
REVIEW OF METHADONE TREATMENT IN AUSTRALIA

Final Report

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Executive summary and list of recommendations

- 1 Introduction
- 2 Terms of reference
- 3 Methodology
- 4 The principles of methadone maintenance therapy
- 5 The demand for methadone maintenance therapy
- 6 Overview of state methadone services
- 7 Evaluation of clinical outcomes in different clinical settings
- 8 Prescriber and dispenser training
- 9 The roles of the private and public sectors
- 10 Costs of services
- 11 Improving accountability
- 12 Funding mechanisms

Appendix A References

Appendix B List of persons consulted

Executive summary

The Terms of Reference for this study called for a review of the range of management, clinical and administrative practices existing in Australia in the delivery of methadone services and the funding mechanisms supporting those services. Recommendations were required as to how each of these dimensions of service delivery could be improved, and appropriate roles of the private and public sectors more clearly determined. The review did not extend to an evaluation of the underlying effectiveness of methadone maintenance as a treatment option for opioid dependence. This has been taken as a given. However, in order to provide a context for the study, the report provides a description of the principles of methadone maintenance

therapy, its objectives and its effects across a range of health and social outcomes.

The study was undertaken by members of Coopers & Lybrand Health and Community Services Division in cooperation with the National Drug and Alcohol Research Centre (NDARC). It would not have been possible to complete the review without the assistance and support of a wide range of health professionals, administrators and clients from all States and Territories. Their contribution to the review is gratefully acknowledged.

Methadone treatment for opioid dependency dates back to 1969, and since that time has come to be endorsed as an effective method of treatment. It is now available in every State and Territory except for the Northern Territory, and is provided in a diversity of treatment settings involving both the public and private sectors.

A National Methadone Policy was adopted in 1993 which reflects a national position on the role of methadone, and provides core operational procedures to guide the provision of services. Despite agreement on these principles, there has been significant divergence between jurisdictions on the systems and structures by which services are delivered. This has led to a range of service settings and control mechanisms, and differing roles for the public and private sectors between States.

In assessing the potential demand for methadone services, a review of a number of published studies was undertaken. These studies suggest that the number of regular heroin users in Australia in 1993 was of the order of 60,000 persons, with up to twice as many again being irregular users. This represents an overall prevalence rate of 21 persons per 1,000 people aged between 15 and 44 years, up from 14.4 four years previously. However, the extent to which potential methadone clients are likely to enrol in methadone programs is uncertain, and will be determined as much by the availability of and access to programs, as it will by their attitudes to participation. Despite the fact that a greater proportion of regular heroin users now participate in methadone programs, the data suggest that demand has not been fully met even if a majority of heroin users are not interested in enrolling in methadone treatment.

A comparison of methadone treatment services throughout Australia indicates that there are many areas of commonality between the States and Territories in regard to their philosophy of treatment. The principles of methadone maintenance treatment underpin all services, and reflect international experience in the use of maintenance therapy as an effective treatment for opioid dependence. The various State guidelines for treatment are similar in their content, and provide for comparable treatment regimens across State boundaries.

However, there are considerable differences across jurisdictions in Australia in regard to their history of methadone program development, and the mechanisms by which those services are provided. For example, the extent of centralised versus decentralised control, the different roles of the public and private sectors, and the extent to which methadone services are provided by larger specialist clinics compared to private practitioners as part of their general practice are evident in different degrees.

Thus, while the principles of methadone maintenance treatment are embodied in all programs throughout Australia, the means by which those services are delivered vary considerably. In

combination, these factors demonstrate that the delivery of methadone programs on a national basis operates in a complex environment.

The general view expressed by the majority of persons consulted during this study is that the quality of services provided in methadone programs in Australia is of a very high standard. While some abuse of the payment system is apparent, there is no evidence to demonstrate that such abuse is widespread, nor that clients themselves are disadvantaged to a significant degree.

Growth in the total number of clients participating in methadone programs has been associated, particularly in the eastern States, with an expanded role for the private sector. For Australia as a whole, the number of clients participating in methadone programs increased from approximately 6,500 in 1989, to nearly 15,000 in 1994. Associated with this increase has been an increase in the number of clients treated in the private sector from 42% to 56% over the same period, virtually all of which has occurred in Victoria and New South Wales.

An evaluation of the clinical outcomes of methadone services in different clinical settings undertaken by NDARC compared the services provided in large public and private clinics in New South Wales. The study revealed significant differences in the methods and frequency of service delivery, the fees charged to clients for the dispensing of services, and the availability of takeaway doses. The role of medical practitioners was also found to differ significantly between the two sectors, particularly in regard to their counselling role. The study called into question the value of regular urinalysis for the detection of illicit drug usage, a finding which has been supported through discussions with a wide range of medical practitioners.

Despite systematic differences between the sectors in the treatment delivered, the outcomes achieved in the public and private clinics were very similar. Importantly, within both the public and private sectors, there were large differences in the quality and effectiveness of treatment delivered in different clinics.

Although clients in public clinics reported greater satisfaction with counselling services, there was no evidence that the greater emphasis on formal counselling contributed to less heroin use or greater psychological stability among clients of public clinics. Similarly, the considerable difference in takeaway availability did not seem to affect clinical outcomes, although there are clearly other disadvantages associated with their more ready availability in private clinics.

Adequate doses of methadone were associated with the lowest rate of heroin use. By comparison, low levels of non-opioid use, good levels of social functioning and high client rating of services were associated with clinics which had a more clinical and therapeutic approach to treatment and client relationships.

The study reinforced the need for the implementation of quality assurance mechanisms aimed at raising the standard of services provided in both sectors. A number of outcome measures are identified as being appropriate to the assessment of program effectiveness, including the proportion of clients retained in treatment at different intervals, continuing heroin use, the use of non-opioid drugs, and clients' psychological well-being.

While the involvement of general practice and community pharmacies is seen as an important mechanism for the expansion of methadone services, no study has been undertaken to date

which compares the effectiveness of methadone treatment in these primary care settings. Given the increasing prevalence of these settings, this issue needs to be addressed. Such a study should seek to identify factors influencing these types of services, with a view to maximising their effectiveness.

One of the major factors found to affect outcomes of methadone maintenance therapy is the experience and approach of those providing the services. Common to all practice settings is the need for service providers to be suitably qualified in the first instance, and to maintain those skills over time. While all jurisdictions offer training courses to medical practitioners, the courses vary in their content and duration, and participation is not universally compulsory. In this regard, there is considerable scope for greater standardisation of training. A similar situation exists in regard to dispenser training. In this case, however, work is being undertaken by the Pharmaceutical Society of Australia and the Pharmacy Guild of Australia to develop a national approach to training in the dispensing and administration of methadone.

When examining the respective roles of the public and private sectors in the provision of methadone services, the main trend today is to involve GPs and community pharmacies in methadone services as part of their wider practices. This approach seeks to use the existing service infrastructure of the private sector, rather than establish a new public infrastructure with its associated costs. In NSW large private methadone clinics have also been established.

The involvement of the private sector, particularly GPs, has the greatest potential to improve access to services by clients, particularly in more remote areas, and to reduce the stigma associated with attendance at specialist methadone clinics. The major difficulty with this approach has been and remains attracting medical practitioners and pharmacists to methadone programs, and the need to ensure that they are appropriately qualified and trained. There is a need to collect further information about the factors that influence participation in the provision of methadone services, and on client views about the services provided in different practice settings.

Given the current situation where there is a mix of private and public participation in various forms in the provision of methadone services, it is clear that there is no "one best way" for future services delivery. While some of the large private clinics in NSW have undoubtedly drawn considerable and apparently justified criticism in regard to the quality and costs of services they provide, they nevertheless meet a current demand for services. There is clearly a need to address the concerns raised about the activities of a number of these clinics.

At the same time, there is a need for the public sector to extend its current activities in the administration, regulation, quality control, coordination and monitoring of services. Support services for the private sector must also be established to encourage their participation and to ensure that client needs are appropriately addressed. These activities will be essential if service quality and continuity is to be improved and maintained.

We have outlined a preferred service delivery model which seeks to match the needs of different groups of clients with the services provided by suitably qualified and experienced practitioners. This approach does not restrict the public and private sectors to defined roles, although the tendency for more highly qualified practitioners in the field of alcohol and drug

services to be located in the public sector may lead to a natural division of roles. The model seeks to provide greater access to methadone services for clients when they are stable, while providing the necessary safety net for them in times of need. At the same time, the needs of complex cases are catered for by practitioners most qualified to meet these needs. The referral system proposed in this model for complex cases is consistent with current medical practice across specialties.

A review of the comparative costs of methadone services between the public and private sectors and between different jurisdictions has been made difficult by the absence of reliable financial data. As a result, costs have been estimated based on the results of specific questionnaires to State health authorities and private medical practitioners, and by an examination of a sample of Medicare data. The uncertain reliability of these data sources suggests that the results should be interpreted with caution.

In the public sector, reasonable consistency was found in the direct costs per client treated. The exceptions to this were in Tasmania and Victoria, where relatively few public clients are treated, and concerns are held about the reliability of the costs reported. If these two States are excluded from the analysis, the average direct cost per client per annum of methadone treatment in the public sector is approximately \$2,100, while the total cost (including program administration etc.) is \$2,250 per client per annum. Given the basis on which public clinics are funded, these costs are expected to reduce with the number of clients treated, though not necessarily proportionally.

In the private sector, considerable variation has been found in the costs of treatment, depending on the intensity of treatment (which tends to be related to duration of treatment) and the nature of the service provider (i.e. whether it is a GP or a specialist). The nature of the funding system results in costs being directly proportional to the frequency of service delivery and the fee charged. Services provided by GPs were estimated to cost \$737 in the first year of treatment, falling to \$367 in subsequent years. For psychiatrists the equivalent costs were \$2,189 and \$1,267 respectively. These differences are reflective of considerable differences in treatment patterns between the two groups, and the higher fees charged by psychiatrists. There are no data available to indicate whether or not the clinical complexity of clients being treated by the two groups differs significantly, nor whether outcomes of treatment vary as a result of the differences in treatment approach. However, many of those consulted during the course of the study doubted that the differences in fees charged between these groups could be justified in terms of the nature of the services provided. The costs of services provided by psychiatrists are comparable to the costs incurred in the public sector.

However, the costs quoted for the private sector exclude the cost of dispensing methadone, as this is usually met by the client. Costs in the public sector generally include the dispensing costs of public clinics. When taken into account, this difference in reporting largely negates the difference in the quoted costs for the two sectors, and would make the services provided by psychiatrists in the private sector more costly than those in the public sector.

Charges to clients for dispensing of methadone vary considerably both within and between jurisdictions, and there is a need for greater standardisation of these charges at an affordable level. The issue of whether or not there should be government subsidisation of costs incurred

by pharmacists in dispensing methadone should be considered in the context of its cost-effectiveness and its effect on attracting more community pharmacists to the program.

An analysis of the respective contributions by the State and Commonwealth governments for the provision of methadone services has indicated that, in total, they are currently of a like order of magnitude of approximately \$15.2 to \$15.3 million. It should be noted, however, that the expenditure by States may include funds provided by the Commonwealth under National Drug Strategy (NDS) funding (\$4.9 million) for the provision of methadone services. Given the trend for greater private sector involvement in methadone services, it is likely that a continuation of the current funding arrangements will result in the Commonwealth bearing a greater proportion of the total costs.

On the issue of accountability, we have considered four dimensions - financial accountability, clinical accountability, accountability to clients and program accountability. In regard to financial accountability, the failure in both the public and private sectors to separately identify costs associated with methadone treatment from the costs of other services is a major barrier to full financial accountability. In the public sector, this requires a resolution on the part of the respective health authorities as to the level of financial reporting they wish to adopt.

In the private sector, the issue is more complex. One of the fundamental impediments to proper financial accountability under the current administrative and funding arrangements in the private sector is the fact that the responsibility for approval and regulation of methadone prescribers and clients rests with State health authorities, while the funding of these services rests with the Commonwealth. While the States have administrative procedures in place ostensibly to monitor activities in the private sector, these vary between States, and indeed are limited in the information they provide. Consequently, little information is available in State health authorities on activities (and hence costs) in the private sector. Conversely, while the Commonwealth has these data available through the Health Insurance Commission (HIC) data base, it is unable to identify those activities specific to methadone programs, their clients and practitioners. As long as this dichotomy between the regulators of services and the funder of services exists, then financial accountability in the private sector cannot be achieved.

Several options have been considered to address this issue. On balance, the option which provides the most reliable method of improved financial accountability in the private sector which is not contingent on the collection of additional data is the separate identification of methadone services on the Commonwealth Medicare Benefits Schedule (CMBS) or whatever other payment mechanism is used to fund services in the private sector. However, any decision to do so should also consider the acceptability of this approach to the medical profession, and consumer concerns about privacy and confidentiality.

Clinical accountability refers to the quantity and quality of services provided, the extent to which they conform to guidelines for service provision, and the outcomes achieved. Information on each of these issues is difficult to obtain, and has highlighted the need to improve such data sources. Information provided by a sample of medical practitioners in New South Wales has illustrated the considerable variation that exists between professionals both within and between specialties which is unlikely to be explained solely by differences in client complexity. This serves to highlight the need for the establishment of a national data

collection of basic performance indicators of methadone services. At the same time, there is a need to establish a regular program of clinical review of services to identify and promulgate models of best practice.

In regard to the issue of accountability to clients, information provided during the course of the review highlighted the differences in clinical practices, and in the relationship between service providers and their clients. Many of the concerns expressed about these issues could be addressed through the inclusion of clients' rights as part of the recommended quality assurance and accreditation procedures, and access to a fast and effective appeals mechanism.

Program accountability is currently being examined by the National Methadone Committee, with the development of a set of national indicators and a minimum data set under active consideration. We support these initiatives, and recommend that work in this area continue.

Discussion of the relative advantages and disadvantages of four funding mechanisms has highlighted the fact that there is no single funding mechanism which addresses and solves all the problems associated with the provision of methadone services and their remuneration. Notwithstanding this fact, the choice of payment system may act as a major influence on practitioner behaviour, and provide an incentive (or disincentive) for promoting models of best practice.

The existing fee for service arrangements embodied in the current Medicare system, coupled with the fact that these services are not separately identifiable from other medical services in the CMBS encourage over-servicing. However there have been no widespread reports of this occurring, and most complaints about these issues have been restricted to a relatively small number of practitioners.

Of the options considered, the fee for service approach caters best for the significant variation that exists between individual clients and their clinical needs, and remunerates practitioners according to the quantum of services they provide. It is also the most commonly accepted form of payment for medical services, and is supported by medical practitioners, which is essential if they are to be retained and attracted to providing methadone services. Despite these advantages, this approach does not encourage or facilitate the adoption of best practice methods.

If the fee for service model is to be continued, we consider that, as a minimum step, medical services relating to methadone treatment should be separately identified within the CMBS. Such an approach is likely to lead to greater clinical and financial accountability, without significant change to the current payment mechanism. At the same time, we consider that the differential fees charges for methadone consultations between GPs and specialists (including psychiatrists) are not justified by the nature of the methadone services provided in the large majority of cases, and that a common set of fees should be determined.

A client management payment model reduces the incentives for over-servicing, and as such may be seen to promote models of best practice. This model may be structured to provide financial incentives for medical practitioners to retain clients in methadone programs for longer periods. On the other hand, it may also promote under-servicing, leading to concerns about

the quality of services provided under this model. The client management payment model also has equal application in both the public and private sectors. The model works best for stable clients, but does not cater well for variations in clients' clinical needs unless differential payments are made. In the absence of differential payments, more complex cases may be referred to the public sector or be excluded from treatment altogether. In order to reduce the potential for abuse, and to cater adequately for the different needs of complex and stable cases, the client management payment model must work in concert with the service delivery model. In particular, the role of the general practitioner in assessing the needs of individual clients, and in acting as the referral agent for complex cases to "specialist" practitioners is pivotal to its success.

The final option considered of removing methadone treatment from the CMBS and substituting it with direct grants to the States effectively transfers the payment responsibility from the Commonwealth to the States, who may adopt any of the funding models described. This approach provides for greater flexibility and control by the States over the mix of public and private services they choose to employ in their jurisdiction. It also brings the regulatory and funding roles closer together, which may be used to monitor and improve the quality of services provided. On the other hand, this approach will lead to a duplication in the infrastructure required to administer methadone services, leading to higher total costs of administration. The potential for double-billing by medical practitioners to the States and the Commonwealth may also increase total costs of service provision under this option. In addition, the capacity of the States to negotiate alternative payment structures to the existing fee for service arrangements with medical practitioners may be limited.

A variation to this option would see a transfer of the purchasing role to the Commonwealth. While this variation has some attractive features, it would entail significant changes to the legislative and administrative framework to be effected. It also calls into question the capacity of the Commonwealth to plan and administer methadone services at the local level. However, as the central purchaser of services provided in the private sector, the Commonwealth is in a much stronger position to negotiate alternative payment structures.

The ultimate choice of funding system will be determined by the priorities of the various parties, and the weight they apply to the various criteria. Discussions with the Steering Committee have indicated that the criteria of promoting best practice, administrative simplicity and reducing the potential for abuse and fraud are of particular importance. At the same time, the choice of funding system should also be considered in the context of its capacity to support the preferred service delivery model. Of the alternative payment systems considered, the choice essentially narrows to a continuation of the current fee for service system, with methadone services identified separately within the CMBS, or a client management payment system funded by the Commonwealth through Health Program Grants. While the former is likely to be more acceptable to medical practitioners, the latter is more conducive to the promotion of best practice models of care. Each may be regarded to offer similar features in regard to their administrative simplicity and potential for abuse.

Accordingly, we have recommended that a client management payment system, with differential payments for services provided to complex and stable cases, is most likely to meet

the major criteria identified by the Steering Committee. However, there are a number of issues of principle and practicality in regard to both the service delivery and payment models which need to be addressed before such a system may be introduced. These include:

- Developing and agreeing on the different training and experience requirements of medical practitioners to treat stable and complex cases;
- Developing agreed clinical criteria for the identification and referral of complex cases to specialist providers;
- Establishing mechanisms for the treatment of complex cases in remote areas or where access to specialist services is limited;
- Determining an appropriate differential fee structure for complex and stable cases, having regard to differences in service intensity both between the two groups and over time, and the qualifications and experience of service providers treating the different client groups;
- Identifying and agreeing the mechanism for payments to pharmacists for the dispensing and administering of methadone;
- Assessing the acceptability of the payment system to medical practitioners, and the potential impact on the capacity of the system to meet current and anticipated demand for services;
- Minimising the administrative complexity for medical practitioners to apply for Health Program Grants for methadone services;
- Establishing a payment mechanism by the Commonwealth for methadone services which minimises the potential for duplication of payment between practitioners, while also providing for client mobility between practitioners; and
- Assessing the overall applicability of the proposed model in those states, particularly New South Wales, where the proposed approach represents a significant change to the existing service delivery models and structures currently in place in the private sector.

Regardless of which payment system is selected, each will have difficulties in the extent to which it is able to influence practitioner behaviour and the quality of services provided. It is essential, therefore, that the payment system work in concert with the service delivery system, and that they be augmented by appropriate clinical training and accreditation programs. These programs should apply at both the individual prescriber and dispenser level, as well as to the settings in which services are provided.

List of recommendations

- 1 That a study be undertaken to evaluate methadone maintenance treatment in smaller primary care settings compared to treatment provided in larger public and private specialist clinics with a view to identifying factors which will maximise the

- effectiveness of services across practice settings.
- 2 That a study be undertaken to examine the outcomes achieved through the use of community pharmacies compared to clinic-based pharmacies and the factors influencing outcomes.
 - 3 That a formal quality assurance (QA) process be designed which provides a basis for monitoring and evaluating the processes of methadone service delivery and the outcomes achieved in both public and private methadone clinics.
 - 4 That a formal accreditation process be established for methadone clinics, based on the QA protocols, with ongoing accreditation to be a requirement for approval of a clinic as a provider of methadone treatment.
 - 5 That a national approach to prescriber training be established, participation in which is a requirement for approval of a medical practitioner to prescribe methadone.
 - 6 That consideration be given to differentiating the training required of medical practitioners treating more complex cases, and that, if agreed to, suitable training courses be developed on a consistent basis nationally.
 - 7 That ongoing education and training be a requirement for continued approval of medical practitioners to prescribe methadone, with such training to qualify for inclusion in the vocational registration requirements for GPs.
 - 8 That, in conjunction with the Pharmaceutical Society of Australia and the Pharmacy Guild of Australia, a national training program be developed for dispensers of methadone, participation in which is a prerequisite for approval to dispense and administer methadone.
 - 9 That the involvement of general practitioners and community pharmacists in the provision of methadone services be encouraged as an appropriate method for meeting the demand for and improving access to services.
 - 10 That a study be undertaken into the process of dispensing and administering methadone; the factors influencing community pharmacist participation; the views of clients regarding community versus clinic-based dispensing arrangements; and the effects of differential client contributions.
 - 11 That State health authorities extend their activities in co-ordinating services between public and private service providers, and in providing support services to the private sector.
 - 12 That a maximum fee to clients for the dispensing of methadone be established across all States, to be applied to community pharmacies and clinic-based pharmacies as a condition of their approval to dispense methadone.
 - 13 That a decision to provide a government subsidy of the costs of dispensing methadone be based on the relative merits of a submission to this effect, having

- regard to its economic validity, and its capacity to attract more pharmacists to methadone programs.
- 14 That Commonwealth and State governments negotiate the minimum level at which financial reporting of expenditure on public methadone programs be provided on an ongoing basis.
 - 15 That a national minimum data set be established for the collection of performance indicators in all States on a regular basis, and that such data collection requirements be considered as part of a streamlining of existing reporting and regulatory procedures in the States.
 - 16 That a regular program of clinical review be established as the basis for developing and promulgating models of best practice.
 - 17 That provision be made for client representation to relevant State and Commonwealth committees responsible for the development and delivery of methadone programs.
 - 18 That a charter of client rights be included in the quality assurance programs proposed for the accreditation process for methadone clinics.
 - 19 That a fast effective appeals mechanism be established in each State to deal with client complaints.
 - 20 That, if methadone treatment in the private sector continues to be funded under the current Medicare payments system, such services be separately identified in the Medicare Benefits Schedule, and attract a standard benefit equal to the current GP benefit levels for like services.
 - 21 That the Commonwealth and States consider the relevance of the criteria by which alternative payment models may be assessed as a basis for agreeing on an appropriate funding mechanism.
 - 22 That consideration be given to the suitability of a client management system of payment for the delivery of methadone services, its acceptability in the clinical environment, and its capacity to support and promote models of best practice.

1 Introduction

Methadone treatment for opioid dependency in Australia dates back to 1969, when a medical practitioner in New South Wales first began prescribing it. The apparent rise in illnesses, crime and death associated with opioids during the 1980's led to methadone maintenance being endorsed as an effective method of treatment in 1985.

Methadone maintenance treatment is now available in every Australian State and Territory with the exception of the Northern Territory. The growth in the number of clients since its inception has been accompanied by a diversity in treatment settings, and an increasing role for the private sector in the provision of services. In 1993, a National Methadone Policy was

adopted, based on National Methadone Guidelines which had been operational since 1987. The policy reflects a national position on the role of methadone, and provides core operational procedures to guide the provision of services. The policy was endorsed by the Ministerial Council on Drug Strategy in 1993, and is distributed widely throughout Australia.

The goals for methadone treatment as identified in the policy are:

"to reduce the health, social and economic harms to individuals and the community associated with illegal opioid use."

The key objectives to achieve these goals are :

- "to reduce unsanctioned opioid use;
- to reduce other unsanctioned drug use;
- to improve the health of clients;
- to help reduce the spread of infectious diseases associated with illegal opioid use, especially HIV/AIDS and Hepatitis B and C;
- to reduce deaths associated with illegal opioid use;
- to reduce crime associated with illegal opioid use; and
- to facilitate an improvement in social functioning."

While there is national agreement about the goals and general methods of methadone maintenance treatment, there has been significant divergence between jurisdictions on the systems and structures by which services are provided. This has resulted in a range of service delivery settings, decentralised versus localised control, different roles for the public and private sectors, and variations in the number of clients treated by individual medical practitioners and clinics.

Accompanying these changes has been an increasing role for the private sector in the provision of services which has been funded through Medicare. This led to concern in the Commonwealth Department of Human Services and Health about the increasing costs this incurs to the Commonwealth, and a perceived imbalance in the agreed cost-sharing arrangements with the States. In 1989, an inquiry into funding arrangements for methadone maintenance treatment recommended a new funding formula for public and private services, but failed to gain national agreement.

The private sector is now seen by some as providing the major means of expanding methadone maintenance treatment in most jurisdictions. This has resulted from increased client demand, and the limited capacity of the public sector to respond to this demand. However, the diversity of settings and service providers participating in methadone maintenance, including private general practitioners and psychiatrists, purpose built clinics catering for large numbers of clients, and community pharmacies has led to a complex service environment. This is made even more complex by the interaction between the public and private sectors, resulting in sharing of clinical responsibilities and costs.

The increasing role of the private sector offers many advantages, particularly in regard to improved client access to services and equity. At the same time, there is a need to ensure that services are provided in a cost-effective manner, and at a standard which is commensurate with client safety and care needs. This review has been undertaken to address the service delivery infrastructure and funding mechanisms, and to make recommendations on how these aspects of service delivery and management may be improved. The Terms of Reference for the review are provided in the following section.

An important part of the review has been the examination of the comparative effectiveness of alternative service delivery models in the public and private sectors and their associated costs. This required the collection of data relating to both the clinical outcomes of treatment, and the costs associated with the achievement of those outcomes. Both these dimensions are addressed in the report. However, reliable data on the costs of methadone treatment services provided in both the public and private sectors in most jurisdictions in Australia are difficult to obtain. In the public sector, this is due primarily to the fact that the costs of methadone services are often included with those of other drug and alcohol services, and are not separately identified. In the private sector, the fact that methadone services are not separately identified in the Commonwealth Medicare Benefits Schedule (CMBS) makes it difficult to identify their costs. For these reasons, estimates of costs have been made based on information provided by State and Territory health authorities, together with data from the Health Insurance Commission and private practitioners on treatment profiles and their associated costs in the private sector.

2 Terms of reference

The Terms of Reference specified in the Consultancy Brief for this study were to:

- recommend the preferred management, clinical and administrative practices to provide effective methadone maintenance treatment;
- recommend adequate minimum standards of service for methadone treatment;
- recommend mechanisms to meet accountability and service requirements to State and Commonwealth Governments (e.g. licensing, accreditation and monitoring requirements) including the development of performance indicators;
- recommend the optimal administrative framework to support management and accountability requirements;
- recommend a funding arrangement for methadone maintenance treatment which meets the following criteria:
 - provides an equitable means of payment;
 - is nationally applicable within the public and private sectors;
 - ensures an optimal balance of service between the public and private sectors;

- provides a baseline standard for administration of methadone programs;
 - is flexible and adequately caters for:
 - : differing levels of service e.g. counselling;
 - : choice of treatment approach;
 - : client mobility; and
 - : safety and medical issues.
 - provides adequate incentives to ensure private sector provision;
 - incurs minimal cost to the client;
 - allows for appropriate provision of service personnel;
 - minimises the potential for abuse and fraud;
 - improves efficiency of administration.
- recommend appropriate roles for both the public and private sectors in methadone services.

3 Methodology

The study was undertaken by members of Coopers & Lybrand Health and Community Services Division in cooperation with the National Drug and Alcohol Research Centre (NDARC). The review was conducted under the auspices of a Steering Committee, who monitored the conduct of the study, and provided advice on its methodology and direction.

In undertaking this review, a structured approach was adopted, which comprised a number of processes:

- A review of existing research literature reviewing private methadone programs in Australia.
- An extensive consultative approach covering major stakeholders in all jurisdictions in Australia in both the public and private sectors, including:
 - representatives of Commonwealth and State health authorities;
 - Associations and Colleges of relevant professions of medicine;
 - private and public medical practitioners, nursing and support personnel, pharmacists, pathologists and other health providers;
 - clients, current and former, of methadone maintenance programs; and
 - peak body user groups.

A complete list of persons consulted is provided in Appendix B, and their

contribution is gratefully acknowledged.

- Distribution of a questionnaire to all State health authorities seeking data on activities in methadone programs in both the public and private sectors, together with costs incurred in the public sector.
- A review of a 10% sample of Medicare data provided by the Commonwealth Department of Human Services and Health pertaining to services provided to clients who received services under Medicare Item Number 66343.
- Distribution of a questionnaire to private practitioners involved in methadone treatment in New South Wales and Victoria to identify treatment patterns in the private sector.

The information gathered through these processes was then assimilated into a draft report which was provided to the Steering Committee for comment and feedback. A final report was then prepared.

4 The principles of methadone maintenance therapy

4.1 Rationale for methadone maintenance therapy

Currently, the major form of opioid substitution therapy internationally involves orally administered methadone. Methadone hydrochloride is a synthetic opioid pain-killer. In New York in the 1960s, Dole and Nyswander [1, 2] examined the ability of different prescribed opioids to manage heroin dependence, and reported that they found that methadone was most suitable to the task. They believed that long-term heroin use caused a permanent metabolic deficiency in the central nervous system and an associated physiological disease, which required regular administration of opiates to correct the metabolic deficiency [1]. They believed that maintenance/retention was a major goal of treatment, and used the analogy of diabetes mellitus to explain the need for ongoing, indefinite dosing. Methadone maintenance thereby became a treatment option for opiate dependence. It involves the daily substitution of one opioid drug with a long half-life (methadone), for a short-acting and usually injected opioid drug (heroin).

The aspects of methadone that have led to its use as a substitute drug for heroin include the following:

- At the basis of methadone maintenance treatment (MMT), and all opioid replacement therapy, is the observation that opioid analgesics can be substituted for one another. The cross-tolerance between methadone and heroin means that a person tolerant to heroin will also be tolerant to a dose-equivalent amount of methadone [3].
- Cross-suppression between heroin and methadone allows methadone to prevent or reverse withdrawal symptoms, and thus reduce the need for the person to use illegal heroin [3].

- Orally administered methadone remains effective for approximately 24 hours, requiring a single daily dose rather than the more frequent administration of three to four times daily which occurs with the shorter-acting heroin [4].
- Methadone accumulates in body tissues, being released as the blood concentration falls, apparently buffering serum levels and minimising withdrawal and sedative effects [5].
- Higher doses of methadone can "block" the euphoric effects of heroin, discouraging illicit use and thereby relieving the user of the need or desire to seek heroin [6]. This allows the opportunity to engage in normative activities, and "rehabilitation" if necessary.
- Methadone is typically administered orally, reducing the health risks associated with injecting. It is quite a safe drug when administered in correct doses, and the side-effects are not significant [7], especially when compared to the adverse effects of continued illicit drug use.

It is the drug substitution that has made methadone maintenance treatment (MMT) the subject of much controversy, debate, and misunderstanding, and which has ensured that it has become the most thoroughly studied of all of the interventions for illicit drug dependence [8].

Methadone maintenance treatment is differentiated from methadone-assisted detoxification, as maintenance implies long-term stabilised dosing of methadone. It is recognised that the long-term dosing may be for an indefinite period or for a substantial number of years with the view of eventual abstinence, although this is not a necessary goal. The differing conceptualisations of the use of methadone maintenance have differing underlying rationales for use. Where an abstinence goal is seen to be appropriate, conceptually the mechanism whereby methadone maintenance exerts its effects is that it allows the user to develop a life free of the need to seek opiates (allowing the development of a social network, employment, etc.), at which time methadone can be reduced and eventually ceased. Where long-term maintenance is the goal, methadone is considered by some to act to correct a permanent underlying pathology, in much the same fashion that insulin is used in the case of diabetes mellitus.

4.2 Harm reduction and treatment goals

The use of methadone as a maintenance agent has been affected by the adoption of harm reduction as an appropriate goal for treatments of drug dependence by the National Drug Strategy (NDS). The adoption of harm reduction as a goal has also had an effect on the goals of methadone maintenance treatment. This has been reinforced by the advent of epidemic human immunodeficiency virus (HIV) infection rates among injecting drug users in some parts of the world [9]. Accordingly, the national methadone policy has incorporated harm reduction as a major goal of methadone maintenance. More recently, the recognition of the high prevalence of other infectious diseases such as hepatitis B and hepatitis C has come to be seen as an important issue in the care of injecting drug users.

It is clear that there are a number of goals that treatment might attempt to achieve (sometimes to differing degrees) depending upon a number of factors including the type of intervention involved and the perspective on drug use (whether the user, the clinician, the community or the health bureaucrat). Listed below are the major goals of treatment/intervention for opiate dependence.

4.2.1 Reduced drug use

The promotion of life-long abstinence from illicit drugs has traditionally been regarded as the principal aim of treatment for persons with illicit drug-related problems, with a concomitant reduction in level of drug dependence. There has been a recent tendency in the prevention and treatment of alcohol-related problems to accept more limited and realistic goals of treatment such as limiting consumption below agreed levels or reducing the degree of risk of certain patterns of illicit drug consumption by aiming to change only the mode of administration. To date, the status of these more limited goals remains controversial within the alcohol field. However, the achievement of more limited objectives may be tolerated in the context of persons with serious drug problems provided that other treatment goals have been met satisfactorily.

Sometimes the goal of total abstinence from all opioid drugs will be unattainable, as in the case of those on long-term methadone maintenance, where the use of methadone is criticised and where a small proportion of users who enter the treatment will continue to use illicit drugs occasionally. Even for those in drug-free treatment it is likely that there will be continued drug use among some of these individuals, albeit at a reduced rate. The choice of goal must be realistic in terms of what is achievable with the opioid dependent.

4.2.2 Reduced risk of human immunodeficiency virus (HIV)

Because of the danger of HIV spreading widely in the injecting drug using community, the reduction (or elimination) of needle sharing associated with the injection of opiates and other illicit drugs (as well as unsafe sexual practices) is an additional goal of illicit drug treatment which has only been accepted relatively recently. An associated objective is the reduction of vertical transmission among HIV infected injecting drug users. HIV risk reduction as a treatment objective often explicitly emphasises public health benefits although not at the cost of a beneficial outcome for the individuals involved. Clearly the reduction of the spread of HIV is important to all sectors of the community. A hierarchy of HIV risk reduction objectives has been accepted. Variations on this hierarchy exist, but essentially the hierarchy is as follows (from least to most desired):

- sharing injection equipment but injecting less frequently;
- sharing injection equipment but decontaminating (sterilising) it effectively;
- using only clean needles and syringes for injection;
- administering drugs by means other than injection; and

- abstinence.

4.2.3 Improved physical health

Physical health of drug users often improves following commencement of drug treatment but the measurement of changes in physical health is difficult. Most scales available for measuring physical health are designed for severely disabled clients and do not apply well to this population, although there is a scale recently developed in Australia for the estimation of the health status of opioid users [10]. Illicit drug users more frequently have infectious diseases including respiratory illness, skin disease, sexually transmitted diseases, and chronic liver disease, hepatitis B, C and D, HIV, infective endocarditis, osteomyelitis, and septicaemia. A reduction in the transmission of viral infections closely associated with injecting drug use, such as hepatitis B, C, D, or HIV, is clearly of benefit to individuals as well as the broader society. Additionally, associated with drug use are problems such as poor nutrition, dental caries, menstrual irregularities, complications of injection as a mode of administration, and accidents occurring while intoxicated. Specific conditions include pulmonary emboli, cellulitis, thrombophlebitis, and nephrotic syndrome [11].

4.2.4 Improved psychological health

There is a range of psychological problems ranging into serious psychiatric disorders that are likely to occur in those who are entering treatment for opiate dependence. Disturbances of mood and personality disorders are said to be extremely common in injecting drug users. Although psychiatric morbidity is common in injecting drug users receiving drug treatment, the extent to which psychiatric problems are a cause or a consequence of illicit drug use remains unclear. Whether cause or consequence, these states must be detected via routine screening of those in treatment. Treatment should reduce these problems and promote psychological good health or at least leave the individual no worse off than before in terms of subjective well-being. There is evidence that for the more severe psychiatric disorders such as serious anxiety disorders, depressive disorders, and psychotic disorders, it is necessary to use well-researched psychiatric interventions.

4.2.5 Reduced criminal behaviour

Although some regard a reduction in criminal behaviour among injecting drug users as an inappropriate goal for drug treatment, arguing that this constitutes "social control", there can be little doubt that injecting drug users who are incarcerated as a result of criminal activity can suffer negative consequences which are associated with imprisonment. Therefore, it is quite legitimate to include a reduction in criminal behaviour as an important goal of drug treatment. The relationship between drug use and crime is complex. Although reduced drug use is likely to be accompanied by reduced criminal behaviour, this is not necessarily the case.

4.2.6 Improved social adjustment and functioning

A return to gainful employment, part- or full-time study, successful parenting, improved relationships with spouse, parents, family and friends, and increased residential stability are all

desirable goals for treatment. With improved social functioning, clients should also become more financially independent and, ultimately, detached from the criminal drug-using milieu. The extent to which drug treatment may improve the quality of parenting is an important but relatively neglected field of research.

4.3 Effects of methadone on drug use, crime and social functioning

4.3.1 Randomised controlled research

Methadone maintenance treatment is without competitor as the best researched of all of the treatments for opioid dependence [12-16]. It is the only treatment for opioid dependence which has been clearly demonstrated to reduce illicit opiate use more than either no-treatment [17, 18], drug-free treatment [19], placebo medication [20-22], and detoxification [23] in randomised controlled trials. These trials have been conducted by different research groups in markedly differing cultural settings, yet have converged to provide similar results, suggesting a robust effect.

4.3.2 Observational studies

The evidence from other forms of research on the effects of methadone maintenance treatment, such as quasi-experimental and large-scale cohort studies, supports the results of the randomised controlled clinical trials [15, 16].

There are three major single group observational studies of MMT effectiveness which involved monitoring client progress, but which included no comparison group [24-26]. They have all shown benefits accruing from MMT, and the convergence of the data from randomised research, quasi-experimental comparative studies and these large scale single group studies provides a level of confidence that MMT possesses robust and replicable beneficial effects.

4.4 Effects on health

Injecting drug use is associated with a high risk of premature death [29-33]. Deaths from overdose of methadone have occurred and these are reviewed below. Although precise estimates of the contribution of drug use to mortality are difficult to provide [11], the major causes of premature morbidity and mortality include accidental overdose, and infectious disease.

4.4.1 Effects on drug-related death rates

Compared to untreated opioid users, those in MMT have a much reduced risk of dying.

- Gearing and Schweitzer [24], in a study of 17,500 clients in the New York methadone program from 1964-1971, found that the mortality rate for methadone maintained clients (7.6 deaths per 1000) was not significantly different from the general population for their age group (6.6 deaths per 1000), and was lower than the

rates observed among both methadone clients who had left treatment (28.2 deaths per 1000) and heroin users requesting detoxification (82.5 deaths per 1000). The deaths that occurred among those in MMT were less likely to be associated with continued drug use than those which occurred among those who had left MMT or requested detoxification.

- Swedish researchers [34] followed a cohort of 368 heroin-dependent individuals, and assessed mortality over five to eight years. The yearly death rates showed:
 - (a) for those enrolled in methadone maintenance treatment, 1.40% died, a rate 8.4 times the population-based expectation;
 - (b) for those "successful" graduates from methadone maintenance treatment, 1.65% died;
 - (c) for those involuntarily discharged from methadone maintenance treatment, 6.91% died, 55.3 times greater than the population-based expectation; and
 - (d) for those who were provided "intermittent detoxification and participated in drug-free treatment", 7.20% died annually, 63.1 times greater the population-based expectation.

Of those enrolled in methadone maintenance treatment who died, many of the deaths were related to pre-existing physical diseases (and thus were not caused by methadone treatment), and none were caused by heroin overdose. Of those deaths that occurred outside methadone, 71% were attributed (partly or totally) to heroin overdose.

- More recently, Italian research has confirmed the protective effect of MMT. In a case-control study of overdose deaths, Davoli and colleagues [35] found that among a cohort of 4200 clients in MMT in Rome from 1980 to 1988, those who left MMT were 8 times more likely to die of overdose in the first 12 months after they left compared to those who remained in MMT (odds ratio = 7.98, 95% confidence interval = 3.40-18.73). The effect continued; after a year those who had left MMT were twice as likely to die of an overdose than those who remained (odds ratio = 2.54, 95% confidence interval = 1.25-5.15).
- Australian research has examined the outcome of 307 heroin addicts and confirmed that their relative risk of dying in MMT was one-third that when not in MMT (odds ratio = 0.35, 95% confidence interval = 0.18-0.69) [36].

4.4.2 Effects on infectious disease risk behaviours

As noted above, MMT produces a decrease in injecting drug use and thereby reduces the risk of spreading infectious disease (human immunodeficiency virus, hepatitis B virus, hepatitis C virus). There is also increasing evidence showing that there is an association between being in MMT and lower rates of sharing of injecting equipment, compared to those opioid dependent individuals not in MMT [25, 27, 28]. For example, Ball and Ross [25] showed that injecting drug use and sharing of injecting equipment were significantly reduced after commencement of MMT. Longshore [28] reported that MMT reduced the likelihood of sharing significantly

(odds ratio = 0.43).

4.4.3 Effects on rates of infectious disease

While it has been usual for drug abuse treatments to be evaluated in terms of their ability to reduce illicit drug use, reduce criminal behaviour, and improve psychosocial functioning, the advent of the human immunodeficiency virus (HIV) has broadened the focus. It is now commonplace to assess drug dependence treatments in terms of their ability to prevent or interrupt this epidemic. In addition, the high prevalence of hepatitis B virus (HBV) and the hepatitis C virus (HCV) has been noted [37] among injecting drug users. Unfortunately, the effect of MMT on these diseases has been poorly documented to date, so by necessity the following section focuses on HIV.

The available evidence suggests that being in methadone maintenance treatment is associated with lower rates of HIV infection and risk behaviours associated with injecting (sharing used injecting equipment) compared with not being in methadone maintenance [25, 38-42]. The results of the research are consistent across setting and research groups. In New York, clients entering methadone maintenance treatment prior to 1982, were subsequently found to be less likely to be HIV positive than those who entered treatment after that year [38]. Also in New York, there has been an inverse relationship observed between months in MMT and HIV seropositivity [40]. Clients in MMT were less likely to be HIV positive than those in detoxification treatment [43], and those not yet receiving MMT [44]. Most recently, U.S. research has further confirmed the beneficial protective effects of methadone maintenance treatment on HIV infection rates [45].

According to Ward and his colleagues [15, 46], this evidence, in combination with the existing evidence for the effectiveness of methadone maintenance in reducing injecting opiate use, leads to the conclusion that methadone maintenance is an important component of any overall strategy to contain the spread of HIV among injecting drug users, a view that is supported by other influential reviewers of the extant evidence [9, 47].

4.5 Treatment characteristics predictive of good outcome

4.5.1 Methadone dose

Probably the single most influential determinant of outcome in MMT is the adequacy of the dose level, with doses in the range 50-120 mgs resulting in better retention and less illicit opioid use than those in the lower range of 20-40 mgs [21, 22, 25, 48-53]. The original model developed by Dole and Nyswander [1, 6] used doses of 50-150 mgs sufficient to block both the withdrawal symptoms and the euphoria from continued illicit use (and doses were often above 80 mgs per day). These doses appear sufficient. There is absolutely no evidence to support the use of extremely high doses (>1000 mgs) mentioned by some practitioners [54].

Doses in the U.S.A. and Australia were lowered after some researchers and clinicians advocated low dose MMT (range 30-40 mgs) [55, 56]. Research on doses lower than 50 mgs produced equivocal results, despite the enthusiastic conclusions of some authors that these low doses were adequate for most clients [57, 58]. A careful reading of the research involved

reveals that the higher doses are associated with a better outcome [13]. Additionally, recent research clearly shows the inferiority of low-dose methadone maintenance, compared to moderate doses in terms of heroin use and retention in treatment [21, 22, 25, 50, 59, 60]. It seems counter-therapeutic that dose level should be kept low, when it is the single best predictor of continued opiate use; the lower the dose the more likely continued unsanctioned opioid use will occur. Doses should be tailored, and arbitrary rules about low (or high) doses removed. Client control of dose seems unproblematic [61-63].

4.5.2 Methadone formulation and distribution

There is little comparative research on the formulation of methadone. Some agencies use tablets, others hypertonic syrup, and some mix methadone in orange juice. Diversion is a risk with syrup and tablets, and these preparations can be injected, and there has long been evidence that diversion does occur [64].

Methadone can be diverted for several reasons. It can be sold illicitly to supplement illicit opiate users' supplies of heroin, to function as a primary drug of dependence, or to supplement the doses of methadone maintenance clients whose prescribed dose is insufficient. In the latter case diverted methadone would appear to be dealing with an unmet demand. Of course, diversion which functions to meet a legitimate (albeit illicit) demand is an argument for ensuring that prescribed doses are adequate to meet clients' needs, and that methadone maintenance treatment is readily available, so that additional opioids are not required to stave off withdrawal symptoms. Research from the United States [64] with 145 subjects who admitted using illegal methadone indicated that diverted methadone was primarily used to "kick a heroin habit", to "reduce a heroin habit" or "to avoid withdrawal" in the majority of cases. Methadone was also used when "other narcotics were unavailable", and because it was cheap and easily procured. The extent to which methadone is diverted elsewhere is unclear, as are the reasons for whatever diversion that occurs. However, there is no evidence to suggest that it is a major problem, and it is possible that the uses of any methadone that is diverted are similar to those reported by Inciardi (1977) for his sample.

Methods that may reduce the problems of diversion, while normalising clients' lives, include the use of long-acting opioids such as LAAM or buprenorphine, or the use of pharmacy outlet dosing. For unstable clients or where diversion is suspected daily clinic or doctor supervised clinic may be helpful. Research is sparse on these issues.

4.5.3 Treatment duration

The next most influential determinant factor in MMT is the duration of treatment, which is partly related to ensuring the adequacy of daily dose levels. A number of studies have provided evidence that longer retention in MMT is associated with higher doses [21, 22, 25, 50]. Research studies converge to show that retention in treatment is an important goal and result of successful MMT, and that premature termination of MMT is associated with a return to drug use [24, 65, 66]. There is some relevant research on the effects of the sudden termination of methadone treatment from natural experiments [66, 67]. The research has shown that the ongoing benefits of terminated methadone maintenance treatment are not

impressive (reinforcing the maintenance aspect of treatment), as there appears to be a high relapse rate to illicit opioid use.

The notion of "curing" the addiction after some arbitrary period of time for the majority of dependent persons is not supported by research. However, a small proportion of opioid dependent clients will leave methadone treatment successfully, and remain opioid free. They do so at their own behest, usually with the approval and sanction of clinical staff, and have the option of returning to maintenance dosing, if necessary. These successful "graduates" from methadone maintenance programs do appear to achieve a satisfactory outcome. It is thought that the rate of successful graduation is about the same as successfully ceasing illicit opioid use [68, 69]. A useful analogy here is that of schizophrenia, wherein maintenance anti-psychotic neuroleptic medication is associated with reduction in florid psychotic symptoms, and the cessation of medication results in prompt relapse.

The results of other research are consistent, with the bulk of studies from diverse research groups showing that length of time spent in MMT is a good predictor of outcome; the longer the time spent in MMT the better the result in terms of reduced illicit drug use and psychosocial adjustment [70-78]. The benefit from longer periods in methadone does not appear to be a statistical artifact of poor performing clients dropping out, and "good" clients continuing treatment [15].

The minimum length of time that is required to reap benefits from being in methadone treatment has been less well studied. It does appear that clients can benefit from the first day of dosing, as there is an immediate drug effect from methadone and therefore heroin does not need to be sought. There is a clinical "stabilisation" period of some three month duration during which marked changes can be observed. However, the research suggests that two to three years of methadone treatment is necessary before maximal behaviour change is observed.

4.5.4 The role of ancillary services

The early studies of MMT incorporated extensive ancillary services in MMT (drug counselling, psychiatric care, medical care, vocational rehabilitation, regular urine screens, etc.) [17, 19, 20]. Since then, a number of correlational studies have suggested a better result is achieved from methadone maintenance treatment if ancillary services are provided [25, 79-83].

It is noteworthy that these studies have found a benefit from ancillary services in a country where social security, social welfare, medical and psychiatric services are not easily available to the target group. It remains unclear whether the results can be generalised to other countries where universal health care exists and where social services are more easily available. A second problem with the research on ancillary services, is that it suggests that involvement in ancillary services brings about a better outcome, but this effect cannot be easily disentangled from the motivational factors associated with clients who wish to do well. It may be that the apparent benefits have more to do with client motivation than with a direct effect of additional services.

The randomised research on the impact of ancillary services has been equivocal, with only one

randomised controlled trial showing a benefit from enhanced ancillary services in methadone treatment [82]. The role of ancillary services, especially counselling, in MMT has become a focus of attention in recent research in the U.S.A., but the bulk of randomised research shows little benefit from enhanced psychosocial services [84].

Nonetheless, it is clear that there are a number of problems associated with drug misuse, and that ancillary services should be available to misusers to address these specific problems. It is also apparent that the drug misuser is often poorly dealt with by many sectors of the health/welfare system wherein the personal views of professionals enter into the encounter. We know, for example, that there is a very high rate of physical morbidity associated with illicit drug use [11], and medical services need to be freely available. Psychiatric morbidity is prevalent [83, 85-89], especially the affective and anxiety disorders, and these appear to negatively impact on outcome [83, 90-92], although some studies have failed to find any relationship [25]. Psychiatric treatment should be available to address these comorbid states for affected clients who wish to receive assistance. Many drug misusers will need assistance with social welfare and housing, and this should be provided either within treatment or via referral to appropriate agencies.

There is a view that urine analyses are a relevant ancillary service, and that regular random screens assist in reducing illicit drug use. Reviewers in the area could find no evidence that regular urine screens were effective in reducing illicit drug use [15]. The costs of the procedure must be weighed up against the potential benefits, especially in a harm-reduction environment.

4.5.5 The role of aftercare

Related to ancillary services is aftercare. Although the literature is not extensive, there is reasonable evidence that additional support and aftercare at the cessation of methadone maintenance treatment enhances post-treatment success rates. In randomised controlled research, comparisons have been conducted of "structured aftercare" against "assistance on request" for persons who were opiate dependent and had been treated in methadone maintenance programs, therapeutic communities, and detoxification programs [93, 94]. The aftercare program used was a combination of relapse prevention procedures and self-help. The study found that, compared to the assistance on request, the structured approach significantly reduced the risk of relapse, decreased self-reported crime, and assisted unemployed persons to find employment. Similar results are reported for alcohol dependent clients [95]. The research suggests that structured aftercare is an important component of treatment.

4.6 Alternatives to methadone

It is important to recognise that there are a number of alternatives to methadone as a substitute for heroin. Most research has focussed on long-acting opioids. Two in particular are considered here: buprenorphine and LAAM. Both of these medications are being extensively assessed in the U.S.A. and will be presented for approval for use in the near future [96].

4.6.1 Buprenorphine

Of special additional interest as a maintenance opioid drug is the opiate agonist-antagonist buprenorphine (Temgesic ®), which is a potent opioid analgesic which also has the action of blocking opioid receptor sites. This mixed action appears to make buprenorphine safer in overdose, less likely to be diverted, and may offer an easier withdrawal phase. It was the subject of some research in the past. Much recent research has occurred, and applications for approval for use of the drug in the U.S.A. [96] and in European countries are in train. It is apparent that the drug is as effective as methadone as a maintenance agent [59, 97-106].

4.6.2 LAAM

LAAM (levomethadyl acetate) is a synthetic opioid analgesic which has been investigated as a pharmacological alternative to methadone [107-110]. Its major advantage is that it has a half-life of 92 hours compared with the 24-36 hour half-life of methadone. It is being considered for use in the U.S.A. It has been shown to be as effective as methadone in a number of trials [107-110].

Early research compared LAAM, methadone and a wait-list control group [109] and found LAAM to be as effective as methadone. In a large, multi-site double blind, randomised controlled trial, LAAM (80 mgs thrice weekly) was as effective as daily high-dose (100 mgs) methadone, and both were more effective than low dose methadone (50 mgs) administered daily [60]. Freedman and Czertko [108] compared low-dose daily methadone (mean = 26 mgs) with a thrice weekly low-dose LAAM (mean = 24 mgs), and found that the LAAM subjects used illicit drugs less and had better retention in treatment than the daily methadone subjects. Others [111] report LAAM is as effective as methadone and that both were safe treatment procedures.

5 The demand for methadone maintenance therapy

5.1 The nature of the problem

The number of places in methadone maintenance treatment in Australia has steadily expanded over the past 10 years [15] from 2,000 in 1985 to approximately 15,000 in 1994. This increase is largely a consequence of the decision taken by the Special Premiers' Conference in 1985 to increase the availability of methadone treatment, although it has also been influenced by other factors. These include fears of HIV infection driving users into treatment, and subsequent changes in treatment policies in some programs that have made methadone treatment more attractive to the client group. Such changes have included easier access, and liberalisation of clinic rules on take-away doses and the consequences of continued illicit drug use.

One of the questions most often asked about the increase in the number of methadone clients is whether it can be expected to continue indefinitely. Behind this question is the further one: how many regular and dependent heroin users are there in Australia? The answer to this

question is often seen as especially relevant to assessing how much unmet demand there is for methadone maintenance (and other forms of drug treatment), the assumption being that the discrepancy between the number of heroin users who are currently in treatment and the total number of heroin addicts in the population represents the unmet demand for treatment. The latter assumption is questionable for reasons to be discussed below.

5.2 Methods of estimation

There are a number of obvious difficulties in attempting to estimate the number of regular heroin users there are in the community. Heroin use is illegal and hence difficult to study. It is a stigmatised activity that is usually practiced in private between consenting adults who prefer that others not know about their drug use. There is no universally accepted definition of "regular" or "dependent" heroin use. And there are no well tested and unbiased methods available to produce a credible estimate of the number of people who make up such "hidden populations". A variety of different methods have nonetheless been used in an attempt to estimate their numbers, all of which have their problems [112].

5.2.1 Sample surveys of drug use

The most obvious approach, conducting population surveys of drug use, is not well suited to the task of estimating the number of heroin users in the population. First, household surveys are likely to under-sample heroin users whose lifestyle makes them less likely to live in conventional living arrangements and less likely to participate in household surveys either because of their unavailability at the time the interviewer calls or their reluctance to agree to be interviewed. Second, even if heroin users are sampled and agree to be interviewed, heroin use is likely to be under-reported because it is illegal. Third, the definition of a regular or dependent user is at best crude. In most surveys we only have answers to questions about the frequency of heroin use over some period of time, (e.g. a lifetime or the past year) which is clearly unsatisfactory in a chronic relapsing condition. Fourth, in most household surveys heroin use is a rarely reported event. In the National Drug Strategy surveys, for example, the proportion who have ever used heroin is rarely greater than 1% and the proportion who have used in the past year is smaller still. Consequently, the numbers of heroin users identified in national surveys with a sample size of around 3,000 is very small (e.g. 30 persons who have ever used heroin, and less than 10 who have used in the past year). The resulting estimates of their numbers in the general population are therefore imprecise.

5.2.2 Multiplier methods

A popular way to estimate the number of heroin users in the population has been to multiply the number of heroin users in some accessible population (e.g. persons in treatment for opiate dependence) by a factor (e.g. 6 or 10) that is presumed to reflect the ratio of heroin users in treatment to the numbers of heroin users in the community who are not in treatment. This approach has the advantages that it is simple and easy to understand, and it begins with a count of the number of persons who one can be reasonably confident are regular heroin users (even if only those who have experienced problems as a consequence of their use). It nonetheless has its problems.

First, multiplier methods presuppose that we already know what we need to know, namely, the number of heroin users in the population. Second, such attempts as have been made to estimate the multiplier are usually crude guesses at best and of uncertain value even in the settings in which they were originally derived; their use in new settings is even more questionable. For example, the recommendation to use multipliers of 100-200 for opiate-related deaths derives from data collected on American heroin users in New York in the early 1960s [113] while the multipliers of 6 to 10 for the number of persons in treatment for opiate dependence are based on data collected in London in the early 1980s [114]. It would be unwise to assume that either of these factors has remained constant in recent times in the same locations, let alone to assume that they are applicable to other countries and cultures. We know, for example, that the death rate among heroin users in many countries has increased with the advent of HIV and other infectious diseases. Similarly, the ratio of treated to untreated heroin users can be expected to differ widely in different health care systems, even over time within the one system as treatment availability, accessibility and attractiveness change. We persist in using these multipliers in the absence of anything else.

5.2.3 Capture-recapture methods

The most widely used method of estimating the number of heroin users in Australia has been the method of capture-recapture or indicator dilution [115, 116]. This method derives from work in population biology where it has been used to estimate the numbers of fish and other animals in wild populations. It uses at least two samples taken from the population of interest, with members of the first sample being returned to the wild after being marked. In the case of regular heroin users, the method typically involves the use of two or more sets of records (e.g. of arrests or treatment utilisation) as the analogue of samples, and individuals' names (or other unique identifiers) as the equivalent of "marking". The rationale of the method is that the ratio of the original sample size (m) to the total population (N) is the same as the ratio of the number of recaptured individuals (r) in the second sample to the number in the second sample (s). i.e. $m/N = r/s$.

After algebraic manipulation, the total population size can be estimated by the simple formula:

$$N = s*m/r.$$

The principal attractions of this method are that it has a clear mathematical rationale and it produces an indication of its imprecision in the form of a confidence interval around the estimate. Its major disadvantage is that it only provides valid estimates when its underlying assumptions are correct (namely, that all members of the population have an equal chance of being captured, that there are no entrants to or losses from the population in the time between the samples, and that the chances of being captured in the first sample do not influence the chances of being re-captured).

The work of Sandland [117, 118] suggests that the assumptions of the traditional capture-recapture method are frequently false in the case of heroin users, and moreover, that the consequence of their violation is that estimates of the number of heroin users in the population are seriously biased. Sandland has provided improved capture-recapture methods

that reduce the seriousness of these problems but their application has been limited by the shortage of sufficiently large data sets to which they can be applied. Nonetheless, the modified capture-recapture method probably provides the best of the available methods.

5.3 Estimates of the number of Australian heroin users

- 1984 to 1987

Because no single method is satisfactory, the preferred approach to estimating the number of heroin users in Australia has been the use of multiple methods (of hopefully independent imperfection) that converge upon a credible range of estimates. For example, a series of estimates of the number of heroin users in the Australian population were produced in 1988 by the National Drug Abuse Data System (NDADS). It used a number of different methods to produce a range of estimates of the number of heroin users in Australia in the middle 1980s. These were derived as follows.

- (1) A capture-recapture estimate of the number of heroin users in NSW in 1984 (10,000) was multiplied by a factor of 3 (the estimated ratio of heroin users in NSW to number in the rest of Australia) to estimate that there were 30,000 regular dependent heroin users in Australia.
- (2) The number of opiate-related deaths in Australia in 1986 (namely, 249) was multiplied by the commonly used factors of 100 and 200 to give estimates of between 25,000 and 50,000 regular dependent Australian heroin users.
- (3) A household survey estimate of the percentage of the population that had injected a drug in the past year (1.8%) was used to estimate that there were 172,000 persons who had injected a drug in the past year. This was known to be an overestimate because it included persons who had injected drugs other than heroin. A better estimate can be derived from the percentage of persons who reported using heroin in the previous year in the 1988 National Campaign Against Drug Abuse (NCADA) household survey (the results of which were not available at the time of the NDADS report). The latter survey provides a much lower estimate of the number of persons who had used heroin in the past year, namely 28,000.
- (4) The number of persons in methadone treatment in Australia in 1987 (namely 5,735) was multiplied by two factors. The first was 1.5 (to estimate the number of all persons in opiate treatment) and the second two factors were 6 and 10 (Hartnoll et al's factors) to give estimates of 50,000 to 80,000 regular dependent heroin users.
- (5) The first estimate of the number of regular users (30,000) was multiplied by 2 and 3 (Kozel et al's 1986 estimate of the ratio of irregular to regular heroin users in the U.S.A. [119]). These gave estimates of 60,000 to 90,000 irregular and "recreational" heroin users (in addition to the 30,000 to 50,000 regular dependent heroin users).

- 1988-93

The NDADS [120] estimates have been updated as follows using data gathered between 1988

and 1993 (see Table 1).

- (1) The capture-recapture estimate of the number of heroin users in NSW in 1988-89 derived by Kehoe [116] (namely, 15,000) was multiplied by a factor of 3 to give an estimate of the number of regular heroin users in Australia of 45,000.
- (2) The number of opiate-related deaths in Australia in 1992, namely 492 (National Drug Strategy, 1994) was multiplied by factors of 100 and 200 to give estimates of 49,000 to 98,000 regular heroin users in Australia.
- (3) The 1993 National Drug Strategy household survey estimate of the percentage of the population that had used heroin in the past year (1.6%) was multiplied by the relevant population estimate to give an estimate of 36,000 persons who had used heroin in the past year in Australia.
- (4) The number of persons in methadone treatment in 1991 (approximately 10,000 from Ward [15]) was multiplied by 1.5 (to estimate the number of all persons in opiate treatment) and then by 6 and 10 (Hartnoll's factors) to give estimates of 90,000 to 150,000 dependent heroin users.
- (5) Multiplying the first estimate of the number of regular users (45,000) by 2 and 3 (Kozel's estimate of the ratios of irregular to regular users in the U.S.A. [119]) gives estimates of between 90,000 and 135,000 irregular and "recreational" heroin users (in addition to the regular dependent users).

The results of this analysis are presented in the following table:

Table 1: Estimates of the number of Australian heroin users in 1984-1987 and 1988-1993 from various sources by different methods

Method	1984-87		1988-1993	
	Range	Midpoint	Range	Midpoint
Multiple of % who used heroin in past year	0		0	
	56,000	28,000 ¹	105,000	36,000 ³
Multiple of NSW capture-recapture estimate				
		30,000 ²		45,000 ⁴
Multiple of number in treatment	50,000		90,000	
	80,000	65,000 ²	150,000	120,000 ⁵
Multiple of number of opioid deaths	25,000		49,000	
	50,000	37,500 ²	98,000	73,500 ⁶
Median estimate regular heroin users*	0		0	
	90,000	34,000	150,000	59,000
Number of irregular heroin users*	60,000		90,000	
	90,000	75,000 ²	135,000	113,000
Total number of heroin users*	60,000		90,000	
	180,000	109,000	285,000	172,000

* to nearest 1,000

Sources: (1) National Household Survey, 1988

(2) NDADS, 1988 [120]

(3) National Household Survey, 1993

- (4) Kehoe et al, 1992 [116]
- (5) Projection of figures in Ward et al, 1992 [15]
- (6) National Drug Strategy, 1994

5.4 Estimated population prevalence of opiate dependence.

It is necessary to estimate rates of opiate use to take account of changes in the size and composition of the Australian population between the middle 1980s and the early 1990s. This was done as follows:

The median estimates of the numbers of regular and irregular heroin users from Table 1 were divided in each case by estimates of the population in the age groups in which most opiate users are found (namely 15 to 44 years) for the nearest years (1986 and 1990) from data provided by the Australian Institute of Health [121].

The results of these calculations are presented in the following table:

Table 2: Estimate population prevalence of regular and irregular heroin use, 1986 and 1990

	1986	1990
Regular heroin users	34,000	59,000
Prevalence per 1,000	4.5	7.2
Irregular heroin users	75,000	113,000
Prevalence per 1,000	9.9	13.8
Total heroin users	109,000	172,000
Prevalence per 1,000	14.4	21.0
Population size ⁽¹⁾ (15 to 44 years)	7,582,62	8,171,04
	9	8

Source: (1) Australian Institute of Health and Welfare [121]

These calculations suggest that the estimated prevalence of regular heroin users (per 1,000 of population) had increased from 4.5 in 1986 to 7.2 in 1990. The estimated prevalence of irregular heroin users had increased from 9.9 to 13.8 per 1,000 population, while the estimated prevalence of all heroin users had gone from 14.4 to 21.0 per 1,000 of population. These increases are statistically significant.

5.5 Validity of the estimates

A number of caveats have to be entered about these estimates.

- First, within each time period, the range of estimates produced by different methods varies widely. In both periods the largest estimate is approximately 2 to 3 times the size of the smallest.
- Second, the imprecision of those estimates which provide some indication of their uncertainty is considerable. For example, there is a very wide 95% confidence interval around the estimates of the number of persons who have used heroin in the past year derived from household surveys. In 1988 the confidence interval ranges between zero and 56,000 while the figure for 1993 ranges between zero and 105,000.

Both kinds of variability caution against taking these estimates too seriously.

- Third, the estimate based on multiplying the number of persons in methadone treatment is artefactually increased by the increasing availability of this form of treatment in the period 1985 to 1993 [15]. It accordingly must be discounted in deciding whether the number of heroin users in Australia has increased over this period.

These caveats notwithstanding, it is tempting to argue that since all estimates have consistently increased over the two periods (by 29% to 85%) that there has been a real increase in the number of heroin users in Australia between 1984 and 1993. Before drawing this conclusion we need to resolve two apparent inconsistencies between other evidence and the apparent increase in the number of heroin users. First, the best serial estimates of the number of heroin users in NSW (those provided using Sandland's methods by Muir [122]) suggest that the number of heroin users in NSW declined in the middle 1980s. However, the decline only occurred at the end of the study period (in the last point in the time series which had consistently increased until then) and the time series does not extend into the period covered by the second set of multiple estimates reported here.

Second, an apparently substantial increase in heroin users also appears to conflict with the fact that the average age of persons in methadone treatment (and other forms of drug treatment) has increased in Australia over the period 1980 to 1992 [123, 124]. However, the average age of methadone clients has not increased by a year per year (as would be necessary if there had been no new recruits to heroin use). Rather the increase has been more like 6 months per year which is consistent with continuing recruitment to heroin use over the past decade or so.

5.6 Estimating unmet demand

Even when the considerable uncertainties in these estimates are set aside, it is still unwise to assume that the potential demand for methadone treatment is the simple discrepancy between the estimated number of regular heroin users in the population and the number who are currently in methadone maintenance treatment.

First, not all regular heroin users are interested in treatment in general, or in methadone maintenance treatment in particular. An unknown but probably substantial minority will cease their use without any professional assistance [125]. Second, demand for treatment (or any service) is dynamic: it will be affected by its availability, cost, and attractiveness to potential users. The increased availability of methadone treatment over the past decade has probably contributed to an increased demand. Recent policy changes may be expected to have conflicting effects on demand. Changes in the method of delivery (such as direct costs to users) may be expected to reduce demand while more liberal policies relating to continuing drug use while in treatment and take-away doses can be expected to increase demand.

Accepting these caveats, the current estimates indicate that there may be a substantial unmet demand for methadone treatment. If we ignore the estimate derived from the treatment multiplier and use the median figure in table 1 for the period 1988-1993 then approximately 30% of the estimated 50,000 regular or dependent heroin users in Australia were enrolled in

methadone treatment in 1994. This compared with approximately 17% in 1987. These "guesstimates" suggest that although the proportion of regular heroin users enrolled in methadone maintenance treatment has substantially increased over the past five years or so less than half of regular heroin users have been enrolled. The fact that there has been no sign of a slackening in demand for methadone treatment suggests that demand has not been fully met even if, as is likely to be the case, a majority of heroin users are not interested in enrolling in methadone treatment.

6 Overview of state methadone services

The following summary of the methadone services provided in each State and Territory has been prepared from the various State policy documents relating to their programs, and supplemented through consultations with a range of public and private providers throughout Australia.

6.1 New South Wales

6.1.1 History

Methadone treatment in NSW dates back to 1969, when a small number of clinicians began prescribing methadone to assist opioid dependent persons improve their health and social functioning and alleviate the social consequences of their drug use.

6.1.2 Current situation

The methadone program in NSW is provided in both the public and private health sectors. In the public sector it operates through specialist programs in most Area Health Services and Regions of the Department of Health. Methadone treatment is also available in the private health sector from medical practitioners in private medical practice who are approved by the NSW Department of Health and NSW Department of Corrective Services (the latter for the Prison Methadone Program). In the private sector, services are provided by general practitioners and psychiatrists with relatively small numbers of clients as part of their wider practice, as well as by larger clinics which specialise in methadone treatment with larger numbers of clients. There is also a mix of public and private services, where private practitioners prescribe methadone but operate from public clinics. This has been brought about by a shortage of funds in the public sector (for visiting medical officers) and difficulty in attracting medical practitioners to career drug and alcohol positions in public clinics. Private practitioners have been loathe to treat clients in their own rooms, and so have done so from rooms in public hospitals.

There is a document entitled "Policies and Procedures for the Methadone Treatment of Opioid Dependence in NSW" by the Drug and Alcohol Directorate of the NSW Health Department which describes the policies and procedures of the program. The procedures are consistent with the National Methadone Policy.

Under the guidelines no medical practitioner may prescribe methadone without a current authority to do so from the NSW Department of Health. Such authority is subject to

conditions in accordance with section 29 of the NSW Poisons Act 1966. Approval of a client to enter the program is generally given only when the client is physically dependent on opioids with a history of chronic relapse. If the client is not physically dependent on opioids, then the client must demonstrate that the potential benefits of the program outweigh the disadvantages. Other criteria relating to age and history of drug use are also taken into account.

Prospective clients are assessed and their written consent to join the program is required. The assessment involves an evaluation of their HIV risk and testing for HIV is performed, as well as relevant medical, social and personal details, psychological status and drug use history. It is necessary to demonstrate physical opioid dependence through noting observable signs of withdrawal produced by acute opioid abstinence. New clients will almost always be required to attend a public or private methadone dispensary daily for the first three months.

Treatment is to be reviewed regularly by the prescribing medical officer and at six months a "Progress Review Form" is completed. Renewal of the prescription must be accompanied by assessment on every occasion. Comprehensive reports of the treatment for each client are required after two years on the program. However, it is problematic as to how well these requirements are followed in practice, and the extent to which clinical practices are monitored and disciplined.

Take-away doses are allowed under certain circumstances, and divided methadone doses are available with specific authority from the NSW Department Health. In recent times, there has been considerable controversy over the increasing availability of take-away doses, and their abuse by some clients. This recently led to a review of the take-away policy in New South Wales, and changes to the regulations concerning their availability.

Under the guidelines, urinalysis is mandatory every week in the first three months and thereafter the frequency is according to the clinical discretion of the prescribing medical practitioner, but not less than once a month. Actual practice varies, depending on the individual practitioner's attitude towards urinalysis.

6.1.3 Statistics

The number of clients in the public and private sectors in NSW since 1986 are contained in the following table.

Table 3: Numbers of Private and Public Clients in NSW, 1986 to 1994

	Public Clients		Private Clients		Total Clients	
	Number	Increase	Number	Increase	Number	Increase
June 1986	1,296	-	1,376	-	2,672	-
June 1987	1,673	29%	1,587	15%	3,260	22%
June 1988	1,982	18%	1,688	6%	3,670	13%
June 1989	2,029	2%	2,000	18%	4,029	10%
June 1990	2,097	3%	2,917	46%	5,014	24%
June 1991	2,612	25%	3,217	10%	5,829	16%
June 1992	2,716	4%	3,676	14%	6,392	10%

Sept 1993	2,885	6%	4,623	26%	7,508	17%
June 1994	2,953	2%	5,352	16%	8,305	11%

Expressing these levels of participation as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the following figure:

The graph illustrates the increasing role of the private sector in the provision of services in NSW, particularly since the early 1990's. While public sector participation per thousand in the target population has grown from 0.50 persons in 1986 to 1.07 persons in 1994, private sector participation per thousand has increased from 0.54 persons to 1.94 persons over the same period. Overall participation in the methadone program in NSW nearly tripled from 1.04 persons per thousand in the target age group in 1986 to 3.01 persons in 1994.

6.2 Victoria

6.2.1 History

The Victorian Methadone Program (VMP) has been operational in Victoria since 1985. Its "Statistical Review 1993" states that it is distinctive for its generalist and community-based approach. In most cases, Methadone treatment is seen as most appropriately occurring as part of a generalist health service, with particular emphasis on general practitioners, who are provided with support through education and back-up facilities.

6.2.2 Current situation

The use of large, specialist clinics is reserved for more complicated cases and most treatment (80%-90%) is routinely provided through approved general practitioners and local community pharmacies. Some individuals have treatment needs that generally cannot be met through the services of a general practitioner and Government services offering approximately 40 places have traditionally managed this group. Plans exist to expand this service across four metropolitan regions giving access to a total of 240 places for this special needs groups. In September 1994, tenders were invited from suitably experienced service providers in the private sector to provide these services under contract to the Victorian Department of Health and Community Services (H&CS).

There is an approval process for doctors to become methadone prescribers and upon approval, each provider needs to apply for a permit to prescribe to each client. Permits are issued for six months and renewal required for continuing treatment beyond that time. If the client withdraws from the Program, for whatever reason, the prescriber must submit a termination form.

Clients may enter the service via general health and welfare services or be referred into the specialist system from the general health provider or enter at the specialist level independently.

H&CS has published a comprehensive manual of procedures and rules for prescribing practitioners entitled "Methadone Prescribers' Manual for General Practitioners" and it is part

of an on-going program of general practitioner support called the Methadone Information Network. It includes information on the objectives of the Methadone Program and clinical information related to the potency, dose, long-term effects, side-effects and withdrawal symptoms of this synthetic opioid.

6.2.3 Administration

Clients wishing to commence on the Program must undergo a thorough assessment by the practitioner. At this time a Client Management Record is established for the client to provide a useful clinical tool and to act as a prompt to the key points to be considered when assessing and managing the client. The Record requires personal information and drug related history of the client, also general medical and social/personal history. Sexual and risk practices, mental state examination and general physical examination must be documented. There is a recommended set of laboratory tests which the practitioner is advised to carry out.

At this stage, an assessment of the client's suitability to be enrolled in the Program is made, and guidance to assist with reaching that decision is given. The Manual assists in determining the most appropriate regimen for managing each individual client and gives treatment options.

H&CS requires that before clients commence on the Program they are subjected to the provision of certain information regarding the aims of treatment, side-effects, and warnings, for example, regarding overdose. Non-compliance may result in removal of some or all of the services under the Program.

Clients must consent in writing to treatment before it begins. Progress of the client is to be reviewed continuously, but comprehensively at six months, at two years a report must be sent to the Drugs of Dependence Unit. It should contain an outline of the client's progress and reasons for continued methadone treatment.

Take-away doses are allowed in specified circumstances and under strict conditions.

Counselling plays an important part in the treatment, as does HIV and pregnancy awareness.

6.2.4 Funding

A revised method of funding public services was developed for regions for 1994/95. The formula is based on population of the region, a socio-economic disadvantage index, and a non-metropolitan weighting.

Most pharmacies charge a dispensing fee, although most charge less than the Pharmacy Guild recommended fee. The average dispensing fee for non-concession clients was \$28.01 per week. The average fee for concession clients was \$20.21 per week. The average overall was \$24.20 per week.

Funding for the four specialist clinics to be operated under contract with H&CS will be based in the first years on a lump sum payment from H&CS of \$190,000 per clinic for all methadone maintenance services for 60 placements at each clinic. This payment level provides for a mix of clients, ranging from long term placements, down to treatment lasting less than 6 months.

The primary health care needs of these clients will continue to be funded under Medicare.

6.2.5 Statistics

The number of clients in the public and private sectors in Victoria since 1986 are contained in the following table.

Table 4: Numbers of Private and Public Clients in Victoria, 1986 to 1994

	Public Clients		Private Clients		Total Clients	
	Number	Increase	Number	Increase	Number	Increase
June 1986	202.00	-	78.00	-	280.00	-
June 1987	213.00	5%	232.00	197%	445.00	59%
June 1988	261.00	23%	346.00	49%	607.00	36%
June 1989	256.00	(2%)	385.00	11%	641.00	6%
June 1990	166.00	(35%)	1,241	222%	1,407	120%
June 1991	241.00	45%	1,389	12%	1,630	16%
June 1992	n.a.	n.a.	n.a.	n.a.	1,980	21%
Sept 1993	218.00	n.a.	2,273	n.a.	2,491	26%
June 1994	166.00	(24%)	2,627	16%	2,793	12%

Expressing these levels of participation as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the following figure:

The figure illustrates the relative static nature of public sector participation in Victoria at approximately 0.1 persons per thousand, while the private sector has grown significantly from 0.04 persons per thousand in 1986 to 1.26 persons per thousand in 1994. Overall participation has grown nearly tenfold from 0.14 persons per thousand in the target population group in 1986 to 1.35 persons in 1994.

6.3 Queensland

6.3.1 History

Methadone maintenance treatment for opioid dependence was developed in Queensland by a small number of private psychiatrists in the early 1970's. The first public methadone program was established at a Brisbane Psychiatric Outpatient Clinic in approximately 1975.

6.3.2 Current situation

There is a comprehensive "Policies and Procedures Manual" published in 1993 which provides guidance to medical practitioners authorised to prescribe methadone, other clinicians working in methadone maintenance programs, and pharmacists authorised to prescribe methadone. Doctors must be registered to prescribe methadone. They are usually attached to a methadone clinic, private psychiatrists, hospital superintendents or full-time medical staff in rural areas or appropriate general practitioners. There is a maximum number of clients allowed per prescriber and criteria for admission to a program are explicit.

The principles guiding Queensland's program are derived from the National Methadone Policy, 1993.

Programs are provided by the public and the private sectors or a combination of both, and in prisons. In the private sector, the majority of medical practitioners providing methadone treatment are psychiatrists.

Initial assessment of a prospective client is considered very important. Medical, drug, family, social and psychological and psychiatric history is taken. Physical examination is performed, and a series of routine investigations to gauge the general health status of newly registered clients. Ongoing urinalysis testing is part of the program.

Generally, clients will receive their dose from a retail pharmacy outlet although some occasions exist when dispensing treatment occurs at a clinic. Take-away doses are allowed under certain situations, and are generally closely monitored. Pregnancy and HIV are monitored in the client population.

There are guidelines for the management of clients in hospital, if the "outpatient" situation is not appropriate for an individual client.

Queensland is currently negotiating with relevant bodies to establish an accredited training course for methadone prescribers, based on the NSW documentation.

6.3.3 Statistics

The number of clients in the public and private sectors in Queensland since 1986 are contained in the following table.

Table 5: Numbers of Private and Public Clients in Queensland, 1986 to 1994

	Public Clients		Private Clients		Total Clients	
	Number	Increase	Number	Increase	Number	Increase
June 1986	542.00	-	291.00	-	833.00	-
June 1987	487.00	(10%)	355.00	22%	842.00	1%
June 1988	576.00	18%	375.00	6%	951.00	13%
June 1989	579.00	1%	383.00	2%	962.00	1%
June 1990	590.00	2%	377.00	(2%)	967.00	1%
June 1991	701.00	19%	389.00	3%	1,090	13%
June 1992	1,006	44%	445.00	14%	1,451	33%
Sept 1993	1,292	28%	448.00	1%	1,740	20%
June 1994	1,482	15%	470.00	5%	1,952	12%

Of the 1,952 clients registered on the methadone program in Queensland in 1994,

- 60% were male (average age of 35 years) and 40% were female (average age of 33 years); and
- 48% of the total number of methadone clients were aged 35 years or over;

Expressing the levels of participation as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the following figure:

The figure illustrates that, unlike NSW and Victoria, the private sector participation rate has been relatively stable, ranging from 0.23 persons per thousand in 1986 to 0.32 persons per thousand in 1994. Over the same period public sector participation rates increased from 0.44 to 0.99 persons per thousand. Overall participation rates nearly doubled from 0.67 persons per thousand population in the target group in 1986 to 1.31 persons in 1994, with most of the increase occurring since 1990.

As at June 1994, there were 7 GPs and 24 psychiatrists registered to prescribe methadone. GPs treated only 7% of the private clients in the State, with the remaining 93% being treated by psychiatrists.

As at the 21 September 1994, there were a total of 347 outlets authorised to dispense methadone syrup in Queensland.

Table 6: Number of Outlets Authorised to dispense Methadone in Queensland, Sept. 1994

	Total	Current*
Public Clinics	3.00	3.00
Hospital Pharmacies	54.00	32.00
Community Pharmacies	289.00	178.00
Total	347.00	213.00

* Current = Dispensed a prescription within the last six months.

6.4 South Australia

6.4.1 History

Up until 1994/95, methadone maintenance services in South Australia were provided solely through the public sector. Recent initiatives have resulted in medical practitioners in the private sector become involved, and they are expected to play an increasing role in the future.

6.4.2 Current situation

The Public Methadone Treatment Program is operated by the Drug and Alcohol Services Council (DASC) and is aimed at the following client groups:

- *Clients who wish to engage in formal efforts to reduce their unsanctioned opioid use and are endeavouring to attain stable treatment progress ("Stream B").* These clients are provided with a "high intervention" methadone program which offers a comprehensive range of services to clients. Total unsanctioned opioid abstinence is only one of a range of acceptable treatment goals in this program. However, high intervention programs endeavour to promote and facilitate change in many life areas so that improved health and social functioning may enable clients to "normalise" their general lifestyle. Services provided include a high level of medical and clinical

casework intervention, welfare advice and support, social skills training and after-care.

- *Clients who have demonstrated good treatment progress in a "high intervention" methadone program and are stable ("Stream C").* These clients require little support other than the prescription, administration and medical supervision of their methadone medication. Accordingly, they are offered a "low intervention/low supervision" methadone program but have access to counselling should they feel they require it.
- *Clients with minimal treatment goals and/or no demonstrated stability in treatment (i.e. clients who, at this stage, do not wish to engage in formal counselling regarding their unsanctioned opioid use) ("Stream A").* These clients are provided with a "low intervention/high supervision" methadone program. This is essentially a drug substitution program where it is expected that participation in the program will result in associated improvements in health and social functioning and decreased risk of morbidity, mortality and of HIV risk taking. Clients receive no takeaway doses of methadone and do not qualify for community pharmacy collection of their methadone.

The public methadone program operates from two main clinics as well as a dedicated Obstetric Unit, the aim of which is to minimise the adverse effects of opioid use and to promote the physical and psychological health of the mother and infant. The Unit provides counselling, support and referral services; medical assessment and review; methadone maintenance program, where appropriate; formal education programs, information and advice to service providers and women.

Due to lack of resources, DASC has introduced a ceiling of 850 people on the Public Methadone Program. Applicants beyond this number are placed on a waiting list and assessed as numbers drop below this number. The waiting list as at September 1994 was 77 people.

For the dispensing and administration of methadone, DASC locates all suitable clients to community pharmacies for methadone pick-up. As at September 1994, 58 clients collected methadone from the public dispensary, with 789 clients collecting methadone from community pharmacies. Currently, over 230 community pharmacies in South Australia dispense and administer methadone as part of the South Australian methadone program with a further 70 willing to provide these services.

The Private Methadone Program is aimed at medical practitioners who wish to become methadone prescribers and at clients who either wish to engage in formal efforts to reduce their unsanctioned opioid use but who have yet to demonstrate stable treatment progress (i.e. Stream B), or who have demonstrated good treatment progress and are stable (i.e. Stream C). The first training program for medical practitioners was conducted in March 1994, and further training programs are planned. Private medical practitioners are expected to commence in the private program from 1994/95 onwards.

It is expected that:

- private prescribers will enable methadone to be provided to more of the target group by accessing members of the heroin-using population who have not previously been reached;
- private programs will contribute to a more regional service, particularly useful in country areas where the public methadone program does not provide a service;
- numbers on the public methadone program will stabilise;
- the public program will continue to receive referrals from the private program of clients who are difficult to handle;

6.4.3 Statistics

The number of clients in the public sector in South Australia since 1986 are contained in the following table. There were no clients treated in the private sector up to 1993/94.

Table 7: Numbers of Clients in SA, 1986 to 1994

	Number	Increase
June 1986	297.00	-
June 1987	320.00	8%
June 1988	336.00	5%
June 1989	359.00	7%
June 1990	400.00	11%
June 1991	541.00	35%
June 1992	772.00	42%
Sept 1993	860.00	11%
June 1994	888.00	3%

Expressing these levels of participation as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the following figure: The graph illustrates the increase in the participation rate among the target population, with a rapid increase evident since 1990. From 1986 to 1994, the participation rate nearly tripled from 0.46 persons to 1.33 persons per thousand.

The number of clients in each of the "streams" identified above at the two public clinics in SA is shown in the following table:

Table 8: Numbers of Public Methadone Clients by Stream and Clinic in SA, 12 September, 1994

	Warinilla (Norwood)	Northern (Elizabeth)	Total
Stream A (low intervention/high supervision)	217.00	48.00	265.00
Stream B (high intervention/high supervision)	298.00	60.00	358.00
Stream C (low intervention/low supervision)	165.00	17.00	182.00

supervision)			
Pain clients	33.00	9.00	42.00
Total	713.00	134.00	847.00

Approximately 74 per cent of clients are under high supervision (i.e. Streams A and B), with 58 per cent of these clients having high levels of intervention (i.e. Stream B). Only 22 per cent of clients are in the low intervention/low supervision stream (Stream C).

6.5 Western Australia

6.5.1 History

The Western Australian Alcohol and Drug Authority has provided methadone for the treatment of opiate users since 1974. All methadone treatment in Western Australia is now co-ordinated by the William Street Clinic. Agreed National Methadone Guidelines provide the basis for the Authority's policies and procedures.

6.5.2 Current situation

The William Street Clinic assesses client's suitability for methadone treatment, administers methadone to clients, supervises and monitors clients' progress, and provides a range of medical, nursing, social work and psychological casework. The Clinic's staff consists of a manager, medical officers, social workers, nurses, a clinical psychologist, dispensary and pharmacy staff, a phlebotomist/specimen collector, clerical staff and a general attendant.

The majority of clients presenting for assessment are in their mid to late twenties, with a history of heroin use for five or more years. Following assessment over 90% of the clients are considered eligible for methadone treatment. The remainder are encouraged to engage in counselling and undergo outpatient detoxification or seek admission to either a residential detoxification unit or a therapeutic community. Clients are encouraged to book an appointment and there is currently a 4-5 day wait prior to assessment. Treatment is usually commenced the day following assessment.

In general, dependence on an opiate drug is regarded as a pre-requisite for admission to methadone treatment. Priority is given to clients who:

- are pregnant;
- have persistent Hepatitis B antigenemia;
- are HIV or Hepatitis C virus infected.

Clients who have commenced on methadone are followed up by a medical officer and counsellor. Clients are reviewed by a medical officer each time a prescription is provided and may be seen several times a week early in treatment. A comprehensive progress review occurs at least every three months.

Methadone consumption is closely supervised and over 55% of all doses are administered at

the William Street Clinic. Community pharmacists administer 36% and the remainder are dispensed through the Central Drug Unit, country hospitals and nursing posts. Most clients are expected to attend the William Street Clinic at least one day per week for methadone dosing. Clients attending community chemists during the week return to the William Street Clinic if their chemist is closed on Saturday or Sunday.

Take-away methadone is only provided to clients in exceptional circumstances.

Urine specimens are randomly collected and then analysed by the State Health Laboratory Services. The frequency of collection of specimens varies from three times a week for a client undergoing intensive monitoring to three monthly for a client who has been receiving methadone for a year or more.

Clients are generally encouraged to stay in treatment for at least two years and then gradually detoxify. Some clients elect for a shorter period of treatment. Treatment may be terminated if a client fails to take their prescribed methadone under supervision.

Approximately 50% of the clients receiving methadone treatment are female and each year around 30 give birth. Special obstetric care for women with drug use problems is provided at the King Edward Memorial Hospital.

The Clinic has offered a voluntary HIV antibody testing service to clients since June 1986 and well over 2000 HIV antibody tests have been conducted. The prevalence of HIV infection among the Authority's methadone clients remained between 1% and 2% during 1991/92 and there were 5 HIV infected clients receiving treatment in January 1993.

6.5.3 Statistics

The number of clients in the public sector in Western Australia since 1986 are contained in the following table.

Table 9: Numbers of Clients in WA, 1986 to 1994

	Number	Increase
June 1986	300.00	-
June 1987	269.00	(20%)
June 1988	364.00	35%
June 1989	475.00	30%
June 1990	446.00	(6%)
June 1991	514.00	15%
June 1992	505.00	(2%)
Sept 1993	601.00	19%
June 1994	645.00	7%

Expressing these levels of participation as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the following figure:

The graph illustrates that the participation rate nearly doubled between 1986 and 1994, from 0.42 persons per thousand in the target population to 0.80 persons.

Several performance indicators were provided in regard to services in 1991/92. These are presented in the following table:

Table 10: Performance Indicators, WA Methadone Program, 1991/92

Indicator	Outcome
Cost per dose (Pharmacy)	\$1.60
Cost per client per day (Methadone assessment and counselling)	\$3.87
Proportion of methadone clients showing improvement on physical, psychological and social indicators from initial assessment to termination of contract:	
- physical indicators	50%
- psychological indicators	15%
- social indicators	46%
Reduction in client's harmful use of mind-altering substances from initial assessment to follow-up assessment	79%

The most pronounced improvements were a reduction (79%) in clients' use of mind-altering substances, as well as improvements in their physical and social status, (50% and 46% of clients respectively).

6.6 Tasmania

6.6.1 History

The Tasmanian state-wide Methadone Maintenance Program (TMMP) began on 1st December, 1992 as a pilot program which was to be reviewed at the end of one year. The review was conducted by Dr. R Ali, and the services continue. For the purposes of administration of the program, the State is divided into three regions, namely South, North, and Northwest.

6.6.2 Current situation

Participants in the program in the South and North regions can attend private general practitioners or the Alcohol and Drug Service (A&DS). Treatment dose is available from an A&DS pharmacy. However the majority of services are provided directly by the A&DS. Those in the NorthWest region can only use private general practitioners and the dose is given via community pharmacies.

Participants may be eligible for take-away doses provided they meet specific criteria.

There are no full-time medical officers in A&DS in NorthWest region, and the Program's capacity in that area is determined on the basis of the number of GPs and the community pharmacies participating in the Program.

6.6.3 Statistics

As at June 1994 there were 90 clients participating in methadone programs across Tasmania, compared to 81 in September of the previous year.

Numbers of trained general practitioners at the end of November 1993 equalled 39 although at June 1994, only 9 general practitioners chose to participate. Approximately 15 clients were provided services by private practitioners as at June 1994.

Pharmacies participating in the program were mainly located in the Southern region. The total number at December 1993 was 52.

At December, 1993, 31 clients received their dose from community pharmacies while 47 received their dose from Alcohol and Drug Service pharmacies. In the NorthWest region, all clients receive their dose from community pharmacies, but this is not the case in the other regions which supply from A&DS pharmacy as well as from community pharmacies.

6.7 Northern Territory

6.7.1 History

There is no methadone program in the NT although that was not always the case, and in the 1970s a program was established in Darwin. There is little documentation about that program, but apparently there were abuses of it, and methadone was offered for sale. For that and other reasons it was disbanded in 1978. A program for treatment for opioid dependency was vested in a Therapeutic Community at that time and has been in operation since.

6.7.2 Current situation

There are two principal pieces of legislation dealing with opioid use in NT, and there is no provision in either of the Acts to prescribe opioids on a discretionary basis for the purposes of opioid dependency, although there is some evidence to suggest that practitioners are occasionally doing so for therapeutic opioid dependence or for clients who are intravenous drug users who are HIV positive or who are pregnant.

There is a needle exchange program which supplies needles and syringes to regular injecting drug users (estimated in 1991 to be 1,000), and to a further three thousand casual injecting drug users who are likely to be using amphetamines.

In lieu of methadone, the treatment options currently available include detoxification, counselling and self-help groups.

6.7.3 Statistics

Data relating to opioid users have been difficult to collect, but in 1991 there were 73 individuals presenting with opioid drug problems at NT treatment agencies. A survey published in 1991 concluded that there were between 500-1500 intravenous drug users in the Darwin area.

6.8 Australian Capital Territory

6.8.1 History

The first formal methadone program in the ACT commenced in 1979 at the Woden Valley Hospital. Prior to this a number of private practitioners were involved in methadone treatment of private clients, but not in a regulated or co-ordinated program.

The existing ACT public methadone treatment program has undergone rapid change and expansion in recent years. Many of these changes were precipitated by:

- the 1992 ACT Legislative Assembly Select Committee on Drugs report "Methadone Treatment Services in the ACT" which recommended a number of changes to the existing methadone program; and
- the strong methadone consumer lobby groups which exist in the ACT. Approximately every 4-6 weeks a Methadone Program Development Advisory Meeting (MPDAM) is held to discuss problems, changes to the program etc. Three consumer lobby groups are represented at this meeting.

6.8.2 Current situation

A range of services are provided through the public program, including assessment, information and referral; methadone prescribing and methadone dispensing.

The Alcohol and Drug Service, ACT Department of Health employs 2 career medical officers, both of whom prescribe methadone. There are no private methadone prescribers in the ACT at the present time although this option is being explored and a pilot program may be introduced in 1995.

Approximately 90% of clients are treated at purpose built clinics at Woden and Civic. Dispensing is also provided at community pharmacies. There are five pharmacies in the ACT who are approved to dispense methadone to opioid dependent persons, 3 of which have clients at the present time. There is also one pharmacy in Queanbeyan, NSW, which dispenses to approximately 20 clients who are prescribed for in the ACT.

Counselling is provided on a voluntary basis through Alcohol and Drug Service counsellors or counsellors from non-government agencies such as ADD Inc.

Clients who receive take-away methadone doses are required to pay \$20.00 per week if employed, or \$10.00 per week if they hold a concession card. Community pharmacies are not permitted to charge methadone clients more than \$30.00 per week.

6.8.3 Statistics

The number of clients in the public sector in the ACT since 1986 are contained in the following table.

Table 11: Numbers of Clients in ACT, 1986 to 1994

	Number	Increase
June 1986	64.00	-
June 1987	68.00	6%
June 1988	71.00	4%
June 1989	77.00	8%
June 1990	86.00	12%
June 1991	90.00	5%
June 1992	144.00	60%
Sept 1993	287.00	100%
June 1994	323.00	13%

Expressing these levels of participation as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the following figure:

The participation rate in the ACT was relatively stable from 1986 to 1991, having increased from 0.46 to 0.56 persons per thousand over this period, followed by a significant increase to 2.06 persons per thousand in 1994. This reflects the timing of changes to the legislative and administrative environment of the program.

6.9 Summary

A comparison of methadone treatment services throughout Australia indicates that there are many areas of commonality between the States and Territories in regard to the philosophy adopted in methadone treatment. The principles of methadone maintenance treatment underpin all services, and reflect international experience in the use of maintenance therapy as an effective treatment for opioid dependence. The various State guidelines for treatment are similar in their content, and provide for comparable treatment regimens across State boundaries.

However, there are considerable differences across jurisdictions in Australia in regard to their history of methadone program development, and the mechanisms by which those services are provided. For example, the extent of centralised versus decentralised control, the different roles of the public and private sectors, and the extent to which methadone services are provided by larger specialist clinics compared to private practitioners as part of their general practice are evident in different degrees.

Thus, while the principles of methadone maintenance treatment are embodied in all programs throughout Australia, the means by which those services are delivered vary considerably. In combination, these factors demonstrate that the delivery of methadone programs on a national basis operates in a complex environment.

The general view expressed by the majority of persons consulted in the course of this study is that the quality of services provided in methadone programs in Australia is of a very high standard. While some abuse of the payment system is evident, there is no evidence to

demonstrate that such abuse is widespread, nor that clients themselves are disadvantaged to a significant degree.

Growth in the total number of clients participating in methadone programs has been associated with an expanded role for the private sector. This has been particularly evident in New South Wales and Victoria. The trend in this approach at a national level from 1986 to 1994 is shown in the following table.

Table 12: Number of Clients in Public and Private Methadone Programs, Australia, June 1986 and 1994

	June 1986			June 1994		
	Public	Private	Total	Public	Private	Total
NSW	1,296	1,376	2,672	2,953	5,352	8,305
Victoria	202	78	280	166	2,627	2,793
Queensland	542	291	833	1,482	470	1,952
SA	297	-	297	888	-	888
WA	300	-	300	645	-	645
Tasmania	-	-	-	90	-	90
ACT	64	-	64	323	-	323
Australia	2,701	1,745	4,446	6,547	8,449	14,996
Proportion (%)	61%	39%	100%	44%	56%	100%

Expressing the levels of participation from 1986 to 1994 as rates per thousand of population aged between 15 and 44 years (the primary age group of opioid dependent persons) results in the rates illustrated in the figure overleaf.

The figure illustrates that the overall participation rate in Australia tripled from 0.59 persons per thousand in the target population group in 1986 to 1.82 persons in 1994. Public sector participation rates have increased from 0.36 to 0.79 persons, while private sector participation rates have increased from 0.23 persons to 1.02 persons per thousand in 1994. This has largely been due to the growth in the private sector in New South Wales and Victoria.

In those States where there is currently no private sector participation, State health authorities are looking at strategies where the private sector will become involved in the future. This is expected to further affect the distribution of clients between the public and private sectors, and the participation rates evident across these sectors.

A comparison of the relative participation rates between States is illustrated in the following figure:

The figure illustrates that only New South Wales has consistently had higher participation rates than the Australian average, although the ACT has exceeded the Australian average in the last two years. With 55 to 60 per cent of all methadone clients in Australia being located in New South Wales, the participation rate in that State exerts a major influence on the overall Australian participation rate.

7 Evaluation of clinical outcomes in different clinical settings

There is little detailed documentation available which compares the nature of treatment delivered and the outcomes achieved in methadone programs in Australia in the public and private sectors. During the course of this study, consultations were held with providers in both sectors throughout Australia. While these consultations provided considerable anecdotal information about the different ways in which methadone treatment is provided between the two sectors, there was no evidence provided to demonstrate any systematic differences in outcomes achieved. However, a study has been recently been conducted by the National Drug and Alcohol Research Centre (NDARC) into services provided in large private and public clinics in New South Wales.

The key results of this study are provided in this section as the basis for a discussion of clinical outcomes achieved in different practice settings. The comments made in regard to the nature of the services provided in each setting are consistent with the anecdotal evidence provided through consultations during the course of this study.

It should be noted that the study was restricted to larger specialist methadone clinics, and did not include methadone treatment delivered in primary care settings and dispensed through retail pharmacies. This is particularly important, considering that, apart from NSW, the primary care setting represents the main form of private sector involvement in methadone maintenance treatment. In this regard, there is a need to undertake an independent evaluation of the outcomes achieved in primary care settings, including the role of the community pharmacist in the dispensing of methadone. Such a study should seek to identify factors influencing these types of services, with a view to maximising their effectiveness.

7.1 Nature of the study

The study comprised two parallel arms. In the private sector, three clinics were studied, with a total of 304 clients recruited and interviewed three times over 12 months. In the public sector, 349 clients were studied using the same core data collection instruments. The psychiatric status of clients was investigated using a structured interview, the Composite International Diagnostic Interview.

7.2 Clients in private clinics

About half the clients in private clinics were employed, and unemployed clients were 6 times more likely than employed subjects to leave the private clinics. This presumably reflects the economic difficulty of those without jobs paying dispensing fees, and is consistent with recent American research which demonstrated that dispensing fees increase attrition from treatment. In those areas where only private treatment is available, there is a problem of access to treatment for people in financial hardship.

Based on the last six months' symptoms, 21% of private clinic clients met the criteria for major depression, 26% social phobia, 8% panic disorder, and 36% antisocial personality disorder.

These figures indicate a high prevalence of significant psychiatric disability.

Despite reporting high levels of satisfaction with medical treatment received in the private clinics, over 60% of clients had seen a doctor outside the methadone clinic in the previous month, with more distressed clients likely to visit general practitioners.

7.3 Treatment delivered

There are important differences between treatment delivered in the public and private sectors. It appears that in NSW methadone treatment has been delivered in a two-tier system, each with their own characteristics. Key differences between the public and private clinics are that private clinics charge dispensing fees (usually free in public clinics), have more regular and frequent medical consultations, have no other form of formal counselling, have lower staff to client ratios, and provide more takeaway doses of methadone. The differences in some of these factors are summarised in the following table.

Table 13: Characteristics of Public and Private Methadone Clinics in NSW

	Public Clinics	Private Clinics
Dispensing fees	No fees	\$40-\$50 per week
Counselling	30% had seen a counsellor	No formal counselling
Medical consultations per client in previous month	57% saw prescriber, Mean 0.8 consultations	100% saw prescriber, Mean 3.2 consultations
Take-aways per client	Average <3 take-aways per month	Average of 16 take-aways per month

In the private clinics, all clients see their prescriber weekly or fortnightly. Such consultations are funded through Medicare, and provide the doctors' remuneration. In the public clinics, only a little over half of the clients had seen their prescriber in the month prior to interview, and the mean number of consultations was less than 1 per month. In the private clinic, almost all the formal interaction (other than dispensing) is with the prescriber. The public clinics had more emphasis on counselling, with about 1 client in 3 having attended a counselling session in the month prior to interview.

In the private clinics which were studied, long term stable clients who seem to be doing well continue to receive weekly appointments with their prescribers. This seems to be an unnecessarily intensive approach, and may in part be attributed to the fee-for-service funding of methadone prescribers in these clinics. An alternative basis for funding methadone programs may reduce the necessity for frequent medical consultations, and reflect the fact that the core of treatment is regular attendance for dispensing.

7.4 Urine tests

In the 6 clinics sampled, there was poor agreement between self-reported drug use and drug use as detected by urine tests, with urine tests invariably detecting less drug use than was reported by clients. In some clinics, the agreement was negligible, and it was observed that urine testing was carried out selectively. Several prescribers stated that if a client reports

having used heroin, there was no need to do a urine test. While this may seem reasonable, it means that the record of urine test results gives a distorted record of the extent of drug use. Two of the private prescribers reported that they used the results of urine testing to determine whether clients needed higher doses. This is considered inappropriate, as urine testing should not be a substitute for talking to clients and determining what they feel they need. Secondly, since testing performed in this way is misleading, reliance on urine test results to determine whether clients need dose increases contributes to systematic suboptimal dosing, as infrequent heroin use is not detected.

Nursing staff in both private and public clinics were generally of the view that there was little value in urine testing, although prescribers tended to see it as being valuable. Several prescribers interviewed in the course of this study indicated that urine testing had most value as a means of positive reinforcement to clients of non-drug use, and was best used on a voluntary basis rather than on a compulsory basis.

There are a number of sound theoretical reasons for performing urine drug testing in methadone clinics, but in practice the rationale for testing as performed in many clinics is not clear - urine testing simply becomes part of the ritual of methadone maintenance. In order to justify the use of urine tests, a clinic should have a clear, consistently applied policy and rationale for such testing, and this - along with the results of testing - should be regularly reviewed within the treatment team.

7.5 Takeaways

Despite the higher cost to clients in purchasing their methadone doses in private clinics, the compensating factor for many clients was the ready availability of takeaway doses. Although there were stated policies in some private clinics regarding the use of takeaways, all clients who had been in treatment for 3 months routinely received regular takeaways. Factors such as employment status, self-reported drug use, urine test results and social functioning had virtually no bearing on the availability of takeaway doses. In contrast, takeaway doses of methadone were the exception in public clinics, with most clients being required to attend daily for treatment.

However, the clinic with the least heroin use gave most takeaways, while the least effective clinic gave the least takeaways. By contrast, the limited number of takeaways in public clinics did not result in better clinical outcomes. In combination, these observations suggest that the ready availability of takeaways has no adverse effects on treatment outcomes.

It is difficult to discern the clinical rationale for takeaway policies in either the public or private sector. The median duration of treatment of clients in public clinics is greater than 4 years, and it seems unduly restrictive that long term stable clients should be required to attend daily. Although liberal access to takeaway doses does not seem to be associated with worse outcomes, the routine availability of takeaway doses in the private clinics is problematic, in view of the widespread injecting of methadone (as evidenced by the large demand for 20 ml syringes from needle and syringe exchange units), and the ready availability of street methadone. While it might seem rational that decisions about take-aways should be based on

individual consideration, the stark differences in policy between the public and private clinics suggest that staff find it simpler to have a blanket policy - either very restricted, or almost unrestricted takeaways - in order to avoid haggling and conflict over their availability.

7.6 Methadone dose

In most clinics, an adequate dose of methadone was prescribed. However, in two of the private clinics there was suboptimal dosing, with 52 and 54 mg/day of methadone being the stable maintenance doses. In both of these clinics, more than 50% of subjects reported having used heroin in the month prior to interview, consistent with the observation that they were being inadequately dosed. In contrast, the clinic with the lowest rate of heroin use maintained almost all clients on a stable maintenance dose of 80mg/day. Such an approach is recommended.

7.7 Monitoring of treatment

Most clinicians reported that they used urine tests to monitor the extent to which the goals of treatment were being achieved. However, as noted above, in both the public and private clinics, urine testing was not a reliable indicator of heroin use, and is not very useful as a way of monitoring the effectiveness of the clinic.

Analysis of clinical record keeping in the 6 clinics revealed very uneven standards of documentation of treatment. Even minimal documentation of progress was absent from many files. There was no systematic review of treatment in any of the clinics studied.

There is thus no currently available monitoring of outcomes on which to base a quality assurance program aimed at ensuring optimal treatment of individuals and optimal outcomes from the clinic.

7.8 Outcomes of treatment

On entry to all clinics, there was a prompt and substantial reduction in heroin use, associated with a parallel reduction in social dysfunction, crime and HIV risk-taking.

About half of the clients continued to use heroin for a period of time, usually using infrequently. There were large differences in the level of continuing heroin use in both the public and private clinics. Clients in the least effective clinic were much more likely to use heroin than those in the most effective clinic (Odds Ratio 2.4, 95% confidence intervals [1.2, 4.8]).

Higher methadone doses were associated with less heroin use and lower dependence on heroin. In two private clinics, there was also a progressive reduction in the number of clients using heroin with increasing duration of treatment. In the third private clinic, no such association was found.

In all the private clinics, approximately 10% of clients continue to use heroin frequently, compared to 4% in public clinics. On entering treatment, non-opioid drug use (cannabis,

amphetamines, alcohol and benzodiazepines) was found to continue at the same patterns of pre-treatment use. With increasing duration of treatment, amphetamine use declined, but there was little change in alcohol or benzodiazepine use.

There was a marked reduction in involvement in crime among clients during treatment, attributable to reduced heroin usage. Cannabis use was found to be a major predictor of continued involvement in crime during methadone treatment.

Clients with the least psychological dysfunction were most likely to benefit from the treatment delivered in the private methadone clinics.

Apart from methadone dose, the most important aspect distinguishing more from less effective clinics appeared to be the overall clinic "ethos", represented by how the clinic functioned and in particular how staff related to clients. The least effective private clinic was characterised by poor management, the lowest staff to client ratio, poor communication among staff and between staff and clients and poor clinical records. This clinic had the lowest client rating, the highest rate of heroin use, and the lowest retention rate in treatment.

7.9 Conclusions

Despite systematic differences between the sectors in the treatment delivered, the range of outcomes achieved in the public and private clinics were very similar. Importantly, within both the public and private sectors, there were large differences in the quality and effectiveness of treatment delivered in different clinics.

Although clients in public clinics reported greater satisfaction with counselling services, there was no evidence that the greater emphasis on formal counselling contributed to less heroin use or greater psychological stability among clients of public clinics. Similarly, the considerable difference in takeaway availability did not seem to affect clinical outcomes, although there are clearly other disadvantages associated with their more ready availability in private clinics.

Adequate doses of methadone were associated with the lowest rate of heroin use. By comparison, low levels of non-opioid use, good levels of social functioning and high client rating of services were associated with clinics which had a more clinical and therapeutic approach to treatment and client relationships.

7.10 Policy implications

The study has highlighted a number of issues relating to standards of care provided, and the need for consideration to be given to changes in policies in three main areas. These issues have also been raised through the consultations held with service providers and clients in all States, and are consistent with the majority of views held.

7.10.1 Takeaways

The significant differences that exist between the public and private clinics in regard to the availability of takeaways have not been demonstrated to be associated with differences in

clinical outcomes among clients undergoing methadone maintenance. However, the greater availability of takeaways is clearly associated with an increase in diversion of methadone, and greater injection of methadone. It has been suggested that one of the contributing factors to methadone selling is the high cost of attending private methadone clinics. On the other hand, the limited availability of takeaways to clients of public clinics who have been in treatment for prolonged periods and appear to be stable and functional appears to be unnecessarily restrictive.

While the deregulation of takeaway approvals in NSW in 1991 was based on the premise that the approval of takeaways should be a clinical decision based on the needs of individual clients, it is clear that this policy has not been effective. While guidelines exist in this area, these are obviously not being followed by private prescribers in large clinics. There is a need to ensure that prescribing patterns are subjected to some form of peer review or clinical audit.

7.10.2 Urine testing

Urine testing in public and private clinics is problematic, and does not provide an accurate picture of drug use by those in treatment. It is seen as being used in some instances as an (inappropriate) alternative to talking to clients, and as the basis for setting dose. Urine tests are also disliked by staff and clients, are expensive, and are often conducted in manner leading to unreliable result. If they are to be conducted, it is probably best done on a random, occasional basis, or as a diagnostic tool when clients appear intoxicated and deny drug use. Either of these uses appears preferable to the current approach, in which urine testing has become part of the ritual of methadone maintenance and detracts from the effectiveness of treatment.

7.10.3 Frequency of consultations

Regular contact with clients in the early stages of treatment is an important aspect of methadone maintenance treatment. However, the value of weekly, very brief consultations for clients who have been in treatment for prolonged periods, and who are stable, is questionable.

Clearly the fee-for-service method of funding is major determinant of this behaviour, and encourages the potential for over-servicing. Alternative methods of funding methadone maintenance are discussed later in this report. An alternative, or perhaps complementary approach, is to subject frequency of consultations to a structured peer review process.

7.11 Accreditation of clinics

The uneven outcomes of treatment in both the public and private clinics mean that to maintain clinical standards within both private and public sectors, there should be quality assurance (QA) programs. Such programs may be evaluated by a formal accreditation process by an independent assessor such as the Australian Council on Healthcare Standards (ACHS) or the Community Health Accreditation and Standards Program (CHASP). CHASP in particular is in the process of finalising a set of standards specific to drug and alcohol services which include methadone services. To give weight to the process, accreditation could be a

requirement for a clinic to continue as an approved provider of methadone treatment.

The following approach to the development of an accreditation program has been suggested as the basis for further discussion of this concept. Importantly, the program provides an indication of the types of performance indicators which may be used to monitor and evaluate effectiveness of services provided in both public and private clinics.

7.11.1 General approach to QA programs

Along with an adequate dose of methadone, the attitudes, skills, policies, and team cohesion of the clinic constitute the treatment factors which influence outcomes. The approach to QA outlined here assumes that staff in methadone clinics function as a team, sharing responsibility for the quality of treatment delivered. To review and maintain the quality of treatment, staff need to meet regularly. Such team meetings, to discuss clinical and administrative issues, are not a routine part of the operation of some private methadone clinics, and having such regular meetings is in itself an important quality assurance activity. Superimposed on this, it is suggested that one meeting every 1-2 months should be devoted to formal QA review.

The following Quality Assurance activities are based on monitoring of key outcomes, and review within the treatment team. Such documentation of the outcomes can also be used as a form of external accountability.

7.11.2 Key outcomes

- **Retention in treatment** is an index of program effectiveness, particularly retention in the first 12 months of treatment. Retention in treatment should be quantified as the proportion of all new entrants to treatment during the preceding 12 months who are still in treatment at 3, 6, 9 and 12 months.

All Australian jurisdictions require that clients receiving methadone maintenance be centrally registered, and the starting date and exit date from treatment, (and in some jurisdictions, the reason for leaving treatment) are documented for all clients. It should be possible for state authorities to supply each clinic with their retention data on a regular basis, along with a comparison with state averages. Such a policy would provide clinics with feedback on their performance.

- **Continuing heroin use** is a critical measure of treatment efficacy. Self-reported heroin use is likely to underestimate heroin use if availability of takeaway doses is contingent on clients not using heroin. Therefore heroin use is best monitored by a combination of well-conducted urine tests and self-reporting. It is suggested that each client has a formal six-monthly review of treatment, at which the drug use scale of the Opiate Treatment Index (or similar instrument) is administered. Results for the clinic as a whole should be reviewed regularly, and reported as (1) the proportion of clients who either by urine test or self-reporting had used heroin in the month prior to their most recent treatment review, and (2) the proportion whose average daily heroin use is 0, 0-0.2, 0.2-0.9, >0.9. Such data provide a basis for identifying clients who are not doing well, as well as providing a measure of clinic performance.

Collating the results would not be a time-consuming task if the data is systematically recorded.

- **Use of non-opioid drugs** - particularly, cannabis, benzodiazepines, and stimulants (usually amphetamines, increasingly cocaine), can be carried out in the same way as that outlined above for heroin use.
- **Psychological well-being.** While there are many valid goals of treatment, most are directly attributable to reduction in use of heroin. However, evidence from the recent evaluation study of private clinics indicates that there is a high prevalence of psychiatric problems which are potentially treatable and which do not automatically improve with reduction in heroin use. Administering the GHQ (or SF36) at 6 monthly treatment reviews is a way to identify individuals expressing high levels of symptomatology, and a way of monitoring whether overall psychological symptoms are improving over time in treatment.

7.11.3 Other components of quality assurance

In addition to monitoring outcomes, it is important that treatment process is monitored. There are a number of simple ways to systematically carry out such quality assurance activities.

- **Client feedback** into ways of improving clinic functioning should be sought. The simplest way to do this is by having a suggestion box, whereby anonymous comments can be made to staff about problems with the program, and ways in which it could be improved. Each clinic should also have a mechanism in place whereby individual client grievances, including appeals against decisions about treatment, can be heard and discussed.
- **Case review** should be regularly conducted. All critical incidents - such as episodes involving threats of, or actual violence, dosing errors - should be discussed by the treatment team. Any death of a client should be discussed. Review of randomly selected records, focussing not only on management but on the quality of record keeping - should also be part of case review sessions.
- **Clinical supervision.** Methadone maintenance has always generated controversy, as the approach of providing support and care to heroin users is at odds with prevailing community attitudes towards deviant behaviour. This conflict influences all staff working in methadone clinics, and staff need the opportunity to reflect on their interaction with clients. As a minimal requirement, team meetings at which the goals of treatment and the basis of clinical decisions can be discussed, provide a form of peer supervision.
- **Participation in continuing education.** Involvement in continuing education is not only a way of maintaining staff knowledge, but also their sense of professionalism.

7.12 Recommendations

- 1 That a study be undertaken to evaluate methadone maintenance treatment in smaller primary care settings compared to treatment provided in larger public and private specialist clinics with a view to identifying factors which will maximise the effectiveness of services across practice settings.
- 2 That a study be undertaken to examine the outcomes achieved through the use of community pharmacies compared to clinic-based pharmacies and the factors influencing outcomes.
- 3 That a formal quality assurance (QA) process be designed which provides a basis for monitoring and evaluating the processes of methadone service delivery and the outcomes achieved in both public and private methadone clinics.
- 4 That a formal accreditation process be established for methadone clinics, based on the QA protocols, with ongoing accreditation to be a requirement for approval of a clinic as a provider of methadone treatment.

8 Prescriber and dispenser training

Methadone maintenance is provided in a wide variety of settings in different jurisdictions throughout Australia. Prescribers may be found in large specialist clinics (both public and private), public hospitals and in primary health care settings either as general practitioners or psychiatrists. Dispensers of methadone may be found in a variety of settings parallel to these categories, with community pharmacies being the industry equivalent of the primary care setting.

While research into the effectiveness of methadone services has largely been limited to the larger public and specialist clinics in NSW, one of the major factors found to affect outcomes has been the experience and approach of those providing services. Common to all practice settings is the need for service providers to be suitably qualified in the first instance, and to maintain those skills over time. These needs extend to all aspects of service delivery, and in particular to those prescribing and dispensing methadone.

8.1 Prescriber training

In the public sector in all States, prescribers are usually formally qualified in the area of drug and alcohol treatment services.

In the private sector, considerable variation exists between States in regard to the mix of GPs and psychiatrists providing methadone services. In Queensland, the majority of private practitioners providing methadone services are psychiatrists (17 of 24 approved practitioners are psychiatrists, treating 93% of private clients). In NSW, only 35% of authorised methadone prescribers are psychiatrists, but they treat 62% of private clients in NSW. In Victoria the overwhelming majority of private practitioners are GPs. In the remaining States, the preference is for GPs to be involved in methadone services.

In most States, there has been difficulty in attracting GPs to participate in the provision of

methadone services which has been a limiting factor to expanding services, particularly in more remote areas. There is a dilemma between the need to ensure that medical practitioners are appropriately qualified to provide methadone services, while at the same time not creating a barrier to participation by an onerous training requirement. The training programs offered in each State seek to maintain this balance.

In regard to training for methadone services, all jurisdictions either have training programs in place or are in the process of establishing them for private practitioners. Participation in these training programs is compulsory in some States as a condition of approval to prescribe methadone, but not in all States. While these programs have similar themes and are based on the national guidelines, they vary in their content and duration. Manuals for the accreditation of methadone prescribers exist (or are being finalised) in all States, and have generally been derived from the Victorian manual. However, there is scope for a greater degree of standardisation to ensure comparability between States. Further, the large majority of persons consulted were in favour of training being a prerequisite for approval of medical practitioners to prescribe methadone.

As previously stated, no research has been undertaken to evaluate the effectiveness of methadone services in the smaller primary health sector units, nor are there consistent data collected to examine outcomes of treatment in this sector. Anecdotal evidence given during the course of this review has indicated that there are considerable differences between the quality of services provided, which, if true, may be attributable at least in part to variations in the training provided. This adds greater weight to the argument supporting a uniform approach to prescriber training across all jurisdictions.

While initial training is a requirement of the approval process in most States, there is currently no requirement for medical practitioners to maintain their skill level through ongoing training or participation in training renewal or ongoing education programs. There is concerted opinion among many of those consulted during this review that such training is an essential part of maintaining and improving the standard of services provided. Again, such training should be provided on a consistent basis across jurisdictions. Training is more likely to be supported by GPs if it forms part of the activities approved for continuing education under the vocational registration requirements for GPs.

A further concern in regard to the level of training relates to the qualifications and experience of medical practitioners required to adequately cater for clients whose condition is unstable or who have complex needs or need more intense services during times of crisis. The need for a basic level of training for all practitioners providing methadone services is seen as essential. This training should be such that all participating practitioners have the necessary qualifications to meet the service needs of more stable clients, whose care fits a well defined treatment regimen. Of equal importance, however, is the need to ensure that practitioners treating more complex cases are appropriately qualified and experienced to meet the specific needs of this group of clients.

In this regard, consideration should be given to differentiating the level of training to discriminate practitioners considered suitably qualified to treat more complex cases. Such an approach would enable GPs who wish to be involved in the treatment of stable clients to

undertake a basic training course, which is less likely to act as a barrier to their participation in methadone programs. For practitioners who wish to treat more complex cases, a higher level of training would be required. Such an approach is consistent with the service delivery models being developed in South Australia and Victoria. It would also be consistent with the service delivery model proposed in Section 10.

This approach will clearly require the further development of specific training courses and documentation to meet the needs of the different groups of practitioners and their clients. The relevant professional bodies should be approached to assess the merit of such an approach, and to assist in the development of appropriate training courses. Once again, we recommend that this approach be developed on a consistent basis across jurisdictions.

8.2 Dispenser training

Training of pharmacists in the dispensing of methadone, like that for medical practitioners, also varies between States. The increasing reliance on community pharmacists for dispensing methadone in nearly all States has given greater impetus for standardised training programs. Most States have developed manuals for pharmacists which, like those for prescribers, are similar in content, but do contain variations. These manuals have often been prepared in conjunction with State branches of the Pharmaceutical Society of Australia (PSA), or the Pharmacy Guild of Australia (the Guild).

At the national level, the PSA and the Guild have established a joint working party to develop a proposal for a separately funded national scheme for the distribution of methadone and other substances for drug abuse clients. Two of the agreed fundamentals of the working party is the need for attendance at an approved training course as a pre-requisite to approval for dispensing methadone, and the use of a standard training manual. These aspects are considered to be particularly important to ensuring cross-border consistency in treatment services, and to enhancing the quality of services on a national basis.

8.3 Recommendations

- 5 That a national approach to prescriber training be established, participation in which is a requirement for approval of a medical practitioner to prescribe methadone.
- 6 That consideration be given to differentiating the training required of medical practitioners treating more complex cases, and that, if agreed to, suitable training courses be developed on a consistent basis nationally.
- 7 That ongoing education and training be a requirement for continued approval of medical practitioners to prescribe methadone, with such training to qualify for inclusion in the vocational registration requirements for GPs.
- 8 That, in conjunction with the Pharmaceutical Society of Australia and the Pharmacy Guild of Australia, a national training program be developed for dispensers of methadone, participation in which is a prerequisite for approval to dispense and administer methadone.

9 The roles of the public and private sectors

As described previously in this report, the roles of the private and public sectors in the provision of methadone services vary considerably between States. To date, the private sector has been mostly involved in New South Wales, Victoria and Queensland. In the remaining States, health authorities are at various stages of promoting greater involvement by the private sector in the prescribing and dispensing of methadone.

9.1 Private sector prescribing

In the three States where private programs are well established, the role of the private sector in prescribing methadone has variously evolved or been planned. The number of GPs and psychiatrists approved to prescribe methadone in all States as at June 1994 is shown in the following table:

Table 14: Private Medical Practitioners Approved to Prescribe Methadone, June 1994

State	GPs	Psychiatrists	Other ⁽¹⁾	Total
NSW	65	45	17	127
Victoria ⁽²⁾	n.a.	n.a.	n.a.	181
Queensland	7	17	-	24
SA	-	-	-	-
WA	-	-	-	-
Tasmania	9	-	-	9
ACT	-	-	-	-

⁽¹⁾ Doctors who are not authorised methadone prescribers, but are approved on a one-off basis to treat individual clients - this usually occurs in the rural sector, and are generally GPs.

⁽²⁾ Dissection between GPs and psychiatrists not available for Victoria, but anecdotal evidence indicates that the large majority are GPs.

In both Queensland and Victoria, the participation of the private sector has been a deliberate policy which has encouraged medical practitioners to provide methadone services as an integral part of their normal practice. Thus the approach has been to have a large number of practitioners each providing services to a small number of clients. This is also the favoured strategy in those States seeking to expand the private sector's participation in methadone programs.

The advantages of this approach are that it:

- integrates methadone services with locally available primary health care;
- avoids the stigma often associated with attending a methadone clinic;
- helps clients to avoid the "drug culture" often associated with methadone clinics;
- provides greater opportunity to extend services to areas without the infrastructure costs associated with establishing and operating larger clinics; and
- improves access to services.

The major problems associated with this strategy have been:

- difficulties in attracting sufficient numbers of medical practitioners to meet the demand for services while keeping client numbers per doctor low;
- ensuring that medical practitioners are appropriately qualified and trained (both initially and on an ongoing basis) to provide a consistent quality of service; and
- identifying and monitoring the costs associated with services provided by the private sector.

The participation of GPs in the prescribing of methadone and the care of clients is widely regarded as pivotal to enabling the provision of such services to expand. Strategies are presented in this report which seek to reduce the problems associated with its wider application, while at the same time ensuring that the advantages of this approach are realised. The paucity of empirical data on the clinical effectiveness of this approach, and on the factors which affect practitioners' willingness to participate in methadone programs indicate the need for additional studies in these areas, and into ways in which the effectiveness of services can be maximised.

In Victoria, the role of the private sector has also extended to the establishment of specialist methadone clinics in association with teaching hospitals, which provide services under contract to the Department of Health and Community Services (DH&CS). These clinics each provide 60 places for more difficult clients who require additional services to those offered by general practitioners. They also provide support and training services to general practitioners, counsellors and pharmacists. The clinics are funded under a contract with DH&CS.

The role of these specialist methadone clinics is seen as complementing rather than as an alternative to general practice based care. The relationship between the two service delivery mechanisms is illustrated in the following table.

Table 15: The Victorian Model for Integrating Primary Care and Specialist Methadone Services

Treatment	Stage of Case Mgmt	Component of Treatment		
		Counselling	Dispensing	Medical Services
Prior to Referral	GP	GP	Community Pharmacy	GP
Following Intake	SMS	SMS	SMS	SMS
Following Early Stabilisation	SMS	SMS	Community Pharmacy	SMS
Ongoing Period of Stability	GP	SMS	Community Pharmacy	GP
Returned to Community	GP	GP	Community Pharmacy	GP

GP = General Practitioner;

SMS = Specialist Methadone Service

South Australia is following a similar approach in regard to the services to be provided by general practitioners and the public clinics. In general, GPs will provide services to clients

who either wish to engage in formal efforts to reduce their unsanctioned opioid use but who have yet to demonstrate stable treatment progress (i.e. Stream B), or who have demonstrated good treatment progress and are stable (i.e. Stream C). Other clients (Stream A) will continue to be treated in public clinics using a low intervention approach.

Queensland has followed a similar approach to Victoria in the involvement of the private sector, although this has largely evolved as much as it has been planned. At the same time, the overwhelming number of private practitioners providing methadone services in Queensland are psychiatrists, while in other States, more GPs are involved. Part of the accreditation process for medical practitioners involves consideration of the number of hours worked by the doctor, and the limitations this places on the number of clients to whom the doctor is approved to provide methadone services. The view was expressed by several doctors (notably those working in public clinics) that the private sector tended to cater for the more stable clients, while the more difficult and unstable clients tended to be treated in the public clinics.

In NSW, the policy involving general practitioners has been pursued in part, while at the same time large private specialist clinics have been established and now provide services for a significant proportion of all methadone clients. Indeed, if these clinics were to cease to provide services for any reason, the public methadone service and remaining private practitioners involved in methadone services would be unable to cope with those clients currently treated at the clinics. In general, the private clinics cater for the same range of clients as their public counterparts, but may be restricted in the number of clients they treat.

Private practitioners in some areas of NSW also provide prescribing services through public clinics. This has been brought about by a lack of funds for visiting medical officers, together with difficulties in attracting medical officers to career drug and alcohol positions in public clinics. The private practitioners have not wanted to treat methadone clients in their own rooms, and have treated them at rooms provided by the public hospital for these consultations.

During the course of this review, the large majority of concerns and complaints raised concerning the provision of methadone services centred on the activities of some of the large private methadone clinics in NSW. The nature of these concerns included variable quality of service provision, high frequency of client consultation, a lack of counselling services, high charges to clients for the dispensing of methadone from the clinic, failure to observe the guidelines in regard to the availability of takeaways, and limited choice of dispenser of methadone for clients treated at the clinic. All of these concerns need to be addressed through a combination of quality assurance and accreditation processes, and through improved accountability procedures. These concerns have also been a major factor in other States not pursuing a strategy of large specialist private clinics.

Information provided by a sample of medical practitioners in New South Wales indicates considerable variation between GPs and psychiatrists in regard to the frequency of consultations, the approval of takeaway doses and the use of urinalysis for illicit drug usage among methadone clients. Data relating to these issues are presented in Section 10. The data reveal similar variations between specialist methadone clinics and methadone treatment services provided in wider practice settings. These differences may result from differences in client complexity between groups and the need for more frequent and intensive treatment

among those clients being treated by psychiatrists. Given the considerable differences in costs incurred between these groups (see Section 10) there is clearly a need to monitor and evaluate the clinical effectiveness of different practice settings within the private sector. This issue is addressed further in Section 11.

9.2 Private sector dispensing

Dispensing of methadone through the private sector is a policy adopted in all States, to a greater or lesser extent. Information provided by the Pharmacy Guild of Australia on the number of community pharmacies involved in dispensing methadone in each State is presented in the table overleaf.

In all States except NSW, the use of community pharmacies is the dominant approach to dispensing. This approach allows clients to receive daily doses closer to their residence, and avoids the drug culture often associated with specialist methadone clinics (both public and private).

Table 16: Community Pharmacy Participation in Dispensing Methadone, 1994

State	No. of Pharmacies	No. of Clients	Recommended Fee/Dose	Takeaways
NSW	300	1,900	\$5.00	+\$1
Victoria	215	2,300	\$6.00	-
Queensland	145	1,904	\$6.45	-
SA	250	793	\$2.00-\$2.50	-
WA	n.a.	300	\$2.00-\$5.00	-
Tasmania	23	33	\$2.50	-
ACT	4	10	\$5.00	+\$1

In NSW, the community pharmacy approach is not considered to be feasible to cater for the number of clients under treatment, given the size of the program and the difficulties experienced to date in attracting pharmacists to the program. Approximately 66% of clients receive their doses from clinics or hospitals, a percentage which has been relatively stable for some years. Consequently, there is a continued need in NSW to rely on a range of outlets, including specialist methadone clinics (public and private) for the dispensing of methadone.

The NSW branch of the Guild together with the Central Sydney Area Health Service (CSAHS) have proposed a pilot project involving the CSAHS and community pharmacists aimed at providing a more integrated service between the public and private sectors. Clients will be assessed by a clinical team at the Royal Prince Alfred Hospital, and treated there initially. Once stable, suitable clients will be transferred to a community pharmacy for dosing. Ongoing treatment will be a cooperative arrangement between the public clinic and the community pharmacy. Clients will be charged the recommended Guild fee of \$5 per dose, or a flat rate of \$20 to \$35 per week. Part of the project entails a \$10 per week subsidy of these costs for half of the clients to assess the effect this factor has on client retention. If successful, it is intended to extend these arrangements to other locations.

One of the major issues raised during the course of this review was the inconsistency in

charges for the dispensing of methadone in the private sector. While the above table provides an indication of the recommended Guild fee, many pharmacists charge different (and higher) fees than these. Further, in the large private methadone clinics in NSW, charges are as high as \$7 to \$10 per day. This is seen as being beyond the licit incomes of many clients, requiring them to turn to crime to support their continued involvement in the program, or to leave the program. This high cost has also been postulated as one of the main reasons for the diversion and sale of methadone. This issue is addressed further in the next section.

There is generally little empirical information available concerning the factors that influence community pharmacists in their decision to participate (or not participate) in methadone programs; the nature and extent of services they provide; the views of clients to the services provided in community pharmacy settings versus those provided in clinic-based pharmacies; or the effects of differential charges for methadone dispensing and administration. In this regard, there is a need for further studies and evaluation of each of these issues, in order to expand the participation of community pharmacies and to enhance the quality of services provided.

9.3 Public sector participation

Historically, the public sector has been the major provider of methadone services throughout Australia. It is only in recent years that the private sector has assumed a greater role, due primarily to funding restrictions on State health authorities.

The role of the public sector in the direct provision of methadone services may be expected to continue to change in the future. If current trends in most States (particularly Victoria and SA) continue, public clinics (or those operated by the private sector under contract to State governments) will tend to specialise in the initial treatment of clients and the continued treatment of more difficult cases. Once stabilised, clients may be expected to be referred to the private sector.

While this apparent delineation of roles in the provision of services seems logical, one potential outcome that must be addressed is the effect on morale of staff working in the public clinics. Anecdotal information provided by public clinic staff in Queensland indicated that the continual treatment of complex cases, while challenging, can become demoralising over time. Treatment of more stable clients, who offer a greater chance of a successful outcome, is also needed to provide staff with a more balanced workload. Absolute delineation between the more difficult cases and stable cases between the public and private sectors may inhibit the extent to which this can be achieved.

Regardless of its role in the direct delivery of services, the public sector should continue to have an important role in the planning, regulation, co-ordination, quality assurance and monitoring of services. Elsewhere in this report, we have referred to the need to establish training, quality assurance and accreditation programs for clinics and service providers. These activities are appropriately handled through the public sector. Similarly, the regulatory processes pertaining to the approval of medical practitioners, pharmacists and clients are appropriate activities for the public sector.

In regard to service provision, as a greater proportion of services are delivered in the private

sector through GPs and community pharmacies, there will be a need for improved co-ordination and support for service providers, and to ensure that clients' rights are protected. It is in this capacity that the public sector has the potential to expand its current activities. The need for improved communication between prescribers and dispensers, client liaison and provider support may be expected to increase. Mechanisms need to be established to ensure that continuity and quality of services are maintained across service settings. It is in this area that public services may be used to provide a valued role. The pilot project proposed by the CSAHS and the NSW branch of the Guild is indicative of the approach being developed to support this process.

9.4 Preferred service delivery model

In seeking to identify a service delivery model best suited to the Australian setting, we are conscious of the different approaches that currently exist across jurisdictions throughout Australia. The roles of the public and private sectors, psychiatrists and GP's, and of specialist clinics versus wider practice settings vary considerably, and in combination tend to confuse the different service models in use.

Given the complexity of the existing environment, we consider that a preferred service delivery model should be based primarily on matching individual clients' needs with the services provided by suitably qualified and experienced practitioners. The sector and clinical settings in which those services are provided should be subordinate to these criteria.

Our discussions with practitioners and administrators involved in the delivery of services has indicated that clients may be broadly classified into two groups:

- clients who, having entered a methadone program, are relatively stable and require low levels of intervention and counselling; and
- clients who, having entered a methadone program, are relatively unstable in their response to treatment and require higher levels of intervention and counselling.

We recognise that clients in the first group may at different times face crises and require additional support. Under such circumstances, these clients may require access to practitioners with skills additional to those required during periods of greater stability. The service delivery model therefore needs to be sufficiently flexible to cater for these occasions. Nevertheless, in general terms, the service delivery model should be based upon the needs of these two groups of clients.

The service needs of the stable group of clients may be seen as representing the baseline of methadone services which all approved service providers must be capable of providing. The guidelines for methadone services used in most jurisdictions reflect the service regimen for these clients. We have previously suggested (in Section 8) that all practitioners should receive a basic level of training to qualify them to provide these services, and that these skills be maintained through ongoing education and training. This approach aims to ensure that practitioners providing services to this group of clients meet the minimum training standards required, while at the same time seeks to minimise any barriers to their participation. Typically

we envisage this role being undertaken primarily by GPs as part of their wider practice. This approach reflects the models being developed in Victoria and South Australia, and brings with it the advantages previously outlined in Section 9.1.

For this group of clients, the dispensing of methadone may be expected to be undertaken primarily by community pharmacies, which is consistent with the concept of "mainstreaming" methadone services. In the absence of a willing community pharmacy, local hospitals or clinics may provide this service. Given that dispensing represents the most frequent component of methadone services, it necessarily carries with it an expectation that the dispenser will assume an important role in observing and monitoring the client's condition on a regular basis. It is essential therefore that the dispenser be adequately trained in this area, and that close liaison be maintained between the dispenser and the medical practitioner. We have previously referred to the role that the public sector may take in facilitating this liaison and co-ordination.

Experience in the application of this model overseas has shown that clients tend to remain in treatment for longer durations, and are less likely to withdraw from methadone treatment than a more interventional approach. This may have implications for the overall cost of services in the longer term.

For more complex cases, service provision would be restricted to practitioners with higher levels of qualifications and experience. The nature of the qualifications and experience required would need to be determined and agreed to by the relevant professional educational bodies, but could be expected to be in the form of post-graduate qualifications in the area of drug and alcohol treatment. Services are expected to comprise higher levels of intervention, client support and counselling than are provided for stable clients. There is a natural tendency for these services to be provided in specialist clinic settings, but need not necessarily be restricted to this environment. Such clinics may operate in either the public or private sectors.

We suggest that clients in need of this level of service would be referred to suitably qualified practitioners in the same way that other patients requiring specialist services are referred to appropriate specialists in other disciplines. This approach is therefore consistent with current medical practice, and provides a mechanism whereby clients with more complex needs are "filtered" through to practitioners with the skills commensurate with their treatment needs.

In regard to the dispensing of methadone to this group of clients, the need for closer client monitoring suggests that this activity is best undertaken in the same clinical setting as the practitioner. Given that this is most likely to be in a specialist clinic, there is a greater likelihood that staff with the appropriate qualifications and experience will be available. This would also be consistent with our proposals in regard to the quality assurance and accreditation of clinics.

This service delivery model may lead to a natural division of roles between the public and private sectors, due primarily to the fact that the majority of practitioners with formal qualifications in the area of drug and alcohol treatment have traditionally tended to work in the public sector. However, the approach in Victoria to contract for such services with the private sector demonstrates that this is not an inevitable outcome of this model.

The application of this model on a widespread basis necessarily requires a mix of service providers to cater for the needs of the different client types. The limited number of suitably qualified practitioners to cater for more complex cases may restrict capacity to cater for these clients at a local level, and require referral to specialist services located further afield. However, this limitation applies equally to other service delivery models. There will be a need for the development of appropriate mechanisms for complex cases in remote areas to have access to appropriately qualified practitioners to treat them. This model, however, provides for greater access to suitably qualified practitioners for clients who have achieved a level of stability in their lives, and provides them with a greater opportunity to function more normally in their domestic environment.

In order to be effected, however, the payment system used to remunerate practitioners providing different levels of service for different groups of clients needs to support models of best practice, and be attractive to practitioners. Discussion of alternative funding models is presented in Section 12.

While this model is consistent with the approaches already being developed in South Australia and Victoria, and may find acceptance for defining the role of the private sector in other States, its application in New South Wales may be restricted by the large number of clients participating in methadone programs in that State. The current service delivery model in NSW relies heavily on large private clinics to cater for a significant proportion of these clients. It is questionable as to whether sufficient GPs and community pharmacists would be willing to participate in methadone programs, or that the public sector has the capacity to cater for these clients in the short term. Under these circumstances, it is likely that the large private clinics will continue to provide services to both stable and complex cases. There will be a need for further consultations with the NSW Health Department to assess the likely implications of this situation for the delivery of methadone services in NSW.

In implementing this model, a number of specific strategies will need to be pursued and investigated. These include:

- Developing and agreeing on the different training and experience requirements of medical practitioners to treat stable and complex cases;
- Developing agreed clinical criteria for the identification and referral of complex cases to specialist providers;
- Establishing mechanisms for the treatment of complex cases in remote areas or where access to specialist services is limited; and
- Assessing the overall applicability of the proposed model in those states, particularly New South Wales, where the proposed approach represents a significant change to the existing service delivery models and structures currently in place in the private sector.

9.5 Summary

The roles of the public and private sectors in the provision of methadone services have changed dramatically over the past five years, and are expected to continue to change in the future. The role of each sector varies considerably between States and has either evolved through history or been the result of deliberate policy initiatives. The main trend today is to involve GPs and community pharmacies in methadone services as part of their wider practices. This approach seeks to use the existing service infrastructure of the private sector, rather than establish a new public infrastructure with its associated costs. NSW also has the situation where large private methadone clinics have been established, mainly as a result of funding shortages in the public sector which were unable to meet the increasing demand for services.

Clearly, the involvement of GPs and community pharmacies in methadone services has the greatest potential to improve access to services by clients, particularly in more remote areas, and to reduce the stigma associated with attendance at specialist methadone clinics. The major difficulty with this approach has been, and continues to be, attracting medical practitioners and pharmacists to participate in methadone programs, and the need to ensure that they are appropriately qualified and trained. There is a need to collect further information about the factors that influence participation in the provision of methadone services, and on client views about the services provided in different practice settings.

In the current situation, where there is a mix of private and public participation in various forms in the provision of methadone services, it is clear that there is no "one best way" for future services delivery. While some of the large private clinics in NSW have drawn considerable and apparently justified criticism in regard to the quality and costs of services they provide, they nevertheless meet a current demand for services. There is clearly a need to address the concerns raised about the activities of a number of these clinics.

Notwithstanding a reduced reliance on the public sector for direct service provision, there is a need for this sector to extend its current activities in the administration, regulation, quality control, coordination and monitoring of services. At the same time, support services for the private sector must be established to encourage their participation and to ensure that client needs are appropriately addressed. These activities will be essential if service quality and continuity are to be improved and maintained.

We have outlined a preferred service delivery model which seeks to match the needs of different groups of clients with the services provided by suitably qualified and experienced practitioners. This approach does not restrict the public and private sectors to defined roles, although the tendency for more highly qualified practitioners in the field of alcohol and drug services to be located in the public sector may lead to a natural division of roles. The model seeks to provide greater access to methadone services for clients when they are stable, while providing the necessary safety net for them in times of need. At the same time, the needs of more complex cases are catered for by practitioners most qualified to meet these needs. The referral system proposed in this model for complex cases is consistent with current medical practice across specialties.

In implementing this model, a number of specific strategies will need to be pursued and investigated, particularly relating to the training and experience required of practitioners

treating complex cases, and the clinical criteria for the identification and referral of such cases. At the same time, mechanisms for the treatment of clients in remote areas under this model, and its applicability across all jurisdictions need to be considered.

The mix of public and private service delivery cannot be considered without consideration of the funding mechanisms used. Private sector participation is synonymous in the current funding environment with Commonwealth funding through Medicare. The extent to which these services continue to expand to meet growing demand and to improve access to services results in a greater proportion of methadone treatment costs being borne by the Commonwealth. The costs incurred by States and the Commonwealth in the provision of methadone services are addressed further in the following section.

9.6 Recommendations

- 9 That the involvement of general practitioners and community pharmacists in the provision of methadone services be encouraged as an appropriate method for meeting the demand for and improving access to services.
- 10 That a study be undertaken into the process of dispensing and administering methadone; the factors influencing community pharmacist participation; the views of clients regarding community versus clinic-based dispensing arrangements; and the effects of differential client contributions.
- 11 That State health authorities extend their activities in co-ordinating services between public and private service providers, and in providing support services to the private sector.

10 Costs of services

10.1 Costs of public programs

In the course of this study, State health authorities were asked to complete a questionnaire detailing the costs of services provided to clients of public methadone clinics for the past five years. Data have been provided by all States, although considerable delays were experienced in several instances. Data were requested for five years to 1993/94, however in the majority of cases, information was provided only for the 1993/94 financial year. In part, this has been due to the fact that the required data were subsumed in wider expenditure figures, and it was not considered feasible to estimate costs for past years with an adequate degree of confidence. In NSW in particular, considerable effort was expended in estimating the costs specific to methadone programs across a variety of settings in both metropolitan and country areas. The efforts of State health authorities in extracting these data and providing them to the consultants is gratefully acknowledged.

The data provided have been estimated as best as possible from existing financial records in each State. However, in most cases, methadone programs are often subsumed within more general programs relating to drug and alcohol services, or are provided within public hospitals

as part of their outpatient services. Consequently, the basis for the estimates provided differs between States, and care should be taken in making direct comparisons between them. Costs do not include the cost of methadone syrup, the costs of any urinalysis tests billed through Medicare, nor any costs to clients for the dispensing of methadone which may vary between States.

The number of clients in each State used as the basis for calculating the average cost per client has been determined from data provided by the States via a questionnaire, and is the aggregation of individual clinic data. Because of the different administrative practices in place in different States, the basis on which these have been reported may differ. For example, the NSW data comprises clients who are dispensed methadone at public clinics, while other States' data may include clients whose prescriber is based at a public clinic, but whose methadone is dispensed at a community pharmacy. This may lead to anomalies between States' data. At the same time, many clients do not participate in methadone programs (in both the public and private sectors) for a full year, as evidenced by the high number of admissions and exits from these programs each year. In the following table, the number of clients used to express the annual rate is based on the mean of the number of clients at the beginning and end of 1993/94. Many more clients would have participated in these programs at some stage and for different durations during the course of the year. The average annual cost per client derived above therefore represents an estimate of the costs for a full year's placement in a public program. This approach is considered reasonable, in that the majority of clinics run at full or near full capacity most of the time, and each available place is therefore occupied.

Notwithstanding these caveats, the total costs of services in the public sector in each State for 1993/94 are presented in the following table.

Table 17: Estimated Costs of Public Methadone Programs, 1993/94

	Program Mgmt	Service Delivery Costs	Total Costs	Ave No of Clients⁽¹⁾	Ave. Direct Cost/Client	Ave. Total Cost/Client
NSW	611,850	5,161,821	5,773,671	2,201	2,345	2,623
Victoria	513,008	2,557,174 ⁽²⁾	3,070,182	422	6,060	7,275
Queensland	n.a.	2,252,857 ⁽³⁾	2,252,857	1,238	1,820+	1,820+
SA	126,484 ⁽⁴⁾	1,618,251 ⁽⁵⁾	1,744,73	897	1,803	1,882
WA	n.a.	1,220,67	1,220,672+	598	2,043	2,043+
Tasmania	40,000	334,566	374,566	61	5,530	6,191
ACT	65,847	730,306	796,153	305	2,394	2,610
All States	1,357,189	13,875,647	15,232,836	5,722	2,425	2,662

⁽¹⁾ Based on data provided by States at clinic level which may vary from aggregate State level data elsewhere reported.

⁽²⁾ Excludes cost of Pentridge Prison service.

⁽³⁾ Excludes cost of Cairns Hospital Clinic

⁽⁴⁾ Includes \$55,728 for development of private program.

⁽⁵⁾ Includes costs associated with supporting Prison and Private Programs.

The data indicates reasonable consistency between public clinics in each State, with the exceptions of Victoria and Tasmania. All other States have average direct costs per client of between \$1,800 and \$2,400 per annum. In the case of Victoria, caution should be taken in

interpreting the average estimated cost of approximately \$6,000 for several reasons. Firstly, the basis of estimation comprised an average estimated cost of \$2,000 per client for hospital-based providers, to which was added known costs of five major agencies and counselling and support services. No explanation was given as to how the hospital costs of \$2,000 were derived. Secondly, the comparatively low number of public clients in Victoria provides a narrow base for the allocation of costs. Thirdly, the Victorian policy has been one of promoting the participation of the private sector in the provision of methadone treatment, and considerable investment has been made in developing an appropriate regulatory structure to support this policy. These costs have been included in the above.

In the case of Tasmania, their methadone program is comparatively new (having commenced in late 1992), with only 75 public clients as at June 1994. In combination, it is reasonable to expect their costs to be higher than more mature programs with higher client numbers.

If the Victorian and Tasmania costs (and client numbers) are excluded from the above data, the average direct cost per client per annum in the public sector falls from \$2,425 to \$2,096, while total costs per client per annum fall from \$2,662 to \$2,250.

10.2 Costs in the private sector

Costs incurred in the provision of methadone services in the private sector are largely borne by the Commonwealth through Medicare. These costs relate to the costs of consultations by medical practitioners, together with the costs of pathology tests (particularly urinalysis for illicit drugs). As in the case of the public sector, the cost of methadone syrup is borne by the Commonwealth.

The Commonwealth Medicare Benefits Schedule (CMBS) does not separately identify methadone services from other primary health care services. In the absence of data specific to methadone clients and the medical practitioner approved for their methadone treatment, it is not possible to accurately determine the treatment profile for methadone clients and their associated costs from the CMBS.

Data from a sample of 10% of Medicare clients from NSW, Victoria, Queensland and Australia as a whole, has been provided by the Department of Human Services and Health. The basis for selection was all clients who received at least one service for CMBS Item 66343 during 1993/94.

The description of this item is:

"Detection or quantitation or both (not including the detection of nicotine and metabolites in smoking withdrawal programs) of a drug, or drugs, of abuse or a therapeutic drug, on a sample collected from a patient:

- (a) participating in a drug abuse program; or
- (b) being treated for drug effects;

including all tests on blood, urine or other body fluid - each episode, to a maximum of 21

episodes in a 12 month period."

While not restricted to clients participating in methadone programs, a significant proportion of clients undergoing this test are believed to be methadone clients. In NSW and Queensland, the number of persons receiving this service is broadly consistent with the number of clients participating in methadone programs in these States. However, in Victoria, the number of persons receiving this item is two to three times the number of methadone clients. The reason for this difference is uncertain. One possibility is that persons receiving this item of service are participating in other drug treatment programs, such as therapeutic communities.

Notwithstanding these potential limitations, the treatment pattern for this group of clients has been used as a first estimate of the costs of treatment of methadone clients in private programs.

The results of the analysis of these data are contained in the following table. It should be noted that the number of services, fees charged and benefits paid in each category of service have been expressed as a rate of the total number of clients receiving Item 66343 in each State, rather than as a rate per client receiving each particular category of service. This approach has been adopted in order to facilitate a comparison of treatment patterns by groups of services in each State.

By way of example, in NSW each client who received Item 66343 in 1993/94 on average had 27 visits to GPs, 8 visits to psychiatrists, and 26 pathology tests performed. In comparison, clients in Victoria averaged 24 visits to GPs, 1 visit to a psychiatrist and had 14 pathology tests. In part, these differences reflect different clinical settings that exist as well as the mix of services that clients may have (a client may appear in any combination of the defined categories during the period). It should be noted that the data relate to all clients who received Item 66343 at any time during 1993/94, many of whom would not have remained in a methadone program for the full year. The costs do not therefore represent the average costs per client for a full year's participation in a methadone program in the private sector. It should also be recognised that the data relate to all services provided to these clients, not just those pertaining to methadone treatment.

Table 18: Services and Fees Charged per Client Receiving Item 66343, Selected States, 1993/94

	NSW	VIC	QLD	AUST
GP Consults:				
No. of Services	27	24	15	25
Fees Charged	602.95	554.87	359.29	555.68
Benefits Paid	600.34	548.03	353.63	550.16
Benefits/Charges (%)	99.57	98.77	98.42	99.01
Psychiatric Consults				
No. of Services	8	1	3	4
Fees Charged	362.79	127.25	213.43	241.83
Benefits Paid	360.14	116.15	198.19	232.29

Benefits/Charges (%)	99.27	91.28	92.86	96.06
All Medical Consults				
No. of Services	37	26	19	30
Fees Charged	1036.42	711.58	615.28	847.55
Benefits Paid	1028.02	690.17	585.05	828.29
Benefits/Charges (%)	99.19	96.99	95.09	97.73
Major Pathology Services				
No. of Services	26	14	14	19
Fees Charged	380.83	215.16	208.73	281.31
Benefits Paid	379.16	212.54	203.56	278.59
Benefits/Charges (%)	99.56	98.78	97.52	99.03
All Selected Services				
No. of Services	63	41	33	49
Fees Charged	1417.25	926.74	824.01	1128.86
Benefits Paid	1407.18	902.71	788.61	1106.88
Benefits/Charges (%)	99.29	97.41	95.70	98.05

Notwithstanding the limitations of the data, some significant differences are apparent between States in the number and costs of services to clients. Clients in NSW, have on average, 41% more medical consultations than clients in Victoria, and 95% more than clients in Queensland. This pattern is common to both GP services and psychiatric services, and also extends to the number of pathology tests performed. When considering all services provided in the categories selected, clients in NSW had 29% more services than the national average, at a cost approximately \$300 per client per annum higher than the national average. Costs for clients in Victoria and Queensland on the other hand, were considerably lower than the national average.

The ratio of benefits paid to fees charged (98% at the national level) reinforces the understanding that the overwhelming majority of medical practitioners bulk-bill for their methadone services.

While the above analysis provides an indication of the differences in service patterns between States, it does not provide a reliable estimate of the annual costs of treatment of clients in the private sector who participate in a methadone program for a full year, which may be used as a comparison for the equivalent costs in the public sector. In order to obtain a more reliable indicator of these costs, a questionnaire was sent to a sample of 30 medical practitioners in both New South Wales and Victoria, seeking information about treatment patterns in their methadone services. Unfortunately, industrial action in Victoria prevented the collection of the data. At the time of this report, replies had been received from 17 medical practitioners in New South Wales.

Of the responses received to date, 9 were from GPs and 8 were from psychiatrists; 9 were in

metropolitan locations and 8 were in country locations; 12 provided methadone services as part of their wider practices and 5 worked in specialist methadone clinics. The results are presented in the table overleaf.

The results demonstrate the considerable variation in treatment patterns both within different groups of practitioners and between groups. This variability may be attributed to different levels of complexity among clients in individual medical practices, as well as to differences in medical practitioners' views on the frequency of consultation required.

A consistent pattern is evident of a higher number of consultations throughout the treatment period by psychiatrists compared to GPs by a ratio of between 1.5:1 and 2:1, whether considering either the mean or the median. A similar ratio also applies to the number of urinalysis tests ordered by the respective groups. Both groups show a comparable pattern in authorising takeaways, although GPs approved slightly more than psychiatrists.

A comparison of treatment patterns between country and metropolitan areas shows similar treatment patterns over the first twelve months, although country doctors tend to see their clients more frequently in the first three months, with the rates reversed for the subsequent nine months. In subsequent years, metropolitan doctors see their clients over twice as often as their country counterparts. This is not directly allied to the distribution of psychiatrists and GPs, as both groups were represented in country and metropolitan areas, with a slight weighting towards the metropolitan area for psychiatrists. The number of takeaways approved were similar in the first year, but 32% higher in the metropolitan area in subsequent years.

In regard to specialist clinics compared to wider practices, the number of consultations were similar across the two settings in the first three months of treatment, and considerably higher in specialist clinics thereafter. Doctors in specialist methadone clinics consistently ordered more urinalysis tests than those in wider practices. Doctors in wider practices approved more takeaways in the first year of treatment than those in specialist methadone clinics, but this pattern was reversed in subsequent years.

Table 19: Treatment Patterns among a Sample of Medical Practitioners in NSW

	GPs	Psych's	Metro	Country	Wider	Meth Clinic	Mean
Average No. of Patients	83.0	72.0	80.	74.0	83.	99.	90.0
	0	0	00	0	00	00	0
First 3 months							
Consults:- Mean	11.20	15.80	10.20	16.90	15.20	12.00	14.20
:- Median	12.00	13.00					
:- Range	3 - 26	4.5 -60	8 -14	3 - 60	3 -60	10 -13	
Takeaways	2.90	0.90	0.00	4.20	2.80	0.00	2.00
Urinalysis Tests Ordered	2.40	4.60	4.20	2.60	3.10	5.80	4.10
Next 9 months							
Consults:- Mean	12.60	20.40	20.20	11.90	13.50	28.50	17.30
:- Median	12.00	19.50					
:- Range	3.5 -19.5	9 - 39	12 -39	3.5 -27	3.5 -27	18 -39	
Takeaways	75.80	75.00	78.00	72.60	84.10	73.10	81.20
Urinalysis Tests Ordered	4.40	9.80	9.10	4.60	5.30	14.40	8.10
Total First Year							

Consults:- Mean	23.70	36.20	30.40	28.70	26.80	40.50	31.50
:- Median	28.00	42.80					
:- Range	6.5 -35	13.5 -72	24 -52	6.5 -72	6.5 -72	28 -52	
Takeaways	78.70	75.90	78.00	76.70	86.90	73.10	83.10
Urinalysis Tests Ordered	6.80	14.50	13.30	7.20	8.30	20.30	12.20
Subsequent Years							
Consults:- Mean	12.50	24.50	24.40	11.10	13.00	35.00	19.70
:- Median	12.00	24.00					
:- Range	3 - 24	12 -52	12 -52	3 - 18	3 -26	12 -52	
Takeaways	176.20	163.70	192.10	145.80	165.50	221.00	185.60
Urinalysis Tests Ordered	5.90	10.40	10.40	5.30	5.10	17.30	10.20

In identifying the variability of treatment patterns between health professionals and between clinical settings, we do not consider it appropriate to comment on whether the differences are clinically justified. For example, the higher consultation rate among psychiatrists compared to GPs may be reflective of a more complex and difficult client profile requiring a more intensive and frequent form of treatment. However, the data illustrates the considerable differences that exist in practice, which must be recognised and catered for in the payment system. At the same time, the payment system should encourage models of best practice

In seeking to identify the costs of treatment in the private sector, we have used the above treatment profile to estimate the number of services provided, and applied the average fee rates charged by psychiatrists, GPs and pathology services derived from the data presented in Table 18 above. Because of the considerable variation in treatment patterns within each group, we have used the median figure for the number of services provided rather than the mean, which is subject to greater bias from outliers. The results are presented in the following table. In so doing, we are aware of the considerable differences that have been shown to exist between States, as indicated by the CMBS data. In so far as New South Wales consistently demonstrates a higher frequency of consultation by both GPs and psychiatrists compared to their interstate counterparts, the estimates derived may be considered to be higher than those in other States.

Table 20: Estimated Annual Costs of Private Methadone Services in NSW

	First Year	Second Year	Average
GP Consults	\$620	\$266	\$443
GP Urinalysis Tests	\$117	\$101	\$109
Total GP Services	\$737	\$367	\$552
Psychiatrist Consults	\$1,940	\$1,088	\$1,514
Urinalysis Tests	\$249	\$179	\$214
Total Psych. Services	\$2,189	\$1,267	\$1,728

The estimates indicate that, compared to the average annual cost per client in public methadone programs, services provided by GPs are considerably less costly, while those provided by psychiatrists are of a similar order of cost to those of the public clinics. It should be noted, however, that these costs do not include payments by clients for methadone

dispensing, which are generally higher in the private sector than in the public sector where in some instances no charge is made. When taken into account, this factor is expected to reduce the difference in overall costs between the public and private sectors.

No data are available to indicate whether or not the client complexity and service needs of clients treated by psychiatrists justify the higher costs compared to those incurred by GPs. However, the view expressed by many of those consulted during the course of this review was that the methadone treatment services provided by GPs and psychiatrists for the large majority of their clients were of a like nature, and the fee differential was not justified. Under these circumstances, there appears to be considerable scope to reduce the costs of services in the private sector, which would enhance the overall cost advantage demonstrated over public clinics.

10.3 Client costs

The large majority of medical practitioners providing methadone services bulk-bill for their services to Medicare. This is confirmed by the data in Table 18. Costs to clients of methadone services are largely restricted to the charges for daily dispensing of methadone either at community pharmacies or clinics, and transport costs incurred in attending their treatment locations. As shown in previous sections, dispensing costs vary widely between States, and between dispensing settings. While the Pharmacy Guild recommends a dispensing fee in each State, pharmacists often charge different, and often higher rates. In the large majority of cases, however, the fees charged by community pharmacists are considered reasonable, and affordable from the licit incomes of clients.

The greatest concern in regard to dispensing charges lies with the large private clinics in NSW, where daily charges of \$7 to \$12 have been reported. This level of charge is often beyond the capacity of the licit income of clients, forcing them to either revert to crime to support their continued involvement, or to leave the program. It has also been postulated as a factor in the diversion and sale of methadone. The compensating factor for this cost is the ready availability of takeaways in the large clinics.

The majority of clinicians consulted in the course of this study considered that some level of client payment for methadone services was appropriate. This payment was considered to be part of the self-discipline embodied in methadone treatment, and reinforced the value of the services provided to the client. The issue is more the amount of the payment rather than whether there should be any payment. Such payment should take account of both what is affordable by the client, and the costs incurred by the pharmacist in providing the service.

Information provided by the Pharmaceutical Society of Australia referred to a survey in Victoria in 1990 where methadone clients were asked how they would cope if they were charged \$50 per week for methadone. Only 10% replied that they could find the money without difficulty; 38% said it would be difficult but they could cope; and 36% said it would be impossible. Many indicated that they would leave the program or revert to crime.

Given the variability in charges across jurisdictions and clinical settings, there is a need to establish a more uniform and equitable fee for dispensing. It is recommended that a ceiling be

placed on the fees charged to clients for the dispensing of methadone, whether by community pharmacies or by methadone clinics. A maximum fee for the order of \$3 to \$5 per dose is suggested. This fee could be a condition of approval by the relevant State health authority for a pharmacy or clinic to dispense methadone. This may require changes to State legislation or regulations to be put into effect.

10.4 Costs to pharmacists

The Pharmaceutical Society and the Guild have emphasised that the role of the community pharmacist extends beyond the simple preparation and provision of doses, and that a client counselling role is also often provided. The pharmacist is also a member of the treatment team for these clients, and should participate in the communication process inherent in service delivery. The PSA and Guild consider that the fees currently charged to clients are inadequate to cover these costs, and that pharmacists participating in methadone programs do so more from a sense of community spirit and professional calling than for financial reasons.

A joint working party of these groups is preparing a submission for Commonwealth subsidisation of their activities in providing methadone services. They consider that pharmacists involved in the provision of methadone services should be appropriately remunerated for their time, and preferably on a fee-for-service basis. Alternatively, a client management model would be considered. They propose that such payment would be independent of the PBS, and should be funded either through Medicare or through a separate Schedule of Payments. If payment were made under the PBS, the Commonwealth may face increased expenditure since methadone clients would reach the threshold levels under the PBS safety net provisions sooner, thereby receiving additional PBS drugs at no charge.

The comparatively low fees charged by community pharmacists for methadone dispensing has been a barrier to more pharmacists participating in methadone programs. The provision of a government subsidy would assist in alleviating this problem. At the same time, however, any subsidy provided should be at a set level which reimburses costs incurred, rather than providing an opportunity for pharmacists to profit from their involvement.

While recognising the logic of the argument for a government subsidy, no evidence has been provided during the course of this review which quantifies the costs incurred by pharmacists in providing methadone services. Consequently, it is not possible to recommend a course of action at this time. However, it is recommended that any submission to this effect be considered in regard to its economic benefits as well as its potential to attract additional pharmacists to methadone programs. At the same time, the costs to the Commonwealth need to be considered. A further complicating factor to be addressed is whether or not dispensing from private methadone clinics would also qualify for the subsidy.

10.5 Contributions by State and Commonwealth governments

All States have provided data on the costs incurred in the provision of methadone services, details of which were presented in Table 17. It should be noted that the costs incurred by the States may include funds contributed by the Commonwealth under the NDS, as well as funds

from States' own health budgets.

An analysis of costs incurred by the Commonwealth through Medicare payments, the costs of providing methadone syrup and the contribution to States under National Drug Strategy (NDS) funding has also been undertaken.

Costs incurred by the Commonwealth through Medicare payments for private clients were estimated by an examination of the treatment patterns of clients receiving CMBS Item Number 66343 (as described in Section 10.2), and applying these patterns to an estimate of the total number of clients treated by private practitioners during 1993/94.

The approach adopted for this analysis was:

- The average number of GP, psychiatric and pathology services provided to clients receiving CMBS Item number 66343 was determined. This analysis was restricted to those services provided to at least 1,000 clients (out of a total of 16,820).
- The equivalent treatment profile for all Australian clients receiving these services was then derived.
- The profile derived in Step 2 above was then deducted from that derived in Step 1. The residual is considered to be representative of the additional number of services provided to private methadone clients compared to all Australian clients, which are regarded as the services attributable to methadone programs.
- The above service profile was then multiplied by the average Medicare benefit paid by the Commonwealth for each service item.
- The above costs were then weighted by the number of clients receiving each service item relative to the total population on the file. This provides an estimate of the weighted cost per client in the course of a year, net of costs for non-methadone related services. This was estimated at \$592 per client per annum, including costs of urinalysis.
- This figure is lower than the estimates derived in Section 10.2, (shown in Table 20), since it reflects both the high-dropout rate of methadone clients, together with the relative distribution of services provided by GPs and psychiatrists across all jurisdictions in Australia. The figures presented in Table 19 represent the average costs per client if they remained in treatment for a full year.
- The average weighted cost per client was then multiplied by an estimate of the total number of private methadone clients for 1993/1994. In this regard, a range of estimates has been identified. At the lower end, we have used data from the States on the number of people participating in the program at the start of 1993/94 plus an estimate of the number of new admissions during the year. This yields an estimate of 11,500 persons. At the upper end, we have used the number of clients who received CMBS Item Number 66343 during the year, namely 16,820.

The results of this process indicate that the Commonwealth funding of methadone services

through Medicare in 1993/94, including the costs of urinalysis, was between \$6,810,000 and \$9,960,000, with a mid-point of \$8,380,000. In addition, the Commonwealth pays for methadone itself (which is provided free to public and private dispensers), and makes a contribution to cost-shared funds under the National Drug Strategy.

The following table summarises the cost incurred by the State and Commonwealth Governments in providing methadone services during 1993/94. It should be noted that the expenditure by the States may include funding provided by the Commonwealth under the NDS. As more clients are treated in the private sector, and particularly as the community-based model is extended, it is expected that the contribution by the Commonwealth under the existing funding arrangements will increase.

Table 21: Costs incurred by State and Commonwealth Governments in the Provision of Methadone Services in 1993/94

New South Wales	\$5,774,000
Victoria	\$3,070,000
Queensland	\$2,253,000
South Australia	\$1,745,000
Western Australia	\$1,221,000
Tasmania	\$375,000
ACT	\$796,000
Total States	\$15,233,000
Commonwealth	
- Medicare Payments	\$8,380,000
- Methadone	\$2,100,000
- NDS Contribution	\$4,873,000
Total Commonwealth	\$15,353,000

10.6 Summary

A review of the comparative costs of methadone services between the public and private sectors and between different jurisdictions has been made difficult by the absence of readily available financial data. As a result, costs have been estimated based on the results of specific questionnaires to State health authorities and private medical practitioners, and by an examination of a sample of Medicare data. The uncertain reliability of these data sources suggests that the results should be interpreted with caution.

In the public sector, reasonable consistency was found in the direct costs per client treated. The exceptions to this were in Tasmania and Victoria, where relatively few public clients are treated, and concerns are held about the reliability of the costs reported. If these two States are excluded from the analysis, the average direct cost per client per annum of methadone treatment in the public sector is approximately \$2,100, while the total cost (including program administration etc.) is \$2,250 per client per annum. Given the basis on which public clinics are funded, these costs are expected to reduce with the number of clients treated, though not necessarily proportionally.

In the private sector, considerable variation has been found in the costs of treatment, depending on the intensity of treatment (which tends to be related to duration of treatment) and the nature of the service provider (i.e. whether it is a GP or a specialist). The nature of the funding system results in costs being directly proportional to the frequency of service delivery and the fee charged. This has resulted in services provided by psychiatrists costing approximately three times those of GP services in all stages of treatment. These differences are reflective of considerable differences in treatment patterns between the two groups, and the higher fees charged by psychiatrists. There are no data available to indicate whether or not the clinical complexity of clients being treated by the two groups differs significantly, nor whether outcomes of treatment vary as a result of the differences in treatment approach. However, many of those consulted during the course of the study doubted that the differences in fees charged between these groups could be justified in terms of the nature of the service provided. The costs of services provided by psychiatrists are comparable to the costs incurred in the public sector.

However, the costs quoted for the private sector exclude the cost of dispensing methadone, as this is usually met by the client. Costs in the public sector generally include the dispensing costs of public clinics. When taken into account, this difference in reporting largely negates the difference in the quoted costs for the two sectors, and would make the services provided by psychiatrists in the private sector more costly than those in the public sector.

Charges to clients for the dispensing of methadone were also found to vary considerably between jurisdictions, and there is a need for greater standardisation of these charges at an affordable level. At the same time, the issue of whether or not there should be government subsidisation of costs incurred by pharmacists in dispensing methadone needs to be considered in the context of its cost-effectiveness and its effect on attracting more community pharmacists to methadone dispensing.

Finally, an analysis of the respective contributions by the State and Commonwealth governments for the provision of methadone services has indicated that, in total, they are currently of a like order of magnitude of approximately \$15.2 to \$15.3 million. It should be noted, however, that the expenditure by States may include funds provided by the Commonwealth under NDS funding (\$4.9 million) for the provision of methadone services. Given the trend for greater private sector involvement in methadone services, it is likely that a continuation of the current funding arrangements will result in the Commonwealth bearing a greater proportion of the total costs.

10.7 Recommendations

- 12 That a maximum fee to clients for the dispensing of methadone be established across all States, to be applied to community pharmacies and clinic-based pharmacies as a condition of their approval to dispense methadone.
- 13 That a decision to provide a government subsidy of the costs of dispensing methadone be based on the relative merits of a submission to this effect, having regard to its economic validity, and its capacity to attract more pharmacists to

methadone programs.

11 Improving accountability

The issue of accountability for the delivery of methadone services and the costs incurred in their provision has been a major focus of this study. Accountability is appropriate at all levels of service delivery, ranging from individual service providers through to entire organisations, whether they be in the public or private sectors. Secondly, accountability also applies to different aspects of services, including the quality of the clinical service provided, and the costs incurred in service provision. Thirdly, accountability also requires that service providers are responsible to the people to whom they provide services - namely their clients. Finally, accountability also applies at the program level, and requires that a process be established for regular monitoring of the performance of methadone programs and the extent to which they are meeting their objectives. Each of these issues are addressed in this section.

11.1 Financial accountability

Financial accountability requires that persons or organisations incurring costs for service delivery are held responsible for these costs, and can demonstrate to the entity providing the funds that they have been expended in an appropriate and effective manner. This principle applies in both the public and private sectors.

This review has sought to identify and quantify the costs incurred in both the public and private sectors in the provision of methadone services. Throughout this process, access to the required information has been made difficult by an inability in both sectors to identify the costs specific to methadone programs.

11.1.1 The public sector

In the public sector, State health authorities were asked to complete a questionnaire which identified basic activity levels and their associated costs. In virtually all cases, the questionnaire could only be completed by estimation, since public methadone programs and their costs are largely subsumed in more general drug and alcohol programs, or within general hospital budgets. All questionnaires were completed with caveats concerning the reliability of the estimates provided.

If true accountability for the expenditure of public funds on methadone programs is to be provided, it is essential that the costs incurred be separately identified within the accounting records of public methadone providers. It is recognised that this entails a greater level of specificity than is currently provided for in the accounting records of service providers. Consequently, additional costs will undoubtedly be incurred in establishing and maintaining these records. Equally, seeking to aggregate these costs across a range of service providers including specialist clinics, more general drug and alcohol clinics and public hospitals will also incur additional costs. The complexity of this task should not be underestimated.

Ultimately, the issue becomes whether or not the costs incurred in establishing and maintaining

the additional accounting records required for full financial accountability in the planning and delivery of methadone services are justified in terms of the use to which the information is to be put. An alternative view is that methadone services are part of a suite of drug and alcohol treatment services provided in all jurisdictions for which there is joint funding from State and Commonwealth governments. Consequently, financial accountability at this broader level may meet the requirements of those funding the services. This is a matter for the Commonwealth and State governments to determine as part of the negotiations for the shared funding of services. While the requirement for financial accountability is recognised, the issue to be determined is the level at which this requirement is to be exercised.

11.1.2 The private sector

In the private sector, costs of medical consultations and pathology tests for methadone clients are paid by the Commonwealth under Medicare. However, services provided within methadone programs are not separately identified within the Medicare Schedule (CMBS), and consequently cannot be separately accounted for with confidence from this source alone.

Efforts to identify costs in the private sector during the course of this study have proved difficult to date, because of an unwillingness by State health authorities to provide information identifying participants in private methadone programs (both approved practitioners and clients), which might then be used to identify the costs incurred through Medicare. An alternative approach of relying on survey data from medical practitioners suffers from subjectivity and potential bias because of the vested interest this group has in the provision of services.

This has highlighted one of the fundamental impediments to proper financial accountability under the current administrative and funding arrangements in the private sector. The responsibility for approval and regulation of methadone prescribers and clients rests with State health authorities. However, the funding of services rests with the Commonwealth. While the States have administrative procedures in place ostensibly to monitor activities in the private sector, these vary between States, and indeed are limited in the information they provide. Consequently, little information is available in State health authorities on activities (and hence costs) in the private sector. Conversely, while the Commonwealth has these data available through the HIC data base, it is unable to identify those activities relevant to methadone programs, their clients and practitioners. As long as this dichotomy between the regulators of services and the funder of services exists, then financial accountability in the private sector cannot be achieved.

In this regard, there are several options available:

- States could collect data on a routine basis on the volume of services provided in the private sector as part of their regulatory procedures, which could be done independently of the funding system used. This option would necessarily entail additional data collection, processing and reporting, with an increased workload for all participants in the program and increased infrastructure costs. It is therefore likely to lead to additional costs of administration, and deter medical practitioners from participating in methadone programs.

- States could provide information to the Commonwealth on a regular basis on the identities of approved methadone prescribers and their clients, which might then be used as a basis for monitoring services and costs on the Medicare data base. This approach would not require any additional data collection or reporting, and would use existing data sources for the extraction of the required information. However, other primary health care services provided to clients by these doctors could not be separated from services associated with methadone treatment, leading to a potential overstatement of methadone costs. This approach is expected to be opposed by many medical practitioners, and may act as a deterrent to their participation.
- Methadone services funded under Medicare could be separately identified in the CMBS, and monitored on the Medicare data base. This would enable the use of existing data bases for the required information, and isolate costs of methadone services from other primary health care costs. However, the use of a separate CMBS item may be resisted by consumer representatives because of issues of privacy and confidentiality.

On balance, the option which provides the most reliable method of improved financial accountability in the private sector is the last of these, namely the separate identification of methadone services on the CMBS. Any decision to do so should also consider the acceptability of this approach to the medical profession, and consumer concerns about privacy and confidentiality.

11.2 Clinical accountability

Clinical accountability refers to the quantity and quality of services provided, the extent to which they conform to guidelines for service provision, and the outcomes achieved.

During the course of this study, information has been sought on each of these dimensions of accountability with limited success. All States have administrative data collections in place in both the public and private sectors, but the quality of the information collected is suspect, and has proved difficult to access. For example, in Victoria one of the main complaints received during our consultations was the onerous nature of the bureaucratic forms and procedures associated with registration and participation in the private methadone program. Yet these procedures have translated into minimal data on the quantity and quality of the services provided.

The information provided by a sample of medical practitioners in New South Wales demonstrates the high degree of variability that exists in the frequency of consultations. This variability is evident among GPs and psychiatrists through different phases of client treatment. There is, however a systematic difference between GPs and psychiatrists, whereby the latter group have a higher frequency of consultation than GPs. This may be due to a higher level of complexity among clients treated by psychiatrists than those treated by GPs, or simply reflect different attitudes among different groups of medical practitioners as to what constitutes an appropriate level of intervention as part of their models of practice. In the absence of information about either of these possibilities, it is not possible to draw any definitive

conclusions. However, the variability in practices and the absence of information as to the reasons for such variability highlight the need for improved information and a program of clinical review.

We have previously recommended the implementation of quality assurance and accreditation programs for methadone clinics, both public and private as a requirement for their approval as providers of methadone services. Such a process will facilitate peer review of these services, one of the fundamentals of clinical accountability. At the same time, the identification of methadone services on the CMBS distinct from other primary health services will enable the quantity of services provided in the private sector to be monitored. While these measures will assist in improving clinical accountability, neither provides a reliable indicator of the outcomes achieved by general practitioners.

In this regard, there is a need for the establishment of a national data collection of basic performance indicators of methadone services. The nature of these indicators were outlined previously in this report, and include retention in treatment, continuing heroin use, use of non-opioid drugs, and psychological well-being. These data could be collected by State health authorities (or be required to be collected) as part of their regulatory procedures. If undertaken in lieu of some of the existing data collection and recording procedures (which have proven largely ineffective to date), little additional effort would be required to collect the data. However, some investment would be required to record the data, and to produce regular reports on outcomes.

While indicators may reveal differences in service outcomes, they do not necessarily reveal the causes for such differences. In order to further investigate these issues, and to continue to identify and promulgate models of best practice, there is a need to establish a regular program for the clinical evaluation of methadone services and the means by which they are delivered. The National Methadone Committee should therefore be responsible for monitoring of performance indicators at a State and national level as an integral part of its evaluation and planning processes, and for the establishment of a regular program of clinical review.

11.3 Accountability to clients

Client accountability refers to the accountability of service providers to their clients. This relates to both the quality of the clinical services provided, and the relationship between service providers and their clients. The analysis of public and private clinics in NSW by NDARC described previously in this report demonstrated the differences in outcomes achieved when different approaches were adopted in the provision of services. A more therapeutic approach with open communication was associated with improved clinical outcomes.

Other anecdotal evidence gathered in the course of this study highlighted differences in the approach by treating doctors. Some adopt an approach whereby clients are given significant input to their program, including variations to dosage levels, self-reporting of opioid use and use of takeaways. Other practitioners adopt a more punitive approach, using urinalysis, dosage levels and takeaway availability as reward/punishment mechanisms for

compliance/non-compliance. While generalisations on this issue should be treated with caution, our observation is that the punitive approach appears more prevalent than the client empowerment approach. In some instances, the approach taken is affected by the regulatory environment. Clients also expressed concern about the lack of empowerment in many programs, which in some instances was accompanied by a lack of concern about clients' rights.

Many of these concerns could be addressed by inclusion of clients' rights as part of the quality assurance and accreditation procedures previously recommended. At the same time, the availability of a fast, effective appeals mechanism for clients against decisions of prescribers and dispensers would be of value.

Concern was also expressed by client representatives about the lack of participation by clients in the design and implementation of methadone programs at both the national and state level.

11.4 Program accountability

The final dimension of accountability refers to accountability of methadone programs in meeting their defined objectives. We are aware of a proposal before the National Methadone Committee to develop a national system of performance indicators to monitor and evaluate the performance of methadone programs across all jurisdictions in Australia.

A draft document has been prepared for discussion by the Committee in which the objectives of the performance indicator system are stated as:

- to define the Australian methadone treatment population and describe trends.
- to measure the performance of methadone treatment in Australia against the following objectives of the National Methadone Policy:
 - to reduce unsanctioned opioid use;
 - to improve the health status of clients;
 - to help reduce the spread of infectious diseases associated with illegal opioid use, especially HIV, Hepatitis B and Hepatitis C; and
 - to reduce crime associated with illegal opioid use;
- to assess access to, and acceptability of, methadone treatment in Australia; and
- to monitor risks associated with methadone treatment.

A number of draft indicators have been prepared which are considered relevant to these objectives. These include:

- participation rates in methadone programs by different age, gender and ethnic groups;
- the duration of treatment;
- the number of clients being treated in public and private medical and pharmacy programs;

- changes in clients outcomes across a number of dimensions;
- the incidence of blood borne viral infection among clients; and
- the number of deaths where methadone was the primary cause.

The system also proposes the establishment of an annual reporting process, and a standardised format for report presentation. Data collection methodologies are proposed, and suitable data sources identified. The preferred approaches include using existing monitoring systems, research studies, and ongoing monitoring of all methadone clients using a minimum data set.

The future development of these indicators and their means of collection is the subject of further consideration by the Committee. Nevertheless we consider it appropriate to indicate our support for this program, and to endorse the principles behind the proposed indicators. At the same time, we recognise the need to ensure that the data collected for the purposes of evaluation at the program level are consistent with the data proposed for clinical evaluation at the individual clinic level. Such an approach will be essential if the costs of data collection are to be kept to a reasonable minimum and the onus of reporting by service providers is to be contained.

11.5 Recommendations

- 14 That Commonwealth and State governments negotiate the minimum level at which financial reporting of expenditure on public methadone programs be provided on an ongoing basis.
- 15 That a national minimum data set be established for the collection of performance indicators in all States on a regular basis, and that such data collection requirements be considered as part of a streamlining of existing reporting and regulatory procedures in the States.
- 16 That a regular program of clinical review be established as the basis for developing and promulgating models of best practice.
- 17 That provision be made for client representation to relevant State and Commonwealth committees responsible for the development and delivery of methadone programs.
- 18 That a charter of client rights be included in the quality assurance programs proposed for the accreditation process for methadone clinics.
- 19 That a fast effective appeals mechanism be established in each State to deal with client complaints.

12 Funding mechanisms

The Terms of Reference for this study required consideration of alternative funding systems for methadone services and proposed a number of factors to be considered in their evaluation.

In this section, four payment options are considered, and their relative advantages and disadvantages identified based on the criteria identified in the Terms of Reference. The focus of this section is the payment mechanism used for the medical service component of methadone treatment rather than the dispensing component. Discussion of payments for dispensing services, the clients' contribution and the role of Government in dispensing payments is presented in Section 10 of this report.

Variants or combinations of the different options presented are also possible, and several of the more likely of these are also presented for consideration and discussion.

12.1 Option 1: Maintain the current system

This option represents no change to the way in which methadone services are currently funded between the States, the Commonwealth and clients. As such, the comments made in respect to the relative advantage and disadvantages of this option may provide a benchmark for comparison with the other options presented.

Public programs under this option would continue to be funded by State governments, either through traditional resource-based funding of public services, or through contracting arrangements with private practitioners for specific services of the type currently being established in Victoria. The preferred approach would be left to the discretion of State health authorities. Funding provided by the Commonwealth under the NDS could be used to assist in funding these services.

In the private sector the existing fee for service structure inherent in the CMBS would continue, whereby medical practitioners are remunerated for each occasion of service provided to clients. There is no statutory limitation on the number of occasions of service which may be provided in a given period, and the frequency of service is left to the individual practitioner's judgement. Under the current CMBS structure, services provided within methadone programs are not separately identified from other services. Fees charged are generally commensurate with the CMBS Schedule Fee, with the large majority of medical practitioners bulk-billing for their services. These fees vary according to the qualifications of the medical practitioner, with specialists and psychiatrists generally charging considerably higher fees than GPs.

Clients would continue to pay a fee for methadone dispensing, whether at a specialist methadone clinic, a public pharmacy or a community pharmacy. The fee charged for these services would be unregulated, and left to the discretion of the dispenser.

12.1.1 Advantages of this option

- The fee for service principle inherent in the current Medicare structure provides a remuneration to medical practitioners proportional to the quantum of services provided. In particular, it caters for the considerable differences that exist in regard to the service needs of methadone clients, and for variations in intensity of services provided at different stages of treatment. These are distinct from any differences in approach between medical practitioners for clients with similar needs. This option caters for and encourages appropriate levels of service for more difficult clients.

Failure to do so may result in these clients being diverted to public clinics (which may not have the capacity to cater for them) or to be excluded from services altogether.

- This approach avoids the need to differentiate between methadone services and other health care services provided contemporaneously. Considerable reference has been made by those consulted, particularly medical practitioners in private practice, of the comorbidities treated at the same time as methadone consultations. Using a common CMBS item and fee structure overcomes the problem of differentiating these treatments for billing purposes.
- The payment structure is consistent with the funding of other primary health care services to the wider community. As such, it reinforces the concept that methadone treatment is akin to other forms of care provided by private practitioners, and avoids any stigma that might be generated by a payment method which differs from that for other primary care services.
- This approach provides for client mobility, a factor which has been identified as being important among methadone clients. While movement of clients between medical practitioners providing methadone treatment is sometimes difficult to arrange, this is due primarily to the administrative arrangements in place rather than to any barriers caused by the payment structure. Alternative payment systems of the types described below may act as a further obstacle to client mobility.
- This payment structure is likely to encourage more general practitioners to participate in methadone programs. This is due to the range of reasons described above, particularly its ease of administration and the fee for service structure.
- This option would result in minimum disruption to existing practices which have generally proven successful. Familiarity with the existing fee structure and levels among medical practitioners facilitates their involvement, and requires no changes to administrative arrangements relating to billing and payment methods.

12.1.2 Disadvantages of this option

- The failure under this option to distinguish methadone services separately from other primary care services inhibits financial and clinical accountability for methadone services. Throughout the course of this study, difficulties in obtaining financial and clinical data through Medicare or other sources relating to methadone services provided in the private sector has highlighted the deficiencies of this approach.
- The fee for service structure provides an incentive for over-servicing. Information provided by medical practitioners in New South Wales has demonstrated the significant variations that exist in service provision both within and between disciplines. It is unreasonable to consider that these differences can be attributed solely to differences in client needs. This has been reinforced by the concerns raised by many about excessive levels of service in some instances. In the absence of improved accountability procedures, this approach fails to provide a structure which

identifies such instances, and continues to reward such practices.

- While catering for more complex cases, this approach fails to provide incentives for best practice for clients with less complex needs. An open ended fee for service system with little clinical or financial accountability does not encourage medical practitioners to review their service levels.
- The differential fee structure is based on the qualifications of the practitioner rather than the nature of the service provided. There is a strong view that the fee differential between GPs and psychiatrists is not justified in regard to the normal range of methadone treatment services provided. While recognising that some clients in the care of psychiatrists require specialist care, this payment structure does not differentiate between these clients and those whose needs are less complex.
- This approach exposes the Commonwealth to an unlimited funding liability for methadone services provided in the private sector without the capacity to differentiate methadone treatment services from other primary health care services.

12.2 Option 2: Specific CMBS items and common fee

Under this option, the existing funding approach for public clinics would be maintained. Similarly, the current fee-for-service model of payment for services provided in the private sector would be maintained under Medicare, but specific items would be introduced to the Medicare Schedule for methadone services. In addition, it is proposed that standard fees would apply for each item of service, regardless of the qualifications of the service provider or the clinical setting in which they are provided.

Four items are suggested:

- An item relating to the initial assessment of a client for admission to a methadone program. It is suggested that the Schedule Fee for this item be the same as that for Item Number 44, a complex GP consultation exceeding 40 minutes;
- An item relating to counselling provided to a client already participating in a methadone program. The Schedule Fee for this item could be the same as that for Item 23, a less complex GP consultation less than 20 minutes;
- An item relating to a prescription review for an existing methadone client. The suggested fee is the same as that for Item 3, a straightforward GP short surgery consultation; and
- An item relating specifically to urinalysis for clients participating in methadone programs. This is effectively the same as Item Number 66343.

It is recognised that the definition of these items, and agreement on the fee levels associated with each would require negotiation with the medical profession within the context of the Medicare Schedule structure.

Within this model it is recognised that some clients receive other health care services from the

GPs providing methadone services. These services may be provided contemporaneously with or separately from methadone treatment. When provided separately, these services may be separately billed under their existing item numbers, and subject to the same accountability procedures as the same services provided to non-methadone clients. Where these services are provided at the same time as a methadone consultation, and given that the fees are the same under the new and existing items, there is no financial advantage in recording services under one item rather than another. We suggest that billing for both methadone treatment under the new item numbers and other GP services simultaneously would not be an option.

In the case of services provided by psychiatrists, where the client is receiving consulting services over and above methadone services, these could be billed separately at their current fee levels. The investigative powers of the HIC provide it with the capacity to monitor these services, and subject them to professional scrutiny as to their appropriateness.

12.2.1 Advantages of this option

- The advantages described under Option 1 apply equally to this option, particularly those relating to the capacity of this option to cater for the different service needs of more complex cases and its attractiveness to GPs.
- This option provides for improved clinical and financial accountability for methadone services. Services could be monitored by the HIC, and any systematically high levels of service provision identified and investigated.
- The adoption of a standard fee structure removes an apparent inequity between GPs and psychiatrists where the services are of a like nature and the clinical needs of clients are comparable. At the same time, this approach allows for any additional services required for more complex cases to be provided and remunerated as required.
- This option would result in a reduction in costs to the Commonwealth through the adoption of a lower fee structure for methadone services provided by psychiatrists. These are estimated to be of the order of \$3 to \$3.5 million per annum.

12.2.2 Disadvantages of this option

- The disadvantages identified under Option 1 relating to the potential for over-servicing and failure to promote best practice also apply to this Option. However, the separate identification of methadone treatment from other GP and psychiatric services provides greater opportunity to identify inappropriate practices, and hence reduce the potential for abuse.
- The separate identification of methadone treatment from other health services may meet consumer opposition because of confidentiality and privacy concerns, notwithstanding the fact that the HIC provisions over privacy already protect these concerns. Nevertheless, consumer concerns may have to be addressed.
- GPs would be required to differentiate methadone consultations from other medical

services provided to methadone clients. However, given that there is no financial incentive to charge different rates for these services, the issue becomes one of ensuring that the methadone service items are adequately defined, and that practitioners are educated about their differences. These issues could be addressed through practitioner training as part of the quality assurance mechanisms proposed in this report.

- The reduction in fees proposed for psychiatrists providing methadone treatment is likely to meet strong opposition from psychiatrists. This may have particular implications in Queensland and New South Wales where psychiatrists have a major role in the provision of methadone services in the private sector.

As a further variation of this approach, the number of services provided under the methadone service items in the CMBS could be capped to specified levels in a year. The treatment profile identified in Section 10.2 may be used as a guide to the appropriate levels. The relative advantages and disadvantages of this approach are similar to those applying to the client management model described below. History has shown that setting ceilings to service provision tends to set a level to which services converge, and in this regard this approach becomes similar to the level of services provided under a client management approach.

12.3 Option 3: Client management model

Under this option a single payment would be paid by the Commonwealth to cover the range of methadone services provided to clients in the private sector, and could also apply to services provided in the public sector funded by State governments, either directly or through competitive tendering. In the private sector, this could be arranged under the Health Program Grants scheme, whereby practitioners would be paid a standard annual fee per client under treatment. The fee would be calculated on the average annual cost of providing methadone services, having regard to the varying intensity of treatment at different stages of clients' participation. A differential fee may be required for complex and stable cases, to cater for the differences in treatment patterns and the qualifications and experience of the practitioners providing services. The costs of treatment presented in Section 10.2 may provide a basis for determining an appropriate fee level.

It is suggested that the annual fee be fixed, and set at the average cost of services across the first two years of treatment. While this approach may result in under-remuneration in some years (particularly the first year of treatment when treatment is more intense), the level of remuneration may be expected to even out over longer treatment periods. The alternative of a payment fee which reduces as a client's duration of treatment increases is likely to lead to abuse, whereby practitioners could either discharge clients (or encourage them to exit) and subsequently re-enter them for treatment in order to attract the higher payment level.

The fee itself could be paid monthly or quarterly, based on a client's ongoing participation in the program during the preceding period. The costs incurred in the private sector for treatment of other illnesses concurrent with methadone treatment would be billed separately under their existing CMBS item numbers, and monitored in the same way as under the current

system.

12.3.1 Advantages of this option

- The general structure of a client management model is conducive to longer participation by clients in methadone programs, since the nature of the payment system is based on the concept of long term care. This is consistent with the clinical advantages of longer duration, where studies have demonstrated that all outcome indicators improve with duration of treatment.
- This approach removes the incentive for over-servicing inherent in the existing fee for service model. Since medical practitioners are remunerated on the basis of ongoing client participation in the program, rather than on the basis of the quantum of services provided, this approach encourages a more rationed approach to service delivery commensurate with client needs.
- The outcome to the Commonwealth of this approach is a more controlled expenditure on methadone services, since it would be determined primarily by the number of clients participating, rather than by any increases in the number of services provided per client.
- The adoption of a fixed annual fee, rather than a fee that reduces with duration of treatment, rewards longer participation in methadone treatment and provides an incentive for medical practitioners to retain clients in the program for as long as possible.
- By encouraging practitioners to review their service delivery patterns, this approach provides an incentive for models of best practice for stable clients. However, it may not do so for more complex cases unless differential payments are made to reflect the higher levels of service required for these clients. The model may be structured to meet this requirement, provided it works in concert with the service delivery model.
- A client management model may encourage more cost effective methods of treatment within the private sector. Currently, virtually all counselling in the private sector is undertaken by medical professionals, since this is the sole basis by which they are remunerated. A client management model may encourage a more flexible approach involving trained nurses, counsellors and other health professionals in the private sector, the costs of which may be expected to be lower than the current system. Over time, this may therefore lead to lower costs in the private sector.
- This approach works best where clients are stable, and their service needs are more consistent with standard methadone practices and guidelines. Given the models of service delivery proposed in South Australia and Victoria where stable clients are to be treated primarily in the private sector, this approach is consistent with the service delivery roles proposed for the private sector in these States. However, in Queensland and New South Wales, where a range of clients are treated in the private sector, this approach may be less suitable.

12.3.2 Disadvantages of this option

- While this approach may remunerate practitioners appropriately where clients are stable and a more defined treatment pattern may be followed, it does not cater well for more complex cases whose service needs exceed those catered for in the standard payment. The data provided by medical practitioners in New South Wales, which has been supported through discussions with practitioners in all States, has demonstrated the considerable variation in service level needs between clients. While some of this may be due to variations in clinical practices, some of the variation is also attributable to different client needs. This may reinforce the need for differential payments for different types of clients.
- A single payment approach may lead to difficult and complex cases being excluded from treatment in the private sector, causing them to revert to public sector treatment, or to be excluded from treatment altogether. This has a number of implications, including concerns over the public sector's capacity to cater for these clients, as well as limiting client choice as to their provider of services. This reinforces the concept of providing differential payments for complex and stable cases.
- The client management model may encourage under-servicing of clients, since medical practitioners are remunerated solely on the basis of a client's continued participation, and not on the level of service provided. Given that the demand for methadone services exceeds the capacity of the current system, practitioners may be relatively assured of attracting new clients, regardless of the quality of the service they provide. Under these circumstances, practitioners may be encouraged to provide minimal levels of service to sustain client participation, rather than levels of service more commensurate with clients' needs and well-being.
- This approach may meet opposition from medical practitioners, who generally have reservations about client management models. However, these reservations often have as much to do with the level of payment within the model, rather than the nature of the model itself. Consequently, the reaction by medical practitioners to this approach may only be tested fully once the level of the client management fee has been proposed.
- Given the possible unpopularity of this approach to some service providers, it may lead to fewer practitioners being attracted to methadone service delivery. This may lead to a reduction in the capacity of the system to extend services to areas currently under-serviced, or to expand to new areas in the future.
- This approach has the potential for abuse where practitioners could bill for methadone treatment under the client management model as well as for treatment for other conditions under the fee for service structure in Medicare for other medical services. Unlike Option 2, where any financial incentive for this type of activity is reduced and more readily regulated, abuse under this option would more difficult to

detect and respond to.

This problem could be reduced by setting the single payment at a level to include all primary health care services which would be provided by the same medical practitioner as methadone services. Clients would then be excluded from claiming these services under other items within Medicare. Such an approach would require considerably more investigation to assess its feasibility and acceptability. Particular attention would need to be given to defining the range of services in scope of this arrangement, and to issues relating to consumer choice and mobility. It is unclear as to how psychiatric services would catered for under this approach, and what the role of psychiatrists would be in the provision of general medical services to their methadone clients.

- Frequent client mobility is not well catered for under this model. Short term movements by clients between medical practitioners would introduce administrative complexities as to which practitioner should be paid and for what period. Longer term transfers of clients would be discouraged by practitioners, particularly where the fixed payment level provides an incentive for longer treatment periods by the same practitioner.

A variation to the client management model described above has also been considered, namely its application only to the larger specialist methadone clinics, where accusations of over-servicing have been most prevalent. Medical practitioners providing services as part of a wider practice would continue to be remunerated under a fee for service arrangement of the types described under Options 1 and 2. Under these circumstances, the relative advantages and disadvantages of the respective payment systems as described above may be expected in those areas in which they are applied.

The major additional advantage of such an approach is that it would focus the removal of the current potential for over-servicing in the area where it is seen to be most needed. It therefore results in minimal intrusion on the existing payment system in areas where it is considered to be working reasonably satisfactorily. On the other hand, the adoption of such an approach suffers from several additional disadvantages. These include the potential for abuse and confusion where clients are treated by the same medical practitioner at both specialist methadone clinics and at wider practices. Issues of boundary definition as to what constitutes methadone treatment and other treatment services are also made more complex under this approach.

12.4 Option 4: Grants to States

Under this option, methadone treatment provided by the private sector would be excluded from the Medicare Benefits Schedule. Rather, the Commonwealth would allocate an annual grant to the States, who could then determine the mix of public and private services they wish to use within their jurisdiction. States would have the flexibility to either provide services directly themselves via public clinics, or to contract for services with the private sector, using either the fee for service or client management models of the types described in Options 2 and

3 above.

The level of the grants in the first instance could be the equivalent level of funding currently expended by the Commonwealth through Medicare benefits and NDS grants to the States. Thereafter, the grants may be increased either at an agreed annual rate or by negotiation to reflect targeted or actual increases in the number of clients treated. If the agreed basis for growth is the number of clients participating, then the client management model described in Option 3 could be applied.

It is suggested that the Commonwealth would continue to provide methadone syrup at no charge to dispensers. This approach would seek to continue the current situation whereby the cost of methadone has been kept considerably lower than overseas because of the Commonwealth's central purchasing power.

12.4.1 Advantages of this option

- This approach would provide the States with greater flexibility over the mix of public and private methadone services they employ within their jurisdiction. Given greater control over the aggregate level of funding available for methadone treatment, they would be able to choose that mix of services which best meets local circumstances and provider availability. They would also be in a better position to pursue competitive tendering for services as a means for achieving additional economies, and to evaluate alternative service delivery models and vehicles.
- The merging of regulatory and funding roles brought about by this approach would assist in overcoming one of the major obstacles to clinical and financial accountability present in the current funding arrangements. States would be in a stronger position to assess the quality and costs of services provided in both the public and private sectors and to take substantive action where these are not to the required standard. This is particularly relevant in the private sector, where the maintenance of appropriate standards of practice could be a condition of continued approval of methadone providers, and/or financial penalties imposed where non-conformity occurs.
- This approach would limit the Commonwealth's funding exposure for methadone services. Since the level of grants to the States would be negotiated and is expected to be closely tied to the number of clients participating in methadone programs, the Commonwealth's exposure to any costs of over-servicing would be removed. While it may be argued that this risk is simply being transferred to the States, they would be in a stronger position to monitor such activities and to take remedial action under any contracting arrangements than the Commonwealth is currently able to do under the Medicare arrangements.
- This option provides a greater opportunity for the development and application of a standard funding mechanism between private and public sectors. If the States choose to adopt a competitive tendering approach for methadone services, they could apply a common funding mechanism across both sectors. Such an approach would

potentially lead to improved economies of scale and promote models of best practice.

- This approach is likely to lead to an improved balance between the public and private sectors in methadone services. The current division of funding responsibility between the States and the Commonwealth provides an incentive for the States to shift services to the private sector (and hence costs to the Commonwealth). The removal of this incentive under this option would promote a more rational decision making process as to the appropriate method of service delivery at both a local and a State-wide level.

12.4.2 Disadvantages of this option

- This approach would require the establishment of separate accounting, reporting and funding infrastructures and mechanisms in each State. This may represent a considerable overhead cost to the overall system, and duplicate the payment infrastructure which already exists at a national level through Medicare. At the same time, medical practitioners would be required to differentiate their billing practices between the States and the Commonwealth, adding to their costs of administration. As such, the total costs of administering methadone services are expected to be higher than under the current funding system.
- The transfer of the payment system for private services from the Commonwealth to the States may be seen as simply transferring the current funding problems from one jurisdiction to another, without addressing the underlying difficulties associated with the payment mechanism itself. While this may be true to some extent, the States would nevertheless be in a better position to address any inequities and to establish a more consistent funding system within their jurisdictions.
- This approach may not cater well for movements of clients for short terms across State boundaries. Specific arrangements would need to be made for the funding of services provided by practitioners in different jurisdictions, either by their home State or the State in which the client is registered. While these difficulties exist in an administrative sense under the current system, they would be extended under this approach to the funding mechanism, a problem which does not occur when that funding system operates at a national level.
- The reaction by medical practitioners and clients themselves to this approach is uncertain at this time. There may be a perception that the removal of methadone treatment services from Medicare, to be funded through a different mechanism by the States, further identifies this group of clients and differentiates them from the wider community. If this view persists, then reaction to this approach by both groups may be negative.

The underlying principle behind this option is the combining of the two existing groups of purchasers of methadone services (namely the States for public services and the Commonwealth for private services) into a single purchaser for all services in each State, namely the State governments. The same principle could be implemented by transferring the

purchasing role to the Commonwealth. This implies that the Commonwealth would be responsible for the purchasing of all methadone services, possibly through a competitive tendering process in which both public and private service providers could participate.

In order for this alternative approach to be effected, the approval and regulatory functions currently vested with the States may also need to transfer to the Commonwealth. This would require a significant change to the legislative and administrative roles of the different entities which requires further investigation into its feasibility.

The advantages of this variation are essentially the same as those described above, except that the Commonwealth would substitute for the States in the discussion. However, there may be fewer disadvantages associated with this variation. In particular, the concerns expressed about duplication of infrastructures, the potential for double-billing, and the capacity of the system to cater for interstate movements of clients would be significantly reduced under this approach.

The major additional disadvantage of this approach is the question as to whether the Commonwealth is in a position to plan and implement methadone service programs at a local level. The States currently have the required infrastructure to assess and evaluate local conditions and requirements, and to plan accordingly. It is problematic whether the Commonwealth would have the capacity to undertake this function with the same effectiveness.

12.5 Discussion

The above discussion of the relative advantages and disadvantages of the four funding mechanisms considered in this report highlights the fact that there is no single funding mechanism which addresses and solves all the problems associated with the provision of methadone services and their remuneration. Notwithstanding this fact, the choice of payment system may act as a major influence on practitioner behaviour, and provide an incentive (or disincentive) for promoting models of best practice.

The existing fee for service arrangements embodied in the current Medicare system, coupled with the fact that these services are not separately identifiable from other medical services in the CMBS encourage over-servicing. However there have been no widespread reports of this occurring, and most complaints about these issues have been restricted to a relatively small number of practitioners.

Of the options considered, the fee for service approach caters best for the significant variation that exists between individual clients and their clinical needs, and remunerates practitioners according to the quantum of services they provide. It is also the most commonly accepted form of payment for medical services, and is supported by medical practitioners, which is essential if they are to be retained and attracted to providing methadone services. Despite these advantages, this approach does not encourage or facilitate the adoption of best practice methods.

If the fee for service model is to be continued, we consider that, as a minimum step, medical services relating to methadone treatment should be separately identified within the CMBS.

While recognising the difficulties associated with developing and applying appropriate service definitions and potential service boundary problems, such an approach is likely to lead to greater clinical and financial accountability, without significant change to the current payment mechanism. This change is unlikely to be opposed by medical practitioners, although clients may have reservations because of privacy and confidentiality concerns. At the same time, we consider that the differential fees charged for methadone consultations between GPs and specialists (including psychiatrists) are not justified by the nature of the methadone services provided to clients who are stable, and that a common set of fees should be determined for these cases. Such a step is likely to reduce the costs to the Commonwealth for methadone services.

A client management model reduces the incentives for over-servicing, and as such may be seen to promote models of best practice. This model may be structured to provide financial incentives for medical practitioners to retain clients in methadone programs for longer periods. On the other hand, it may also promote under-servicing, leading to concerns about the quality of services provided under this model. The client management payment model also has equal application in both the public and private sectors. The model works best for stable clients, but does not cater well for variations in clients' clinical needs unless differential payments are made. In the absence of differential payments, more complex cases may be excluded from treatment altogether. In order to reduce the potential for abuse, and to cater adequately for the different needs of complex and stable cases, the client management payment model must work in concert with the service delivery model. In particular, the role of the general practitioner in assessing the needs of individual clients, and acting as the referral agent for complex cases to "specialist" practitioners (whether in the public or private sectors) is pivotal to its success. The client management model also provides a mechanism for the Commonwealth to limit its funding liability.

The final option considered of removing methadone treatment from the CMBS and substituting it with direct grants to the States effectively transfers the payment responsibility from the Commonwealth to the States, who may adopt any of the funding models described. While this approach may be criticised in that it fails to address the underlying deficiencies in the payment systems themselves, it nevertheless provides for greater flexibility and control by the States over the mix of public and private services they choose to employ in their jurisdiction. It also brings the regulatory and funding roles closer together, which may be used to monitor and improve the quality of services provided. On the other hand, this approach will lead to a duplication in the infrastructure required to administer methadone services, leading to higher total costs of administration. It is problematic as to whether these higher administrative costs can be offset by lower costs of service provision achieved through a competitive tendering environment. A variation to this approach would see the transfer of the purchasing role to the Commonwealth. While this variation has some attractive features, it would entail significant changes to the legislative and administrative framework to be effected. It also calls into question the capacity of the Commonwealth to plan and administer methadone services at the local level. In addition, this approach raises the issue of the capacity of the States to negotiate alternative payment structures to the existing fee for service arrangements with medical practitioners. As the central purchaser of the services in the private sector, the

Commonwealth is in a much stronger position to negotiate alternative payment structures.

The Terms of Reference for this study identified a number of factors to be considered in evaluating alternative payment options. The following table seeks to rate each of the payment systems described in this section against each of these factors. The basis of evaluation is necessarily subjective, and reflects the consultants' views on the different systems.

Nevertheless, the table illustrates how the different options rate against the criteria specified. In regard to Option 4, it has not been feasible to rate some of the characteristics, since the nature of the funding system which might be adopted by the States (or the Commonwealth under the alternative variation) is unknown. Should a fee for service model be adopted, then the ratings ascribed to Option 2 would apply. If, on the other hand, a client management model were adopted, then the ratings ascribed to Option 3 would apply.

Table 22: Comparison of alternative payment systems against specified criteria.

Criteria	Option 1	Option 2	Option 3	Option 4
Provides an equitable means of payment	Y	Y	Y	Y
Ensures an optimal balance of service between the public and private sectors	N	N	Y	?
Provides a baseline standard for the administration of methadone programs	N	Y	Y	Y
Is flexible and adequately caters for				
- differing levels of service e.g. counselling	Y	Y	N	?
- choice of treatment approach	N	N	Y	?
- client mobility	Y	Y	N	?
- safety and medical issues	N	Y	N	?
Provides adequate incentives for private sector participation	Y	Y (depends on fee)	N	?
Incurs minimal cost to the client	Y	Y	Y	Y
Allows for appropriate provision of service personnel	Y	Y	Y	Y
Minimises the potential for abuse and fraud	N	Y	Y	Y
Improves efficiency of administration	N	Y	Y	N

The ultimate choice of funding system will be determined by the priorities of the various parties, and their views on the significance of the individual assessment criteria.

12.6 Suggested funding approach

In Section 9, we outlined a preferred service delivery model which could be used as a guide for future service delivery mechanisms. This model has been based on the criteria of matching individual clients' needs with the services provided by suitably qualified and experienced practitioners. In this section, we describe a funding approach which seeks to provide an appropriate mechanism for the remuneration of the services provided under this model.

The preceding discussion of alternative funding approaches compared and contrasted the relative advantages and disadvantages of four alternative approaches, and variations thereof. The approaches were also rated against a number of criteria as specified in the Terms of Reference for this review.

Discussions with the steering committee for this review have suggested that the most important criteria for the selection of a funding approach are:

- the capacity of the funding approach to promote best practice in treatment;
- simplicity of administration of the funding approach; and
- the capacity of the funding approach to minimise potential for abuse and fraud.

Of the alternatives considered, the choice narrows down to the existing fee for service approach, with methadone services separately identified in the CMBS (i.e. Option 2) and the client management approach (Option 3).

Option 1 represents maintenance of the status quo, which for the reasons outlined previously, needs improvement. Option 4 may embody either Option 2 or 3 in its payment mechanisms, since its structure represents more a change to the funding and purchasing roles of the States and the Commonwealth, rather than a change to the underlying payment methodology. This Option could therefore apply under either Options 2 or 3.

The choice between the two preferred options becomes primarily one between the extent to which they provide opportunities to promote best practice and support the proposed service delivery model, and their acceptability to service providers. The client management approach is more likely to satisfy the first of these criteria, while the fee for service approach is more likely to satisfy the latter. Both are expected to offer similar advantages (and disadvantages) in respect to their administrative simplicity and potential for abuse.

On balance, we consider that a client management payment approach is most likely to provide the appropriate financial framework for the service delivery model described. The key elements of the suggested payment approach are:

- An annual fee for the treatment of stable clients by approved medical practitioners, based on the average cost over a two year period using the treatment profile outlined in the approved guidelines for methadone treatment. This could be achieved by establishment of an annual fee payable by the Commonwealth as a Health Program Grant which would cover all consultations with the treating practitioner for methadone maintenance therapy and the costs of urinalysis. The level of fee to be paid may be expected to be of the order as that described in Section 10 (Table 20) for GPs. The treating practitioner would be responsible for the payment of any urinalysis tests ordered, as part of their client management role. Urinalysis tests for clients participating in methadone programs would therefore be removed from the CMBS.
- For more complex cases, a similar fee structure would apply under the Grants scheme, with the fee set at a higher level to take account of the additional qualifications and training of practitioners approved for these services (as described in the service delivery model) and the greater intensity and frequency of services provided to these clients. The level of this fee needs to be determined, but may be expected to be higher than that paid for stable clients, and lower than the average costs exhibited for psychiatrists under the current payment structure. In this regard,

further analysis of the treatment profile of this group of clients together with consideration of the level of training required is needed.

Given that these clients may be expected to either reach a level of stability (in which case they should be treated under the preceding item number), or cease to participate in the program altogether, monitoring of clients receiving these services for extended periods may help to reduce any tendency to charge at the higher levels for unnecessarily long periods.

Practitioners would apply to the Commonwealth for a grant at the time a client is admitted to their care. This will require a list of accredited practitioners to be established and maintained to ensure their eligibility for grants at the different levels of complexity. In addition, the process of application needs to be streamlined to facilitate and encourage practitioner involvement.

- Fees charged for the dispensing of methadone would be separate from the annual fee paid under the grant. Two options are considered in relation to these fees. Regardless of which option is chosen, and as previously recommended, we consider that dispensing fees should be capped at an affordable client contribution level as part of the approval process for dispensers. This would apply to both community and clinic-based pharmacies.

Under the first option, the current arrangement of clients paying pharmacists directly for dispensing of methadone would continue. This approach is administratively more simple, and enables payment to be made at the time the service is provided. Setting a maximum fee for these services reduces the potential for abuse or overcharging.

Under the second option, clients would pay the medical practitioner a fee equal to the approved dispensing fee. The concept behind this approach is that it reinforces the role of the medical practitioner as the case manager. The timing and frequency of these payments is somewhat problematic, particularly since the frequency of dispensing is considerably greater than the frequency of consultation by practitioners. The practitioner would then be responsible for establishing a contract with pharmacists (either community or clinic based) and pay the approved fee for dispensing services to them on behalf of clients under their treatment.

The key difference between these options relates to the extent of control conferred on medical practitioners by the funding approach, and the level of administrative burden placed upon them. Under the first approach, separation of the funding mechanisms used to pay the prescriber and dispenser provides greater flexibility to clients in regard to their choice of dispenser. It also limits the administrative burden on the medical practitioner. Under the second approach, the existence of a financial linkage between the prescriber and dispenser may help reinforce the clinical relationship that the service delivery model seeks to establish. As such it may promote a closer relationship between the two main components of treatment, which is consistent with models of best practice. However, it does so at the cost of a greater administrative burden on the medical practitioner, and at the risk of potential abuse either through collusion between the two parties, or the exercise of financial power by one party over the other. Under these circumstances, the issue becomes one of judgment as to the value

placed upon the relationship between the dispenser and the prescriber, and the extent to which the funding system should reinforce that relationship.

Application of this funding approach clearly faces many challenges, both in its underlying principles and in its use in practice. The concept of a client management funding approach is receiving greater support in institutional settings in both the public and private sectors in Australia (for example the use of casemix payments in public and private hospitals) and in a range of health services overseas. However, it does not yet have widespread support among medical practitioners in Australia, particularly when applied to clients treated in community settings. Consequently, its implementation in the field of methadone services is likely to receive considerable attention and possible opposition.

At the same time, there are a number of practical issues that will need to be addressed. These include:

- Determining an appropriate differential fee structure for complex and stable cases, having regard to differences in service intensity both between the two groups and over time, and the qualifications and experience of service providers treating the different client groups;
- Identifying and agreeing the mechanism for payments to pharmacists for the dispensing and administering of methadone;
- Assessing the acceptability of the payment system to medical practitioners, and the potential impact on the capacity of the system to meet current and anticipated demand for services;
- Minimising the administrative complexity for medical practitioners to apply for Health Program Grants for methadone services; and
- Establishing a payment mechanism by the Commonwealth for methadone services which minimises the potential for duplication of payment between practitioners, while also providing for client mobility between practitioners.

Each of these issues will need to be addressed in conjunction with the relevant professional bodies and associations, as well as the State and Commonwealth health authorities.

It must be recognised that any payment system is limited in its capacity to influence practitioner behaviour and the quality of services provided. It is essential, therefore, that the payment system be augmented by appropriate clinical training and accreditation programs of the type described elsewhere in this report. These programs should apply at both the individual prescriber and dispenser level, as well as to the settings in which services are provided.

12.6 Recommendations

- 20 That, if methadone treatment in the private sector continues to be funded under the current Medicare payments system, such services be separately identified in the

Medicare Benefits Schedule, and attract a standard benefit equal to the current GP benefit levels for like services.

- 21 That the Commonwealth and States consider the relevance of the criteria by which alternative payment models may be assessed as a basis for agreeing on an appropriate funding mechanism.
- 22 That consideration be given to the suitability of a client management system of payment for the delivery of methadone services, its acceptability in the clinical environment, and its capacity to support and promote models of best practice.

APPENDIX A

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APPENDIX B

LIST OF PERSONS INTERVIEWED

NEW SOUTH WALES

Pat Ward	NSW Health Department
Barry Mewes	Pharmaceutical Services Section
Zofia Warry	NSW Methadone Program, NSW Health Department
Garth Poppel	Consumer representative
Maxine Goodwin	Pharmaceutical Society of Australia
Jennifer Holmes	DANA
Dr Deborah Zador	Public Methadone Clinic, Camperdown, Liverpool
Dr Stephen Jurd	Hobart Street Clinic, RNS

Dr John Caplehorn	Department of Public Health, Sydney University
Nick	Heroin user, never used methadone
John	Methadone user
Dr Andrew Byrne	Private Prescriber (GP)
Dr Raymond Seidler	Private Prescriber (GP)
Dr Des Nasser	Private Prescriber (Psychiatrist)
Danny O'Connor	Central Sydney Area Health Service
Dennis Leahy	Community pharmacist
Phil O'Grady	Community pharmacist
Michael Stevens	Community pharmacist
Ron Natoli	Community pharmacist

VICTORIA

Dr John Pead	Victorian Dept. of Health & Community Services
Stanford Harrison	Victorian Dept. of Health & Community Services
Dr Malcolm Dobbin	Victorian Dept. of Health & Community Services
Keith Moyle	Drugs & Poisons Unit
Judy Downie	Methadone Permits Section
Dr Ian Jackson	Private prescriber (psychiatrist)
Dr Peter Hearn	Prison Hospital
John Maddick	Community Corrections
Len Levy	Pharmaceutical Society of Australia
Dr Nick Lintzeris	Public prescriber
Prof Greg Whelan	Clinical Advisory Service (research)
Dr Neil Sheehan	Private prescriber (GP)
Dr David Wells	Police Surgeon
Richard	User Issues
David Herkt	AIDS Council

Prof John McNeil	Researcher
Dr Mike McDonough	Aust. Professional Society for Alcohol & Drugs
Dr Olaf Drummer	Coroner - Victorian Institute of Forensic Pathology
Lurline Waters	Victorian Medical Practitioners Foundation
Dr John Sherman	Private prescriber

QUEENSLAND

Dr Adrian Reynolds	Brisbane North Regional Health Authority
Michelle Denton	Brisbane North Alcohol & Drugs Service
Dr Michael Bolton	Brisbane North Health Region
Jake Anderson	Brisbane South Alcohol & Drugs Service
Dr Geraldine Chew	Peel Street Clinic
Dr Barbara Jones	RACGP
Paul Sullivan	Needle Exchange Program
Patti Scott	Drug & Alcohol Service, West Morton
Natalie Pawlaw	Drug & Alcohol Service, West Morton
Dr Karen Mahlo	South Coast Regional Health Authority
3 Clients	Current methadone client; Former methadone client

SOUTH AUSTRALIA

Geoff Anderson	SA Health Commission
Dr Jason White	University of Adelaide
Sonia	Heroin user
Damon	Current methadone client
Dr Paul Williamson	Drug & Alcohol Services Council
Dr Robert Ali	Drug & Alcohol Services Council
Lyn Cusack	DANA
Bev Drage	DANA
Chris Wurm	Methadone Prescribers Accreditation Committee

Prof Ross Kalucy Head of Psychiatry, Flinders Medical Centre

WESTERN AUSTRALIA

Dr Allan Quigley State Health Purchasing Authority
Robert Moyle Manager, Drugs of Dependence
Dr Paul Psaila-Savona Principle Medical Officer, Environmental Health
Dr Mike Charlton Public prescriber
Dr Richard Saker WA Alcohol and Drug Authority
Chris Baldwin WA Alcohol and Drug Authority
2 Clients Current methadone clients

NORTHERN TERRITORY

Gloria Markey NT Dept. of Health & Community Services
John Gorrell NT Dept. of Health & Community Services
Frank Jewel Banyan House Therapeutic Community
Dr Elizabeth Chalmers Private practitioner
Robyn Hopkins AIDS Council
Dr Chris Wake AMA
Dr Katy Evans Royal Darwin Hospital
Michael Walsh Drug & Alcohol Services, RDH
Margaret Neil DANA

TASMANIA

Dr Jacob George Tasmanian Dept. of Community & Health Services
Sue Cronin Alcohol and Drug Services
Dr Nick Cumming Alcohol and Drug Services
Antoni Current methadone client
Mr Doug Lowe AMA
Mr John Galloway Tasmanian Dept. of Community & Health Services
Gerard Strickland Tasmanian Dept. of Community & Health Services

Gerry Hampton	Tasmanian Pharmacy Guild
Peter Handley	Alcohol & Drug Services South
Helen Freeland	Tasmanian Dept. of Community & Health Services
Dr Ruth Redom	Tasmanian Medical Council
Dr David Weidmann	RANZCP
Dr Nelson D'Silva	Private prescriber

AUSTRALIAN CAPITAL TERRITORY

Simon Appel	Pharmacy Guild of Australia
Anthony Robern	Dependency Care Foundation
Lia Battison	ACT Drug & Alcohol Service
Michelle Pyke	ACT Drug & Alcohol Service
Dr Jo Mazengarb	ACT Drug & Alcohol Service
Ross Holland	Australian College of Pharmacy Practice
Bill Kelly	Pharmaceutical Society of Australia
Joan Costanzo	Pharmaceutical Society of Australia
John Carter	Pharmaceutical Society of Australia
Peter Crothers	Pharmaceutical Society of Australia
Jude Byrne	ACTIV
Tarquin	ACTIV

NATIONAL METHADONE CONFERENCE

Approximately 23 methadone users (past or current) were met at the National Methadone Conference in Sydney in 1994, and were invited to make written submissions if they wished.