

The cost of the Western Australian methadone program

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1. Introduction

This paper reports the results of a study of the cost of the Western Australian (WA) methadone program during 1986. The only known published study analysing the cost of methadone treatment in Australia is a comparative study of private and public prescribers in a one month period in New South Wales (NSW).²

The paper identifies some of the constraints in which the WA program operates and suggests that in the future, efficient use of limited public resources will have to become a greater concern to administrators, policy makers and practitioners. Options proposed include the allocation of public resources to specific stages of the treatment cycle, in conjunction with private practitioner management, and the possibility of client fees for doses. The rationale for these options is cost effectiveness, client choice of treatment, client contribution to the cost of medication (methadone), and the need to finance expansion of the service.

2. Description of the program

For the past decade the methadone program has been wholly operated by a statutory agency, the WA Alcohol and Drug Authority (ADA). Prior to 1978 methadone was prescribed largely by private practitioners with few clients participating in the public program. The earlier arrangement in WA of dual private and public prescribing proved to be unworkable because of the extensive diversion of doses, overprescribing of high doses and lack of standard procedures to prevent non addicted persons receiving methadone.

The WA program is currently conducted from a specific facility, the William Street Clinic (WSC) in Perth. After admission at WSC clients may receive methadone outside the metropolitan area from retail pharmacies and regional hospitals, or at a number of retail pharmacies in the metropolitan area. The feature of the WA program is that the prescription, supply and ongoing supervision of methadone treatment is conducted through WSC, with flexible dispensing options throughout the State. A significant difficulty in running a program in WA is the sheer size of the State.

WA occupies 32.9% of the area of Australia but has only 9.0% of the nation's population, while 71.2% of the population live in the metropolitan area. There are therefore administrative problems in operating a program which requires doses to be provided to clients working in country towns.

3. Results

An advantage of the centralised nature of the WA program is that as it is possible to obtain very detailed accounts of clients' treatment histories, accurate costings of the program can therefore be made. Costing was calculated under the five major headings in Table 1. Salaries and wages constituted 77.5% of total costs in the 12 month period.

¹ Published in *Australian Drug and Alcohol Review*, 1989, 8: 35-37.

² Baldwin R. 'The cost of methadone maintenance programs: a comparison between public hospital clinics and private practitioner programs in New South Wales.' (1987) 6 *Australian Drug and Alcohol Review* 185-93.

Table 1
Cost of WA methadone program in 1986

1. Salaries and wages	
Medical officer (4 positions)	\$285,525
Medical support (3 social workers, 1 pharmacist)	\$102,878
Nursing (9.7 positions)	\$236,230
Clerical/General admin (4 positions)	\$70,830
On costs (Workers compensation etc)	\$21,981
Sub total	\$690,444
2. Imputed rental value	\$42,500
3. Methadone	\$21,909
4. Urine scans	\$25,109
5. Other expenses (eg telephone, medical supplies etc)	\$110,572
Total cost	\$890,534

Note: Imputed rental value was based on a building value of \$250,000, depreciated at 2% per annum (\$5,000) and return on interest of 15% (\$37,500).
The WAADA supplies linctus methadone (250 ml bottles) to the retail dispensing outlets and manufactures prepackaged variable dose 30 ml containers of formulated methadone powder base for use at WSC. The cost of methadone for the year was calculated as if all dosages were derived from 250 ml bottles of lincuts at \$5.50 per bottle.
All narcotic urine scans are performed in WA by the State Health Laboratory Service. In 1986 there were 3,863 scans performed at an average cost of \$6.50 per scan.

There were 562 persons who participated in the program during 1986. They received 107,469 daily doses, of which 71,409 (67.1 %) were dispensed from WSC. The remaining 36,060 daily doses were dispensed from non ADA facilities. The quantity of methadone dispensed was 4.98 kgs, ie a mean dose of 46.3 mg. These 562 clients had an aggregate of 3,903 treatment months in 1986. The mean annual cost of treatment of the 562 participants in the WA methadone program was \$1,584. The mean cost per client per month was \$222.86, based on a mean cost of \$74,211 per month and a mean of 333 clients per month. The mean cost of a daily dose of methadone was \$8.29.

There was a bimodal distribution of duration of treatment (Table 2) - nearly half the clientele had been in treatment for six months or less.

Table 2
Duration of treatment, WA methadone program in 1986

Duration	Persons	%
1-3 months	188	33.5
4-6 months	75	13.3
7-9 months	80	14.2
10-12 months	219	39.0
Total	562	100.0

4. Discussion

If the total cost for 1986 of \$890,534 is regarded as a virtual fixed cost, then an important concern is the maximum efficiency of the given resources. To achieve a lower cost per dose requires either an increase in client numbers or an increase in the number of doses dispensed. This latter proposition is dependent on the retention rate, ie duration of client treatment, which appears to be a complex function of admission criteria, treatment ideology, and prescription and dispensing policy.³ Modest increases in

³ Rosenbaum M. 'A matter of style: variation among methadone clinics in the control of clients.' (1975) 12 *Contemporary Drug Problems* 375-400.

retention rates as an outcome measure would have the effect of a lower mean daily cost per client. There is also a likelihood of improved treatment outcome.^{4, 5}

There are higher treatment costs associated with new and recently readmitted clients compared to long term clients in that the former require greater resources. The need for thorough assessment and responsiveness to client need until stabilisation occurs is a very important and difficult phase of treatment and one that demands considerable resources. A publicly funded program like the WA one could conceptualise its major emphasis to be on short term treatment, so that when treatment extends beyond, say 12 months, clients are preferentially treated by private prescribers and receive daily doses at retail pharmacies.

This would mean that the lower long term costs of methadone treatment would become private, permitting a greater concentration by the public treatment resources on activities such as assessment and induction of clientele into treatment. In California a similar combination of public and private prescribing exists and transfer to private practitioners occurs after two years.⁶

Clients who received their doses of methadone elsewhere than the WSC were usually charged a daily fee, set by individual pharmacies. The rate was usually \$1 or \$2 per day, and about two thirds of the doses dispensed involved the payment of such a fee. It could be argued that a fee for daily doses at public clinics would be an effective method of raising revenue. A fee of \$2 per day for instance, would be a significant revenue offset against the costs of methadone treatment.

According to one commentator there are also non-financial advantages associated with fee paying methadone programs in that they *“tend to modify the relationship between the treater and the client. The client may see himself as being genuinely a client - a purchaser of services; thereby someone who has a voice in the nature of those services - rather than a passive client to whom services are being applied.”*⁷

Another rationale for such a payment is that it would put clientele on a more equitable footing with other groups in the community who pay a contribution towards the cost of medication provided through the national health system. The payment of fees by clients at drug free residential programs, albeit from reassigned social security benefits, is a common practice in Perth and elsewhere.

5. Acknowledgements

The assistance of Ken Smith, Assistant Administrative Officer, Western Australian Alcohol and Drug Authority, in obtaining cost data of William Street Clinic, and the Unit in Clinical Pharmacology and Toxicology, Queen Elizabeth II Medical Centre, Perth, for calculating the cost of urine scans is acknowledged.

⁴ Hubbard RL, Allison M, Bray RM, Craddock SG, Rachal JV & Ginzburg HM. 'An overview of client, characteristics, and during treatment outcomes for outpatient methadone clinics in the Treatment Outcome Prospective Study (T.O.P.S.).' In Cooper JR, Altman F, Brown BS & Czechowicz D (eds.). *Research on the Treatment of Narcotic Addiction - State of the Art*. Rockville, MD, National Institute on Drug Abuse, 1983.

⁵ Dole VP, Nyswander ME, Desjarlais D & Joseph H. 'Performance-based rating of methadone maintenance programs.' (1982) 306 *New England Journal of Medicine* 169-72.

⁶ Rosenbaum M. *Getting Off Methadone*. San Francisco, CA, Institute for Scientific Analysis, 1985.

⁷ Worden A. 'State of the art: changing nature of methadone maintenance.' (1985) 9 *Journal of Drug & Alcohol Dependence*, 20.