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The content and structure of methadone treatment programmes: a study in six countries

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The use of methadone in the treatment of drug dependence has provoked a good deal of controversy. However, it is clear that there is considerable variation between methadone treatment programmes and relatively little detail is available about the organization and operation of these programmes. This report examines the content and structure of methadone treatment programmes, and particularly methadone maintenance programmes, in six countries. The six countries were Australia, Canada, France, the Netherlands, Thailand and the UK. The report presents information about the extent of national problems and about such issues as type of dispensing practices, dose- and time-limits for prescribing methadone, programme entry criteria, staffing, integration with other services, and urine testing. Developments and trends during the decade 1980-1990 are discussed and implications for further research and programme development are presented.

CONTENTS

1. Introduction

This report examines the content and structure of methadone treatment programmes in six countries. As such, it forms part of a continuing line of work within WHO's programme on the prevention and control of alcohol and drug abuse. Over recent years, WHO has devoted considerable attention to activities related to the treatment of drug dependence. These activities have included an analysis of the nature and effectiveness of treatment policies, a review of legislation relating to the treatment of drug- and alcohol-dependent persons, the development of training materials for medical and other health personnel, and the preparation of guidelines for assessing the quality of care in drug abuse treatment services.

Within this context, there has been a special focus on substitution drug therapy and, in particular, on the use of methadone within drug dependence treatment systems. A preliminary review, which is described in more detail below, was undertaken in the mid-1980s by Arif and Westermeyer (1988) and some of the conclusions of that review have also been published independently (Arif and Westermeyer, 1990). Based upon this work, a WHO working group met in Geneva in December 1988. The main product of that meeting was a WHO report entitled "Options for the Use of Methadone in the Treatment of Drug Dependence" (WHO/MNH/DAT/89.2), which was presented to the United Nations Commission on Narcotic Drugs in February 1989. In addition, a subsequent WHO report "The Uses of Methadone in the Treatment and Management of Opioid Dependence" (WHO/MNH/DAT/89.1) was developed by Gossop, Grant and Wodak, utilizing the background papers prepared for that meeting. In their concluding observations, the editors note that: "Insufficient attention has been given to the manner in which the effectiveness of methadone as a substitution drug might be maximized. In general, any considered analysis of the issues and procedures, and properly-controlled research has been conspicuous only by its absence ... On this question, there remains considerable confusion both about the identification of goals for the treatment and management of opioid dependence and also about how such goals are related to treatment methods."

It is in part to attempt to reduce that confusion that it was decided to undertake the present study. In doing so, it was fully recognized by WHO that methadone has provoked a good deal of controversy, especially in its role as a substitute for heroin in maintenance programmes. It is unfortunate that one facet of the controversy has taken the form of an argument about whether or not methadone maintenance is a "good" thing or a "bad" thing. A more productive basis for discussion would be a consideration of the circumstances in which this form of treatment might or might not be appropriate and what sorts of specific costs and benefits might be associated with maintenance. One straightforward and useful description of some of the benefits that might follow from maintenance has been offered by Kaplan (1983):

> "It places the addict under strong pressures to appear on a fixed schedule for his dose, which in itself adds a degree of stability to his often chaotic life. Moreover, at each appearance of the addict, the programme staff may monitor his progress. They may question him about his work status; subject him to urine-analysis to determine his non-therapeutic drug use; talk to him about his problems; and help him in securing employment" (p.216-217).

Within the last 10 years there have been several important developments concerning the abuse of opiates, including an increased awareness of the health risks associated with drug abuse. Hepatitis B infection is one example of a serious health problem that is commonly associated with drug injection. In some countries the majority of drug injectors become infected with the hepatitis B virus within the first year of injecting. Septicaemia, endocarditis, abscesses

and vascular injury are other health problems found among drug abusers. One of the most worrying recent developments, of course, has been the increasing incidence of HIV infection among drug injectors. In many countries, drug injectors are now one of the high-risk groups most likely to contract and transmit this infection and the recognition of this fact has contributed to the awareness of the need to strengthen national preventive and treatment responses. One option that is widely perceived as offering a potential preventive weapon against health problems, including HIV infection, is methadone maintenance.

Like many treatment options that are used in the field of drug dependence, "methadone maintenance" is a term that is used without clear definition. Despite the fact that maintenance treatments have been used in many countries for more than 20 years, the precise manner in which this treatment is applied tends not to be explicitly stated.

In the previous WHO study of the uses of methadone in 19 different countries around the world, Arif and Westermeyer (1988) presented a general overview of methadone treatments. However, the Arif and Westermeyer report was not specifically concerned with the content and structure of methadone treatment programmes, nor with the role of methadone maintenance in the prevention of health problems. In addition, much of the data contained in the previous report was collected between 1983-1985, and therefore relates to circumstances prior to the increased concerns in recent years about the prevention of health problems among drug takers. In addition, many countries have experienced significant changes in patterns of drug abuse since the earlier report, and the appearance and growth of HIV infection has had a powerful impact upon service delivery.

In a study of a London drug dependence clinic, Love and Gossop (1985) observed that: "There is surprisingly little detailed information about the operation of the drug clinics." More recently, in a recent national study of treatment effectiveness in the USA, Hubbard *et al.*, (1989) made the same point - that: "Although many studies of the effectiveness of drug abuse treatment have been conducted, there is limited information available about the nature of therapy and services delivered in drug abuse treatment programs": these authors also comment that "Variables in the "black box" that is drug abuse treatment need to be better specified." (p.43). Senay and Uchtenhagen (1990) have drawn attention to the variation that occurs between methadone programmes. This may relate to such issues as programme demands for behavioural change, admission criteria, frequency of urine-analysis, administrative and clinical response to illicit drug abuse, programme requirements regarding behaviour inside and outside clinics, and pressure to attempt detoxification. Each of these, and other related issues may have implications for outcome.

The present study provides information from six countries on:

(i) the content and structure of methadone treatment programmes;

(ii) the characteristics of people attending methadone treatment programmes; and,

(iii) the manner in which methadone maintenance is currently used in the treatment and management of drug problems.

In addition, the study presents data on the changes in practice which have occurred within the past 10 years. As such, it is intended to go some way towards clarifying issues which have for too long remained unnecessarily confused. Whilst it cannot, in itself, provide the full considered analysis which is required, it is hoped that it will also encourage others to undertake the properly-controlled research, which is still so conspicuously absent from this field.

2. Methodology of the study

2.1 Sample

This study focuses upon six countries chosen from the sample of 19 countries that had taken part in a previous WHO study of methadone treatment programmes (Arif and Westermeyer, 1988). Australia, Canada, France, the Netherlands, Thailand, and the UK were selected so as to contain at least one country from each of the WHO regions in which methadone is used as a treatment option. This sample contains at least one representative from Europe, North America, Asia, and Oceania. Based upon the findings of the previous WHO study, the sample was also deliberately constructed in order to represent a spread of views and practices concerning methadone. Countries were chosen that, at the time of the previous report, were:

not using methadone maintenance (Thailand);
using maintenance on a very limited basis (France);
using maintenance but with increasing reluctance (UK);
using methadone with variable national trends (Canada);
using methadone with increasing frequency (Australia);
using methadone with continued enthusiasm (Netherlands).

2.2 Instruments

A Methadone Update Form (MUF) was specially devised to expand and develop some of the important issues raised by the previous Arif and Westermeyer report but also to incorporate new themes and issues that have become prominent since the original study. This questionnaire (MUF) contained 21 items. The general structure of the MUF was to ask for estimates of the current situation with regard to specific issues, to ask about any changes that might have occurred within the past 10 years, and to ask for estimates of the situation prior to any such changes. The MUF contained many items requesting quantitative data and used structured response options, (e.g. q.10. "To what extent is there a problem of diversion of methadone from maintenance programmes on to the black market ?". This required a response in terms of four categories - no problem, insignificant, some problem, major problem). Some questions permitted open-ended responses (notably those requesting information about changes that might have occurred with respect to a specific issue within the last 10 years): open-ended responses were also requested for items asking for details of the content and structure of treatment programmes, (e.g. q.14. "Have there been any changes in practice regarding upper dose limits within the last 10 years ? Describe briefly."). The MUF was completed during October and November 1989, so the 10-year period covers the decade 1980-1990. A copy of the Methadone Update Form (MUF) used in this study is annexed to this report.

2.3 Procedure

The present study used a key informant approach. In each of the six countries, a key informant was identified who was currently involved with drug abuse problems in his country, who was in a sufficiently senior position to be aware of national developments in the country, and who had an active clinical involvement with this field. Questionnaires were sent to a key informant in each of the countries. In addition the informant was requested to provide a report, in which relevant background information about local and national developments, or further information, could be presented to augment the data collected in the Methadone Update Form. Material contained in these supplementary reports has been incorporated in this paper.

3. Extent of drug and drug-related problems

The considerable difficulties attendant upon obtaining accurate national estimates of the number of people who are dependent upon opiates are well known. This point was reiterated by most of the key respondents in their reports. Different countries use different methods and different indicators to make such estimates, and frequently there is considerable variation within any country in the estimates that are available. This variation in estimates may relate to sampling and methodological differences, as well as "real" geographical variation in the extent of drug problems. Bearing in mind their awareness of the available national data and the limitations of the data, and their knowledge of the national situation, key informants were asked to provide their own best estimate of the number of people dependent upon opiates.

The overall estimates for each country were:

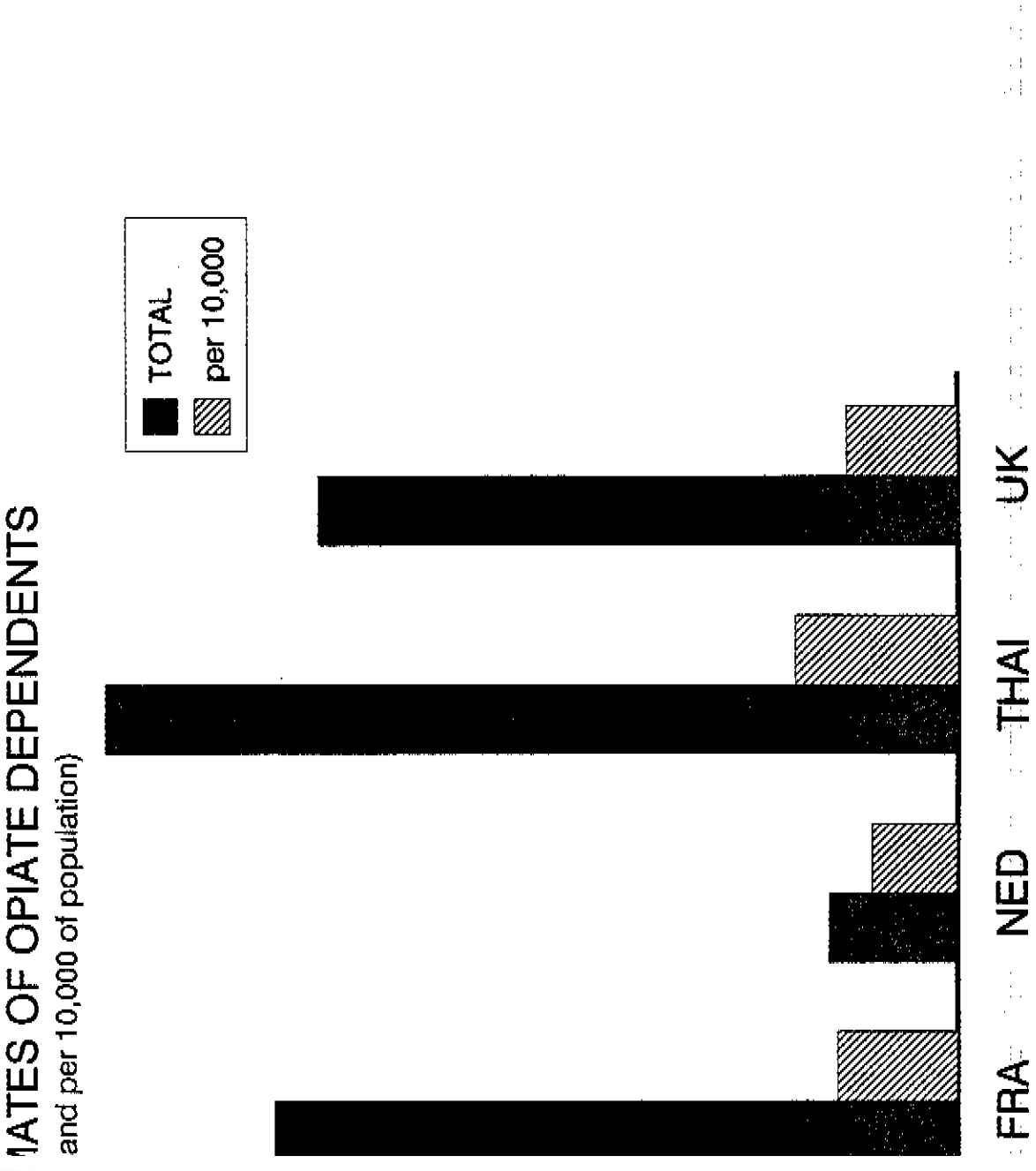
Australia	30-50,000	Netherlands	15,000
Canada	10-20,000	Thailand	100,000
France	80,000	UK	75,000.

These figures may also be expressed in relation to the size of the national populations (according to WHO, 1988). Overall national estimates and estimates adjusted for the size of national population are both shown in Figure 1. In the latter case, the largest proportional opiate problem is reported by Australia, followed by Thailand, with the European countries (France, the Netherlands and the UK) reporting opiate problems at a similar sort of level, and Canada reporting the smallest problem.

In Australia, the number of persons injecting heroin "likely to come to the attention of the authorities in a 12-month period" was estimated at 10-14,000 for New South Wales (population 5.5 million) in 1987. As this estimate is essentially based upon the number of persons recognized by the police and the Corrective Services Department, it is believed to understate the number of persons who inject heroin without detection by law enforcement authorities. The technique of this estimate was "capture-recapture". The Department of Community Services and Health in March 1988 estimated that 30-50,000 individuals use heroin regularly and an additional 60,000 use heroin occasionally (definitions and methodology unspecified).

The National Advisory Committee on AIDS commissioned a survey of HIV risk-taking behaviour among almost 2,000 adults in capital cities in 1986. Just under 5% of adults stated that they had self-administered drugs intravenously during their lifetime and almost 2% stated that intravenous self-administration had occurred in the last 12 months. A Drug Indicators Project has been established in the Australian Capital Territory, and it is intended to extend the technique of estimation to cover the nation following a pilot phase of several years. There are no current and reliable estimates of drug users in Australia based on sound methodology, and only limited data is available on the number of persons injecting drugs, preferred drugs for injection, and extent of injection of more than one drug. Amphetamine use is widely believed to be increasing and to involve intravenous administration, but good data is lacking.

Although heroin abuse in the Netherlands increased in the period between 1972 and 1985, during the past few years the abuse of heroin appears to have declined. The number of heroin-dependent users in the Netherlands may be estimated to be about 15,000 (perhaps between 15,000 and 20,000). Approximately half of the total number of people dependent upon heroin may be found in the two largest cities in the Netherlands. Amsterdam has about one-third to one-half of the total number of dependent heroin users in the Netherlands (about 7,700).



IATES OF OPIATE DEPENDENTS
and per 10,000 of population)