*
- *Time frames of when you are to go on the methadone programme kept, not changed all the time*
- *Waiting list needs to be addressed*
- *Waiting list too long*
- *Waiting lists should not be so long*
- *No waiting list*
- *No waiting list*
- *No waiting list time, to be able to go on immediately*
- *Not to put your place back on the waiting list if you miss appointments, not to make you wait longer to get it*
- *Waiting list too long*

**Improved general access (5.5%)**

- *Better access*
- *Better access*
- *Access to programme via GPs*
- *Always have backup case workers instead of their answer phone*
- *Clinic too far away*
- *GP scripts lasting longer than 1 month or GP is allowed to write 2 scripts each visit to cut down on visit costs*
- *Make travel easier*
- *Can be access via GP without clinic knowing*
- *Closer to town, clinic along way out*
- *Easier access to caseworker*
- *Easier access to clinic*

### **Different medication options (5.5%)**

- *Cancel methadone and prescribe heroin*
- *Don't believe in methadone programmes, they are a waste of time*
- *If people are to be maintained on a drug it should be the healthier option – heroin*
- *Methadone is pure poison used to control the opiate masses*
- *Offering alternative medication options to methadone*
- *Choice between methadone or benzos to come off opioids*
- *Better range of opioid substitutes offered and address the issue of “needle fixation”*
- *Injectable methadone*
- *Medication options other than methadone*
- *Other options other than methadone*
- *Should have other options of treatment*

### **Better programme consistency and coordination (3.0%)**

- *All programmes be the same throughout NZ*
- *Clearer interpretations of the protocols eg different clinics interpretations of the same document*
- *Getting the right information to the people who need it throughout the wider country*
- *More communication between methadone programmes in NZ when transferring to other centres*
- *More consistency of service delivery by CADS doctors eg requests for change of dosage, some Drs are more flexible than others*
- *Same rules for all eg benzo for some and not others*

### **Miscellaneous (14.4%)**

- *Give more assistance in coming off their programme*
- *Give people the dose they need*
- *Go back to giving out methadone tablets*
- *Greater confidentiality on health records*
- *If people were stabilised then weaned off*
- *More GP prescribers*
- *More information on impact/changes to your life once on*
- *People under GP, their doctor has more control and say over what happens to you like going up on dose*

- *Resourcing*
- *State of emergency plan, like snowed in*
- *The whole programme needs a big change with waiting lists, caseworkers, piss tests, lying*
- *Too young to be on it at 15-16 years*
- *Be more careful about putting people on methadone*
- *Broader understanding of confidentiality, especially other agencies*
- *By becoming a registered drug addict (health records, customs)*
- *Improved entitlements and protocols*
- *Should be able to get doctor to give out other scripts like for dry skin etc*
- *Better information*
- *Bigger programme/address waiting list/not so many young ones given methadone*
- *Keep it a secret from his employer and/or family*
- *Methadone programme doesn't work in X as they don't allow it to*
- *Not letting people hang out when sent to jail even if they are not on methadone*
- *Offering more services eg therapists (CBT)*
- *Safer injection options*
- *Start on a higher dose*
- *Used to bring your tolerance down and then maintain a different way*
- *When out on GP care the GP should have 100% say on treatment provided*
- *Why do they have different clinics as in Maori/Pakeha when there seems to be little difference between the two?*
- *With the pain clinic not helping so much the methadone clinic needs to pick up the slack*

#### **5.5.1.2 What are the barriers that put people off**

Participants were asked to rate on a 5-point Likert Scale (not at all, a little, moderately, a lot, extremely) how likely a list of 12 potential barriers might be in putting people off coming onto the methadone programme. This list of potential barriers was been derived by the research group at the time the questionnaire was developed. These questions were placed later in the interview schedule so as not to contaminate the open question about how methadone programmes could be improved, the results of which have been presented in the previous section.

As can be seen in Table 13, there are five barriers perceived by this user group rated more than moderately important by at least 60% of the sample as follows in order of importance, restricted takeaways, being tied to staying in one place, being a registered drug addict, having to go on a

waiting list for methadone, and having to go to a chemist every/most days. In fact, being a registered drug addict is not currently a condition of going on methadone, although there is a perception amongst the client group that this occurs. Some respondents may have been responding to opioid dependence being recorded in their medical files and the impact this may have had on treatment elsewhere in the health system.

**Table 13: Potential barriers that would put people off coming on to methadone treatment as rated by the user group (n=97) and the services group (n=18) in terms of % who thought the item would put people off at least moderately**

	<i>Opioid Users</i>	<i>Specialist Services</i>
Restricted takeaways	79.8 *	82.4
Being tied to staying in one place	74.7 *	82.3
Having to go on a waiting list for methadone	73.7 *	76.5
Being a registered drug addict	69.1 *	76.4
Having to go to a chemist every/most days	62.1 *	64.8
Being worried about confidentiality of health information	58.9	64.7
Random urine drug screening	54.7	53.0
Being given methadone as the only opioid substitution option	51.6	41.2
Potential driving restrictions	50.0	37.6
Having to have counselling	47.3	37.5
Needing to mix with other opioid users/drug users	23.2	29.4
Having to have an assessment	20.0	11.8

Participants were also asked to rate any other barriers they thought were important in putting people off coming on the methadone programme. Forty-seven did and, in fact, overall they rated this Other 13<sup>th</sup> category the highest with 85.1% thinking it was moderately important or greater. Thirty-six participants listed the specific Other barriers. These can be grouped into three groups: judgement and stigma (44.4%), hassle and bother (36.1%), and perceived methadone effects (19.4%) are grouped below as follows:

**Judgement and stigma (44.4%)**

- *Stigma of being found out as a junkie especially by employers, friends and family*
- *All the misinformation that goes around ie registered drug addict etc*
- *Being branded a junkie*
- *Being judged by people*
- *Being judged. Once you go on its hard to get off*
- *Being treated like they are the disease instead of that they have the disease*

- *Case workers and other people's thoughts towards you*
- *Discrimination/judgement*
- *Extended family finding out*
- *Family, but also work finding out*
- *Fear of other people's/society's opinion/attitudes/treatment*
- *Other government departments, CYFS, and stigma because they don't understand*
- *Reaction of friends, family employer and the general public to being a junkie and on the programme*
- *Stereotyped, judged and thought of as not capable*
- *Stigma of friends and family finding out*
- *Stigma when going to hospital*

### **Hassle and bother (36.1%)**

- *Being made to take other meds, eg antidepressants*
- *Big hassle with appointments, chemist, I have no car, following their rules*
- *By seeing people they don't want to see (other clients)*
- *Handing over your life to methadone programme*
- *Having to put up with all the crap they dish out, they play God!*
- *Having to see a doctor once a month*
- *Having to take the whole dose every single day, having to ask permission to travel, I've been told that with CADS you must give 48 hours notice of travel but they are so bureaucratically stuck up that if you want to go away Monday you have to ask way back the preceding Wednesday or maybe Thursday morning*
- *Just being fucked around by them*
- *Nasty chemists*
- *Other agencies, CYFS*
- *Quality and calibre of staff*
- *The control they have over you with everything in your life*
- *The long wait to get the bloody medication*

### **Perceived methadone effects (19.4%)**

- *Difficulty in coming off*
- *Difficulty in getting off methadone*
- *If a pregnant woman, how it may effect the baby in utero*
- *Impact on health/side effects*

- *Instant onset of rotten teeth and organs, constipation, lack of micturition, fast ageing, signs symptomatic of poisoning*
- *That it doesn't work as a pain reliever*
- *Your health*

## **5.5.2 Barriers from a service perspective**

### **5.5.2.1 Service resource issues**

Specialist service respondents were asked if their service had experienced any resource issues in the last 12 months that have negatively impacted on OST accessibility and/or responsiveness to clients needs. Sixteen of the 18 (89%) specialist service respondents identified resource issues experienced by their service during this time and all sixteen identified staffing issues related to specialist service and/or GP Authority OST provision.

#### **Resource issues**

- *Staffing turnover*
- *Staff recruitment/retention*
- *Short staffed – now resolved*
- *Extended sick leave*
- *Lack of nursing staff*
- *Difficulty recruiting experienced staff*
- *Staffing short – not qualified*
- *Lack of experienced staff*
- *Lack of experience regarding relapse care and management*
- *Lack of GPs and willingness*
- *GPs don't like these clients – eg bad debt experiences*
- *Lack of medical staff – hours and consistent doctors for clinics in specialist service and lack of GPs for authority.*
- *GP lack of availability – one doctor 2.5 days per week*
- *Lack of medical officer time*
- *One doctor – also clinical director*
- *Unable to fill medical officer position/ GPs willing to undertake GP authority*
- *Staffing – medical officers/case managers*
- *Communication breakdown between service provider staff*

- *Number of client places capped and can't get people on to the programme*
- *Increase in client places not actioned until mid 2007*
- *Rigidity in regard to the ratio of funded specialist service/GP Authority places*
- *Need increased administration resources*
- *Insufficient secretarial/administration staff*
- *Limited computer terminals/access*
- *Limited pharmacies and limited opening hours*
- *Limited treatment options including support for consumers*

Respondents from rural areas identified the significant negative impact of resource issues such as recruitment of staff eg medical and nursing staff, the need for FTE increase to manage client caseloads in a rural areas, the lack of GPs willing to take on clients in rural areas and who can case manager and the lack of pharmacies and limited opening hours.

#### **5.5.2.2 *Perceived barriers to individuals seeking OST***

Table 14 presents data from the same questions that were asked of the user group (see Table 13). Respondents were asked to rate how much they considered each of 12 potential barriers would put people off coming onto OST. Seventeen services responded. The respondent who did not complete ratings commented *...when there is only one provider and people are desperate nothing will put people off coming on to an OST programme.*

As can be seen from Table 14, the four barriers perceived to have the greatest impact on individuals seeking OST were, having to go to the chemist everyday, restricted takeaways, the waiting list and having to stay in one place. The two barriers perceived to have least impact were having to have an assessment and potential driving restrictions.

Nearly one quarter of respondents did not consider waiting lists or methadone as the only opioid substitution option to present barriers, over 30% did not consider random urine testing or being a registered drug addict to constitute barriers and over 40% did not consider potential driving restrictions to constitute a barrier.

#### **5.5.2.3 *Admission criteria***

As part of the survey, respondents were asked to specify exclusion criteria for admissions to OST. These included:

- *Do not meet DSM IV criteria for opioid dependence*
- *Unable to find a pharmacy to dispense*
- *Under 18 years of age*
- *Use of other drugs*
- *Contraindicated medically*
- *Don't treat for pain*
- *Mentally unwell and unable to complete assessment*
- *Unable or unwilling to accept treatment or safety requirements of the programme*
- *Not residing in the area*
- *Past threatening behaviour*
- *If highly anti-social with extensive criminality, aggressive, poly-substance use and the service is unable to provide necessary support*
- *Exclusions under South Island Service Provision Framework*

All 18 respondents specified systematic assessment processes with some variations. For example, in the nature and scope of the comprehensive assessment, number of scheduled appointments individuals are expected to attend, ECG requirements and number of urinary drug screens required. Of note, was that there was no mention of significant other or family and whanau involvement.

#### **5.5.2.4 *Urine drug screens***

All 18 respondents reported that random urine drug screens were part of their treatment protocol; a third (33.3%) said that these were taken routinely, and two thirds variably. Almost three quarters (74%) said random urinalysis also applied to GP Authority clients. Forty-four percent of respondents observed urine collection, two reported use of heat strips and two tracing agents.

#### **5.5.2.5 *Takeaway medication criteria***

All respondents provided service criteria for takeaway opioid substitution doses. These typically included a specified duration of treatment eg three months; taking methadone daily; social stability or evidence of eg work/study, no criminal activity, achieving goals; urine drug screen results; no drug seeking behaviours; no evidence of diversion of methadone and; meeting safety and other treatment protocol requirements. A range of dispensing arrangements from observed consumption on seven days per week to flexible dispensing to fit in with clients' needs (eg work, geographical location) was reported. The most common dispensing arrangement available to clients was observed consumption on three days per week.

However, variations in requirements were noted. For example, one service required *...clean urines for a period of four months, including cannabis (flexible levels)*, another required *...two clean urines – minus cannabis* and another required random urine tests with 48 hour notice (cannabis excluded) and another advised that *...we adopt an individualised approach as blanket criteria cannot be applied to all clients.*

#### **5.5.2.6 Restricted takeaways**

Thirteen respondents said their services restricted takeaway medication on the basis of positive urinalysis results and the same number said that their service would withdraw takeaways on the basis of positive urinalysis results.

Comments in regard to restrictions or withdrawal of takeaway methadone doses based on positive drug urinalysis results included:

- *A one month stand down if positive for eg benzodiazepines, methamphetamine, morphine*
- *Relates to all substances (except nicotine and caffeine) in the three months prior to the request for takeaways*
- *Benzodiazepines, opioids, “P” – ongoing positive test results*
- *If the client has said they are not using but urinary drug screen results are positive*
- *Continuous pattern of use and abuse*
- *Non-prescribed use of benzodiazepines, increased alcohol use, other opioids, excludes cannabis but not just based on urinary drug screens, other factors of stability are taken into account*
- *Several attempts at diversion of methadone*
- *If problems emerging eg re methamphetamine, benzodiazepines, opioids, but not always necessary to restrict or withdraw takeways*
- *Only if a client continues to use illicitly and is affecting her/his behaviour/progress*
- *Not automatically – need to take the whole clinical picture into account*
- *Based on clinical judgment*
- *Instability of life, use of non-prescribed substances in conjunction with methadone, amphetamines, benzodiazepines, opioids BZP, alcohol*
- *If regular use of central nervous system depressants*
- *Review builds on whole clinical picture*
- *Habitual and unstable presentation eg methamphetamines, benzodiazepines depending on personal history – individualised – can be a motivational tool if therapeutic*

### 5.5.2.7 *Involuntary withdrawal from OST*

Specialist service respondents were asked how many clients (including GP Authority clients) had received an involuntary withdrawal from OST in the last 12 months. Involuntary withdrawal was defined as being removed from treatment against a client's wishes or the client was provided with a treatment related ultimatum which eventuated in withdrawal. As can be seen from the following Table, 43 clients received an involuntary withdrawal. Of these, 12 clients were readmitted.

**Table 14: Involuntary withdrawals from OST in the last 12 months by service provider (n=18)**

<i>Service/DHB</i>	<i>Number of clients withdrawn</i>
Christchurch	16
Timaru	6
Waikato	3
Auckland	2
Hawkes Bay	2
Taranaki	2
West Coast/DHB	2
Otago	2
Southland	2
Wellington	1
Lakes	1
Tauranga	1
Nelson/Marlborough	1
Tairāwhiti	1
Wairarapa	1
Northland	0
Wanganui	0
Midcentral	0

Reasons for withdrawal included: *high risk associated with multiple substance use, ongoing multiple substance use, intimidation/violence towards staff, violence, not adhering to policies or treatment plan, ultimate last resort, diversion, not taking methadone, out of region client who did not follow protocol or keep appointments, injecting behaviour, non-engagement, shifting area, went to another prescriber.*

### 5.5.2.8 *Transferring clients to GP Authority*

Specialist service respondents were asked about the criteria for transferring clients to GP Authority care together with barriers to the transfer of clients with the use of a scenario.

Tania is aged 29 years and has been receiving OST (second admission) for 15 months. She is a single mother with two children aged 6 years and 10 years and she receives the DPB. Her life situation is stable. She has returned to part-time study and has a boyfriend who is not an opioid drug user. She reports no illicit opioid use in the previous six months, supported by how she presents and significant other and pharmacist feedback (random urine test results have been negative for the presence of opioid drugs, other than methadone). Tania says she smokes 15 cigarettes a day, uses cannabis about once a fortnight and drinks alcohol rarely. She reports no other substance use – also supported by significant other and pharmacist feedback and urinalysis results. She is Hepatitis C +ve.

In response to the question

*Would your service consider Tania to be stable enough for transfer to GP authority?*

16 (89%) respondents said yes. Two respondents provided the following comments:

- *Would like to see a longer stability period*
- *Client choice would be taken into consideration*
- *Everyone is different, would consider everyone for GP authority*

Respondents were also asked to respond to additional questions in regard to Tania. Sixteen respondents did so. One of the two respondents who did not respond to these additional scenario questions advised that their service was currently unable to offer GP liaison. The other respondent advised that currently local GPs were not interested in GP Authority roles and responsibilities.

What if Tania:	Yes to transfer
Was receiving antidepressants for depression with a good response?	100%
Was a regular cannabis smoker? (two to three times per week)	100%
Consumed alcohol weekly (upper level ALAC Guidelines for women)	75%
Was experiencing parenting difficulties?	63%
Used occasional non-prescribed benzodiazepines (n=15)	60%
Was currently prescribed 10 mg of diazepam daily by her GP as part of a slow withdrawal regime for benzodiazepine dependence?	38%
Used amphetamine type stimulants once a fortnight on average?	31%

The following comments were provided in relation to these scenario question responses:

- Yes in response to alcohol use – *as long as not destabilising*
- No in response to alcohol use – *? diagnosis of alcohol dependence*

- No in regard to alcohol use – *depends on history and pattern*
- No in regard to benzodiazepine use – *further possible investigation*
- No response in regard to occasional non-prescribed benzodiazepine use – *clarify history and dependent on client* and *probably not* in response to currently prescribed withdrawal benzodiazepine use
- No in response to parenting difficulties – *depends on nature of difficulties*

#### 5.5.2.9 *Variability of criteria*

Service respondents were asked to identify their service-related criteria for transferring clients to GP Authority, as this is an indicator for clients moving from a stabilisation phase of treatment to a longer term continuing care phase. Criteria commonly employed included, dose stability, social stability including no criminal activity, no concerning substance use, reliable with takeaway medication, clinical stability including mental health stability, client desire and a willing GP. One respondent said that all clients were considered potential for transfer.

However, there was evidence of criteria variability amongst service providers. For instance, with regard to the minimum duration of treatment with the specialist service, stability of dose requirements and urinalysis requirements varied from quite specific criteria eg *consistent clean urines – excludes cannabis; clear urinary drug screens for last six months - excludes cannabis; no evidence of illicit substances including cannabis* to less specific criteria such as *no habitual use of illicit substances* or *no hazardous or harmful use of substances*. Some respondents specified their service criteria for social stability in regard to having a job or training/education involvement or no criminal activity for 12 months, whereas others identified social stability more generally. Some South Island services referred to the South Island Service Provision Framework criteria.

Respondents were asked if their service criteria for transfer to GP Authority had changed within the last 12 months or so. One third of the 18 respondents said that their criteria had changed and provided the following reasons:

- *Due to more relaxed criteria*
- *In response to the needs of older clients*
- *To allow easier access to GP Authority*
- *PHO has assisted in ensuring clients have access to a GP*
- *Old criteria were outdated, rigid and didn't allow for personal growth and were punitive*
- *Tightened up criteria and a clearer GP project in place*

### **5.5.2.10 Barriers to the transfer of clients**

All 18 service provider respondents identified GP related barriers to the transfer of care to continuing care within primary care settings and a range of client related barriers were also mentioned. Responses related to these are grouped into categories as follows.

#### **GP availability (61%)**

Nearly two thirds of respondents specified lack of GP availability as a barrier to transfer of clients to continuing care within primary care. In some areas, respondents identified that this barrier related to general availability of GPs for the general population ie not just to this client group. Of note was that two service providers (Hawkes Bay and Wanganui) provided administration funding for each authorised GP of \$250 per client per annum. Comments included:

- *Lack of GPs*
- *Lack of GPs in region*
- *Lack of GPs in region ie waiting list for a GP*
- *Shortage of GPs in area*
- *Books closed to any client in three areas, not just methadone clients*
- *GPs want to be paid extra for this service ie extra administration*
- *Lack of GPs*
- *Shortage of GPs and Locum GPs only here for short periods*
- *Geographical location of GP*
- *GP training not available*
- *GPs not willing – not confident*

#### **Stigma (39%)**

Over one third of respondents specifically identified stigma as an issue related to GP availability. Comments included:

- *GP resistance to client group*
- *Lack of GPs willing to work with client group*
- *Lack of interested GPs ? stigma*
- *Unwilling to take on this client group*
- *GPs not willing – too busy, retiring, not interested in client group*

### **Cost (66%)**

Two thirds of respondents identified cost barriers for clients. One provider (Timaru) advised that their service had arranged with WINZ to pay client GP costs directly to clients' GPs, thereby overcoming this barrier. Comments included:

- *Cost barrier to clients*
- *Clients reluctance due to charges*
- *Clients concerned re cost*
- *Client reluctance due to cost – prior to July 07*
- *Cost- Reluctance from clients to pay for GP visits*
- *Cost or access problems*

### **Clients preferring clinic (39%)**

- *Wanting to stay with clinic*
- *Reluctant clients – flexibility, relationships, clients don't want to go*
- *Client refusal? reluctance*
- *Clients not willing – relationship with clinic*
- *Clients not always willing*
- *Clients resistant to leaving clinic*

### **Client readiness (39%)**

- *Non compliance with OST programme*
- *Challenging behaviours/whanau and family concerns*
- *High risk behaviours/complex needs*
- *Past client debt to general practice*
- *Not ready – don't meet criteria*
- *Not suitable for GP*
- *Client doesn't have a GP*

### **Service/Staffing related barriers (44%)**

Respondents referred to a service/staff reluctance to refer clients for continuing care by GPs as well as staffing resources to provide support for GPs. Comments included:

- *GP liaison nurse position unfilled*
- *Staff resources*
- *? Services holding on to clients*

- *Staff reluctant to let clients go*
- *Some reluctance of C/M to let go*
- *Clinic more client friendly*
- *Represents a culture change*

#### **5.5.2.11 Resources required to decrease barriers to GP care**

Overall, respondents considered that about a half of clients (median 48% (range 3-65) should receive OST from GPs within primary care settings. They were also asked what additional resources would be required to achieve at least 50% of clients receiving OST in primary care settings. Suggestions are as follows:

- *Primary health care focus for AOD*
- *Increased funding for places*
- *More GPs willing*
- *Financial support for GPs*
- *GP training and support*
- *GPs need to understand CBT can work better than benzodiazepines*
- *GPs need to look at evidence when they do peer review, supervision and mentoring (poorly attended to at present)*
- *Administration/secretarial support for data entry, paper work*
- *Nurse practitioners with prescribing rights*
- *Funding for client visits or reduced fees*
- *Change of attitudes*
- *GPs need to examine stereotypical views of addiction*
- *Mind shift in local GPs re client group*
- *Better formal links with GPs*
- *Increased FTE for specialist services to support GPs*
- *Increased funding for FTEs to increase clients stability*
- *Increased trained workforce/FTEs*
- *GP Nurse liaison positions*
- *Time to review potential clients for transfer*
- *Would need lots of counsellor back up to advise, re-stabilise, take over case management etc*
- *More active care of clients to increase life skills*

### 5.5.2.12 *Treatment workers alongside GPs*

Respondents were asked how supportive (given adequate funding) their service would be of treatment workers being employed to work alongside GPs and other primary care staff directly with OST clients and their significant others to enable a greater proportion of individuals to receive OST within primary care settings on a rating scale of 1. not at all supportive, 2. a little supportive, 3. moderately supportive, 4. very supportive, 5. extremely supportive. Table 15 presents response frequencies for at least moderately supportive.

**Table 15: Support for addiction treatment workers being employed to work alongside general practitioners and other primary care staff directly with OST clients to enable a greater proportion of clients to receive OST in primary care settings**

<i>Treatment worker</i>	<i>% at least moderately supportive</i>
Advanced practice addiction nurses with mental health expertise	89
Addiction specialist social workers	89
Addiction specialist counsellors	89
Peer counsellors/support workers	56

### 5.5.2.13 *Availability of buprenorphine*

Less than half (47%) of respondents considered that the availability of buprenorphine would enable the number of clients receiving OST in primary care settings to be increased. One respondent advised that their service's local experience was that clients were resistant to accessing buprenorphine due to fees for GP consultation, prescription and dispensing.

### 5.5.2.14 *Nurse Practitioners*

Respondents were also asked how much did they think nurse practitioners with prescribing rights could assist with increasing access to OST and treatment responsiveness. Just over two thirds (67%) said they thought nurse practitioners could assist within specialist service settings moderately to very much and nearly two thirds (65%) moderately to very much within primary care settings.

### 5.5.2.15 *Barriers to holistic treatment*

Respondents were asked to provide specific interventions that their service provided for clients and their significant others and whanau in addition to information/education, crisis and risk management and monitoring and supportive counselling and problem solving. As well as referring

clients for specialist medical and mental health consultations and providing co-ordination of care and linking clients with a range of health and social services, more specific interventions provided included:

- *Nurse delivery of methadone*
- *Complementary therapies*
- *Childrens programme provided by a teacher*
- *Visiting of clients in prison in staff's own time*
- *Women's group*
- *Women in recovery group*
- *Men's group*
- *Relaxation group*
- *Short term emergency housing programme*
- *Access to relapse prevention groups*
- *Relapse prevention*
- *Methadone group*
- *Online group*
- *Anxiety management group*
- *Dialectical Behaviour Therapy*
- *Hepatitis C group*
- *Rational Recovery group*
- *Green card – for physical activity*
- *Drink driving programme*
- *Dual diagnosis clinic*
- *Whanau, rural, prison, pregnancy specialist clinics*
- *Detoxification house*
- *Physiotherapy*
- *Motivational enhancement*
- *Life skills*
- *Brief intervention/psychotherapy*
- *Cognitive behavioural therapy, rational behavioural therapy*

Of the 16 respondents who responded to the questions in respect to gender and cultural service provision components, over half (56%) said that their service did not provide gender specific interventions at all and 63% said that their service did not provide cultural specific interventions. In

regard to involving clients' families and whanau in treatment, 80% of respondents indicated that their service involved families and whanau moderately (left to staff to encourage clients to involve their significant others and whanau) or quite actively (all clients are actively encouraged to involve their significant others and whanau). Comments from two respondents indicated this was an area of focus and another respondent indicated family participation had a *low uptake*.

Respondents were asked if there were any barriers and gaps in regard to holistically meeting clients' needs, their significant others and whanau. Sixteen respondents said that gaps and barriers existed and identified the following barriers that negatively impacted on meeting clients' needs.

- *Stigma*
- *Waiting lists for services/difficulty in accessing eg mental health for psychiatric consultation*
- *Transport and travel distance in rural areas as well as pharmacy access and dispensing hours, rural/farming employment hours*
- *Time to establish links with other services*
- *Time and training,*
- *Lack of staff resources and funding*
- *Lack of paid consumer advisors*

Specific intervention barriers and gaps included the following:

- *Loss of childrens group due to loss of funding*
- *Family and whanau education*
- *CBT, DBT – would like to provide more*
- *Dual diagnosis case managers*
- *Detoxification services*
- *Peer support*
- *Access to residential programmes*
- *Parenting*
- *Residential treatment for women with complex needs*
- *Family interventions*
- *Maori cultural interventions*
- *Psychological interventions for trauma and abuse*
- *Anger management*
- *Vocational/employment*
- *Gender specific groups*

- *Home help*
- *Transport- rural areas*
- *Hepatitis C – need greater proactivity*
- *Lack of accommodation and respite care*

Finally, the 18 respondents were asked to rate the overall quality of linkages in terms of collaborative working relationships (for the benefit of OST clients and their significant others and whanau) between their service and the following sectors/services on a five point scale from 1 (poor) to 5 (excellent). Ratings for good – excellent are provided in the table below. One service provider commented in relation to rating the service relationship with CYFS and the Police as excellent ...*a result of lot of hard work*. Two respondents identified that there was no NA group in their area.

**Table 16: Perceived quality of linkages (collaborative working relationships) by OST providers (n=18) between OST services and other services/sectors**

<i>Service/sector</i>	<i>% ratings of good, very good, excellent</i>
Obstetric services	94
Corrections	94
Justice	88
Police	90
Social support agencies	89
Primary care	83
Work and Income New Zealand (WINZ)	83
General hospitals	72
Mental Health Services (including crisis teams)	67
Needle Exchange Programmes	65
Self-help/mutual help groups such as Narcotics Anonymous	56
Child Youth and Family Services (CFYS)	50
Vocational/employment assistance	44

#### **5.5.2.16 Consumer and family/whanau input to OST programmes**

Respondents provided multiple examples of how input from OST clients is sought about treatment and ways of improving service responsiveness. These included surveys, opportunity for feedback on policies and development of service provision framework, consumer forums, via primary health care co-ordinator and focus groups, via feedback from South Island consumer advisor, consumer advocate, AOD consumer, advisor, consumer committee, consumer representative input to meetings, via responses to consumer concerns, newsletters, opioid consumer satisfaction questionnaire.

With regard to actual changes, 14 respondents provided information on changes made that reflected actual changes made and also the difficulty in making changes to service provision. One respondent advised ... *recommendations from complaint include review OST programme, policies, procedures, guidelines and protocols.*

Comments included:

- *Review of policies*
- *Changed written correspondence sent to clients*
- *Started methadone education group, and introduced after hours contact information*
- *Changes to pharmacy hours, full consultation in regard to changing service provision*
- *Awaiting consumer response*
- *Changes to information on informed consent, entry process to service*
- *Ongoing process – no longer hold methadone doses, recovery focused position*
- *Not directly programme service provision framework set in stone, listen to feedback, will change if possible*
- *General reception, flavour of programme receptive to suggestion/need*
- *Consumer group, coffee machine in waiting room, newsletter*
- *Changes to waiting room – furniture, tea and coffee, fridge*

#### **5.5.2.17 How could OST be improved?**

Respondents were asked whether they thought OST could be improved in New Zealand and if so what were three main things that could help improve effectiveness. All 18 respondents considered that OST could be improved. The three main themes identified related to reducing stigma, philosophy and approach, and resources.

#### **Stigma**

- *Education of public – recovery – addiction*
- *Decreasing stigmatisation of client group*
- *Clients celebrating recovery*
- *Decreasing discrimination/stigma – prevention/health promotion strategy*
- *More privacy in pharmacies*
- *Less stigma/discrimination – unable to get suitable staff, GPs, pharmacies*

## **Philosophy and approach**

- *Pharmacists, health professionals, recognising as chronic illness*
- *Clients/humanitarian approach*
- *Consistency – harm reduction focus*
- *Consumer input*
- *Consumer friendly and partnership*
- *Flexibility*
- *Strengths based approaches*
- *Holistic medical care*
- *Broaden pharmacotherapy options including buprenorphine*
- *Increasing client pathways for ongoing treatment, including residential treatment and detox*
- *Include prevention – working with clients' children*
- *Mobile, satellite clinics*
- *Better aftercare*
- *National consistency*
- *Consistency with guidelines*
- *Review guidelines*
- *National standards*
- *Standardisation of documentation*
- *National database of clients*

## **Resources**

- *Address the waiting list and transfer issues*
- *No waiting list*
- *Funding – not to have capped caseloads*
- *Funding money should be ring fenced for OST programmes within DHB settings*
- *Training and education for staff*
- *More qualified staff*
- *Address rural issues*
- *Funding for consumer driven groups*
- *Funding for OST Consumer Advocacy services*
- *Funding for psychosocial/social services*
- *Resources for more psychological and relapse prevention work, smaller caseloads to enable more intensive case management*

- *More resources for detoxification – medical and social outside main centres*
- *Smaller caseloads to improve quality of case management*
- *Immediate regional transfer capacity*
- *Less paper work*
- *Better resources for general practitioners eg Medtech*

## **5.6 What has been the influence of the “methamphetamine epidemic” on the prevalence, presentation and treatment of people with opioid dependence in New Zealand? (RQ6)**

There has been no significant fall in demand for OST over the past five years while the methamphetamine epidemic has taken hold in New Zealand, which suggests that at a gross level, the methamphetamine epidemic has not had a significant impact on the prevalence of opioid dependence during this time period.

### **5.6.1 Data from the user survey**

Participants in the user survey were asked about other drug use in the previous month. Of the 95 respondents, 30.5% had used methamphetamine in the past month ranging from 1-15 times. There were no significant differences between those currently on methadone (23.8%), on methadone in the past (38.9%) and those who had never been on methadone (34.3%) in terms of use of methamphetamine ( $p=0.42$ ). These data indicate that methamphetamine is quite common in regular opioid users both in treatment and out of treatment and also suggests that treatment does not have a significant impact on the use of methamphetamine, which is consistent with other research on the impact of OST on stimulant use (Yancovitz et al 1991; Schwartz et al 2006).

Participants were also asked whether they were using more, less or about the same as 12 months previously. Only 9.5% said they were using more, with 62.1% saying they were using about the same and 28.4% less. Once again, there were no significant differences in the change of use of methadone according to OST status ( $p=0.54$ ). These data are consistent with IDMS research indicating that methamphetamine use levelled off over the five years 2001 – 2006; peaking in 2001 with the prevalence of use in the past 12 months amongst respondents of 5.0%, through to 4.0% in 2003 and 3.4% in 2006 (Wilkins & Sweetsur 2008).

## 5.6.2 Data from the service survey

Services were asked to estimate the number of opioid dependent people presenting with other current drug use including methamphetamine use during the past 12 months. Table 16 shows the data. Some respondents emphasised that their estimate was not based on actual data (unavailable).

**Table 17: The percentage of opioid dependent people presenting to the specialist service with other drug use in the past 12 months (n=18)**

	<i>Mean%</i>	<i>Median%</i>	<i>Range%</i>
Nicotine	82.3	90	4 – 96
Cannabis	74.8	85	6 – 94
Morphine	63.2	68	4 – 95
Methadone	55.3	60	4 – 96
Benzodiazepines	51	60	4 – 76
Alcohol	37.3	26	0 – 100
Methamphetamine	31.3	24	0.1 – 80
Opium from poppies	21.3	15	0 – 60
BZP	16.4	10	0 – 90
Methylphenidate	14.9	10	0 – 60
Homebake	14.1	7.5	0 – 70
Heroin	0.8	0	0 – 5
Cocaine	0.4	0	0 – 5

Accompanying comments about the trends over the past 12 months were as follows:

- 10 reported increase in use of methamphetamine
- 4 reported increase in use of BZP
- 4 reported increase in use of methadone, one a decrease
- 3 reported increase in methylphenidate and other stimulants
- 2 reported increase in benzodiazepines

There were two respondents who mentioned “P” or amphetamines in relation to the reason for involuntary withdrawal. There was no mention of methamphetamine use in regard to deaths.

## 5.6.3 Dangerousness of drugs in combination

One aspect of concern related to increasing rates of methamphetamine use amongst people with opioid dependence is the issue of safety. It was decided to embed a question about the combination of methamphetamine and methadone within a larger series of questions related to perceived dangerousness of drugs in combination. It was also decided to ask both users and services the same

set of questions to examine if there are any obvious differences between users and services in terms of these safety issues.

Both the users and the services were given a list of five scenarios in which various drugs were combined with methadone 80mg and then asked to rate how dangerous the combination would be in causing death by overdose. The findings are in the table below

**Table 18: Ratings of dangerousness by a user group (n=75) and OST programmes (n=18) of five drugs combined with methadone 80mg (orally) in terms of causing death by overdose (rated on a 5-point scale, not at all, a little, moderately, a lot, extremely)**

	<i>% who thought at least moderately dangerous</i>	
	<i>Staff</i>	<i>Users</i>
Diazepam (60mg orally)	78	53
Alcohol (12 standard drinks)	61	52
Methamphetamine (0.1mg IV)	17	25
Methylphenidate (40mg IV)	17	23
Cannabis (3 joints)	11	1

There was general close agreement between users and staff as to the ranking of dangerousness with both viewing diazepam and alcohol a lot more dangerous than stimulants. Both survey groups also viewed cannabis in combination with methadone as relatively safe, with 89% of services and 99% of users viewing the combination as not at all or only a little dangerous.

## 6.0 DISCUSSION AND CONCLUSIONS

This report has focused on six key questions using literature and two surveys as the main modes of providing answers. However, before these are systematically discussed, there are some general comments that relate to the project as a whole.

While we have used OST as the internationally preferred term, it is important to highlight that given the lack of progress to date with the funding of buprenorphine as an alternative to methadone as an opioid substitute, at the current time opioid substitution treatment (OST) in New Zealand is primarily methadone maintenance treatment (MMT).

The stigma associated with injecting drug use and injecting drug users can seriously limit the effectiveness of any advocacy that consumers and their families are able to engage in and there is always the risk that the balance of concern may tip too far towards public safety and away from the treatment needs of individuals. For this reason there needs to be active advocacy for people with the problem of opioid dependence as well as the continuing development of treatment programmes for this client group. Furthermore, because of the “unlevel playing field” that can so easily lead to discrimination against people with opioid dependence, similar to that experienced by individuals with serious mental illness, and more than just about exists for any other health disorder, it is important for consumers to be at the forefront of OST service development and service delivery ie working alongside clinical staff to ensure that OST services are, in reality, effective in meeting consumers’ needs.

It was hoped that the user survey in this current research programme would access a range of people who are regular opioid users, including people currently on OST programmes, but primarily include opioid users for whom OST would normally be considered a front line therapeutic option. This hope was realised. Within the sample of 97, there was a good spread of people currently on methadone, previously on methadone and never on methadone. The severity of opioid dependence was comparable with both a Sydney OST sample and a London heroin using sample (Gossop et al 1995) indicating the relevance of the questionnaire to people for whom the improvement of OST programmes is a real-life current personal issue.

The challenge that faces service providers is to strike an appropriate balance between public concerns about intravenous drug use on the one hand and the individual treatment needs, rights and

aspirations of opioid dependent clients, on the other. Given the continuing societal stigma associated with injecting drug use and injecting drug users, finding the appropriate balance is a major challenge, and is highly likely to be one of the drivers of variation in treatment approaches. In addition, because client outcomes during this long term treatment are influenced by treatment programme factors (Ball and Ross 1991; Bell et al 1995; Magura et al 1999) it is important to examine programme factors in order to ensure OST remains flexible and responsive to clients changing needs over time.

While the principles of opioid substitution treatment are grounded in the international literature, the actual treatment provision within the New Zealand context must meet the cultural and other needs of local client groups. These needs may vary somewhat regionally, both in respect to the makeup of the client caseload and the socio-economic environment. Treatment resources may also vary in accordance with the treatment setting. The way forward therefore requires both an understanding of the history of OST treatment provision and changing trends over time as well as careful consideration of present issues from both consumer and provider perspectives.

It was impressive that all 18 of the specialist service providers openly participated in the treatment provider arm of this project. This was strongly supported by the National Association of Opioid Treatment Providers (NAOTP) which all 18 services belong to and participate in. This national collegial group which includes consumer representation provides great hope for the development in OST moving into the future.

## **1. How many people in New Zealand have opioid dependence, including consideration of opioid dependent people in prison?**

In 1996, an estimate of the prevalence of opioid dependence in New Zealand was made as part of a study exploring new ways of delivering OST in New Zealand. The estimates, based almost entirely on international data, were 13,500 (using a multiplier method) and 26,600 (using an extrapolated/combined method) (Sellman et al 1996). These numbers were considered a “best guess” at the time and, therefore, not particularly satisfactory. This is reflected in one of the recommendations of the report, that New Zealand data be sought for a more accurate estimate. This current research has achieved this. Accessing 97 daily or almost daily opioid using people from both OST and needle exchange programmes in three research venues, provided relevant data by which a relevant New Zealand “multiplier” can be calculated. This multiplier turned out to be 2.16

(95% CI 1.94 – 2.38) and using data from the parallel OST service survey which yield a current treatment number of 4,608 resulted in the estimate at 9,953 (95% CI 8,940 – 10,967). This 9,953 estimate is a community estimate and would not include prisons where a higher prevalence of opioid dependence is anecdotally known to exist.

The prevalence of opioid dependence in New Zealand prisons has been determined from research conducted by Brinded and colleagues, which began with a pilot study (Brinded et al 1995). In this pilot work, the lifetime prevalence of opioid dependence was found to be an astoundingly high 31.2% and current use of opioids at 14.5%. However, the full national survey using a structured clinical interview that lumps drugs other than alcohol and cannabis together (the CIDI-A) found a somewhat lower estimate; 3.6% were found to have abuse or dependence to another drug other than alcohol or cannabis (excluding nicotine) (Brinded et al 2001). When these data are further analysed, as they were for a report for the Department of Corrections (Simpson et al 1999), only 13.8% of these diagnoses were opioid related which indicates a current opioid abuse/dependence rate in prisons of 0.5%. If half of this morbidity represents opioid dependence then this study's estimate for the current prevalence rate of opioid dependence in prisons is 0.25%.

The current number of beds in New Zealand prisons is listed as 9010 (Wikipedia 2008). Extrapolating these proportions to the current day and assuming that there are close to 9000 current prisoners, the numbers of people with opioid dependence in New Zealand prisons currently would work out as only 23. However, the numbers of people now being treated with OST in prison were estimated in the current service survey as 87, which makes the National Prison Study estimates based on the CIDI-A somewhat suspect.

This appears to be exactly the same problem that occurred in the methodology of the recent New Zealand Mental Health Survey, Te Rau Hinengaro, where opioid dependence, was not specifically targeted with appropriate methodology and an obviously inaccurately low estimate was derived for the purposes of this current work at 2,622, exceeded by the known number of people currently in OST in New Zealand, 4608. There is a lesson to be learnt here about the limitations of broad-based epidemiological surveys in determining the true prevalence rate of disorders which carry stigma and found in people who are not in the mainstream of society.

This present statistic of about 10,000 opioid dependent people is somewhat lower than the 1996 estimates of 13,500 – 26,600. Why? Either the 1996 estimate was inaccurately high or there has

been a decrease in the prevalence of opioid dependence over the past 12 years, or both, or some other reason.

The main change in the drug-using landscape of the past 12 years has been a “methamphetamine epidemic” which appears to have peaked in 2001 and reduced to some extent over the subsequent five years at least (Wilkins & Sweetsur 2008). There is a possibility that at least some people who may have, in the past, found themselves injecting opioids are now finding themselves smoking methamphetamine (the majority of methamphetamine in New Zealand is smoked not injected). There are also anecdotal reports obtained by researchers at the time of the current user survey of some people coming off methadone and developing a “major P habit”. However, the illegal methamphetamine market in New Zealand is thought to be largely controlled by gangs. There is a well known suspicion within gangs (and the public at large) that “you can’t trust a junkie” and intravenous drug use is generally frowned upon in gang circles. There appears therefore to be two relatively separate drug-using subcultures each with its own set of “rules” and networks involving smoked methamphetamine and injected opioids. When these dynamics are considered alongside the well known conditioned response of “needle fixation” in intravenous opioid dependence, it is considered very unlikely that large numbers of people with opioid dependence have switched from injecting opioids on a daily basis to smoking methamphetamine regularly instead and appreciably reducing the community prevalence of opioid dependence.

Further, there has been no noticeable downturn of demand for OST over the past 12 years. Despite increases in funding and nearly a doubling of people being treated with methadone (about 2,500 people were treated in 1996), waiting lists have remained. Therefore, it is considered very unlikely that there has been any significant impact on the prevalence of opioid dependence due to the methamphetamine epidemic. We suspect that the main reason for the apparent discrepancy between the 1996 data and these current data is that the 1996 data were somewhat inflated estimates of opioid dependence.

However, part of this inflation can be explained by the current research focusing on a more severe group of people who users of opioid drugs. The estimates derived in 1996 considered a broader group of opioid users.

The current statistic of about 10,000 people with opioid dependence refers to people who are using opioid drugs daily or almost daily. The statistics of 1996 were not that specific and, in fact, were

partly derived from opioid use itself making the assumption that 50-80% of opioid users are dependent (Sellman et al 1996). A mean of 65% was used in the calculation of 26,600.

Therefore, the 10,000 figure in this current research should be considered a *minimal prevalence rate* and not including people who would be diagnosed as having opioid dependence even though they are not using opioids daily or almost daily. In this sense the 10,000 figure could be referred to as the rate of severe opioid dependence, the type of opioid dependence for which OST is highly likely to be indicated.

Finally, the current statistic of about 10,000 does not include those clients in New Zealand with opioid dependence who are currently undergoing abstinence-based treatments. It was beyond the scope of the current research to estimate the numbers of these people. However, because of the very high rate of relapse following withdrawal from opioids in at least 90% of cases (Ward et al 1998), the numbers involved are unlikely to make an appreciable impact on the population estimate derived here.

## **2. How many people with opioid dependence want treatment and in what form?**

The only treatment for opioid dependence considered in this report was opioid substitution treatment (OST), which, in the absence of opioid alternatives, particularly buprenorphine, means methadone maintenance treatment (MMT).

Abstinence based treatment in contrast to drug substitution treatment (OST) has poor outcomes and is favoured by such a small proportion of clients (Sellman et al 1996) that this was not considered here. Nevertheless, the therapeutic community treatment model has demonstrated effectiveness for an important minority of opioid dependent individuals, frequently assisted by legal pressure, who are retained in treatment (Gerstein & Harwood 1990; Ward et al 1998). It is noteworthy that in recent years therapeutic communities in New Zealand have accepted clients prescribed methadone by OST services, a recognition of the importance of OST for opioid dependent people.

There remains a fairly widespread but false idea that treatment for drug addiction consists essentially of withdrawal of the substance through a process of “detoxification”. This idea appeared to be underlying aspects of formal discussion related to funding of buprenorphine recently, when Pharmac officials initially were prepared to fund opioid withdrawal programmes as a priority over

maintenance programmes. With specific reference to opioid dependence, it has been stated for nearly 20 years now that given the high rate of relapse following withdrawal, opioid detoxification should not be considered a treatment in its own right (Gerstein & Harwood 1990). In fact, in more recent years the call for re-conceptualising treatment for opioid dependence within a chronic or continuing model of care is becoming increasingly stronger (McLellan 2000).

However, it is also crucial to note the concern of the national consumer group who have argued recently for dropping the word “maintenance” from descriptions about treatment, because of observations that this can encourage therapeutic passivity on the part of service staff once a person has been stabilised on an adequate dose of medication. The term “opioid substitution treatment” rather than “methadone maintenance treatment” is therefore further supported, while acknowledging that the opioid substitute medication may be a long-term proposition in a good proportion of cases.

A key indicator of demand for service is waiting lists and waiting time. This is addressed in another section.

Even though there continues to be in many localities considerable waiting time for treatment, the opioid user survey provided data indicating there is considerable ambivalence about OST by both non-treatment and out of treatment respondents. Only an estimated 20% of those who had never been treated with methadone had wanted to receive OST. This ambivalence towards methadone maintenance treatment is reflected in the international literature and is considered to be influenced by multiple factors which include stigma, misunderstandings about OST, concerns about the addictive nature of methadone and its impact on health, the constricting nature of OST and negative treatment experiences (Fischer et al 2002; Hunt & Rosenbaum 1998; Murphy & Irwin 1992). However, if certain barriers to treatment could be ameliorated then OST is likely to become considerably more attractive to people with opioid dependence. What are these barriers?

### **3. What (if any) are the barriers to people with opioid dependence gaining the treatment they want?**

The barriers to people with opioid dependence gaining the treatment they want was addressed from the perspectives of the opioid users and the specialist service providers. Of note was that both opioid users and service providers identified flexibility of takeaways and waiting lists as being

significant barriers to individuals seeking OST. Restrictions on day to day activities due to being tied to having to go to a pharmacy every day was also identified as a major barrier by both groups.

More specifically from the opioid users' perspective is the need for greater ease of access and flexibility in terms of more flexible takeaway arrangements, more flexibility generally in the treatment process to cater to individuals' needs, as well as increased involvement of peers in the programmes and decreasing waiting times. From the users' perspective, "better treatment by staff" was the most commonly cited suggestion made in terms of how OST could be improved in New Zealand. Service providers identified reducing stigma and discrimination, addressing philosophy and approach and capacity and resources as important ways to improve the effectiveness of OST.

Staff were frequently described by opioid users as intrusive, unavailable, untrustworthy, judgemental, uncaring, arrogant, lacking empathy and ignorant. However, there was no opportunity in the questionnaire for users to provide feedback about staff they have found helpful and the strengths they exhibit. While it is hard to judge just how representative these comments are for OST staff throughout New Zealand, other New Zealand data (Deering 2007; Townshend 2003; Townshend et al 2001) have highlighted both negative and positive client perceptions of OST. Reported aspects of treatment provision that are highly valued by OST clients have included excellent therapeutic relationships and positive, actively supportive staff, information, involvement in decision making and rules balanced with an individualised approach. Conversely, a high level of concern has been expressed about staff and perceived negative treatment sanctions that intrude on clients' lives as well as causing internal conflict about divulging substance use to case-workers.

Nevertheless, the feedback of the user group of their perceptions of OST staff in this project makes for awkward reading. Clearly the staff of OST programmes are an easy target of criticism of poorly resourced and overburdened treatment systems. There is no doubt that there are highly dedicated staff who are working hard within difficult circumstances to provide the best OST they can with the information they currently have about opioid addiction and its treatment and addiction in general. There is also no doubt that there are highly qualified staff who, within a context of inadequate resources and high administration demands, are unable to provide the care and treatment to clients they know is good practice. However, it would be wrong to simply attribute the considerable negative feedback of the user group to false perceptions of what the real problems are and who is to blame for them.

Almost all the specialist service respondents identified that their service had experienced resource issues in the previous 12 months. Of highest concern was staffing issues. These included recruitment and retention of staff, especially qualified and experienced staff for clinical case management. A major concern was the lack of medical staff for specialist clinic work and the lack of available GPs for GP Authority. The negative impact of the shortage of medical staff included lack of continuity of doctors for specialist clinics and a significant impediment to the transfer of clients to continuing care within primary care settings. The shortage of GPs available for GP Authority needs to be seen within the context of the critical shortage of GPs for the general population. Respondents from rural areas identified the significant impact of resource issues such as recruitment of staff, the need for increased staffing to manage client case loads in rural settings, and the lack of availability of GPs in rural areas for the general population. In addition, rural areas suffer a specific lack of pharmacies available for OST clients and those that do exist often have limited opening hours.

The issue of insufficient resources should not be underestimated. However, it is also important to consider the impact of highly protocolised service delivery that incorporates a significant brokerage role, particularly in services with high caseload numbers. The more protocolised the system of care delivery, the greater the administration and monitoring requirements may become, leaving less time for flexibility in approach, therapeutic initiatives and addressing in a personal way the treatment needs of clients and their families and whanau, thereby creating distance between the client group and the staff. Distance between client and staff groups is a factor that influences misunderstandings and misperceptions and levels of conflict (Ball & Ross 1991). More specifically, in regard to flexibility of takeaway doses, a number of service respondents identified that restriction or withdrawal of takeaway doses was in the context of a broader understanding of a client's situation and based on clinical judgement which included safety considerations. However, there were some indications from service provider responses that a narrower focus based on urine test results may have been taken by some services.

Almost all service respondents identified a number of barriers and gaps in respect to holistically meeting clients' needs and significant others and whanau. These included stigma, staff resources and training and the time required to establish links with other services/sectors as well as difficulty accessing services/treatment required by clients due to waiting lists and transport and travel distance in rural areas and rural farming/employment hours which impacted both on accessing pharmacies and other required services.

The considerable resources required to establish collaborative relationships and referral pathways should not be underestimated as many OST clients are reluctant to access external services, despite identified need, and some providers are reluctant to work with this client group (McLellan et al 1999). Overall, respondents rated the quality of collaborative relationships with obstetric services, corrections, justice, primary care, social service agencies WINZ and general hospitals highly. However, responses indicated that, in general, greater attention was required to the collaborative interface with vocational/employment services and CYFS as well as with mental health services, self-help/mutual help groups and needle exchange programmes.

With regard to barriers to consumer input, almost one third of specialist services reported they did not have direct access to consumer advisors with OST experience and nearly two thirds did not have access to team members who had previously experienced opioid dependence. It was of note that increased involvement of peers in the OST programme was one of the key areas that opioid users considered would improve programmes.

The transfer of clients to receiving OST in primary care settings indicates the potential for greater flexibility of service provision (Townshend et al 2001) which was identified by opioid users as an important factor in improving programmes. The specialist service respondents identified multiple barriers to the transfer of clients to primary care settings. These fell into three groupings: GP related barriers, client related barriers and service related barriers. GP related barriers, as highlighted above, comprised lack of GP availability due to a broader critical lack of GPs for the population, lack of training and confidence as well as the reluctance of GPs to take on this role due to administration burden and lack of incentive funding and unwillingness to provide OST, considered by respondents to be influenced, in part, by stigma. The three client-related barriers were cost, perceived preference to remain with the specialist service and perceived lack of readiness for transfer. Staffing/service barriers included a perceived reluctance to transfer clients as well as staff resource issues including resources to back up and support GPs. These barriers are in accordance with those identified in 2008 by Sheridan and colleagues.

In order for a target of 50% of clients to receive continuing treatment within primary care settings specialist service respondents identified resource requirements. These included increased funding for client places, greater GP availability and an increased willingness amongst GPs to take on this role as well as administration support/funding and reduced cost to clients. Two services had successfully addressed administration support and one, the cost of client visits. In addition, respondents specified that additional resources would be required for specialist services, both prior

to client transfer and for consultation, in order to provide ongoing advice as well as “re-stabilisation” following transfer in times of need. Given funding availability service respondents were generally also supportive of treatment workers being situated within primary care settings (eg addiction specialist nurses, social workers, peer support workers/counsellors) to work alongside GPs directly with clients. Respondents were also supportive of the development of nurse practitioner roles (with prescribing rights).

**4. How many people are being treated using opioid substitution treatment (OST) in New Zealand, including the numbers of patients on authority to GPs and the number who have been discharged to ongoing GP care?**

The specialist survey respondents estimated as accurately as they could within a dynamic treatment system the numbers of clients receiving OST at the current time within their specialist services and on GP Authority as well as via approved medical officers/services. The overall total of 4608 clients estimated to be receiving OST in New Zealand is almost, as highlighted above, a doubling of the 1996 estimate of 2,500. Eighteen specialist services provide treatment for 4400 clients, including 87 individuals who are in prison and 932 on GP Authority (22%). Another 208 clients receive OST from approved medical practitioners/services in Christchurch (123) and Tauranga (85). However, in accordance with the 2003 survey (Clunie et al 2003) the overall proportion of clients receiving OST in primary care settings (25%) has not reached the amended target of 50% set by the Ministry of Health in the mid 1990s. If those discharged to ongoing GP care are removed from this estimate, the proportion receiving care on GP authority is 22%. Barriers to achieving a greater proportion of clients receiving OST within a primary care setting were discussed in the section above.

However, it is of note that despite multiple barriers, Auckland and Christchurch, the largest providers of OST, have achieved 26% and 40% (respectively) of clients receiving care on GP Authority in primary care settings.

**5. How many people are waiting for OST treatment and how long (in time) are waiting lists for OST in the various treatment programmes?**

An estimate of how many people are waiting for OST treatment is not possible to accurately obtain within the current context. This is because of the high degree of ambivalence that many opioid users

appear to have towards methadone treatment and other identified barriers together with the dynamic nature of waiting lists and how these are developed and maintained. However, the opioid user consumer survey identified 20% of those who had never received OST had wanted treatment, translating into an estimate of about 1000 individuals who might currently seek treatment. In addition, the multiplier calculations by region showed a higher proportion of users not in treatment in Christchurch highlighting the need for regional consideration of need and the limitations of taking a simplistic population-based funding approach. In fact, the rate of opioid dependence is probably higher in the whole of the South Island compared with the North. In 1997, opioid deaths were found to be three times higher in South Island cities compared with North Island cities (Sellman & Robinson 1997), which adds to the weight of these current data in identifying differential prevalence rates across regions in New Zealand.

The information with regard to accessibility to OST in waiting time was gathered from information provided by the specialist service respondents. The median waiting time in days for the last three clients (identified by each service) from first contact to first opioid substitution dose was 30 days (range 2-290). Of 53 clients identified in this way, only 16 (30.2%) met the criteria of admission within 14 days. Four clients had their admission to OST delayed for substance use related reasons.

All but one of the 18 specialist service respondents was able to provide information on individual service waiting times for a person not meeting high priority criteria. Waiting times were estimated from first point of contact to assessment and from assessment to first opioid substitution dose. Service respondents emphasised that waiting times were dynamic and influenced by counsellor/clinical case manager availability, staff availability, medical officer availability, clients attending all scheduled appointments, time to obtain urinalysis results, availability of pharmacists and how prepared/able individuals were to travel in rural areas. Waiting time for assessment varied from immediate (no waiting time) to 35 days and from assessment to first dose from four to 225 days and in total from four to 260. The service with the longest waiting time arranged interim prescribing for clients to overcome this accessibility barrier.

The general perception of the user group of the methadone waiting lists was that waiting times in the three venues (Auckland, Tauranga and Christchurch) were about four months long. This contrasts with the length of time they thought a waiting should be, which was 10 days.

A total of 46 clients were provided with interim prescribing in the past 12 months, at times arranged via the specialist clinic rather than via GPs. While five specialist service respondents advised that

their service waiting times were not problematic and did not require interim prescribing, seven respondents said their service did not offer interim prescribing citing the following reasons: it covered up resource issues, was not in the services policy, no GPs in the area were willing, the clinical director did not approve of interim prescribing and that anyone waiting would be admitted to OST. These reasons to some extent link with the identified barriers discussed above in relation to resource issues and GP availability.

## **6. What has been the influence of the “methamphetamine epidemic” on the prevalence, presentation and treatment of people with opioid dependence in New Zealand?**

The influence of the “methamphetamine epidemic” has been referred to in the above section on prevalence. The conclusion reached in regard to prevalence was that it was considered unlikely that there has been any significant impact on the prevalence of opioid dependence due to the methamphetamine epidemic.

With regard to presentations to treatment of people with opioid dependence in the previous 12 months, while this was very much an estimate provided by the specialist service respondents, it was in accordance with the reports of the opioid users interviewed and the multi-substance use context of opioid dependence. The mean percentage of people presenting to specialist services reporting use of methamphetamine was 31.3% (median 24%, range 0.1-80). The estimation for benzodiazepines was a mean of 51% (median 60%, range 4-76%). There was considerable regional variation in respect to the proportion of people presenting reporting methamphetamine use with higher proportions reported by Nelson/Marlborough and some North Island services, in keeping with other data (Adamson et al 2006). In terms of trends in substance use amongst people presenting to treatment, several service respondents reported an increase in the use of methamphetamine and none reported a decreased trend. However, only two respondents specifically referred to clients’ use of methamphetamine in substance use related reasons for involuntary discharge and there was no specific mention of methamphetamine in relation to reported deaths by respondents in the previous 12 months.

### **6.1 Strengths and weaknesses**

There are various issues which make conducting research with people with opioid dependence problematic not the least being the considerable stigma associated with injecting drug use and judgemental attitudes towards injecting drug users, which makes finding and engaging this group in

research a challenge. Other factors include the relatively small numbers that constitute this group of citizens, a proportion of whom show considerable social instability and engage in illegal lifestyles. It was therefore a credit to the research staff that very close to 100 opioid users were recruited and interviewed for the opioid user survey.

Similarly, in the case of the specialist services, OST providers are not infrequently somewhat wary of providing information about their service to independent researchers, particularly when they are aware that some of the information that identifies their service will be made public. It is therefore a credit both to the researcher involved, but also the 18 services as a whole that there was a 100% involvement rate in the services survey.

Close to 100 opioid users and 100% involvement by services provided two excellent complementary data sets from which key information was able to be analysed and presented. Incorporating similar sets of questions into the two respective survey questionnaires enabled direct comparisons between users and services, which in general terms revealed a large degree of agreement between the two groups about what is required to improve methadone treatment.

It was also a strength of the project group that this was a collaboratively undertaken project. The project team included consumer advisors, the national co-ordinator of the needle exchange programmes, peer research interviewers as well as researchers across three university sites.

Finally, it was a strength of the work that it was conducted from the outset in close consultation with the National Association of Opioid Treatment Providers (NAOTP) so that conclusions and recommendations are immediately available for discussion and implementation.

Some of the obvious limitations of the present work are as follows.

The prevalence of opioid dependence in prisons was not able to be estimated with any degree of precision. However, the consideration of prison did highlight how important prisons are in terms of opioid dependence and its treatment. Although there have been some positive developments in the provision of OST to opioid dependent prisoners in recent times, there are a number of key unanswered questions for future research, not the least being, how many people in prison have opioid dependence?

There were a number of obvious limitations with the opioid user survey. While the specialist services survey covered all specialist service providers, the opioid users survey was undertaken only in three regions. However, this needs to be balanced with the scope of the current project and the difficulty as identified above in conducting and completing research with this population. By involving only three regions, the data are somewhat suspect in terms of representativeness of the country as a whole. However by involving the two largest programmes, involving both the North and South Islands, along with a smaller northern programme, it is considered likely that the representativeness of the sample is not significantly flawed. Given the time and budget resources available to the research team, the sample obtained is considered very adequate.

The opioid user survey did not include questions about what services are doing well, so the data may give a somewhat false impression of negativity about the state of OST programmes.

Further, not all opioid survey respondents had experienced OST themselves and so their perceptions would have been based on the accounts of others' treatment experiences. However, the purpose of the overall research is to contribute to the improvement of treatment both for those already in treatment as well as for those yet to be attracted into treatment. The findings at least document well some of the negative perceptions of methadone treatment, which even if are not able to be completely substantiated nevertheless need to be attended to in terms of perception and better information provided to prospective clients.

While there was very good evidence for validity of the opioid user survey in regard to the snowballing technique, because of the pervasiveness of stigma about injecting drug use and OST as a treatment, it is not possible to entirely rule out a bias in regard to those who were willing to participate.

With respect to the specialist service survey, one respondent from each service completed the survey in consultation or on behalf of the team. While time for collecting information was provided, it was clear that for some questions hard data was not available and responses relied on estimations or perceptions. Therefore it cannot be certain that another team member would have provided the same response in some instances.

## 6.2 Recommendations

### **Primary recommendation:**

*To energetically renew efforts to attract significantly more people with opioid dependence into treatment as part of a new era of OST in New Zealand, with the aim of integrating OST with mainstream health services and OST clients into their communities.*

This primary recommendation is motivated by the lower than previously estimated prevalence rate of severe opioid dependence in New Zealand of about 10,000 people, a little over about half of whom are not in treatment. This new information needs to be grasped as an opportunity for urgent action to deliver services that are credible, welcoming and acceptable to the client group and to gain better overall control of this highly erosive contagious disorder. A disorder that is severely socially-damaging and associated with unique costs to communities and which can be stabilized and controlled with an effective and relatively cheap treatment (OST).

The picture painted by the findings of the current research to a concerning extent contrast with the findings of the extant international literature that identify the ingredients of high quality effective OST. Effective treatment is flexible, individualised, not immediately focused on abstinence, highly focused on rehabilitation and undertaken by therapeutically skilled clinical staff with positive personal attributes and attitudes that enhance the development of trusting collaborative therapeutic relationships.

A key component of high quality MMT is that it is reflexive and responsive to the needs of clients (Bell 2000). Part of the general picture painted by the present research is one of rather paternalistic, inflexible services that are placing higher priority on adherence to protocols and monitoring clients' drug use, driven by risk and safety concerns and public prejudice towards drug users, rather than providing flexible treatment responses within a programme structure underpinned by client centred approaches and best-practice treatment protocols. Within such an approach the primary goal is to attend to patients' individual needs and aspirations, to balance and manage therapeutic risk and to provide appropriate psychosocial interventions and assistance.

It is of note that, in general, the specialist service responses were in accordance with the underlying concerns of consumers and made further suggestions for improving the effectiveness of OST related to stigma, philosophy and resources. From a provider perspective, some of this perception of paternalistic, inflexible services is clearly related to resource issues. All service provider

respondents identified that their service had experienced resource issues in the previous 12 months, particularly in regard to recruitment and retention of qualified and experienced staff as well as GP availability for GP Authority. This was particularly so for rural areas who not only experienced staffing related and GP availability issues but also pharmacy related difficulties.

The issue of resources should not be underestimated, particularly in regard to having consistent staff with addiction treatment expertise with whom clients can develop long term therapeutic relationships. Furthermore, reliable dispensing arrangements and the ability to change arrangements without due “hassle” in keeping with the requirements of daily life is essential for this client group. Additionally, resource issues are also influenced by stigma and misperceptions and misunderstandings about opioid dependence and OST, requiring advocacy.

Not denying the impact of resource issues, it is also important to consider the impact of highly protocolised service delivery on the ability for services to be flexible and provide responsive, individualised treatment. Such systems require considerable administration and leave less time for personally addressing the treatment needs of clients and their families and whanau, resulting in distance between the client group and staff and therefore the potential for conflicts to arise as well as paternalistic decision making (Townshend et al 2001). However, it is important to be mindful that a high reliance on protocolised treatment provision can also be a response to the lack of qualified and experienced staff.

The prospect of more patients being brought into overstretched services would just increase the current stress and lead to demoralisation. Therefore there needs to be both a further expansion of resources to increase the size of OST programmes but also and probably more importantly change to the culture of currently run programmes in order to increase acceptability to the client group while also increasing efficiency and effectiveness of the treatment. If the primary goal is to foster high quality OST, then in keeping with high quality treatment provision, service providers must be able to demonstrate treatment that is reflexive and responsive to the needs of clients (Bell 2000). This will require from the outset a collaborative process involving consumers, providers and researchers. It will also require carefully designed feedback loops that incorporate health related outcome measures, client perception measures and peer review/external review mechanisms (Deering 2007), in addition to profiling examples of best practice and models of care. These components are critical in order to maximise effective treatment for clients and their family and whanau as well as staff recruitment and retention and role satisfaction.

Taking an economic viewpoint, opioid dependence is a major drain on community resources in proportion to its size. An estimate of some of the size of this current drain can be made based on the criminal costs associated with being on a waiting list for methadone in New Zealand. There are approximately 5,500 intravenous opioid users currently not in treatment, as estimated in this current report and the community costs of crime are approximately \$1,000 per week per person (Adamson & Sellman 1998). This therefore represents approximately \$5.5M per week of costs to the New Zealand community as a whole or \$286M per year. When incarcerated in prison there continues to be a cost of at least \$1,000 per week given the costs of prison incarceration. In 1996 it was found that the cost of prison incarceration were \$50,000+ in contrast with the cost of methadone maintenance treatment for one year in the region of \$5,000 (Sellman et al 1996).

It is therefore highly desirable for the community, as well as clients, for treatment to be attractive and for a good proportion of people with untreated intravenous opioid dependence to seek and receive treatment.

But, as has been demonstrated in this report, there are currently major barriers that both services and users agree put off people seeking treatment. In order for a new era of OST in New Zealand to be successful, services must become more attractive to the client group.

The following eight recommendations are elements that together would make services both more attractive and effective. As emphasised above, new resources will be required. But just as importantly, if not more importantly, is that a culture change is required in at least some of the programmes in order to usher in a new era of OST provision in New Zealand.

- (i) *Reduce OST waiting times to less than two weeks from presentation to first dose for those for whom this treatment is indicated.*

Waiting lists were viewed by both the user group and the services as an important barrier to methadone treatment at the current time, rated as at least moderately off putting by about three quarters (73.7% and 76.5% respectively) of each sample.

Where possible, people with daily or almost daily intravenous opioid use, should be assessed and given their first dose of methadone or alternative opioid substitution treatment within two weeks of presenting to specialist services. If this is not possible then patients ought to be given the option of

finding a general practitioner who is willing to prescribe an interim methadone prescribing programme to them in accordance with the current Ministry of Health approved guidelines in the same timeframe ie within two weeks of presentation.

Services that are unable to provide this level of service should be identified as potentially requiring special assistance, which may include additional resources. These services should undergo an independent review to identify the barriers to achieving the waiting list time standard required and an action plan for ensuring this occurs developed in close consultation with the service and its consumer group. Such a response should overcome the concerns of services that consider interim prescribing should not be provided for philosophical reasons despite the overseas efficacy trials (Schwartz et al 2006) and New Zealand extant experience (Dunn 2003; Mellor 2005).

*(ii) Involve consumers in the running of OST programmes as paid peer support workers, in addition to the current consumer advisors (both specialist and primary care).*

A powerful key to culture change in OST programmes is for consumers to be introduced into the clinical team, employed and working alongside clinical staff in the running of OST programmes in a paid peer support worker role. This would be in addition to the current system of consumer representatives and advisors who have various inputs to the MMT programmes.

Some of the roles that are envisaged for consumer support workers are as follows: introduction and orientation to the programme, including explanation of how it works, what is expected, guidelines for the treatment process etc; acting as a support for those who need interim methadone prescribing but currently don't have a GP who is able to do the prescribing; etc.

This is a recommendation that comes directly from the suggestions of the user group when asked how methadone programmes could be improved in New Zealand. Increasing flexibility including more peer involvement in treatment was the second most voiced group of suggestions. It is of note that there was not a similar voice from the services survey. A key to breaking down the "us versus them" gap tinged with a high degree of perceived paternalism towards the user group would be to have users much closer to the everyday functioning of OST programmes, in fact working as an integral part of these programmes. Not only is this likely to signal to ambivalent potential clients that there would be staff members who really understand their predicament, but ensuring their lives are enhanced by the treatment rather than constricted.

In fact, there is an excellent precedent here in New Zealand with the development of Maori health workers in mental health and addiction services over the last 10 years. The presence of Maori health workers have been reported to increase access to mental health and addiction services through ensuring cultural safety and breaking down prejudice towards Maori clients within multidisciplinary services.

*(iii) Introduce more flexibility regarding takeaway doses of methadone in promoting normal life integration of OST clients.*

Restricted takeaway arrangements were rated the highest barrier to methadone treatment in both the consumer and the specialist service surveys, with 80% of both groups rating this item as at least moderately important in putting people off accessing methadone treatment. However, this inflexibility is not infrequently cited as one of the “immovables” of methadone programmes and that the programme will always be “liquid hand-cuffs” to some extent – prison outside prison. It is certainly true that undertaking MMT involves a routine of taking a medication every day and in most cases having to take a good proportion of the doses in front of a pharmacist. This is in stark contrast to many people’s lives not undertaking MMT, when the next dose of opioid drugs is somewhat uncertain, and generally is required more than once a day to prevent withdrawal symptoms appearing.

However, if everyone concerned (both users and services) are in agreement that inflexible takeaway arrangements are the highest barrier to people coming on to MMT, something needs to be done to ameliorate the situation, if the goal is to bring as many people onto MMT as possible. If the goal is not to make services more attractive to ambivalent potential clients, then clearly the best way of keeping people away would be to maintain inflexible takeaway arrangements.

The importance of maintaining a tight control on takeaway doses of methadone related to three main concerns:

- (i) diversion of takeaway doses of methadone;
- (ii) injecting takeaway doses of methadone; and
- (iii) safety issues in relation to the use of other drugs in conjunction with methadone and taking more than the prescribed daily dose on a single occasion.

Diversion of takeaway doses of methadone certainly occurs and 22% of service providers said that in the last 12 months their service had been concerned “quite a lot” or “very much” about diversion in their area. In addition four service providers identified a trend in the same period of an increasing number of individuals presenting for treatment reporting use of methadone although one service provider identified a decreasing trend in this respect.

Diversion is driven in part by the relative poverty that many of the opioid dependent users who access methadone programmes are living in. The temptation to sell some of their methadone at times is too great. However, the ability to sell methadone at a price that is worth the risk is itself driven by the market perpetuated by a treatment process that is viewed as unacceptable by many in the potential patient group, including unacceptable waiting times. If a further 2000 people were quickly brought into treatment, the market in diverted methadone would be seriously dented.

The injecting of takeaway doses of methadone is another real occurrence and is of concern in regard to the risk of spread of blood borne viruses, particularly HIV and hepatitis. However, it must be recognised that injecting drugs is a key aspect of the disorder itself. Many people continue to inject drugs while on methadone, particularly during the first year or so. So injecting should be an expected phenomenon analogous to people recovering from major depression a proportion of whom will continue to indulge in negative thinking, even suicidal thinking, while on antidepressants. Effective treatment over time will bring about amelioration of negative thinking in major depression in the same way that effective treatment over time incorporating health education and health promotion and collaborative working with Needle Exchange Programmes will bring about amelioration of injecting drugs in opioid dependence in the majority of cases. In the meantime it could be argued that safe injecting of sterile Biodone is considerably safer than injecting homebake morphine or other illicit opioid, constituting a more positive health related outcome.

Finally is the issue of safety, which is central to a clinical approach and therefore of very high priority to clinicians working in this area, particularly when these clinicians are members of highly risk-averse health services as appears to be the case with many current District Health Board services. Of note, in the last 12 months, service providers estimated 26 clients had died while receiving OST; 22 while part of a specialist service, 4 while on GP authority. Even if all 26 patients had died as a result of drug overdose, which is highly unlikely, this still represents a death rate of only 0.6%. Given the known high risk lives that many untreated opioid dependent people live, this is a remarkably low overdose figure for those being treated. It indicates a very safe treatment, but it may also point to a highly risk averse treatment system. All effective treatment involves taking

therapeutic risks, so that if risks are being avoided at all costs there can be benefits that are being missed. It may also be the case that the greatest risks must be taken with the very people who could benefit the most from OST, but because of excessively inflexible treatment are not able and/or unwilling to access OST.

However, this recommendation is not a call for the abolition of consumption on premises dispensing of methadone. It is a call for balancing risks with greater flexibility in the granting of takeaway doses and that these are linked with promoting a more normal functional life for OST clients, particularly in respect to meaningful activity including parenting and employment which may require flexible working hours.

*(iv) Fund buprenorphine as an opioid substitution alternative.*

Methadone is the only centrally funded OST medication at the current time. This is an important component of the stigmatisation of clients as “methadone clients” not only in mental health and addiction settings but in general medical settings as well.

Buprenorphine would be a major step forward in diminishing this “methadone” stigma but would bring about three further major benefits. Firstly, the pharmacological profile of buprenorphine enables a significant proportion of clients to require medication on every second day rather than daily. This would represent a significant step forward and out of the “liquid handcuffs” of everyday having to go to the pharmacy and consume a dose of methadone. Secondly, the partial agonist action of buprenorphine compared with full agonist action of methadone leads to a less dense opioid effect. For some clients this is a disadvantage and the effect of methadone is preferred as an ongoing stabilising experience. However, there is a significant proportion of clients who prefer the effect of buprenorphine described variously eg “clearer head”, “sharper thinking” and who in fact are put off accessing methadone at the present time. Both of these benefits are likely to be very useful in attracting more clients into OST, the main goal of a new era in OST in New Zealand. Thirdly, buprenorphine (partial agonist) is significantly safer in overdose than methadone (full agonist).

- (v) *Undertake a review of the educational qualifications, attitudinal base (including treatment philosophy) of all clinical staff in each OST programme as a prelude to ensuring that all OST services are operating with a therapeutic/recovery model of treatment.*

This recommendation relates directly to reviewing OST staff knowledge, skills and attitudes, because the most important factor identified by the user group in improving MMT in New Zealand was improving the treatment they received from staff. The feedback of the user group of their perceptions of MMT staff makes for awkward reading. Clearly the staff of MMT programmes are an easy target of criticism. There is no doubt that there are highly dedicated staff, who are working within difficult circumstances to provide the best MMT they can with the understanding that they currently have about opioid addiction and its treatment, and addiction in general. There is also no doubt that there are highly qualified and experienced staff who because of the current avalanche of health management documentation, protocolisation and poor resources are unable to provide the level of care and treatment to clients they know is good practice. However, it would be wrong to simply attribute the overwhelming feedback of the user group to false perceptions of what the real problems are and who is to blame for them.

The importance of staff philosophy and approaches is highlighted in the Mental Health Commission document *Te Hononga 2015: Connecting for greater well-being* (MHC 2007). *Te Hononga* provides the Commission's values based vision for the mental health and addiction sector in 2015. The workforce vision includes: staff with shared principles and philosophies that ensure incorporation of concepts such as person-centred, recovery, social inclusion, holistic models of health and whanau ora/family well-being in the delivery of all services.

In terms of OST, the tensions inherent in providing MMT and the impact of stigma require particular attention to be paid to staff attitudes and beliefs which should be specifically addressed in staff selection processes. Surveys of staff attitudes and beliefs have shown that abstinence oriented beliefs held by MMT staff and rigid attitudes are associated with ineffective practice in regard to discharging clients for non-adherence to abstinence related protocols, methadone dose limits and duration of treatment (Capplehorn, Irwig and Saunders 1996; Kang et al. 1997). In addition, (excluding staff with strong moral perspectives and abstinence orientations), postgraduate education has been correlated with a broadening of perspective. If the educational standard of MMT programme teams can be improved then it is likely that the credibility of staff in the patients' eyes will be improved, which was a significant factor in the user group feedback.

It is envisaged that those MMT programmes that are found to have less than one third of their clinical staff with a relevant postgraduate qualification in addiction, which includes pharmacotherapy, would be provided new resources, for example in the form of scholarships, to enable staff to undertake such education until the target of at least one third is achieved.

*(vi) Increase the numbers of primary care OST prescribers (incentivisation of GPs, NPs).*

A key barrier to developing a new era in OST in New Zealand, which integrates MMT into the mainstream of health care in line with the recommendations adopted by the Ministry of Health from the Sellman et al report of 1996 ie that 50% of patients would be cared for in general practice, is the unavailability of GPs. This was recognized by the Wanganui and Hawkes Bay services which provided an annual allocation of \$250 per client for GPs to assist with administration requirements. Given that opioid dependent patients are “uniquely expensive citizens” and been shown to cost communities in excess of \$1000 in crime each week they are on a waiting list for MMT (Adamson et al 1998), rather than perpetuating barriers to the care, every effort should be given to decreasing barriers to the care of these people. Incentive payments to GPs eg a one off payment when a person is successful transferred to their care, along with an annual administration payment would encourage the flow of patients from specialist care to primary care. This would allow the specialist resource to both attend to new patients as well as cope with clients with more severe and complex treatment needs. When compared with the considerable social costs of not treating people, investment into GPs would be paid for in no time at all.

Consideration should also be given to strengthening accessibility to primary care service provision through the development of Nurse Practitioner posts for Nurse Practitioners with an addiction scope of practice who can prescribe OST.

*(vii) Ensure adequate primary care clinical case management resources are available to discharged OST clients for ongoing therapeutic and rehabilitation needs.*

A concern expressed both in this current research and previous work, primarily from specialist OST workers, is the perceived lack of ongoing psychosocial care for people discharged to primary care. This concern is supported by literature that demonstrates that OST is more than opioid substitution

at a pharmacotherapy level, but moreover that OST is more like “bait” than attracts people into the real treatment, which is the rehabilitation of their lives.

Such rehabilitation work would be viewed as the “bread and butter” of nurses, including nurse specialists and Nurse Practitioners with prescribing authority, attached to primary care who would contribute to the continuing care of clients with more complex treatment needs (eg with mental health problems, single mothers with young children, those requiring specific psychosocial interventions) through a clinical case management chronic care model which includes health education and maintenance strategies; thereby preventing their destabilisation and needing to return to the specialist services. Additionally, consideration should be given to the incorporation of social workers and peer support workers as part of primary care teams to support general practitioners.

It should also not be assumed that patients receiving treatment within dedicated MMT programmes are receiving adequate psychosocial support. Greater use of the full range of health and social assistance which can be provided by nurses, social workers, clinical psychologists, physicians and psychiatrists and peer support workers could lead to substantially improved treatment outcomes.

*(viii) Increase the dispensing access in hard to service localities identified by specialist services (DHB).*

One of the more hidden aspects of MMT is the dispensing of methadone. The service survey uncovered a serious lack in some regions, generally rural, of adequate dispensing facilities. This is a crucial aspect of the whole MMT process and without adequate facilities, MMT becomes extremely difficult to sustain. One of the hallmarks of adequate dispensing arrangements is that patients who are working are able to access their methadone before they begin work each day. Incentive payments by the local DHBs to pharmacies where this is a problem should be supported in principle by the Ministry of Health and could mirror similar incentivisation of GPs in the form of a one-off incentive payment at the outset to (hopefully) establish a working client-pharmacist relationship, as well as an ongoing annual administration fee. Novel solutions to the problem such as the provision of a mobile dispensing service directly from the specialist service should be considered if direct incentive payments to pharmacies in hard to service localities are not successful in achieving an efficient flexible service for OST clients.

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# APPENDICES

**Appendix 1      Literature Review**

**Appendix 2      User Survey Questionnaire**

**Appendix 3      Specialist Services Survey Questionnaire**