WHO/PSA/93.15
ORIGINAL: ENGLISH
DISTR.: GENERAL

PROGRAMME ON

# SUBSTANCE ABUSE

## National Drug and Alcohol Treatment Responses in 23 Countries

Results of a key informant survey

WORLD HEALTH ORGANIZATION

*ABSTRACT*

Twenty three countries from around the world took part in this survey. The countries differ in very many respects. They differ profoundly in their sociocultural backgrounds, as well as in their economic wealth, their health care and other social resources, and they differ in the prevalence of, and the type of drug problems and alcohol problems. In view of the many differences between the countries it is not entirely surprising that the survey revealed many differences between the types of treatment responses that have been mounted to deal with their national drug and alcohol problems. However, the survey also revealed many common themes and similarities in the nature of the treatment responses.

## *CONTENTS*


Page

Introduction . . . . . 1
The treatment mapping questionnaire . . . . . 3
The 23 countries . . . . . 4
Prevalence of drug and alcohol problems . . . . . 6
Demand for treatment in relation to existing services . . . . . 8
Location and scale of national responses . . . . . 9
    Alcohol . . . . . 10
    Drugs . . . . . 12
    Size of treatment services . . . . . 13
Treatment staff and staff training . . . . . 14
    Treatment staff . . . . . 14
    Staff training . . . . . 15
Delivery of treatment . . . . . 16
    Individual sessions . . . . . 16
    Group sessions . . . . . 18
    Group size . . . . . 19
Intensity and duration of treatment . . . . . 20
    Frequency and duration of treatment sessions . . . . . 20
    Duration of treatment episodes . . . . . 21
Estimated costs and effectiveness . . . . . 22
Links between services . . . . . 24
    Links between drug and alcohol services . . . . . 24
    Links with health care services . . . . . 26
Interrelationship of treatment factors . . . . . 27
The role of treatment setting . . . . . 28
Overview . . . . . 29
    Scarcity of treatment resources . . . . . 30
    Choice of residential or non-residential setting . . . . . 30
    Reliance upon mental health care facilities and personnel . . . . . 31
    The need for improved training . . . . . 32
    Individual and group sessions . . . . . 33
    Costs and effectiveness . . . . . 34
    Treatment networks . . . . . 36
    Developing and strengthening national treatment services . . . . . 36
References . . . . . 38
Acknowledgements . . . . . 40

## *INTRODUCTION*

A map is a systematic representation of the nature and distribution of phenomena. Maps provide an efficient and valuable means of communicating certain types of information and the process of mapping is a part of the story of discovery, exploration and accumulation of knowledge. Maps record information in succinct form; they communicate information; they are an aid to analysis; they stimulate ideas and aid in the formulation of working hypotheses. This project describes the mapping of services for the treatment of drug and alcohol problems in 23 countries.

In different degrees and in different respects all countries are confronted by the multiple problems associated with the use and misuse of drugs and alcohol. Where established national monitoring systems exist, the type and extent of the problems confronting each country are sometimes understood in considerable detail. Sometimes the national problems are understood only in broad terms. However, it is clear that drug and alcohol problems represent a serious threat to the social, economic and, sometimes, political well-being of member states.

All countries in the world have the responsibility for providing health care to their population. Whatever the availability or lack of resources, some effort will be made to develop health care services. People with problems associated with their use of drugs or alcohol receive care in a wide range of health care, social services, mental health organisations and other services which specialise in treating substance abuse problems. Treatment is provided by personnel from a variety of backgrounds.

The problems raised by drug and alcohol abuse, however, differ (or are perceived to differ) in several respects from other types of health problems. Such problems are sometimes worrying and unfamiliar to the health care personnel who are confronted by them. They may be in doubt whether the drug taker or drinker is truly "a suitable case for treatment". Is he or she really a deserving patient[1] or can their problem be seen as social deviance or as a self-inflicted injury? Can care be integrated with existing services or are special facilities needed? Can anyone with helping skills work with a drug taker or are highly specialised personnel required? Do substance abuse treatments actually work? The difficulties of resolving such issues tends to be complicated by the fact that in many countries, the treatment of drug takers is a comparatively recent development in many countries; their treatment needs may not have been clearly identified and services and responses have not yet been fully established.

WHO regards treatment as an essential part of an integrated national response to drug and alcohol problems (Gossop and Grant, 1990). Compassion demands that people who have such problems should be helped. Society expects such help to be provided, and many countries are facing increasingly urgent demands for assistance from the families of users. Even if the demands of compassion were resisted and a deaf ear turned to public expectations, the problem could not really be ignored. Drug and alcohol users would still seek help, and would inevitably turn to health services, not necessarily of the right kind. In this area, an unplanned treatment response is likely to be a frustrated and expensive one. Untreated individuals with drug and alcohol problems are also likely to clog up the courts and penal system if they are routed only in that direction. No really satisfactory studies of the cost-effectiveness of treatment have been carried out, but there can be no doubt that untreated drug and alcohol problems are costly in many ways; apart from the personal and family suffering involved, they are costly in terms of continued demands on medical services, welfare benefits and lost productivity, and perhaps of continued criminal activity. The case for taking action to treat those with drug problems is thus a strong one, supported by many interlocking considerations.

The link between national health problems and national responses is seldom straightforward. Some countries have been aware of these problems for many years and have comparatively well developed

---

[1] *In this report the terms 'patient' and 'client' are both used to refer to recipients of treatment. The term 'patient' is usually preferred where treatment occurs in a hospital or other medical institution.*

systems for responding to them. Other countries have only recently begun to establish services for the treatment of drug and alcohol problems. In some countries, monitoring systems exist which provide good quality information about the extent and severity of various problems and this has enabled services to be set up to deal with them. In many countries there are no such monitoring systems and information about drug and alcohol abuse problems is comparatively poor. As a result it has been difficult to link service development to local problems.

In addition, it is clear that some countries have not been able or willing to mount an appropriate treatment response to national drug and alcohol problems, even when presented with good evidence about the seriousness of these problems. There have been many reasons for this. Sometimes these reasons have been economic: drug and alcohol problems have not been given sufficient priority within national health and social welfare spending programmes. Sometimes the reasons for neglecting these problems have reflected the lack of understanding and sympathy as well as the socially stigmatised role that attaches to stereotyped views of "addicts" and "alcoholics".

All countries must, therefore, consider the nature of the preventive and treatment responses that they consider to be appropriate to deal with these problems. Among the factors which may have an important effect upon national responses, it might be expected that the extent and severity of drug and/or alcohol problems will be one of the first that is taken into account. However, it has proved to be extremely difficult to obtain reliable and valid estimates of such problems. The reasons for this have included problems of establishing agreed definitions of such problems as well as difficulties in obtaining representative samples of groups which may be hidden because of the social stigmatisation or illegal status of their behaviour.

There are many other factors which can be expected to influence the nature of any country's ability to respond to drug and alcohol problems. These will certainly include the financial and human resources to which a country has access. Other factors which will have a powerful impact upon a country's ability to deal with the drug and alcohol problems of its citizens will include the existing state of health care and social resources and facilities.

The establishment and development of drug and alcohol treatment services has occurred in many different ways in different countries. There is, however, with a small number of notable exceptions, a broad consensus that "treatment" is a desirable and appropriate national response to drug and alcohol problems. It is surprising, therefore, to find that there is little agreement about precisely what constitutes "treatment" for such problems. No straightforward or widely accepted definition of "treatment" is available. Even at a purely descriptive level, comparatively little is known about the content and structure of treatment services. This is true at the local, national, and, especially at the international level.

Even within treatment centres, specific treatment interventions are often surrounded by a mist of vagueness. This issue has been raised, for instance, in the case of methadone maintenance treatments which have recently taken on an increased importance in their role as HIV prevention and harm reduction interventions. In an important study of six methadone programmes in the United States, Ball and Ross (1991) noted that there is a pervasive lack of knowledge about how treatment is actually carried out in methadone maintenance programmes. Their study provided valuable information about how the effectiveness of these programmes was linked to the setting in which treatment occurred and to the types of staff and types of interventions which were actually provided during treatment.

In an earlier study WHO has examined the sociocultural aspects of drug taking in a range of different countries and presented a set of guidelines for the formulation of policy and the planning of programmes (Edwards and Arif, 1980). WHO also shares the current concern to identify and describe treatment components within specific programmes. For many years WHO has been concerned with substitution drug treatments (WHO/MNH/DAT/89.1, 89.2) and in a recent WHO study Gossop and Grant (1991) investigated the content and structure of methadone programmes in six countries. This study noted that

there are marked differences between countries in such important aspects as the preparation and dose of methadone prescribed, the type of dispensing system, treatment entry criteria, and frequency and duration of treatment. Such factors could well be expected to influence treatment effectiveness (Ball and Ross, 1991). These studies have provided useful information about the precise manner in which methadone maintenance treatments are delivered. Many other drug and alcohol treatments remain less well understood.

The treatments that are actually offered to people with drug and alcohol problems include an almost unimaginably diverse range of different sorts of intervention. Among the various interventions that have been used are medical detoxification, supportive counselling, brief interventions, videotaped self-confrontation, motivational interviewing, hypnosis, cognitive therapies, behavioural counterconditioning treatments, relaxation therapy, prescriptions for psychotropic drugs such as benzodiazepine tranquilliser, drug-free rehabilitation houses, family counselling, needle and syringe exchange schemes, Alcoholics Anonymous and Narcotics Anonymous, and substitution drug maintenance. This list is far from exhaustive and other treatment modalities have been described elsewhere (WHO/PSA/93.10).

There is also considerable variation in the settings in which people with drug or alcohol problems receive care. These include general hospitals, psychiatric hospitals, primary health care, social services, educational settings, rehabilitation services and halfway houses, prisons and other correctional settings. May different organisations and different types of staff are involved in the delivery of such care. Are all of these interventions to be seen as "treatment"? Clearly they involve the application of quite different procedures by different sorts of staff in different settings to achieve different goals with different client groups. One review of treatments aimed at alcohol problems found that there were reports about more than twenty different procedures aimed just at this area of problems (Miller and Hester, 1986). It is likely that as many more treatments may be used for the treatment of drug problems.

In the consideration of these diverse interventions, it is often difficult to support the notional distinction between prevention and treatment. With the advent of HIV, many drug treatment programmes have also begun to offer various interventions which can be clearly recognised as forms of prevention. As a result, this supposed distinction between prevention and treatment often breaks down, as in the case of methadone maintenance treatment which may be given to severely dependent heroin addicts, by services staffed by physicians, and in hospital settings, but with the intention of preventing HIV infection and other risk behaviours. Conversely, some services which offer education (possibly in the form of leaflets or printed materials), brief interventions, or short-term counselling, and which have often been seen as forms of "prevention" may equally, and with considerable justification be seen as providing "treatment" (IOM, 1990).

However, if the specific components of treatment interventions are not fully understood at the programme level, there is an even greater lack of understanding about how different national treatment responses can be compared. WHO naturally has an interest in contributing to the understanding of treatment responses at the national and international level. The present study looks at the characteristics of the health care responses that are available to respond to drug and alcohol problems in 23 countries. Some of the factors that have been identified as underlying substance abuse treatment include availability, treatment setting, provider, content, goal, duration, intensity and cost (IOM, 1990; WHO/PSA/93.10). The present study has been designed to investigate the characteristics of national treatment services in 23 countries around the world.

## *THE TREATMENT MAPPING QUESTIONNAIRE*

As a result of WHO meetings held in Moscow (May 1991) and St.Peterinsel, Switzerland (October 1991) together with other associated WHO activities, a questionnaire was devised. This Treatment Mapping Questionnaire was designed to be completed by a national key informant, and contained 73 questions,

many of which required multiple answers. The questionnaire was structured in a 2 x 2 format. Section 1 covered alcohol treatment services and section 2 covered drug treatment. Sections 1 and 2 were each subdivided in sections (a) and (b) requesting information on treatment setting - (a) residential (including hospital inpatient)[2] treatment, and (b) non-residential treatment. Within all four subsections, questions were included on the following issues: scale of the national problem, number and size of treatment services, supply and demand for treatment, utilisation of services, location, treatment costs, types of staff, staff training, duration of treatment, inclusion of individual counselling or group therapy, and group size: in addition, questions were included on the extent to which drug and alcohol services were run in conjunction with one another and with other general health care services.

It was acknowledged that the full complexity of national responses could not be investigated within such an international comparative survey. For this reason, the investigation of specific modalities, and, in particular, questions of detailed treatment content were deliberately left outside the structured framework of the survey. However, the Treatment Mapping Questionnaire was designed, and key informants were encouraged to provide additional information about national treatments on each question in their own words. This information was used to augment the information obtained from the structured responses in reporting the data.

Key informants were identified by WHO. These were individuals who were actively involved and knowledgeable about treatment responses in their own country. In some cases, the names of these individuals were provided by WHO regional offices; in other cases individuals were contacted by PSA/ Geneva. In all cases, a basic requirement was that the key informant be able to provide a rapid response to the survey. The Treatment Mapping Questionnaire was sent to a key informant in each of the 23 countries during September and October 1992 and completed questionnaires were returned by January 1993.

Responses to the Treatment Mapping Questionnaire and additional information submitted by key informants is presented in descriptive and summary form in the following sections of this report. Where data are presented in the form of figures the results are generally shown in terms of the number of countries which indicated that certain treatment responses or treatment factors were "usually" or "always" present in national services: this appears as the vertical or Y axis of the figures. In general data are not presented as arithmetical means since there was considerable variation in responses to certain items, and means would, therefore, have created misleading impressions of national responses (e.g. where the capacity of national services was either very small or very large the mean would have created a misleading impression of moderate size services). The single exception to this is the presentation of data for the degree of training received by different staff groups.

## *THE 23 COUNTRIES*

The 23 countries which took part in this study are shown in Table 1. These were chosen to meet several criteria. The sample was constructed in order to contain:

- countries from each of the WHO regions (Africa, the Americas, the Eastern Mediterranean, Europe, South-East Asia, the Western Pacific);
- countries which had extensive drug and alcohol problems as well as those with smaller problems;
- countries with developed national treatment services as well as those with less well developed responses.

---

[2] *In some previous reports, a distinction has been drawn between residential (for example, therapeutic communities) and inpatient (hospital) settings. This distinction is not made in this report. Instead, a broader distinction is made between treatments provided in the community and treatments which require the person to be admitted to some sort of institution (both residential and hospital inpatient settings).*

*Table 1: General Characteristics of Countries in the Survey*

| | Population (millions) | GNP per capita in US$ | Urban population in % | Population per doctor |
|---|---|---|---|---|
| Bahamas | 0.3 | 11,370 | 59 | 1,150 |
| Canada | 27.75 | 19,020 | 76 | 510 |
| Chile | 13.8 | 1,770 | 86 | 1,230 |
| Colombia | 33.9 | 1,190 | 70 | 1,190 |
| Congo | 2.3 | 930 | 42 | 8,138 |
| Egypt | 56.0 | 630 | 49 | 786 |
| Finland | 5.0 | 22,060 | 68 | 443 |
| Ghana | 16.0 | 380 | 33 | 14,894 |
| Hungary | 10.5 | 2,560 | 60 | 307 |
| India | 880.0 | 350 | 28 | 2,521 |
| Italy | 57.8 | 15,150 | 69 | 234 |
| Mexico | 90.0 | 1,990 | 73 | 1,240 |
| Nigeria | 119.0 | 250 | 35 | 7,978 |
| Norway | 4.3 | 21,850 | 74 | 451 |
| Pakistan | 128.0 | 370 | 32 | 2,941 |
| Poland | 38.5 | 1,760 | 63 | 487 |
| Russia | 149.0 | 3,800 (USSR) | 68 (USSR) | 270 (USSR) |
| South Africa | 40.0 | 2,460 | 59 | 1,906 |
| Spain | 39.2 | 9,150 | 78 | 317 |
| Sri Lanka | 17.9 | 430 | 21 | 5,516 |
| Switzerland | 6.9 | 30,270 | 60 | 696 |
| Thailand | 56.9 | 1,170 | 23 | 6,294 |
| Zimbabwe | 10.8 | 640 | 28 | 7,188 |

There are many obvious and profound social, cultural and economic differences between the 23 countries which took part in this survey. At the most basic level, there are vast differences in the sizes of the national populations. The smallest was the Bahamas (0.3 million people) and the largest was India (880 million). There are also massive difference in the national wealth of the countries with the per capita GNP of the richest country in the survey exceeding by more than 100 times that of the poorest.

This difference in wealth is reflected in related differences in other resources including health care resources. Several of the countries had very restricted access to medical and other health care services. This was apparent, for instance, among many of the African countries (Congo, Ghana, Nigeria and Zimbabwe). An indication of this is given in Table 1 where ratios of doctors to population are given. Among the countries with the most favourable ratios are Canada, Finland, Norway, Spain and Italy, but also several eastern European countries, Hungary, Poland and Russia).

## *PREVALENCE OF DRUG AND ALCOHOL PROBLEMS*

The survey requested national estimates for the numbers of people dependent upon drugs and alcohol. The estimates that were provided are based upon different national definitions of drug and alcohol problems. They are also based upon various forms of extrapolation rather than direct measurement. This was clearly indicated by many of the key informants who provided national estimates together with cautionary notes about the potential biases and problems of interpretation surrounding these figures. In some cases, key informant were unable to provide any estimate at all of the size of national problems.

The countries differed greatly in the estimated numbers of people dependent upon drugs and alcohol as well as in the national percentage of people with such problems. Countries reporting comparatively low levels of alcohol dependence included two predominantly Muslim countries, Egypt (5000 people in a population of 56 million) and Pakistan (300,000 in 128 million). In contrast, some countries reported very high estimates for alcohol dependence. These included Mexico and Spain where estimates suggested that 6% or more of their populations could have clinically significant alcohol problems (5.4 million and 2.35 million people, respectively), and Switzerland (225,000 out of 6.9 million). Eastern European countries also reported sizable national problems with alcohol. Estimates for Russia suggest that about 4.75 million people (or about 3% of the adult population) may be dependent upon alcohol. Similarly, in Hungary, the number of people involved in habitual heavy or harmful drinking is estimated at 600,000 (about 6% of the population) of whom about 200,000 are dependent drinkers.

The countries varied also in their estimated numbers of people with drug dependence problems requiring treatment. Finland and Ghana both reported having extremely small national drug problems (with 2,000 out of 5 million, and 6,500 out of 16 million people, respectively). Among the countries reporting the highest proportion of people with drug problems were Chile and Nigeria (with about 2% of their populations, or 276,000 out of 13.8 million, and 2.38 million out of 119 million people, respectively). Other countries with widespread national drug problems affecting 1% or more of their population were Mexico, Spain and Pakistan (1.5%, 1.4% and 1.2%, respectively).

Many of the countries reported more extensive problems with alcohol than with drugs (Finland, Ghana, Norway, Poland, Russia and Zimbabwe). Some countries reported more serious national problems with drugs than with alcohol (Italy and Pakistan). Some countries, such as Mexico and Spain, reported facing equally serious and extensive national problems with both drugs and alcohol.

The smallest country in this survey, the Bahamas, also reported considerable problems (when adjusted for the size of the national population) with both drugs and alcohol. Estimates (based upon a community drug use survey in 1991) suggest that there may be about 7,500 people dependent upon alcohol and about 8,300 people dependent upon drugs in the Bahamas.

There was also considerable variation in the type of drug problems reported in different countries. Many countries reported problems with heroin and opiate drugs. In Sri Lanka, India and Thailand, for instance, the main national problem is seen to be heroin (and, to a lesser extent opium) addiction. National estimates from Thailand suggest that there may be between 100,000-150,000 people with a heroin problem in the country and it is estimated that there may also be about 8,000-12,000 people with some sort of problem related to the use of opium. Heroin was also a major national drug problem for many western countries.

Estimates for Italy suggest that heroin addiction was the major drug problem with about 80,000 people dependent upon heroin in the country.

In the Bahamas, drugs problems mainly involve cannabis and psychostimulants. Heroin problems are comparatively rare. Similarly, in Colombia where estimates based upon a 1987 national survey suggest that there may be about 56,000 people with drug problems, the drug most often associated with request for treatment is cocaine (usually basuca, base cocaine paste). As in the Bahamas, heroin problems are virtually unknown in Colombia.

Some countries reported problems with a range of drugs including both opiates and psychostimulants. In Spain it is suggested that there may be between 80,000-125,000 people dependent upon heroin and between 350,000-500,000 with serious problems with amphetamines. Estimates from Switzerland suggest that there may be about 11,500 people dependent upon heroin, and about 10,500 dependent upon cocaine (from a 1988/89 survey): other national drug problems include amphetamines and benzodiazepines. Estimates from Nigeria also indicate a substantial mixed heroin and psychostimulants problem.

It must be emphasised that these estimates should not be treated as valid objectively quantified estimates. Similarly, these estimates cannot be used to make between-country comparisons of the extent of drug and alcohol problems. Estimates are derived from a variety of sources. In some countries, national surveys had been carried out which permitted key informants to make comparatively well-informed estimates. Other estimates were based upon the application of 'indicator' formulae (such as estimates for alcoholism using the Jellinek formula based upon liver cirrhosis mortality). In some cases the estimates represent more subjective interpretations or "best guesses" that WHO asked the national key informants to make.

In almost all cases, key informants themselves emphasised the difficulties and limitations of such estimates. Even in highly developed countries which possess well-established and properly funded drug and alcohol research institutes it has not been possible to establish precise estimates. In countries with very limited research resources, and in countries where a high proportion of the national population lives in remote rural areas there are often no estimates at all about the extent of such problems.

Estimates of the extent of national problems are always more complicated for drugs than for alcohol because so many different substances and so many different types of problems are subsumed under the general terms "drugs". As a result, the types of substances included within definitions of drug dependence differ according to national circumstances. Most commonly, these include heroin, other opiates, and stimulants such as cocaine and amphetamines: tranquillisers and sedatives (when used outside medical prescription) and volatile substances are also included where appropriate, as is cannabis in those countries where this is specifically identified as leading to problems of dependence requiring intervention.

However, despite the very real limitations inherent in such estimates, these figures have been included in this report because, provided they are used with caution, they may be used as rough indicators of the "prominence"[3] of drug and alcohol problems in the 23 countries. It is also possible to use the within-country estimates as a rough guide to the *relative* "prominence" of drug problems and alcohol problems.

---

[3]*The term "prominence" in this report is used to refer to the general national awareness or overall significance of drug and alcohol problems within a country. The "prominence" of these problems will be determined by many different types of factors. These factors may include the actual extent of the problems, and the social acceptability both of the problems themselves and of the responses to such problems.*

## *DEMAND FOR TREATMENT IN RELATION TO EXISTING SERVICES*

In most countries the demand for both alcohol and drug treatment services exceeds the supply of existing services. In India, for instance, where it is estimated that there may be up to 7 million people dependent upon alcohol, there is a massive demand for treatment and most services have long waiting lists. However, in most countries, the provision of alcohol treatment services is consistently more in line with treatment demand than is the case for drug problems. Although many countries noted that demand for both residential/inpatient and non-residential alcohol treatment exceeds existing service provision, the disparity between supply and demand for drug treatment services is very much greater. Key informants from about half of the countries indicated that demand for both residential and non-residential drug treatment services is markedly greater than the provision of services. These results are shown in Figures 1 and 2.

***Figure 1: Supply and Demand. Residential Services***

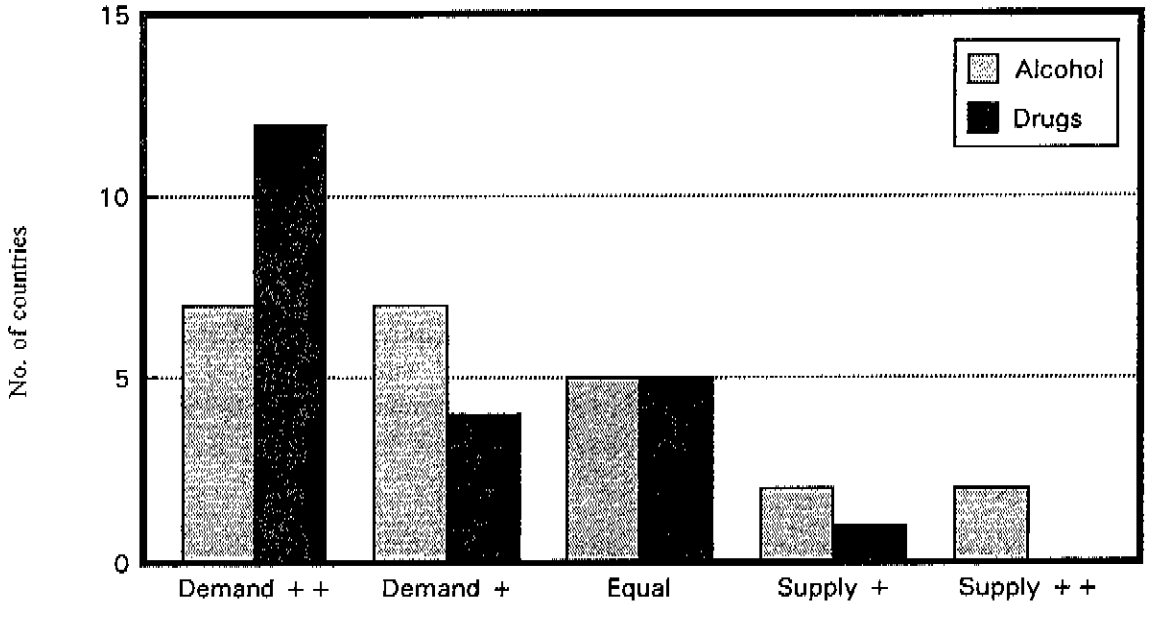
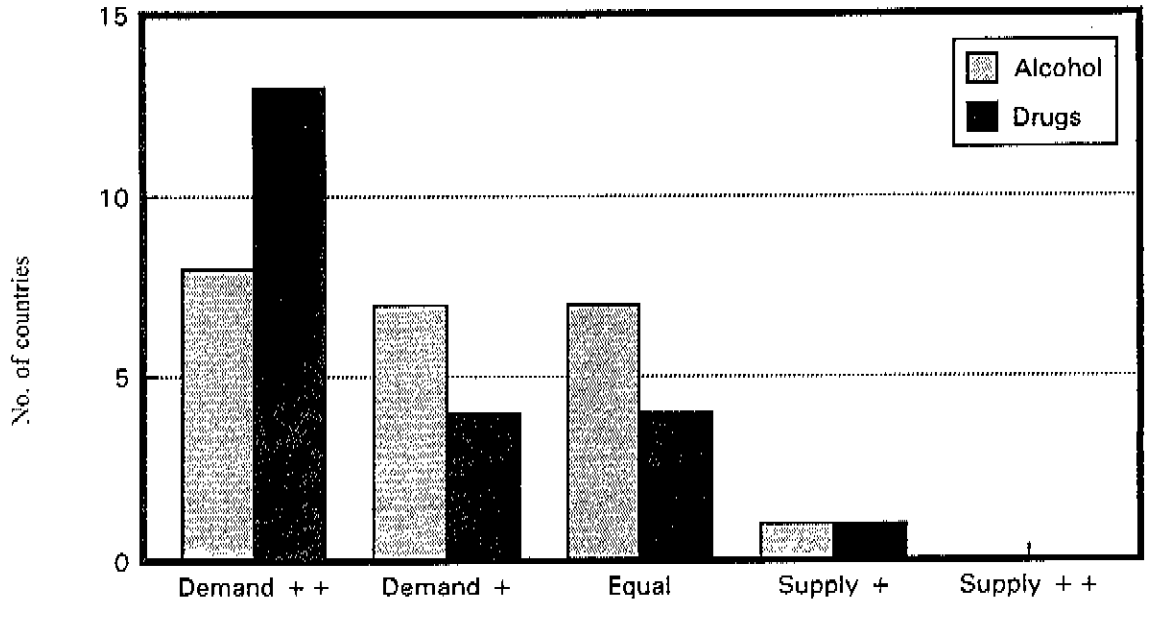



***Figure 2. Supply and Demand. Non-residential Alcohol and Drug Services***



However, there is considerable variability in the accessibility of services within countries. In Canada, for instance, the availability of services in the far north falls far short of demand. This effect was noted in several other countries. Rural areas are often poorly served in this respect. Where there are differences in the availability of treatment services in adjacent areas this may lead to "migration" from areas of need to areas which are better supplied with treatment services. Within recent years there has been an exodus of this sort by people seeking residential treatment services from Canada to the United States.

Demand for treatment may also change comparatively quickly, especially with regard to drug problems where drug abuse trends may become established or change within a short period of time. The global concern about HIV infection among drug injectors since the mid-1980s has introduced a powerful impetus towards treating drug users that may have been lacking before that time. In Switzerland, for instance, demand for methadone maintenance treatment greatly exceeds availability whereas for other drug services supply and demand are more or less equal (possibly even with supply being in excess of demand).

As was also noted by several key informants, there is no straightforward link between either the existence or the scale of national problems and the demand for treatment. In Russia, for example, until comparatively recently, there was a system of actively seeking out people with alcohol problems and putting pressure on them to go to treatment agencies. Because of the widespread nature of the problem, this led to very large numbers of people in treatment. The present system relies upon a more voluntary system and tends to lead fewer people to approach the extensive national treatment services: this has produced the somewhat unusual situation in which the provision of services exceeds demand. However, in Finland too the provision of residential alcohol services was reported to be greatly in excess of demand.

Even where supply and demand for treatment services are more or less equally balanced there may still exist a demand for further resources and for new services. A 1991 survey by the Ministry of Social Affairs in Norway found that supply and demand for alcohol treatment services were roughly equal but there was still a demand for further services to help families of alcoholics and alcoholics with psychiatric comorbidity.

The identification of problems (and especially problems which involve the use of illegal drugs) may reflect social and legal values rather than the need of the individual for treatment. In several countries the abuse of psychostimulants was noted as a serious national problem. However, many people who use amphetamines, cocaine and other psychostimulants do not present to existing drug treatment services and it is not always clear precisely what are the needs of these drug takers that should be met by drug treatment services.

## *LOCATION AND SCALE OF NATIONAL RESPONSES*

There is enormous variation between countries in the number of services and the size of the national responses to drug and alcohol problems. Many countries provide a large number of treatment services which are capable of responding to the needs of a considerable number of those people seeking treatment for drug or alcohol problems. In other countries, there are restricted numbers of treatment services, and sometimes treatment services are not available.

One of the most frequent locations for treatment services is the psychiatric hospital. Residential treatment services in many countries are based in psychiatric hospitals, especially those providing treatment for people with alcohol problems (see Figure 3[4]). However, many non-residential drug and alcohol treatment services are also based in psychiatric hospitals. The main differences between drug and alcohol treatment

---

[4] *Except where otherwise shown the observations on the Y (vertical) axis of all figures represent the number of countries which regularly (often or always) use such locations etc.*

services are that in the residential/inpatient setting, alcohol treatment is more likely to be provided in a general hospital and drug treatment is more likely to be based in a non-governmental organisation. In the non-residential setting, as well as psychiatric hospitals, services for drug users are more likely to be based in private clinics whereas alcohol services are more likely to be based in government/health service clinics. This last finding probably reflects the fact that in many countries the demand for non-residential drug treatment services is greater than the available supply. As a result, the laws of economics lead to the development of private, profit-making treatment services which fill the gap left by the lack of state-run services.

***Figure 3: Location. Residential Treatment Services***

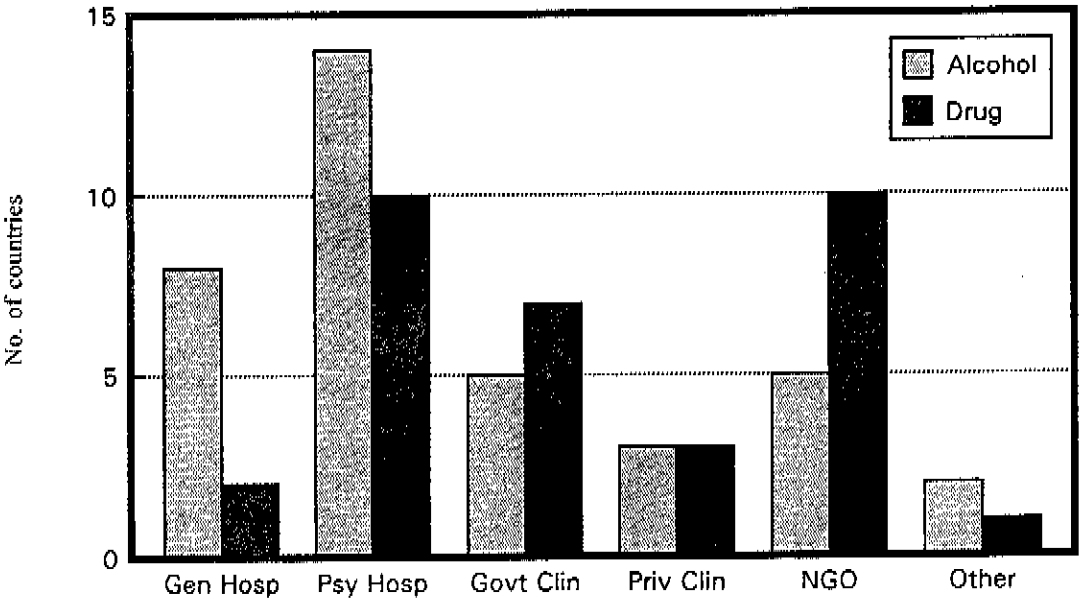
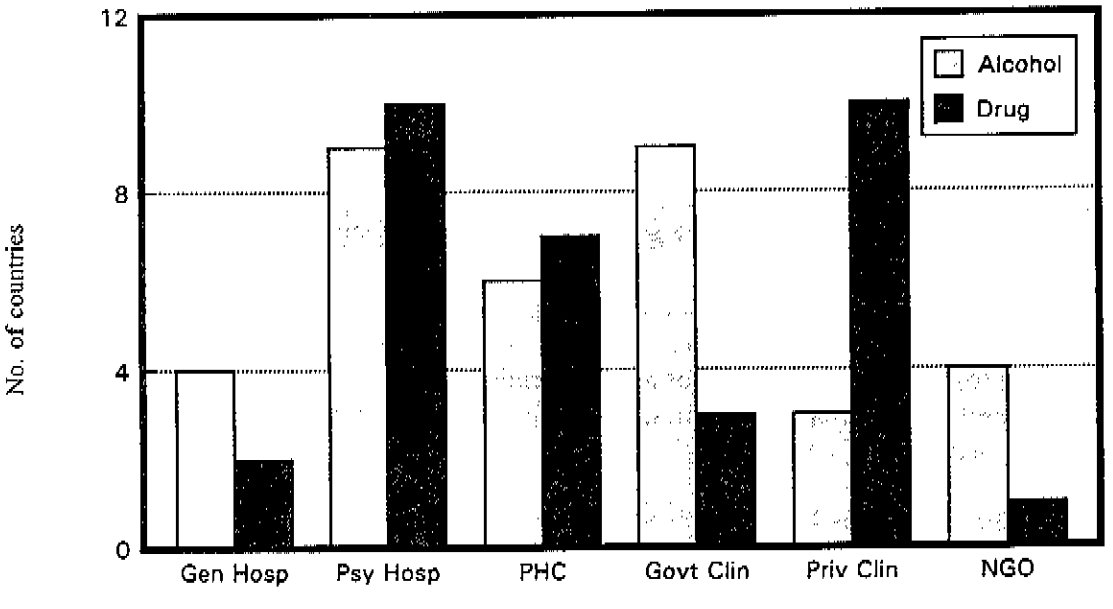



***Figure 4: Location. Non-residential Services***




*Alcohol*

One country which has to respond to the problems of an extremely large number of people dependent upon alcohol, and which has a correspondingly large-scale treatment response is Russia. Russia provides more

than 58,000 beds in government (municipal) alcohol treatment units. The majority of these beds are in 247 clinics (43,000 beds) and the remainder are in psychiatric hospitals. In addition, there is an even larger nationwide network of about 2000 non-residential alcohol services based in government health service clinics. Russian alcohol treatment services are usually set up to treat comparatively large numbers of people. Typically a residential alcohol treatment service is located in a psychiatric hospital and has 50-60 beds.

This is broadly similar to the situation in another eastern European country with a serious national alcohol problem - Poland. Poland provides more than 60 major residential alcohol treatment services. Many of these are located in psychiatric hospitals, and, as in Russia, these are generally set up to treat comparatively large numbers of people (46 psychiatric hospitals with 2,300 beds). A further 11 wards are provided in general medical facilities and these provide 339 beds. The national response relies even more heavily upon non-residential services which are usually based in health service clinics. In 1990 there were 454 such clinics providing services to more than 100,000 patients with 350,000 recorded visits. The average daily capacity of such clinics is about 20 people.

The two countries which reported the highest percentages of population with serious alcohol problems are Spain and Mexico. Both rely primarily upon non-residential services for the treatment of alcohol problems. Both residential and non-residential alcohol treatment services are often located in psychiatric hospitals, though in Spain, residential treatment also often occurs in general hospital settings whereas in Mexico it is more likely to be in private alcohol clinics. In many countries Alcoholics Anonymous groups are an important part of the treatment system. This was especially true for Mexico where AA is seen as a major national resource for non-residential treatment.

In India, residential alcohol treatment is generally provided in psychiatric hospitals, or less, often in general hospitals. More affluent clients may be treated in private general hospitals or "nursing homes". Most non-residential services are run by non-governmental organisations (NGOs). Alcohol treatment is very rarely provided in primary health care settings, though efforts are currently being made to increase involvement from this sector.

Residential alcohol services in Finland are estimated to see about 20,000 clients each year with non-residential services seeing about 40,000. There are 63 non-residential alcohol clinics and 8 clinics for young people with alcohol problems. In Norway, however, the main national treatment response relies upon residential services. Both residential and non-residential services are usually based in health service clinics. In recent years an increasing number of residential facilities have been opened in Norway which lie outside the public sector (including church-run services and several private Minnesota Model institutions).

The countries with the fewest alcohol treatment services were often in Africa. In Zimbabwe, for instance, there are only two residential alcohol treatment services treating fewer than 50 people out of an estimated 160,000 people with alcohol problems. Similarly, Ghana reported 6 alcohol treatment services, treating between 100 and 200 people out of an estimated quarter of a million dependent drinkers. In the Congo, the only forms of treatment available for those with alcohol problems is provided by traditional healers. Traditional healers are also a significant part of the national response in Nigeria though most formal alcohol treatment is provided on a residential basis in psychiatric or university teaching hospitals. These hospitals are prepared to treat people with alcohol problems but admission figures tend to be quite low since such problems are not seen as "medical" unless accompanied by physical complications.

In South Africa most alcohol treatment was provided on a non-residential basis. Much of this is provided by self-help/support groups such as AA or by welfare organisations, NGOs or religious groups who provide special services for people with alcohol problems. Although there are comparatively few state-run residential treatment centres, these tend to be quite large, with 5 such centres providing more than 1200 beds. Residential services are also often based in NGOs.

In Egypt and Pakistan, the two Muslim countries in this survey, there are special problems surrounding the treatment of alcohol problems due to the social stigma that attaches to alcohol itself. In both Egypt and Pakistan, treatment for such problems is provided within the same facilities as exist for other types of drug dependence. In Pakistan, treatment of such problems may also be done by private practitioners.

***Drugs***

In many respects, the national drug treatment services and their locations are similar to those described above, though drug treatment services are generally fewer in number and less well-developed than those for treating alcohol problems.

For drugs as for alcohol, many treatment services are based in psychiatric hospitals. Different types of drug treatment tend to be delivered in different settings. Short-stay detoxification programmes tend to be provided in residential settings and are often based in public sector psychiatric hospitals (or, less often, general hospitals), whereas many residential rehabilitation units are run by NGOs. In Mexico the most important NGO involved in non-residential drug treatment is C.I.J. which has about 30 Juvenile Integration Centres throughout the country. C.I.J. provides a social approach to treatment for the users and for their families. Each centre sees about 10-15 clients per day on average.

Narcotics Anonymous (NA), an offshoot of AA, provides a substantial contribution to non-residential services in many countries. Sometimes NA and AA groups are run in conjunction with the activities of other services.

The national drug treatment response in several countries relies mainly upon residential services. Such services are typically based either in NGOs or in psychiatric hospitals. Among the countries using predominantly residential responses are the Bahamas, Egypt, Ghana, Pakistan, South Africa and Sri Lanka. In Pakistan, which has a serious heroin problem, virtually all national services provide detoxification-only programmes. There are 60 public sector detoxification units attached to psychiatric hospitals and 10 detoxification units attached to NGOs.

More often, national treatment responses were based upon types of treatment delivered in non-residential settings. In Switzerland, the majority of drug treatment is conducted within non-residential services. Most such services typically offer temporary shelter, psychosocial assistance, and health care support to the user rather than a treatment programme aimed at abstinence. Harm reduction treatments are becoming increasingly influential. Many GPs are prepared to prescribe oral methadone to opiate addicts though typically such GPs tend to prescribe for only a small number of addicts. No more than 10 GPs in Switzerland are involved with 50 or more methadone patients. In the Canton of Zurich it is estimated that about 400 out of 3000 GPs prescribe for about 2500 methadone patients.

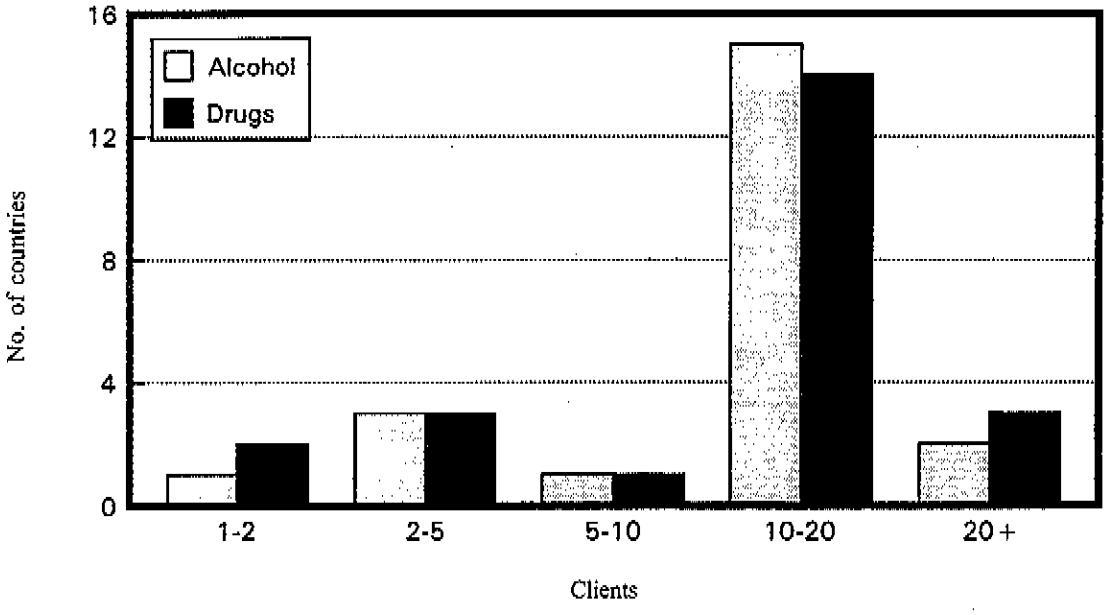
There was marked variation between countries in the extent to which primary health care services were involved in the treatment of people with drug problems. In some countries primary health care services played a prominent role in treating substance abuse problems. In Switzerland, for example, many people with both drug and alcohol problems are treated by GPs. It is not uncommon for GPs to provide harm reduction interventions to drug addicts and many are prepared to prescribe oral methadone to opiate addicts.
In many countries there are private drug treatment clinics which provide a service in return for payment. In some countries where public sector services are lacking or where access is restricted these private clinics may constitute a relatively prominent part of the national response.

In some countries, such as Poland and Russia, treatment is provided for most drug abusers in non-residential and then in residential services, so that it is impossible to characterise the national response as being primarily residential or non-residential.

*Size of treatment services*

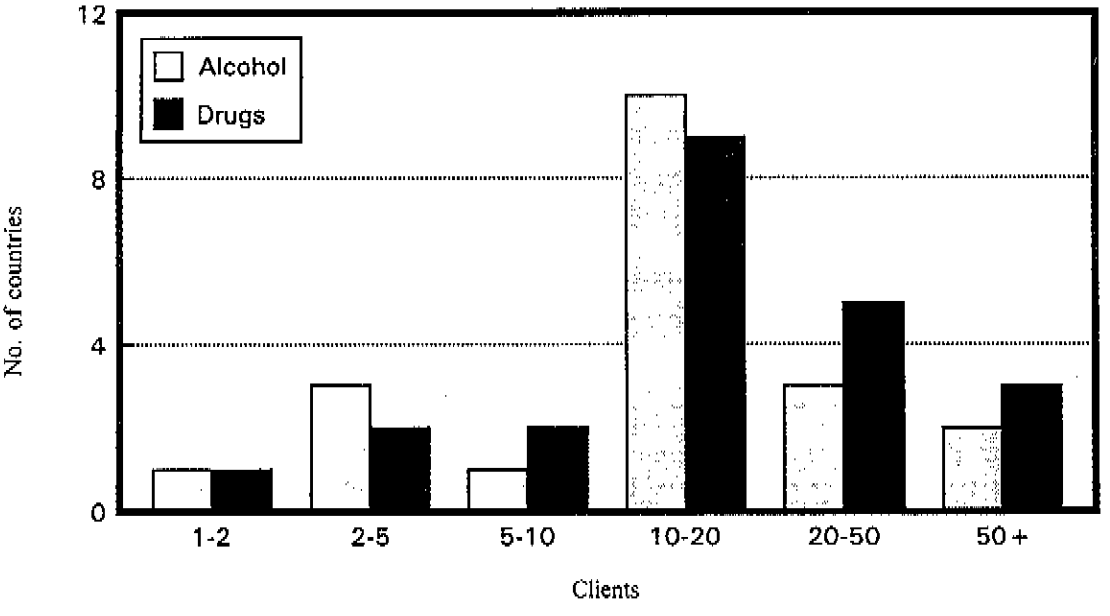
The majority of countries (90%) usually provided residential treatment services for 20 people or less; for alcohol 19/21 and 18/20 for drugs. For both alcohol and drug treatment services the most common number of beds provided in residential settings was between 10 and 20 (reported by 15/21 countries for alcohol and 14/20 for drugs). Few residential treatment services were larger than this.

***Figure 5: Capacity. Residential Treatment Services***




For services in non-residential settings, there was slightly greater variation in the typical size of treatment capacities, though the most frequently reported capacity was of 10-20 treatment places. For alcohol treatment services about half of the countries (10/19) reported that their treatment services were most often of this size. Residential services of between 10 and 20 places were also commonly reported for non-residential drug treatment services (in 9 out of 20 countries).

***Figure 6: Capacity. Non-residential Treatment Services***



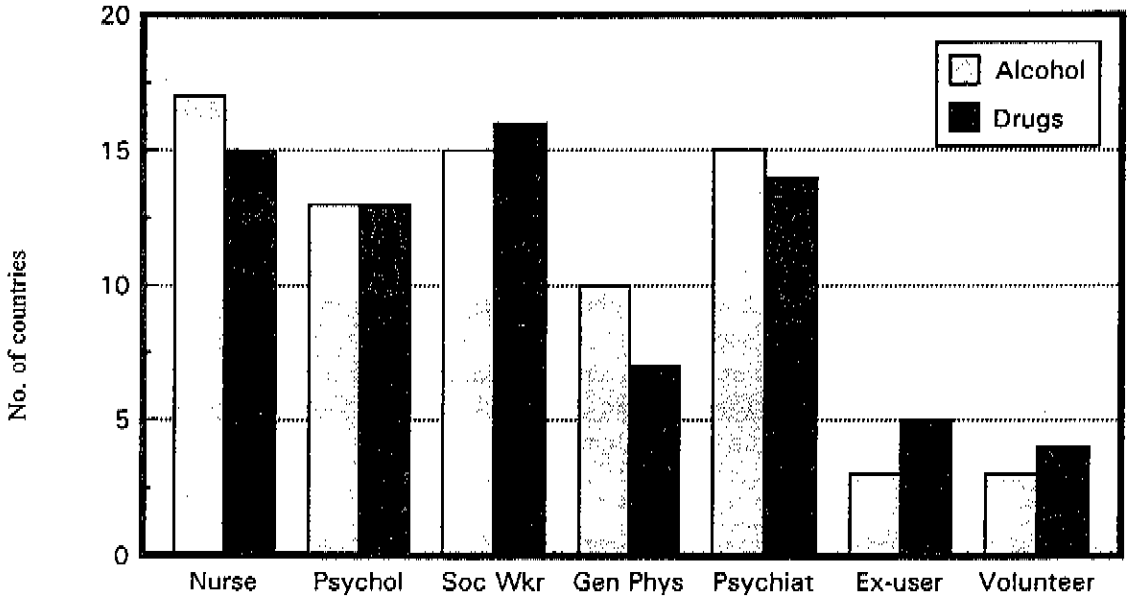
In most of the countries, the majority of non-residential services were for 20 places or less, though a few countries regularly provided treatment services geared to respond to larger numbers of clients. In 3 countries, services were often provided for 20-50 residential alcohol treatment places, and two countries provided services with more than 50 places. The provision of larger scale non-residential services was more evident for the treatment of drug problems than for alcohol problems with 5 countries regularly providing drug treatment services with 20-50 places and 3 countries providing services with more than 50 places.

## *TREATMENT STAFF AND STAFF TRAINING*

### *Treatment Staff*

The types of staff working in the residential treatment services tend to be very similar both for alcohol and drug treatment agencies (see Figure 7). The three types of staff which were most consistently reported as being "usually" or "always" involved in treatment are nurses, social workers and psychiatrists. Nurses and social workers were more numerous and more likely to be involved in the face-to-face delivery of treatment with psychiatrists providing a more distant supervision of treatment.

***Figure 7: Staff. Residential Treatment Services***

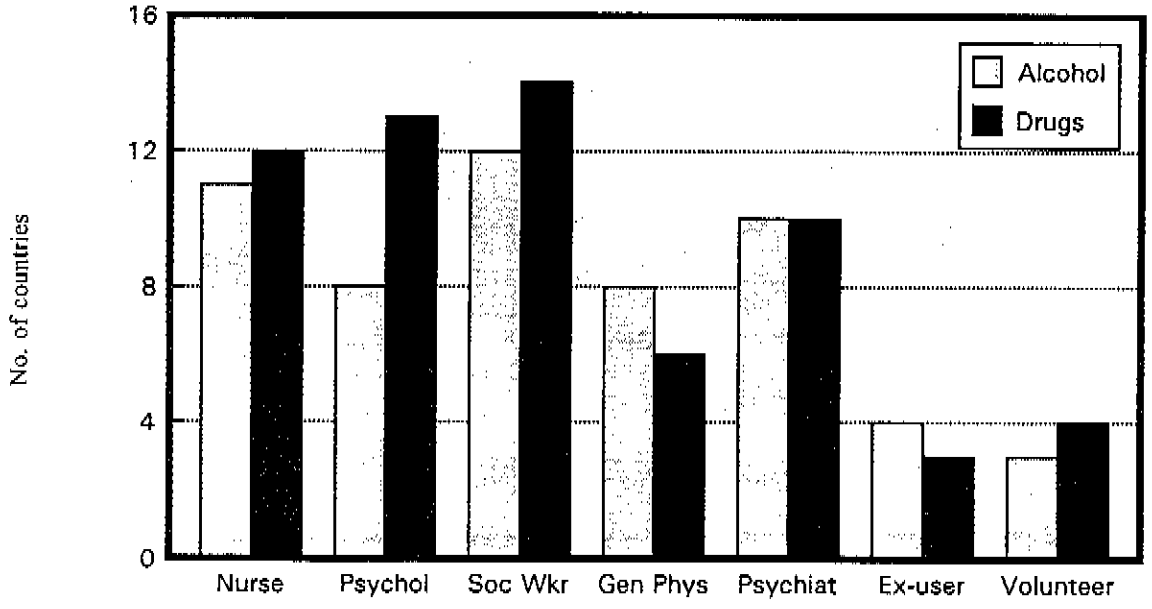



General physicians were also reported to be involved in substance abuse treatment in several countries, though they are more likely to provide treatment to people with alcohol problems than drug problems. A small number of countries reported that ex-users and volunteers are often involved in treatment.

There was somewhat greater variation in the types of staff involved in non-residential treatment. Again, nurses and social workers were most consistently reported as being involved in treatment for both drug and alcohol problems. Many countries also reported that psychiatrists are regularly involved in treatment, though there was a tendency for them to be less often involved in non-residential than in residential treatment services. Interestingly, psychologists were more often reported as being regularly involved in the treatment of drug problems in the community. Indeed, in the non-residential treatment of drug problems, psychologists are one of the types of staff most frequently mentioned. It is not clear why psychologists should be more often involved in the non-residential treatment of drug problems though this

may reflect the strong interest that has been shown by psychologists in treatments delivered in naturalistic rather than institutional settings. As was found for residential treatment, general physicians were mentioned by several countries but general physicians are less frequently involved in treatment than psychiatrists.

***Figure 8: Staff. Non-residential Services***




***Staff Training***

The survey clearly indicated that there were problems surrounding the training of staff in the assessment, management and treatment of drug and alcohol problems. Staff training was frequently described as being unsatisfactory. The training of most types of treatment staff was reported to be only "occasional" or "patchy", and often it was seen as "inadequate". Sometimes such training was completely lacking.

The results are broadly consistent for the training of residential and non-residential treatment staff (see Figures 9 and 10). It can be seen that for all types of professional staff the area of greatest need concerned specialist training in the treatment of drug problems. Virtually all types of staff were reported to have received inadequate training input regarding the special requirements of treating people with drug problems. However, the results suggest that there is considerable cause for concern about the need to improve staff training on all aspects of substance abuse treatment.

For example, training on alcohol problems for nurses (who were most frequently involved in the treatment of alcohol problems), was described as being "inadequate" or nonexistent in about one third (7/23) of the countries, and in only 8 countries was nurse training described as "adequate". Psychiatrists tended to be seen as the best trained group of professionals, though even here, the results suggest a need to reconsider the need for further training. For psychiatrists involved in residential treatment services, about half were described as having received "adequate" levels of training in treating alcohol problems (in 12 out of the 23 countries). For the treatment of drug problems, only one country described nurse training as "adequate", though about three quarters of the countries (17/23) described the training of psychiatrists as "adequate".

*Figure 9: Training. Residential Staff*

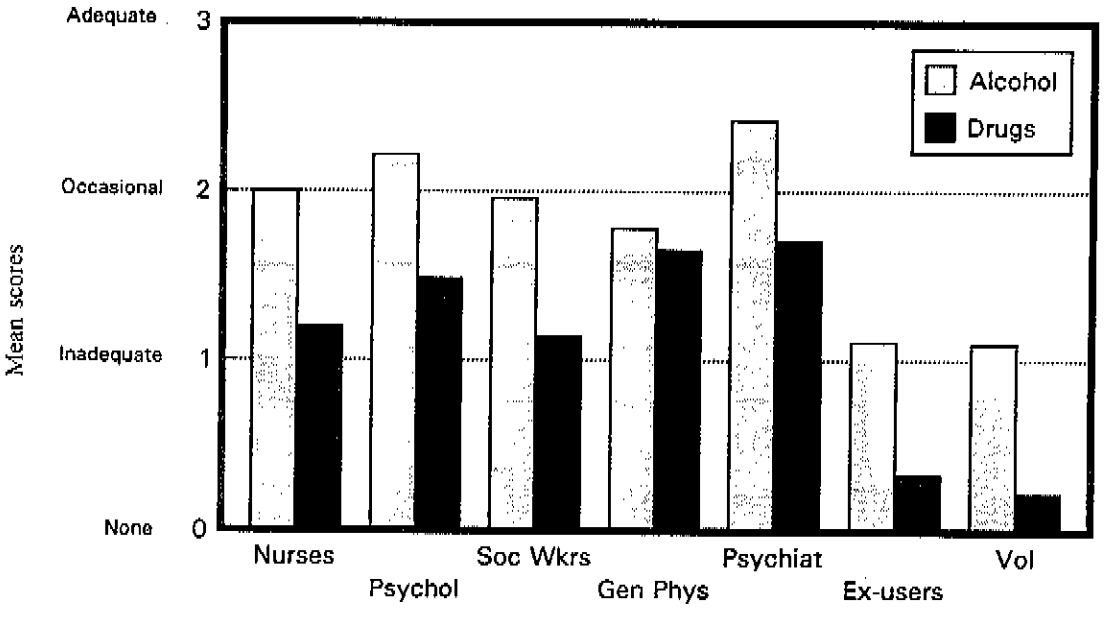
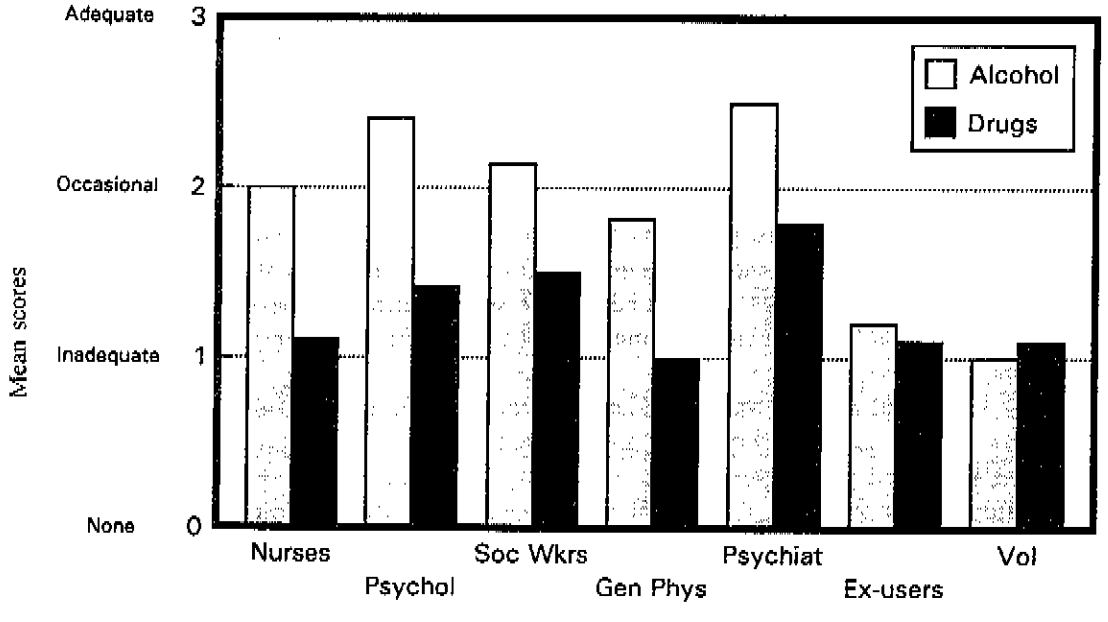



*Figure 10: Non-residential Staff*




## *DELIVERY OF TREATMENT*

### *Individual Sessions*

Many different sorts of procedures are used in the treatment of drug and alcohol problems. These are most often delivered either in individual (one to one) sessions or in groups. In one form or another, individual counselling was almost always a standard part of drug and alcohol treatment packages. This was true both for residential and non-residential treatments (see Figures 11 and 12).

*Figure 11: Individual Sessions. Residential Services*

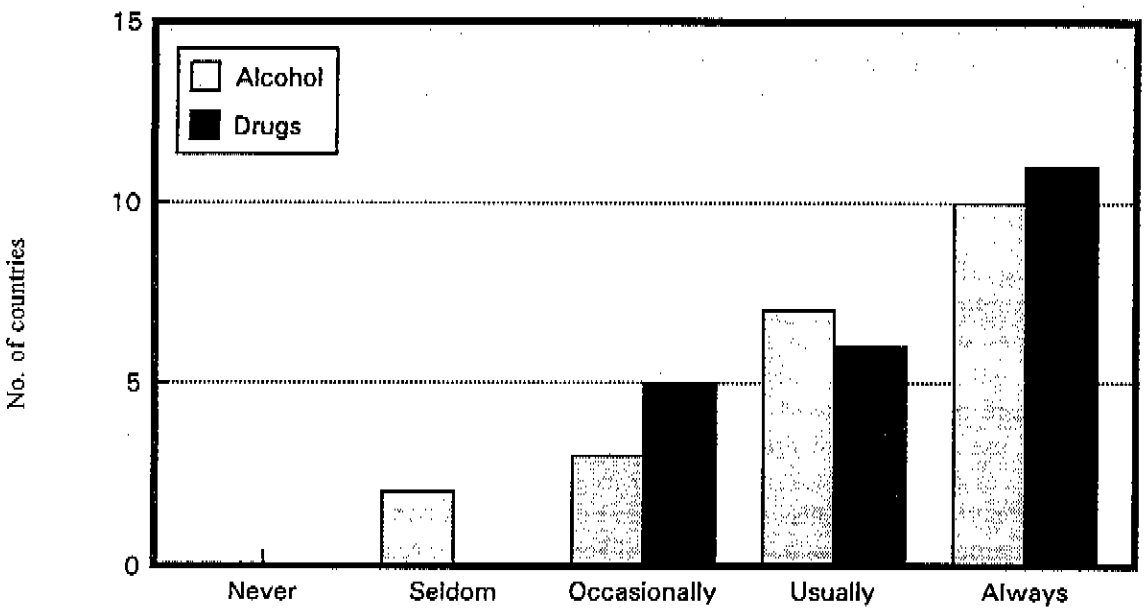
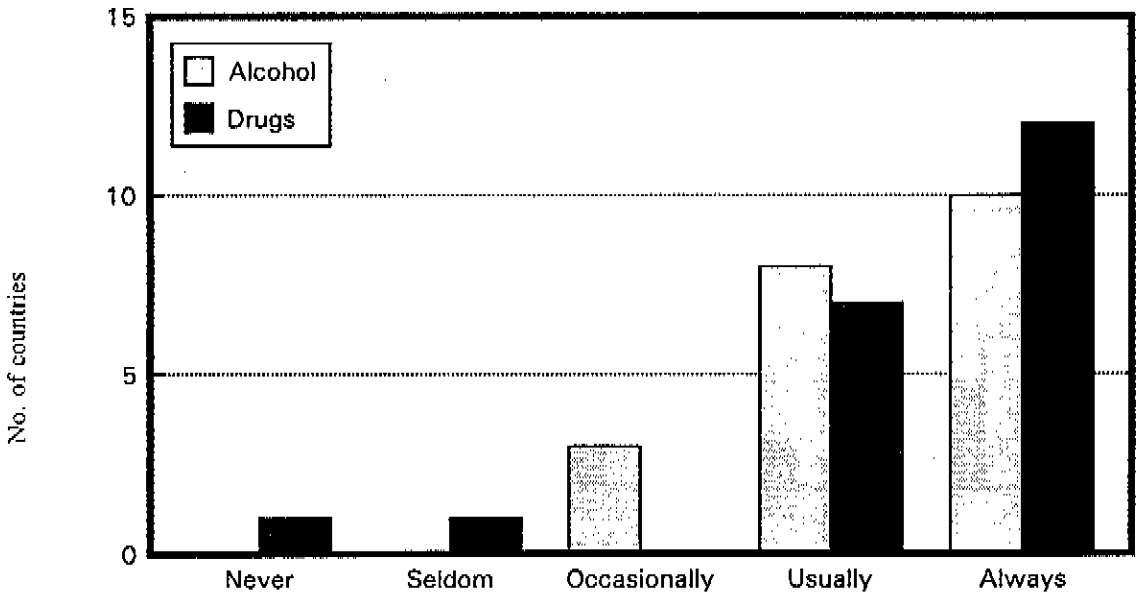



*Figure 12: Individual Sessions. Non-residential Services*



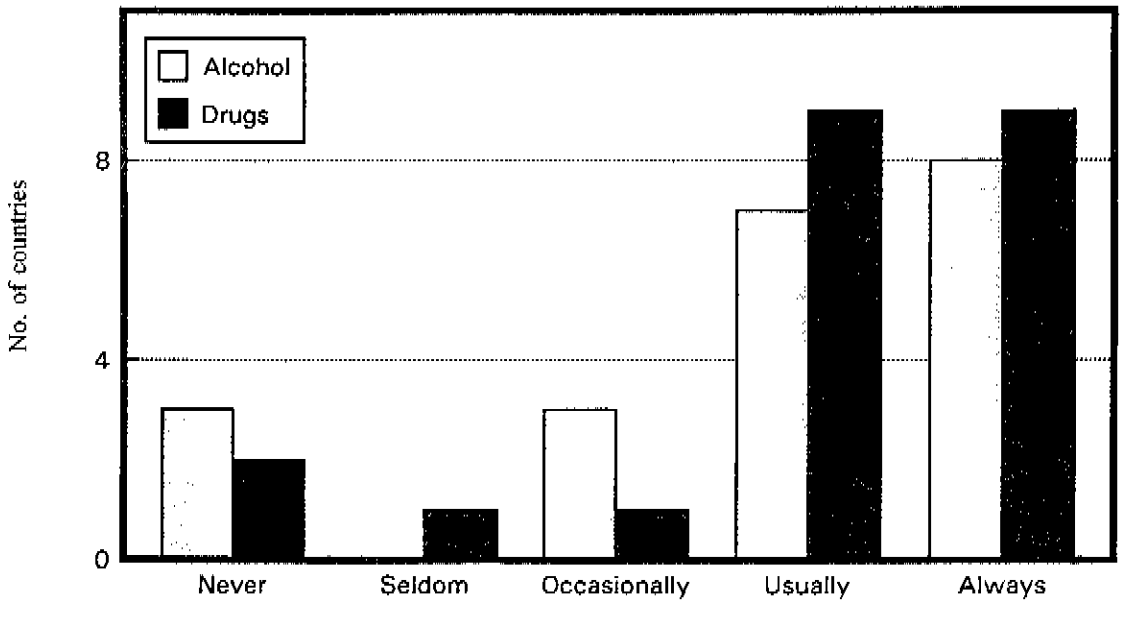

Specific instances include the following: in residential alcohol services in the Bahamas, clients are assigned to a counsellor at admission and are then seen either once or twice a week for counselling sessions during treatment. In some countries where high levels of training and support are available, counselling may include quite sophisticated interventions, as in Canada. A national survey of treatment services in Poland suggested that 94% of outpatient alcohol clinics provided individual counselling or psychotherapy; and in residential alcohol services in Hungary, as well as counselling, forms of individual psychotherapy are also provided when appropriately trained staff are available.

Several respondents noted specific issues or difficulties related to individual counselling. For instance, Zimbabwe reported that although some sort of counselling is usually provided in most drug treatment programmes, the quality, duration and type of counselling varies considerably depending upon the skills and time available within the service. Russia also noted that no special courses on counselling skills are available in that country and that virtually all staff providing counselling are not specifically trained. This issue of specific training is one that probably applies to most (or possibly even all) countries in this survey.

***Group Sessions***

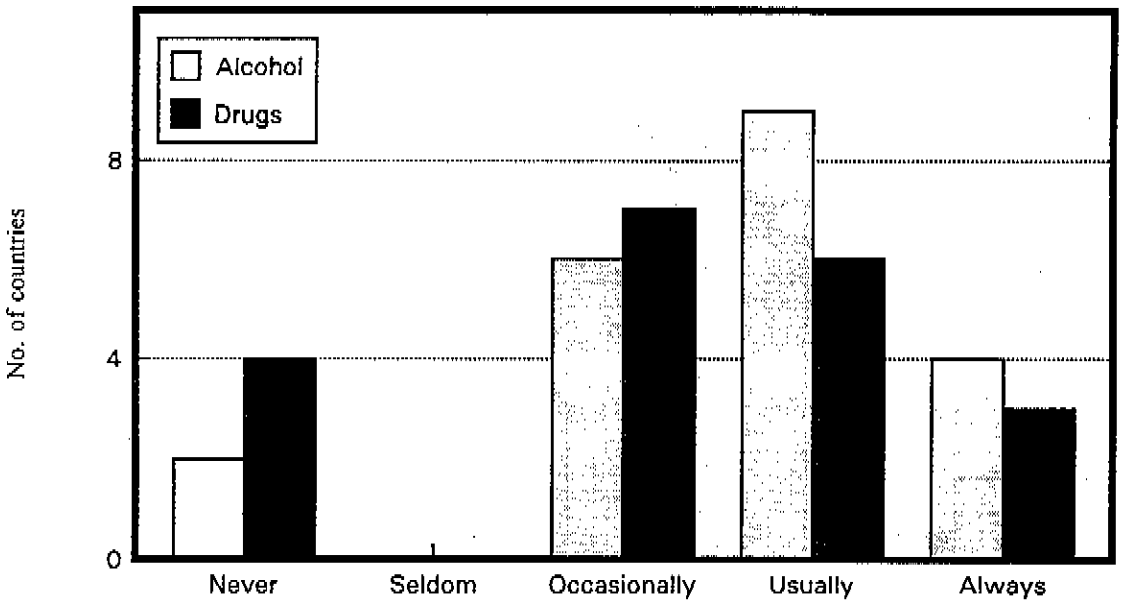
Some form of group therapy was a regular part of the residential treatment of both drug and alcohol problems in most countries (see Figure 13). In the Bahamas, group therapy tends to be provided on a daily basis at specific times and for between 1-2 hours. Some countries also regularly provide groups for family members, spouses and children of clients (as in India). Overall, there was a slight tendency for group treatments to be more commonly used with drug problems than with alcohol. However, some countries were less likely to use groups with drug abusers. In Hungary initial experiences with groups for drug abusers were unsuccessful. This lack of success was partly attributed to lack of trained staff and partly to lack of cooperation from the clients. The provision of groups as part of treatment also varied according to the type of programme. In Poland, although all rehabilitation programmes offer group therapy, it is seldom available in detoxification centres.

***Figure 13: Groups. Residential Services***




For treatments provided in non-residential settings, group therapy was also used in many countries but it was less frequently used than in residential programmes. In both residential and non-residential settings a few countries seldom provided group therapy as part of treatment programmes. For example, group therapies are not provided for drug abusers in non-residential programmes in Hungary. In Zimbabwe, non-residential groups are only provided at one centre and only for young people under the age of 30.

*Figure 14: Individual Groups. Non-residential Services*




*Group Size*

Whether provided in residential or non-residential settings, the most frequent size for groups was between 5 and 10 people (see Figures 15 and 16). Sometimes slightly larger groups were established with between 10 and 20 people. Groups involving fewer than five people or more than twenty were comparatively rare.

Small groups of five to ten people were sometimes seen as a desirable size for managing the discussion of problems where the goal was **therapy** but larger groups were sometimes seen as useful where the aim was providing information or education. Sometimes, group size was described as determined more by force of circumstances. Also, in some of the countries with less well developed drug or alcohol treatment services, groups often included patients with psychiatric problems (as in Nigeria).

*Figure 15: Group Size. Residential Services*

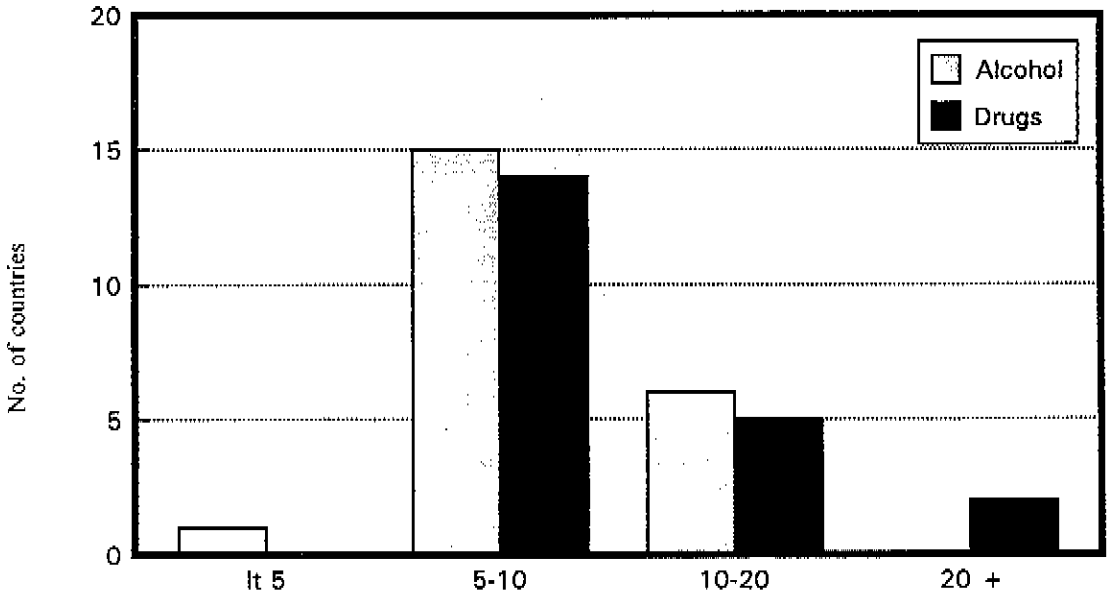
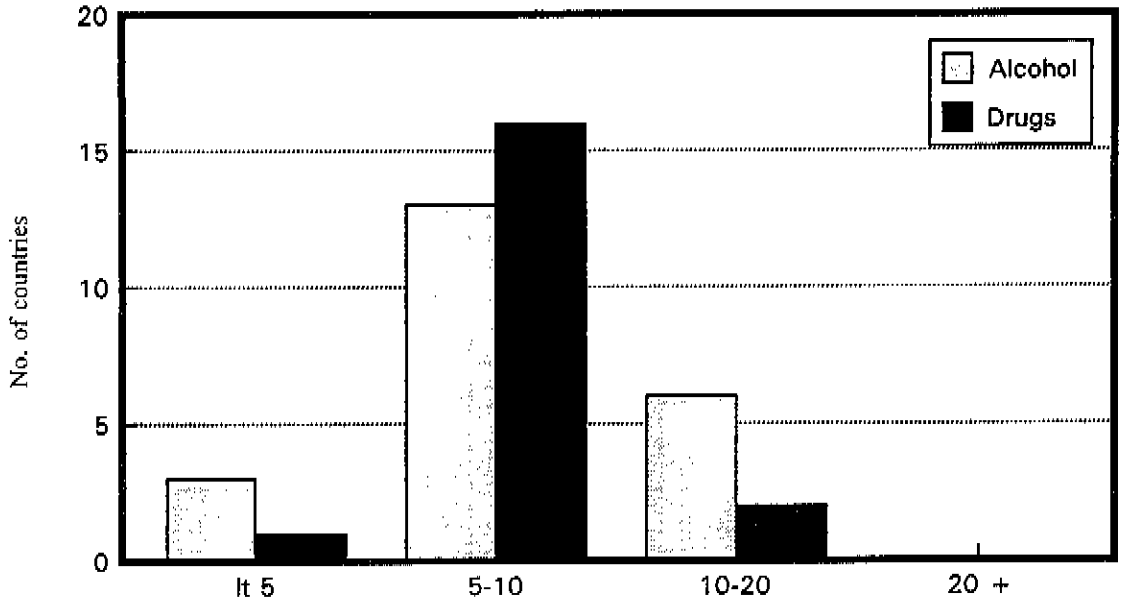


*Figure 16: Group Size. Non-residential Services*




## *INTENSITY AND DURATION OF TREATMENT*

### *Frequency and Duration of Treatment Sessions*

In many countries, non-residential treatment sessions tended to take place once a week and to last for more than 20 minutes (see Figures 17 and 18). There was slightly greater variation in the frequency with which alcohol dependent clients were seen. In many countries this varied from several times a week to less than every two weeks.

*Figure 17: Frequency of Sessions. Non-residential*

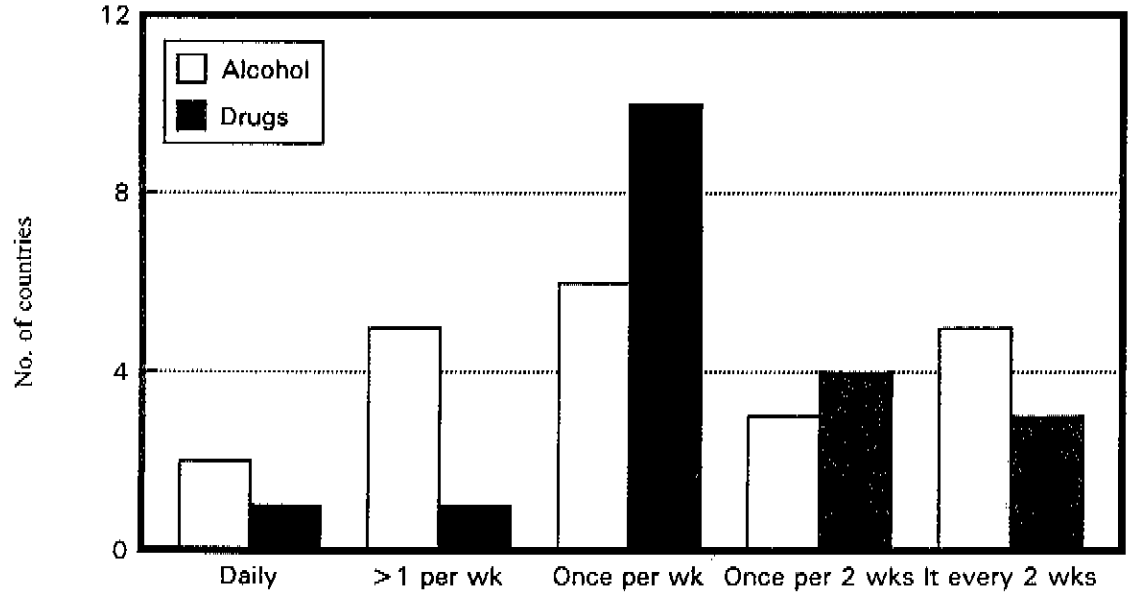
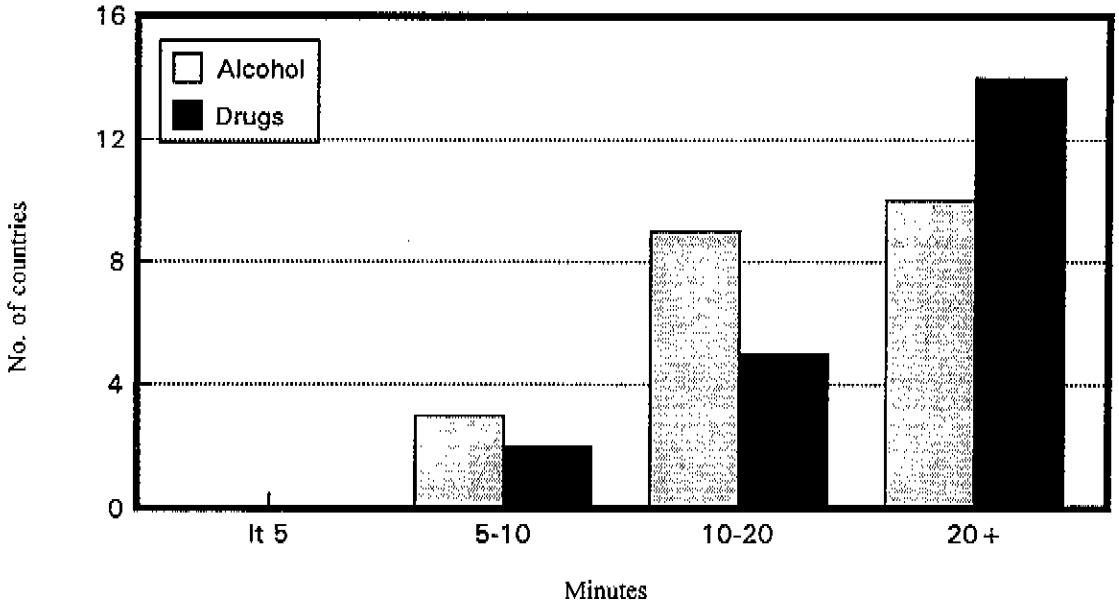


*Figure 18: Duration of Sessions. Non-residential*

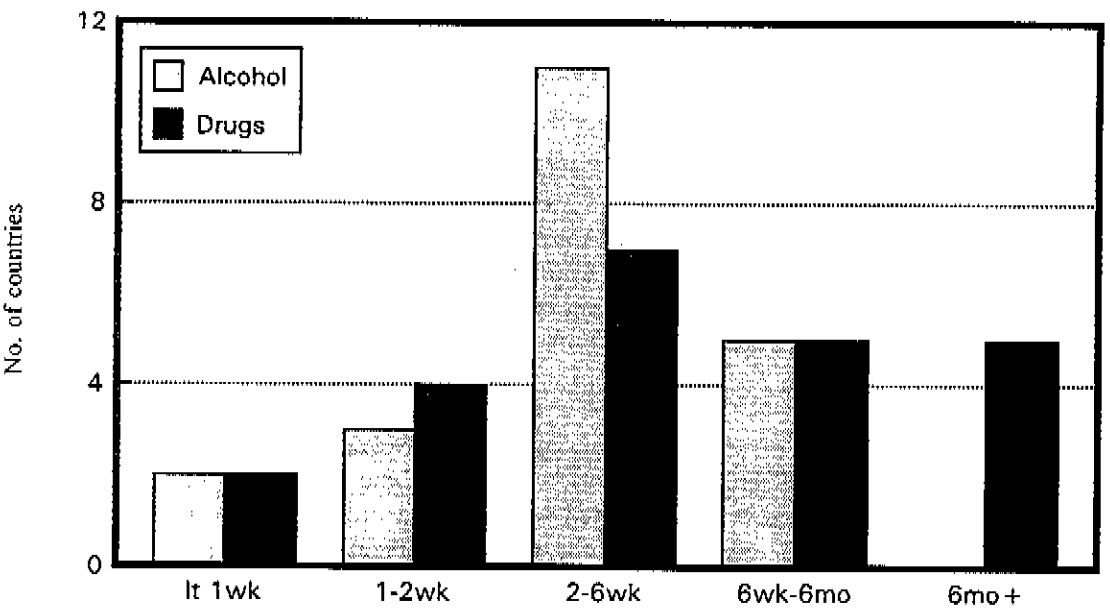



Treatments delivered in residential settings are often described as involving "milieu" effects in which all informal interactions between clients and between clients and staff, as well as formal treatments contribute towards the total impact of the treatment programme. In addition, it was decided that an international survey of this sort should seek to avoid becoming enmeshed in the intricacies of defining in specific terms precisely what constituted a "treatment session" within a residential programme. For this reason, no questions were included on frequency and duration of residential treatment sessions.

***Duration of Treatment Episodes***

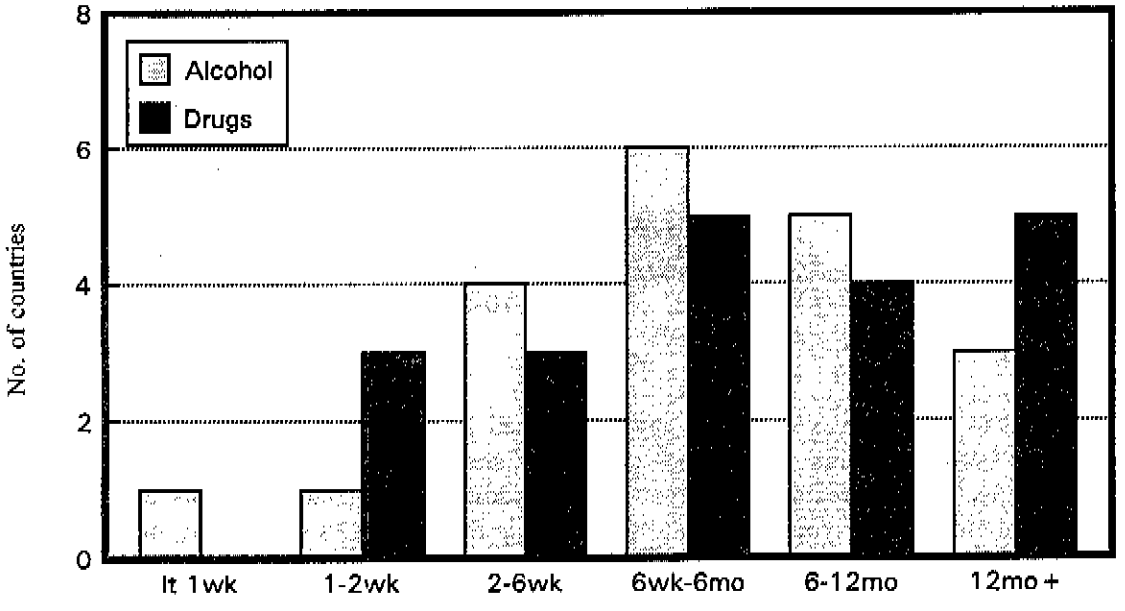
In many countries, residential treatment episodes tended to last for between two and six weeks. This period of time was especially common for residential alcohol treatment (see Figure 19). There was less agreement about duration of treatment episodes for the residential treatment of drug dependence, though there was a tendency for longer periods of treatment to be commonly used (including periods of six month or more).

*Figure 19: Treatment Duration. Residential Services*



It is often difficult to specify the typical duration of non-residential treatment episodes. One reason for this is that the beginning and end of a period of treatment are less clearly marked in a non-residential setting. Nonetheless, the results indicate that non-residential treatment episodes frequently require periods of six weeks or more, and often they require extended periods of more than six or even more than twelve months (see Figure 20).

***Figure 20: Treatment Duration. Non-residential Services***




## *ESTIMATED COSTS AND EFFECTIVENESS*

Questions were included in the Treatment Mapping Questionnaire requesting information or views about the estimated costs (both to the client and to the treatment provider) of different services, as well as about treatment effectiveness. Many respondents found these questions to be the most difficult to answer - generally because precise information was most likely to be lacking on these issues

Key informants from several of the countries were able to provide information about the costs of treatment services. However, this information tended not to be suitable for presentation in summary form. Often it was highly variable and dependent upon the specific nature of certain services. For instance, in India, the costs of residential treatment vary considerably depending upon the type of facilities provided and upon the location and setting of the service.

Treatment costs were also influenced by whether the service provider was the health service, and NGO, or a private (for-profit) organisation. Where treatment services were provided with public sector finances, the costs to the client were usually very small and in a number of cases treatment was provided free of charge. Usually the costs of private treatment were estimated as being higher both for the client and the service provider. In Egypt, for example, most state-run residential drug and alcohol services are reported as involving only moderate costs whereas the costs (both to the provider and to the client) of private care is much higher.

Some key informants attempted to provide costs in figures. However, these figures are not directly comparable because of the great differences in national income and costs of living. For instance, residential drug treatment in Pakistan were estimated to be in the order of US$ 46-93 for a 10 day treatment episode. In South Africa, the average cost of a state-run residential alcohol service was estimated

at about US$ 12-23 per person per day; with the long-term nature of residential treatment in state-run centres helping to keep down costs. In India, the typical costs per person per month for residential alcohol treatment were estimated at about Rs. 2000-2500.

The calculation of costs for non-residential services was made even more complicated by the fact that treatment staff were frequently employed and shared by other services or organisations and were only attached to drug or alcohol treatment for proportions of their working time. Some key informants chose to give estimated costs in terms of the cost of a service or the cost of a team. For Colombia, a complete non-residential drug or alcohol treatment team (including overheads) was put at about US$ 2000 per week.

Not surprisingly, key informants from most countries reported that residential services were usually more expensive to operate than non-residential services. In Russia the costs of residential alcohol treatment were estimated at about 1000 roubles per day compared to about 250 roubles for non-residential treatment. However, precise costs were not usually given by key informants.

In several countries it was suggested that the costs of residential drug treatment services were higher than for alcohol treatment centres. This was noted, for instance, by countries operating in sociocultural setting as diverse as India and Finland. In Finland, the costs of residential drug treatment was estimated to be perhaps twice as high as for alcohol treatment services (but still less than those that would have been incurred in a general health service facility).

The interpretation of all information on costs must be tempered by an awareness of some of the additional complications that were indicated by key informants. For instance, several key informants pointed out that costs of certain services were low because of lack of interest and investment, and that these services were, as a result, being run in an under-resourced and inadequate fashion.

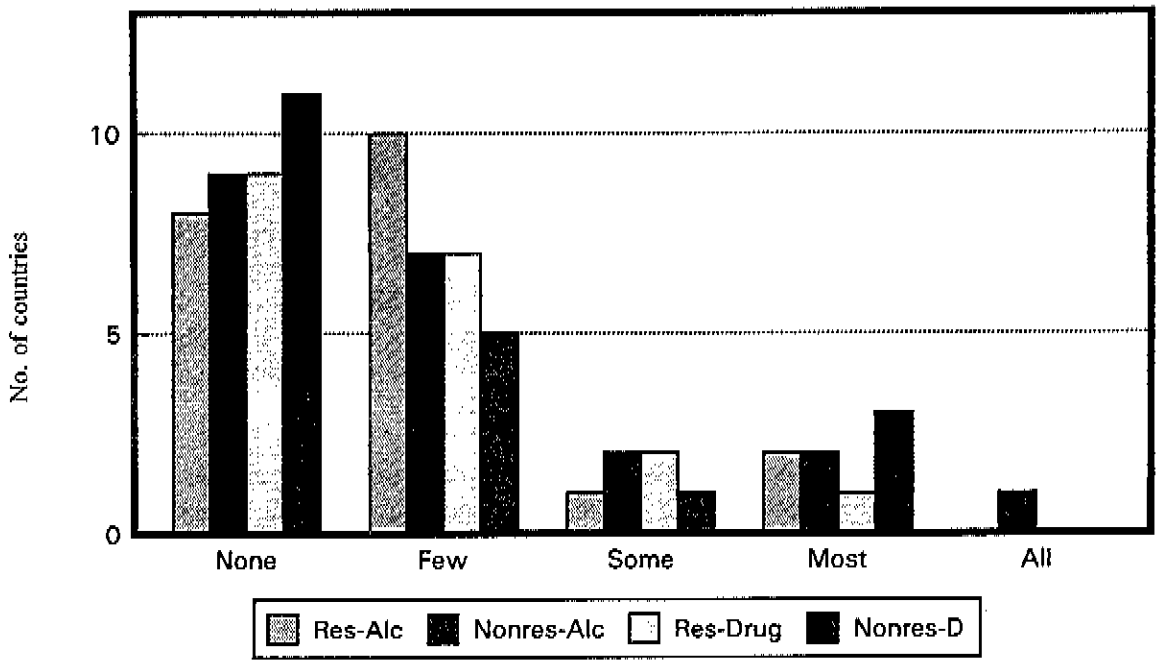
The questions which were most difficult for key informants were those concerning the effectiveness of treatment services. On these, many key informants pointed to the lack of properly controlled studies. In many cases, no treatment evaluation studies of any sort were available to guide informants and responses were based upon subjective judgements about the likely impact of national treatment services.

Most frequently, respondents noted that a small proportion of national responses provided treatments which were "ineffective", a larger proportion provided services which were described as "effective", and the majority of services provided services which were moderately effective. There were no differences between overall effectiveness ratings for residential and non-residential, or for alcohol and drug treatment services. However, effectiveness ratings for different treatment services were highly correlated, indicating that the views of key informants about the effectiveness of national drug treatment services were very similar to those about alcohol treatment services ($r = 0.63$ and $r = 0.58$ for residential and non-residential services, respectively; $p < 0.01$ for both correlation coefficients). Ratings for residential and non-residential services were also very similar ($r = 0.88$ and $r = 0.60$ for alcohol and drug treatment services, respectively; $p < 0.01$ for both correlation coefficients).

It is a matter of some concern that about half of the key informants reported that at least a few national services provided treatments which were regarded as being ineffective. There were no statistically significant differences between residential and non-residential, nor between alcohol and drug treatment services in the number of ineffective services (see Figure 21).

In certain respects, the failure to obtain more detailed information, or information more specifically related to types of treatment service effectiveness was not unexpected. Treatment evaluation is one of the most technically and conceptually difficult areas of research. The international scientific literature contains surprisingly few convincing studies in this field. However, it remains a matter deserving of comment that drug and alcohol treatment services are being provided in most countries without any proper understanding or systematic information about their effectiveness.

*Figure 21: Services Providing Ineffective Treatment*




In making these comments we do not wish to imply any criticism of either our key informants or of the countries involved in this survey. However, the issue of treatment effectiveness is of fundamental importance to the provision of national treatment services. Unless the issue of effectiveness is clarified, the provision of services is likely to be dominated by consideration of economic cost (or of other political requirements). In order to make maximise the benefits of limited resources this question deserves urgent attention. The continuing delivery of services which may be providing ineffective interventions is not a worthwhile aim.

Whilst recognising the very great difficulties of conducting properly controlled and valid research in this area, the questions of cost and effectiveness are capable of being investigated. It must be a task deserving of priority to obtain better information about these issues.

## *LINKS BETWEEN SERVICES*

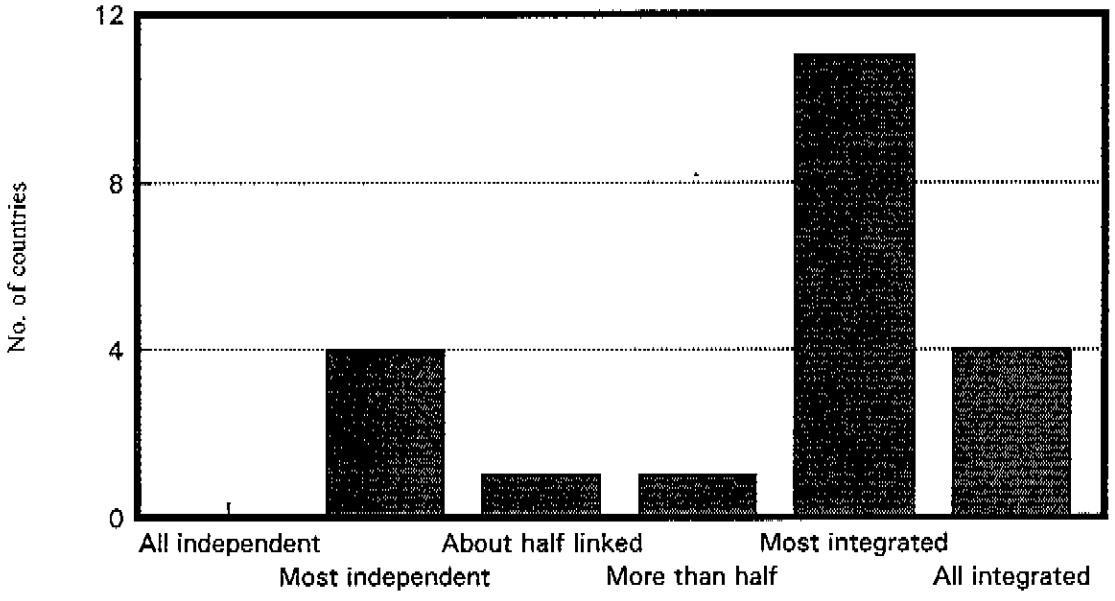
### *Links between Drug and Alcohol Services*

Most of the countries (15/21) in this survey reported that drug and alcohol treatment services were frequently integrated in terms of staff, location, or treatment programmes and interventions. In Canada where there is a large number of substance abuse treatment services across the country, these treatment programmes deal with both drug and alcohol problems. This integration of drug and alcohol treatment services is characteristic of the Canadian response.

In Hungary too, current trends are towards the development of special outpatient clinics and services (regional centres for prevention and care of addictions) where both drug and alcohol problems are treated. However, drug and alcohol problems are also sometimes treated in the same residential setting. In Nigeria where treatment for both alcohol and drugs is usually carried out in a residential setting, alcohol and drug dependent patients are often admitted to the same facility both in specialised services and general psychiatric wards.

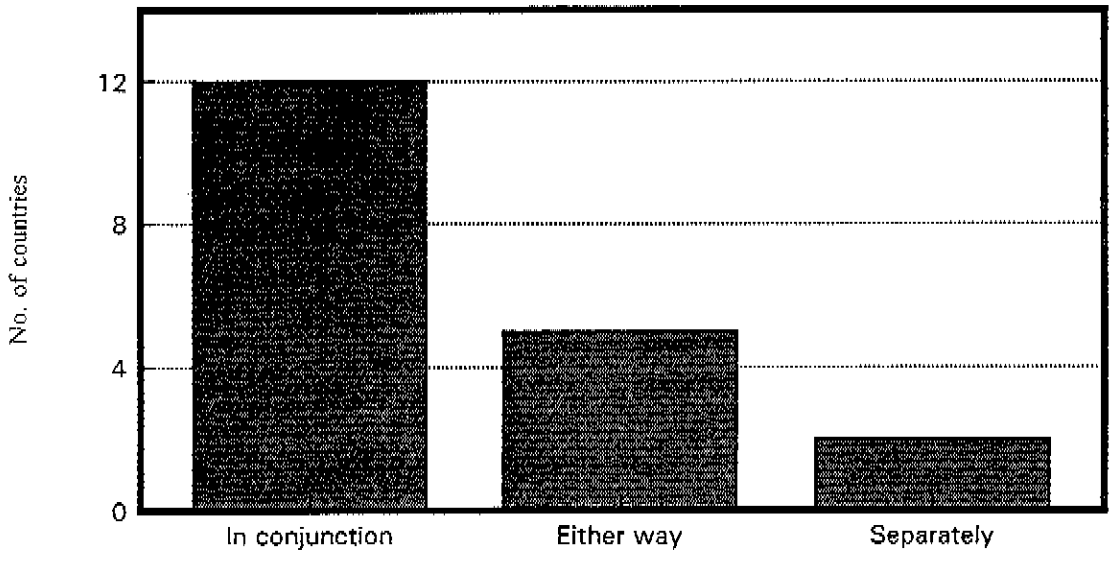
In four of the countries, however, drug and alcohol services tended to be run independently of each other (see Figure 22). Most drug and alcohol treatment services in Poland, for instance, were run independently of each other though a small proportion of drug dependent cases are treated in non-residential alcohol clinics, especially where specialist drug treatment services are not available. Also, even where national drug and alcohol treatment services are run independently, some overlap necessarily occurs because of cases presenting with joint drug and alcohol problems. In Norway, there was originally a clear distinction between institutions treating alcohol problems and others treating drug problems. This distinction still exists but there is an increasing number of individuals who misuse both alcohol and drugs. For these people, the institution to which they are admitted is largely a matter of chance.

***Figure 22: Links between Drug and Alcohol Services***




When asked about national attitudes towards the operation of integrated or independent drug and alcohol treatment services, many respondents (12/19) suggested that within their own country it was believed to be appropriate to deliver drug and alcohol treatment services as a combined/integrated service. Five countries suggested that drug and alcohol treatment services might be run either in conjunction with one another or independently according to circumstances, and two countries reported a view that drug and alcohol services ought to be provided separately (see Figure 23).

***Figure 23: Desire for Links between Drug and Alcohol Services***



Several key informants noted that even though there was a particular national tendency towards integration or separation this was often determined largely by historical or economic factors and that there was no clear consensus about this question among treatment professionals.

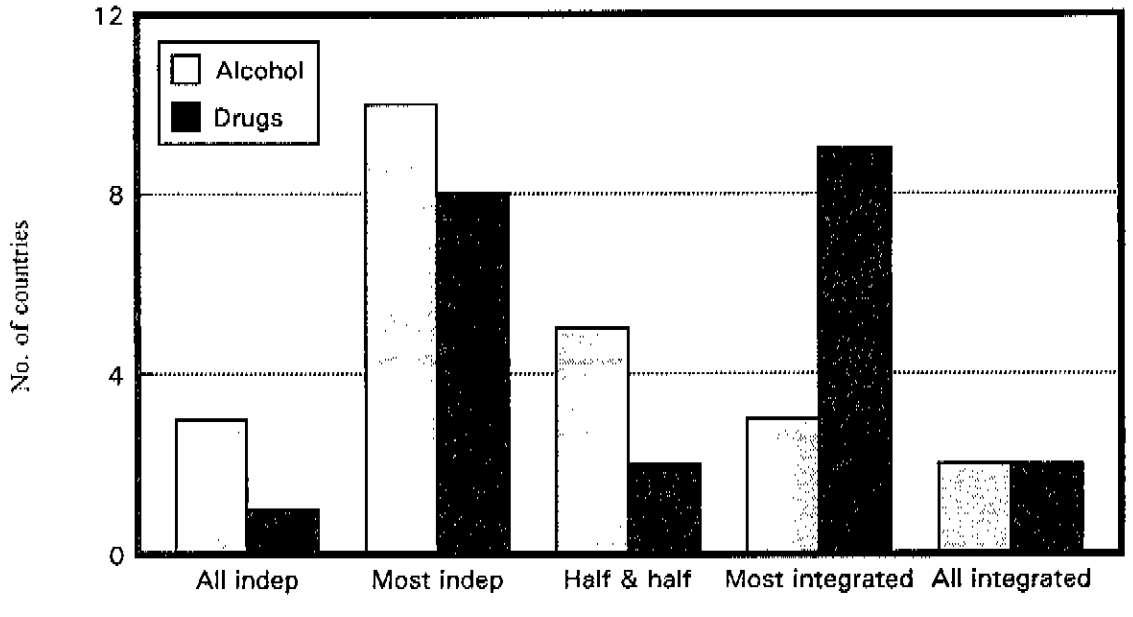
Among the reasons given for preferring separate services were the differing demographic and social characteristics of people with drug or alcohol problems. Such differences were reported by several key informants as being likely to lead to difficulties and conflict where people of different ages and with different socio-cultural attitudes were required to live together in close proximity in residential treatment settings. Where people with drug problems and people with alcohol problems were admitted to the same residential treatment service, there was sometimes a tendency for the programme to become "dominated" by the needs and culture of one of these groups to the detriment of the other.

Several key informants distinguished between the requirements of residential and non-residential treatment services and noted that separate services were preferred for residential forms of treatment but that combined (drug and alcohol) services were preferred for non-residential treatment.

***Links with Health Care Services***

Key informants also noted current links between drug and alcohol treatment services and other health care services. Drug treatment services were often reported to be closely linked with health care services. Drug treatment services were described as being mostly or always integrated with health care services in 11/22 countries. However, there was no consensus either within or between countries on this issue. Drug treatment services were also run independently of other health care services in many countries (9/22). Alcohol treatment services were less likely to be closely linked with other health care services. In 13 of the 23 countries alcohol treatment services were reported to be largely run independently of such services with only five countries reporting close links (see Figure 24).

***Figure 24: Links with Health Care Services***

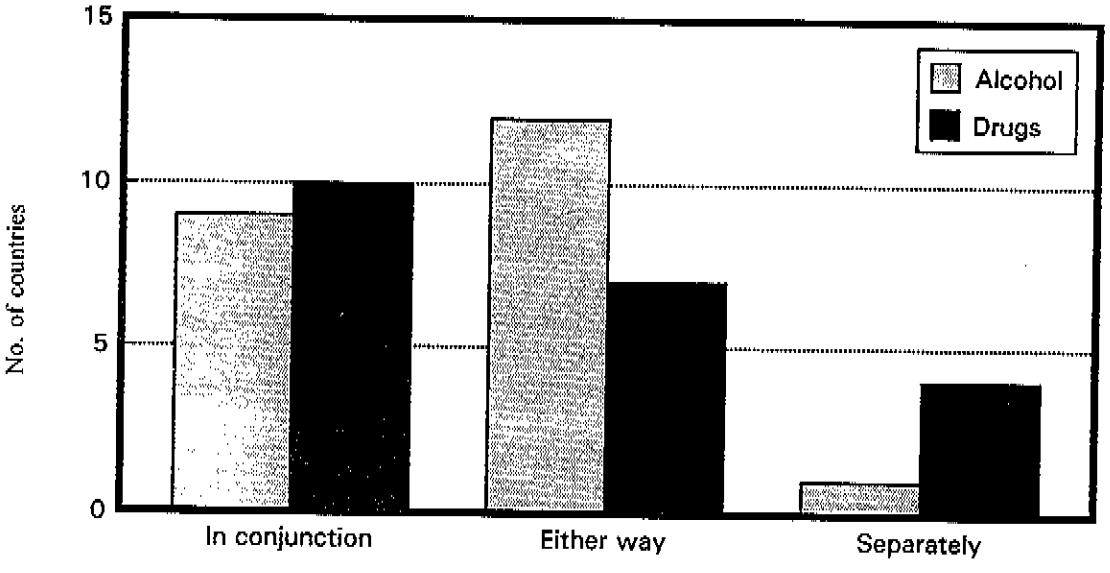



It is not clear why there should be closer links for drug treatment services, though it is possible that these may be due to the awareness of the need to respond to the public health threat of HIV infection among drug injectors and the involvement of general medical services in the prevention and treatment of drug problems.

When asked to report national views about the desirability of links between substance abuse services and health care services, many countries (10/21) noted that drug services were most appropriately provided in conjunction with health care services whereas only 4/21 countries reported that drug services were best provided separately from health care services (see Figure 25). However, several key informants noted that there was often anxiety or misconceptions about people with drug problems among staff working in general health care services. This apprehension tended to be greatest among staff who little experience or infrequent contact with drug abusers and could sometimes lead to management problems.

Key informants were more likely to report that the decision about whether to provide alcohol treatment services either in conjunction with or separately from health care services could not be made in general terms but was dependent upon specific circumstances and requirements.

***Figure 25: Desire for Links with Health Care Services***




## *INTERRELATIONSHIP OF TREATMENT FACTORS*

It is to be expected that there will be interrelationships between many of the treatment variables which have been presented above. For instance, where a national treatment system places heavy reliance upon services based in psychiatric hospitals this will itself have clear implications for the type of staff who are likely to be involved in the delivery of treatment. However, there are other types of interrelationship between treatment variables which are, perhaps, less immediately obvious.

There are certain "clusters" of staff which can be found in drug and alcohol treatment services. One such cluster which was commonly reported involves psychiatric and nursing staff. Staff clusters can also be seen across different types of treatment locations. Where national services rely upon psychiatric and nursing staff to deliver residential treatment, such staff also tend to be widely used in the delivery of non-residential treatment. Similarly, where these types of staff are involved in the delivery of alcohol treatment services, they are also widely used in the delivery of drug treatments. For nurses and psychiatrists, correlations of $r = 0.38$ (alcohol residential), $r = 0.51$ (alcohol non-residential), $r = 0.57$ (drugs residential), and $r = 0.34$ (drugs non-residential) were obtained for these two groups; all correlation coefficients were statistically significant at the 5% level.

Another staff cluster comprised non-professional workers such as ex-users and volunteer workers. Within services these workers tended to be found together (e.g. $r = 0.47$ (for alcohol-residential), $r = 0.74$ (for non-

residential alcohol), r = 0.46 (drug-residential), and r = 0.77 (non-residential drug); again all of these correlations were statistically significant at the 5% level).

Whereas there was a tendency for certain types of staff to be found working together, there was also a converse to this. Where certain clusters of staff are regularly involved in treatment, other clusters tend not be less likely to be involved. This occurred, for instance, for the two clusters described above. There were statistically significant negative correlations between services which involved ex-users and volunteers in treatment and those that employed psychiatrists and nurses (and other professional staff).

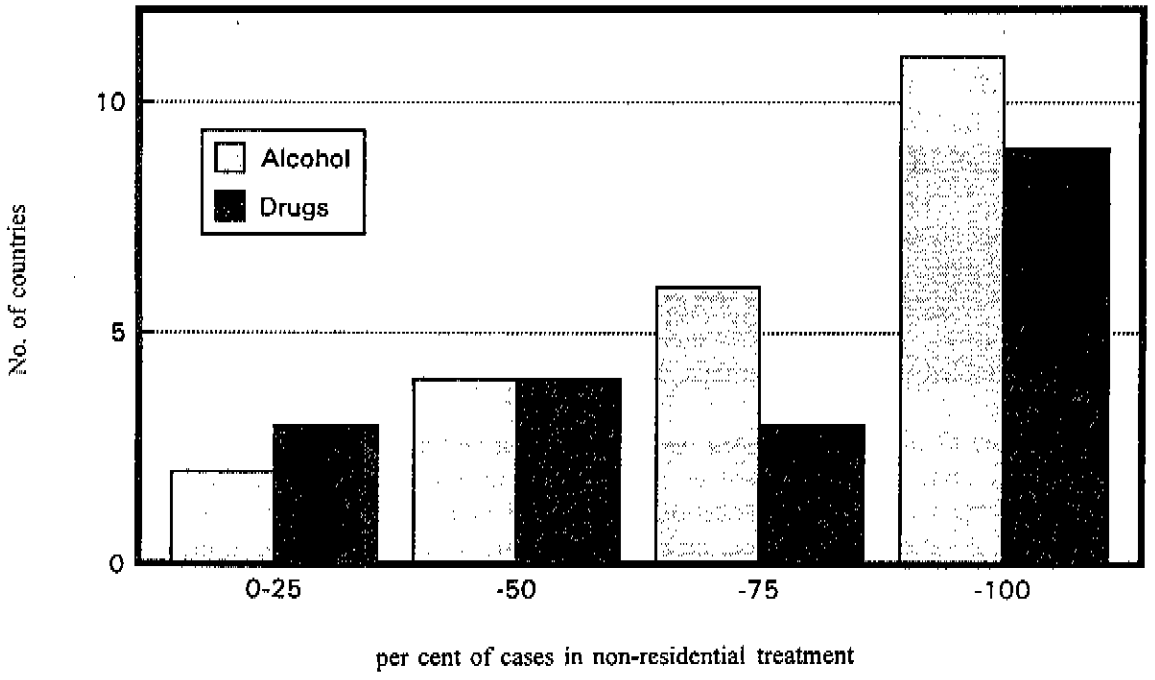
## *THE ROLE OF TREATMENT SETTING*

In most of the countries surveyed, the majority of drug and alcohol problems were treated in non-residential treatment settings (see Figure 26). However, there was considerable variation in the extent to which the countries in this survey made use of residential or non-residential treatment services.

There was no single common characteristic which linked countries according to preferred treatment location. The countries which treated drug and alcohol problems primarily in residential settings included such diverse examples as Ghana, Norway, Nigeria and Pakistan.

In general, there was marked consistency within countries in terms of the type of setting in which drug problems and alcohol problems were treated. Several results point to the importance of treatment setting in understanding how national treatment services are structured. The national responses of the 23 countries were categorised for both drugs and alcohol according to the extent to which they tended to be either residential or non-residential in nature (using a median split on the question "what is your best estimate of the relative percentages of people being treated by residential and non-residential alcohol/drug services").

***Figure 26: Reliance on Non-residential Services***




Those countries which tended to treat people with alcohol problems mainly in residential services were also likely to treat people with drug problems in residential services. This same effect was present in that the countries which provided treatment primarily in non-residential settings tended to do so for both drug and alcohol problems. Using Fisher's Exact Test this effect was statistically significant ($p < 0.05$).

In addition, there was a clear tendency within countries for residential treatment to be delivered in the same sorts of locations for both drug and alcohol treatment services. Similarly, the same types of staff tended to be employed within either residential or non-residential settings for both drug and alcohol treatment services. These associations are shown in Tables 2 and 3.

*Table 2: Correlations between Treatment Locations for Alcohol and Drug Treatment Services*

| | Residential | Non-Residential |
|---|---|---|
| General Hospital | .32 | .65 ** |
| Psychiatric Hospital | .61 ** | .86 *** |
| Primary Health Care | - | .86 *** |
| Health Service Clinic | .73 *** | .56 ** |
| Private Clinic | .60 ** | .23 |
| NGOs | .67 *** | -.39 |

Correlations are shown between the likelihood of drug treatment services and alcohol treatment services being based in the same sorts of locations. Levels of statistical significance are indicated as $p < 0.05$, * ; $p < 0.01$, ** ; $p < 0.001$, *** .

*Table 3: Correlations between Types of Treatment Staff in Alcohol and Drug Treatment Services*

| | Residential | Non-Residential |
|---|---|---|
| Nurses | .46 * | .60 ** |
| Psychologists | .87 *** | .28 |
| Social Workers | .69 *** | .70 *** |
| General Physicians | .74 *** | .76 *** |
| Psychiatrists | .74 *** | .17 |
| Ex-users | .78 *** | .63 ** |
| Volunteers | .57 ** | .69 *** |

Levels of statistical significance are shown: [$p < 0.05$, * ; $p < 0.01$, ** ; $p < 0.001$, *** ].

## *OVERVIEW*

Any finished map is the end point of a vast amount of initial exploratory work followed by painstaking stages of subsequent refinement. This Treatment Mapping survey represents no more than the first few steps at the beginning of the process. It offers merely a rough outline of how substance abuse services are set up in different countries. Other work will be required to fill out the details of this preliminary sketch. The project does, however, point to certain features which can be used to guide subsequent travellers in this area.

Twenty three countries from around the world took part in this survey. The countries differ in very many respects. They differ profoundly in their sociocultural backgrounds, as well as in their economic wealth, their health care and other social resources, and they differ in the prevalence of, and the type of drug problems and alcohol problems. In view of the many differences between the countries it is not entirely surprising that the survey revealed many differences between the types of treatment responses that have been mounted to deal with their national drug and alcohol problems. However, the survey also revealed many common themes and similarities in the nature of the treatment responses.

***Scarcity of Treatment Resources***

One of the most fundamental problems facing most countries is that extent of the national drug and alcohol problem and the demand for treatment of these problems is greater (and often very much greater) than the availability of existing treatment services. This observation about the imbalance of supply and demand for treatment is neither surprising nor unique to the field of substance abuse. Other comparisons between countries have noted how often there are inadequate resources to match identified health care needs. In a study of psychiatry services in sixteen countries Appleby and Araya (1991) noted that "the most prominent theme of transcultural psychiatry appears to be the scarcity of resources" (p.205).

In this survey, the discrepancy between supply and demand is most evident for the treatment drug problems, and the discrepancy is just as great for non-residential as for residential and inpatient treatment services. About two thirds of the countries indicated that the demand for drug treatment services is much greater than the provision of treatment services. Even for alcohol problems, where the problems and the need for treatment had often been recognised earlier, about one third of the countries still felt that the demand for alcohol treatment is greatly in excess of existing services.

In many countries the problem of disparity between supply and demand for treatment is compounded by the fact that existing treatment services are not spread proportionately to the need for treatment. Treatment services are often centred in major cities, and although some types of drug problems are most commonly found in large cities, other types of drug problem may be spread more broadly across societies. Alcohol problems in particular, may be prevalent in many regions which are remote from city services, and rural areas are often poorly served by drug and alcohol treatment services.

***Choice of Residential or Non-residential Setting***

In the majority of countries, treatment for alcohol problems was primarily delivered in a non-residential setting. In many respects, this is not surprising. There may be a trend towards non-residential types of treatment because of the lower costs of establishing and running such services. There is also an awareness of the advantages of non-residential or community-based services in terms of the greater accessibility of such services and the suitability of community services to respond to people with less severe forms of drug and alcohol problems.

At this time, we do not properly precisely what sort of factors have been influential in determining the reliance upon one or other treatment setting. The present survey was not designed to explore this fascinating question. It is likely that a wide range of historical, social, and economic factors as well as (and often much more than) medical and scientific considerations may have been involved.

Many of the countries (16/23) reported that more than half of the cases of alcohol dependence were treated in a non-residential setting. The tendency towards non-residential treatment was less marked for drug treatments though more than half of the countries (11/19) reported that the majority of the cases of drug dependence were treated in the community.

However, it is interesting that several countries treated drug and alcohol problems mainly in residential or inpatient settings. In this survey, we found that about a quarter of the countries treated alcohol dependent

cases primarily in some sort of hospital inpatient or residential setting, and just under half of the countries (8/19) primarily treated drug addicts in residential settings. There was no single common characteristic which linked countries according to preferred treatment location. The countries which treated drug and alcohol problems primarily in residential settings included such diverse examples as Ghana, Norway, Nigeria and Pakistan.

The provision of treatment within either a residential or a non-residential setting appears to reflect a distinct national position regarding the treatment of substance abuse problems. Those countries which tend to treat people with alcohol problems mainly in residential services are also likely to treat people with drug problems in residential services. This same effect is present in that the countries which provide treatment primarily in non-residential settings tend to do so for both drug and alcohol problems. Very few countries provide drug treatment mainly in a residential setting and alcohol treatments within a non-residential setting (or vice versa). This suggests that the factors which determine whether treatment is delivered primarily within a residential or a non-residential setting are more powerful than any distinctions which might be made between the requirements for treating drug or alcohol problems.

It is unclear to what extent to tendency within countries to treat both drug and alcohol problems in either a residential or a non-residential setting reflects appropriate sociocultural factors or whether it reflects a failure to discriminate between the possible differences between the requirements of drug and alcohol treatment services. The research literature increasingly points towards the importance of matching treatment goals, treatment methods and different clinical populations. In this respect, there may be certain differences between the treatment of alcohol problems and the corresponding drug problems. There is strong evidence that certain sorts of alcohol treatment can be successfully managed in a community setting. Alcohol detoxification, for example, has been successfully carried out as a home-based treatment without any loss in terms of safety or effectiveness (Stockwell, 1987). However, there is also evidence that heroin detoxification is much more effectively managed in an inpatient setting (Gossop, Johns and Green, 1986).

It is possible that the trend towards differentiation of drug and alcohol treatment responses may in future increasingly draw attention to the circumstances in which it may be necessary to treat different types of drug and alcohol problems in different settings. Questions about the choice of treatment setting should avoid polarising the issue in terms of should drug or alcohol treatment be delivered in a residential or a community setting. A more productive framework for discussion of the issue would be to ask what sorts of problems are most appropriately and most effectively treated in residential and in community settings.

***Reliance upon Mental Health Care Facilities and Personnel***

The survey showed that psychiatrists are one of the professional groups most frequently involved in treatment, and that the psychiatric hospital is one of the most frequently used treatment locations. Where psychiatrists are involved in treatment, it is most often in the role of team leader or clinical director. For this reason, it is likely that one of the factors influencing the reliance upon residential or non-residential treatment settings would be the predominant psychiatric treatment philosophy in the country at the time such treatment services were established.

Although treatment is often delivered in many different sorts of locations, the psychiatric hospital is one of the most common locations for both drug and alcohol treatment services. Residential as well as non-residential services are frequently located in psychiatric hospitals. In some of the countries with severely limited resources, national treatment facilities were sometimes almost exclusively located in general psychiatric wards. However, NGOs and private clinics also provide treatment for a considerable number of drug abusers in many countries, and non-residential types of treatment for people with alcohol problems is also frequently provided in public sector clinics. Where treatment is provided in a general hospital this is most likely to involve the inpatient treatment of alcohol problems. Often the treatment provided by such services is limited to detoxification.

There is increasing interest in developing and strengthening the contribution of primary health care services to the treatment of substance abuse problems. Nonetheless, the survey showed that there is considerable variation between countries in the extent to which primary health care services are currently involved in the treatment of people with drug and alcohol problems. In several countries GPs or family doctors make a substantial contribution to treatment. In many countries, however, primary health care services have little involvement or are not involved at all with the treatment of drug and alcohol problems.

Just as the psychiatric hospital is the most frequent location for treatment services, so the types of staff most frequently involved in treatment tend to be specialty mental health care personnel. The three types of staff which were most consistently reported as being "usually" or "always" involved in treatment are nurses (predominantly psychiatric nurses), social workers and psychiatrists. General physicians are also frequently involved in treatment in some of the countries (though much less often than psychiatrist). These physicians often work in general hospital settings, and they are more likely to be involved in the delivery of treatment to people with alcohol problems than drug problems. In some countries psychologists are regularly involved in treatment.

Alcoholics Anonymous and Narcotics Anonymous groups are now established in many of the countries in this survey. In some countries these groups are sufficiently well established to be able to provide a substantial contribution to the national treatment services. The growth of such groups has often been linked to the trend towards increased involvement of ex-users and recovering alcoholics or addicts in the delivery of treatment services in several countries. However, such individuals tend to play a major part in the staffing of treatment services in only a few countries. It is interesting that the involvement of ex-users in treatment services is negatively related to the involvement of professional staff such as psychiatrists and nurses. This may be due to an increased reliance on ex-users where traditional health care and mental health services have failed to meet the demand for treatment, or it may be due to various factors which favour the employment of professionally trained, traditional health care personnel over less conventional workers.

***The Need for Improved Training***

Another observation which was common to most of the countries in the survey concerns the inadequate levels of staff training regarding the assessment, management and treatment of drug and alcohol problems. The need for training about drug problems and their treatment was greater than that for alcohol problems.

Typically, the most common form of "training" received by treatment staff of all disciplines was their own clinical experience. It is difficult to know to what extent whether this system of training by experience can be regarded as satisfactory. Where treatment services are already operating effectively with skilled staff, this sort of system may work well. Indeed, in many countries this sort of experience is seen as necessary and sufficient for success in the role of counsellor. Where experience is obtained in services and from staff who are operating inappropriately or ineffectively, there must be serious doubt about the wisdom of relying upon this method of training.

Different systems of professional training are implemented in different countries in this survey. The method of "training" by experience, or sometimes by apprenticeship though most often used is the least systematic, and it is least able to introduce newly developed or specialist treatment methods. Other, less frequently implemented training systems include formal training implemented within agencies or at a local level, and, even less often, training courses provided by recognised national centres which provide formal professional qualifications. Formal training courses of this type are very few in number.

Other transcultural studies of mental health services have pointed to this need for training. It was noted, for instance, by Appleby and Araya (1991) who suggested that often the delivery of medical and psychiatric education encourages training of the wrong kind and in the wrong place. This problem is not

one which is confined to the poorer countries. Even in well-resourced countries such as Australia, until recently, training on drug and alcohol problems and their treatment was seldom included in undergraduate and postgraduate medical education programmes (Roche, 1992). Similarly, a recent report on training in the UK by the Advisory Council on the Misuse of Drugs noted that "the growth of the drugs problem has not generally been matched by a corresponding development in the quality or even the quantity of training for the professionals who are expected to respond to it."

Training of health care personnel continues to be a priority issue for most of the countries in this survey. Staff training in many of the countries is seen as unsatisfactory even for those types of staff who are most frequently involved in the treatment of alcohol problems. For example, training on the treatment of both drug and alcohol problems for nurses was described as being "inadequate" or nonexistent in about one third (7/23) of the countries, and in only 8 countries was nurse training described as "adequate". Interestingly, general physicians are described as having received least training on the treatment and management of drug and alcohol problems whereas psychiatrists tend to be seen as having received the most satisfactory training. In view of the observations of Roche (1992) and others (Edwards, 1989) on the inadequate state of psychiatry training on substance abuse problems even in well-resourced countries, the present finding about the amount of training received by psychiatrists should perhaps be interpreted in relative rather than absolute terms.

The widespread lack of proper professional training in substance abuse treatment shown by this survey is disturbing and reinforces the call that this important matter should receive further attention at national and at local levels. Where staff (of whatever discipline) are involved in the delivery of treatment without adequate training this can be expected to lead to impaired problem recognition, reduced treatment effectiveness, poor morale, and the wastage of the resources that may be available. Where resources are known to be scarce it become imperative that they be established, maintained and delivered with the greatest efficiency. An essential part of this is that staff should be properly trained.

Training programmes can be important tools for bringing about changes and improvements in organisations. Where staff have not been properly trained to respond to drug and alcohol problems they may tend to avoid being drawn into contact with people who have such problems or they may provide improvised and sometimes unsuitable treatment responses. Where new substance abuse services are being established it is important to provide staff with sufficient training to enable them to function effectively. Where staff are already operating in services but without having received training it is necessary to address the many issues of staff morale and treatment effectiveness that are raised by this lack of training. Research into substance abuse training programmes projects has shown that such training can have a powerful effect in terms of giving staff increased confidence to respond to the needs of people with drug and alcohol problems and in terms of increasing their willingness to intervene with such problems (Gossop and Birkin, 1994).

For many years WHO has sought to develop and strengthen such training initiatives and many countries have been increasingly active in training staff to work with substance abuse problems in recent years. There is a growing fund of knowledge about training as well as a range of training materials that can be provided to drug workers.

***Individual and Group Sessions***

Most treatment programmes incorporate a range of different interventions and procedures. Among the treatment methods that have been used to treat substance abuse problems are advice, psychotherapy, counterconditioning procedures, self-control training, stress management, massage therapy, physical exercise, vocational counselling, marital and family therapy, hypnosis, milieu treatments, and social skills training. In addition, various types of medication have been used. The use of drugs to treat drug and alcohol problems was not investigated in this survey. However, several other WHO studies have looked

at drug treatments in different countries (Edwards and Arif, 1980; Gossop and Green, 1991; other WHO refs.).

This survey found that some sort of individual counselling is almost always used to deliver substance abuse treatments. Because of the broad cross-national focus of this survey, no attempt was made to investigate the style or content of individual counselling. However, several respondents noted specific issues or difficulties related to individual counselling. For instance, Zimbabwe reported that although some sort of counselling is usually provided in most drug treatment programmes, the quality, duration and type of counselling varies considerably depending upon the skills and time available within the service. This observation undoubtedly also applies to individual counselling in other countries. A recent report by the United States Institute of Medicine noted that the focus of most individual counselling sessions with substance abusers tends to be current life problems and alcohol or drug taking behaviour rather than on the traditional but outmoded focus upon historical and developmental issues (IOM,1990).

The treatment of substance abuse problems in groups has long been a common procedure. As with treatments delivered in individual "one to one" sessions, the present survey was not designed to look at the style or content of group therapy. As with individual counselling sessions, groups vary according to the orientation, skills and training of the group leader or the ideology of the treatment organisation of which they are a component. The survey showed that group forms of treatment are regularly used in most countries though they are less widely used than individual counselling sessions.

The average number of people attending a group is usually between 5 and 10. Studies in other countries have suggested that an optimal size for groups is between 8-12 people (IOM, 1990). However, group sizes often differ depending upon the purpose of the group. Small groups of 5-10 people are most often used where the main purpose of the group is therapy. Where the treatment goal is educational, larger groups are used. Within most countries groups are more likely to be used in residential than in non-residential settings. One of the exceptions to this general observation is the central role of groups in (non-residential) AA and NA meetings.

In many non-residential treatment programmes, clients were typically seen once a week. These treatment sessions varied in duration but most often they were relatively long, lasting for more than 20 minutes. There was a tendency for drug treatment sessions to last longer than alcohol treatment sessions. This may indicate the perception that treating clients with drug problems is more difficult or more complicated than treating alcohol problems. This is consistent with the findings in several countries that people with drug problems tended to be treated for longer periods of time in non-residential services. Similarly, in residential treatment programmes people with drug problems tended to be admitted for longer periods than those with alcohol problems, sometimes for periods of 6 months or more.

Non-residential treatment episodes usually lasted for at least six weeks and often went on for much longer. Periods of up to six months were common, and many non-residential treatment episodes lasted for more than 12 months. The duration of treatment episodes within residential programmes also varied considerably. Often the duration was determined by treatment goals. For example, many in-patient programmes were primarily designed to provide detoxification. Generally these treatments were comparatively short (from several days to a few weeks). Some residential programmes were designed to provide rehabilitative interventions and these lasted for much longer periods. However, many countries described residential treatment programmes lasting between two and six weeks (especially for the treatment of alcohol problems).

***Costs and Effectiveness***

In some countries all (or almost all) treatment costs may be met by the provision of public sector services. However, low cost does not in itself guarantee treatment access since treatment services may be so unequal to demand that individuals needing treatment may, in practice, be compelled to seek alternative forms of

private treatment. In some countries, costs to the individual may be so great that access becomes restricted to the most affluent members of that society. It is a continuing concern of WHO and of many of those who are active in the treatment of substance abuse problems that financial barriers may prevent those who need help from receiving treatment. Where costs to the individual are high this can be a serious obstacle to treatment access.

The related issues of costs and effectiveness have received increasing attention in recent years. In general, the information received from key informants in this survey indicates that the costs to the service provider of residential forms of treatment are considerably greater than non-residential treatments. This is consistent with the findings of other studies in other countries. Hubbard et al. (1989) found that the costs of drug abuse treatment in residential facilities was about three times greater than that of outpatient treatments.

Treatment may be provided by government, non-profit, and for-profit organisations. The results indicate that private, for-profit treatment services are generally more expensive (to both the treatment provider and to the client) than public sector treatment. Again, this is consistent with the findings of others. Hansen and Emrick (1983) found evidence that those who provide care for profit tend to favour more expensive settings, and, conversely, that those who reimburse treatment providers favour less expensive settings and tend to use various mechanisms to ensure that they are used. However, there was great variation between the costs of different types of services within countries, and these differences in costs were even greater and more difficult to compare directly for services in different countries.

Treatment costs cannot be considered in isolation. It makes little sense merely to ask whether treatment A is more or less expensive than treatment B unless the relative effectiveness of the two treatments is taken into account. A low-cost treatment which is ineffective does not represent a real saving when compared to a more costly treatment which leads to good rates of sustained recovery. The question of costs cannot be divorced from the question of effectiveness.

It is clear from the comments of the key informants that insufficient information is available about the effectiveness of particular treatment interventions and treatment programmes. In some countries, a few treatment evaluation studies have been conducted though these tend to be too few and too inconclusive to be used with confidence in the implementation of national or local treatment responses. In many countries, no evaluation studies have been carried out and any inferences that might be drawn about treatment effectiveness must be based upon clinical experience or upon the extrapolation of findings from research carried out in other (generally western and industrialised) countries with different types of problems, different sociocultural backgrounds and different types of treatment.

Several recent studies have looked carefully at the question of whether the costs to the state of drug and alcohol treatments can be justified from an economic point of view. This is an extremely complex issue and one which must be extended far beyond the simple issue of the costs of service provision. It must take into account other tangible costs such as lost productivity within the economy, traffic accidents, crime, social welfare and general health care costs. It must also consider the price paid by society in terms of less tangible costs such as disruption of personal and family relationships, psychological distress, ill health and loss of life. A detailed analysis of the abuse of drugs, alcohol and tobacco in Australia suggested that the economic cost of these problems could be estimated as being at least 14,000 million dollars (Australian) in 1988 alone (Collins and Lapsley, 1991).

In one of the most complete attempts to look at the effectiveness of national treatment responses, Hubbard and his colleagues in the United States investigated the clients, programmes and outcomes of treatment (Hubbard et al., 1989). They looked at the three most widely used treatment modalities and at about 10,000 clients. They concluded that virtually all economic measures show that the burden of crime and other economic costs of drug abuse are lower after treatment than before (by approximately US$ 2000 per year in this study).

Similarly, a review of this issue in Canada concluded that "from an economic point of view, the data indicate that drug and alcohol treatment is a sound investment of the health care dollar" (Eliany and Rush, 1992).

*Treatment Networks*

In many of the countries in this survey drug and alcohol treatment services were generally integrated in terms of staff, location, or treatment programmes and interventions. In some countries, such as Canada, this integration of drug and alcohol services was a distinct feature of the national substance abuse treatment system. In some countries the integration of drug and alcohol treatment services was largely enforced because of the scarcity of resources for the treatment of substance abuse problems. However, when asked about national attitudes towards the desirability of operating integrated or independent drug and alcohol treatment services, most expressed a view that treatment services were most appropriately delivered as a combined/integrated service.

Nonetheless, not all countries either operated or attempted to operate an integrated drug and alcohol treatment system. In several countries drug and alcohol treatment services were often provided separately, and a number of countries expressed a preference for this independence.

There was also considerable variation in the extent to which the survey countries provided drug or alcohol treatment in conjunction with other health care services with about half of the countries operating with close links with health care services and the other half operating largely independently. Alcohol treatment services were less likely than drug treatment services to be closely linked with other health care services; only five of the countries provided alcohol treatment services which were closely linked to other health care services. In several countries, respondents pointed out that there was a lack of consensus about the desirability of integrating alcohol and other health care services since where this occurred there was a tendency to neglect the treatment needs that were specifically alcohol-related.

Other problems were noted where drug treatment and general health care services were integrated. Several key informants noted that there was often anxiety or misconceptions about people with drug problems among staff working in general health care services. This apprehension tended to be greatest among staff who little experience or infrequent contact with drug abusers and could sometimes lead to management problems. To a considerable extent, this issue is related to the inadequacy of training that has already been discussed. Where staff are well trained and are confident about how best to apply their skills and knowledge to respond to substance abuse problems such anxieties can be avoided or greatly reduced.

*Developing and Strengthening National Treatment Services*

There are clearly many differences in the historical circumstances surrounding the establishment of drug and alcohol treatment services in different countries. Nonetheless, certain general patterns are often found (IOM, 1990). Treatment services are often first established as a result of attention being drawn to severe cases. Sometimes treatment services are first established as a result of national concerns about the increasing size of the problem, anxieties about effects upon the economy, or concern about the development of such problems among young people. During the early stages of development the treatment provided by services usually relies upon existing remedies. As services acquire greater experience and more familiarity with drug and alcohol problems it becomes clearer that there are problems other than those presented by the most severe cases, that other methods can be used to tackle the problems, and that some treatment interventions are more effective in dealing with certain problems than others.

In principle, the planning and development of treatment programmes should occur within the context of national policy rather than on a piecemeal basis. In practice, however, the formulation of national policy often follows programme development (Edwards and Arif, 1980). In practice, the initial establishment of

treatment services may be influenced as much by political and financial determinants as by clinical or scientific knowledge.

In a review of drug abuse treatment evaluation studies, Lipton and Appel (1984) noted that "treatment is largely a 'black box'. The people, events, and interactions subsumed by such labels as 'therapy', 'counselling', 'referral for services', and 'remediation' remain largely undescribed in drug programmes." Concern about this lack of detailed information about treatment interventions has led a number of recent studies to address this question of content and structure (Gossop and Grant, 1991; Ball and Ross, 1991). However, it is clear that a great deal remains to be learned about how drug and alcohol treatments are delivered. The present study provides information about similarities and differences between treatment services in different countries. However, this information is painted in broad brushstrokes. Further studies are required to fill in the details about which aspects of treatment could be expected to have such important effects upon treatment effectiveness.

Even as recently as the 1950s and 1960s, drug and alcohol addictions were largely ignored by most countries as issues requiring special treatment responses. There was a widely accepted belief that these problems were merely symptoms of underlying psychiatric problems and were best treated by identifying the underlying problem and applying the appropriate form of psychiatric treatment. As such drug and alcohol problems were not seen as primary problems but as secondary to some other disorder.

Recent research into substance abuse has demonstrated that there is a wide range of different drug and alcohol problems; there is not one single drug problem or alcohol problem but many such problems. There are also marked and important differences within drug and alcohol abusing populations in their characteristics and their treatment needs. If the substance abuse problems experienced by the population are to be reduced significantly, a range of treatment interventions will need to be developed that matches the range of problems.

During the past twenty years there has been an increasing awareness of the different treatment goals that are appropriate to the treatment of people with substance abuse problems. Overall, the trend has been powerfully towards an awareness of the need for diversity in treatment responses. It is no longer tenable to look for single "most effective" interventions or services. This is true both within and between countries. A more subtle approach is called for.

One of the most thorough and thoughtful analyses of national treatment services yet conducted has been published in the United States Institute of Medicine report on alcohol treatment (IOM,1990). This stated that decisions about how best to treat people with substance abuse problems should be made with regard to the following questions:

> Which kinds of individuals, with what kinds of problems, are likely to respond to what kinds of treatments by achieving what kinds of goals when delivered by which kinds of practitioners? (p.7).

This statement clearly recognises the diversity that is such a fundamental and important feature of substance abuse problems and it emphasises the need for this diversity to be fully reflected in the preventive and treatment responses that are established to tackle these problems.

## *REFERENCES*

ACMD. *Problem Drug Use: A Review of Training.* Advisory Council on the Misuse of Drugs, London, HMSO, 1990.

Appleby L & Araya R. International lessons: an overview. In: Appleby L & Araya R (eds.) *Mental Health Services in the Global Village.* Gaskell, Royal College of Psychiatrists, UK, 1991.

Ball J & Ross A. *The Effectiveness of Methadone Maintenance Treatment.* Springer-Verlag, New York, 1991.

Collins D & Lapsley H. *Estimating the economic costs of drug abuse in Australia.* NCADA Monograph No.15, Australian Government Publishing Service, Canberra, 1991.

Edwards G. Addictions as a challenge to general psychiatry. *International Review of Psychiatry,* 1, 5-8, 1989.

Edwards G & Arif A. *Drug Problems in the Sociocultural Context.* World Health Organization, Geneva, 1980.

Eliany M & Rush B. *How Effective are Alcohol and Other Drug Prevention and Treatment Programs?* Health & Welfare, Canada, 1992.

Gossop M & Birkin R. Training employment service staff to recognise and respond to clients with drug and alcohol problems. *Addictive Behaviors,* 1994.

Gossop M & Grant M. *Preventing and Controlling Drug Abuse.* World Health Organization, Geneva, 1990.

Gossop M & Grant M. A six country survey of the content and structure of heroin treatment programmes using methadone. *British Journal of Addiction,* 86, 1151-1160, 1991.

Gossop M, Johns A & Green L. Opiate withdrawal: inpatient versus outpatient programmes and preferred versus random assignment to treatment. *British Medical Journal,* 293, 103-104, 1986.

Hansen J & Emrick C. Whom are we calling 'alcoholic'? *Bulletin of the Society of Psychologists in Addictive Behaviour,* 2, 164-178, 1983.

Hubbard R, Marsden M, Rachal J, Harwood H, Cavanaugh E & Ginzburg H. *Drug Abuse Treatment: A National Study of Effectiveness.* University of North Carolina Press, 1989.

IOM. *Broadening the Base of Treatment for Alcohol Problems.* United States Institute of Medicine, National Academy Press, Washington, 1990.

Lipton D & Appel P. The state perspective. In: Tims F & Ludford J (eds.) *Drug Abuse Treatment Evaluation.* NIDA Research Monograph 51, Rockville, U.S. Department of Health and Human Services, 151-166, 1984.

Miller W & Hester R. The effectiveness of alcoholism treatments. In: Miller W & Heather N (eds.) *Treating Addictive Behaviors.* Plenum, New York, 1986.

Roche A. Drug and alcohol medical education: evaluation of a national programme. *British Journal of Addiction,* 87, 1041-1048, 1992.

Stockwell T. The Exeter home detoxification project. In: *Helping the Problem Drinker,* Stockwell T & Clement S (eds.). Croom Helm, London, 1987.

WHO. *The Uses of Methadone in the Treatment and Management of Opioid Dependence.* Edited by Gossop M, Grant M & Wodak A. World Health Organization, Geneva. WHO/MNH/DAT/89.1, 1989.

WHO. *Options for the Use of Methadone in the Treatment of Drug Dependence.* World Health Organization, Geneva. WHO/MNH/DAT/89.2, 1989.

WHO. *Psychological, Behavioural and Psychodynamic Treatments for Substance Abuse.* World Health Organization, Geneva. WHO/PSA/93.10, 1993.

## *ACKNOWLEDGEMENTS*

While this document owes its existence to all the key informants who completed the questionnaire (listed below), the Programme on Substance Abuse is no less thankful to Dr Michael Gossop who compiled and analysed the responses and prepared this consolidated report on the results of the survey.

## *KEY INFORMANTS*

| | |
|---|---|
| Dr Wilson Acuda | Department of Psychiatry, University of Zimbabwe, Godfrey Huggins School of Medicine, Avondale, Harare, Zimbabwe |
| Dr Salme Ahlström | Alko Ltd., Social Research Institute of Alcohol Studies, Kalevankatu 12, Helsinki SF - 00100, Finland |
| Dr J. Asare | Accra Psychiatric Hospital, Accra, Ghana |
| Dr Béla Buda | Deputy Director, Orszagos Alkohologiai Intézet, Budapest 1021, Hungary 116 |
| Dr Carlos Campillo-Serrano | Instituto Mexicano de Psiquiatría, Antiguo Camino a Xochimilco 101, Mexico 22 DF, Mexico |
| Professor Amadeo Cottino | Departimento di Psicologia, Universita di Torino, via Po N. 14, I-10123, Torino, Italie |
| Dr Kamal El Fawal | Director, Alexandria Psychiatric Hospital and Alexandria Drug Treatment Centre, 8 Faraana Street, Alexandria, Egypt |
| Dr Harold Kalant | Professor of Pharmacology and President of ISBRA, University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada M5S 1A8 |
| Dr Laszlo Levendel | Director, Orszagos Alkohologiai Intézet, Budapest 1021, Hungary 116 |
| Dr Isaac Mohan | Division of Mental Health, World Health Organization, Geneva, Switzerland |
| Dr J. Moskalewicz | Psychoneurological Institute, Sobieskiego 1/9 PL-02-957 Warsaw, Poland |
| Dr Albert Moukolo | 34 Avenue de Florissant, CH-1020 Renens, Switzerland |
| Dr Khalid A. Mufti | Associate Professor, Department of Psychiatry, Post-Graduate Medical Institute, Lady Reading Hospital, Peshawar, Pakistan |
| Dr Richard Müller | Director, Institut Suisse de Prophylaxie de l'alcoolisme, Case postale 870, 1001 Lausanne, Switzerland |
| Dr Olakayode O. Ogunremi | Professor of Psychiatry, Department of Behavioural Sciences, University of Ilorin, PMB 1515, Ilorin, Nigeria |

| | |
|---|---|
| Dr Lee Rocha-Silva | Centre for Alcohol and Drug-related Research, Human Sciences Research Council, Private Bag X41, Pretoria, South Africa |
| Dr Brian Rush | Addiction Research Foundation (ARF), 33 Russel Street, Toronto, Ontario, Canada M5S2S1 |
| Dr Alfredo Pemjean G. | Chief, Unidad de Salud Mental, Ministerio de Salud de Chile, Mac-Iver 541, Santiago, Chile |
| Dr Vichai Poshyachinda | Chief, Drug Dependence Research Centre, Institute of Health Science Research, Chulalongkorn University, New Science Building, 7th floor, Bangkok 5, Thailand |
| Dr Diyanath Samarasinghe | Department of Psychiatry, Faculty of Medicine, Kynsey Road, Colombo, Sri Lanka |
| Mrs Barbara Thurston | Executive Director, National Drug Council, c/o The PAHO/WHO Programme Coordinator, Nassau, Bahamas |
| Dr Elvia Velasquez de Pabon | Psychiatrist, Apartado 10.199, Medellin, Colombia |
| Dr Andrey G. Vrublevsky | Director-General, National Research Centre for Alcoholism and Drug Addiction, Ministry of Health, Moscow, Federation of Russia |

= = =