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Rehabilitation of drink drivers in Australia and New Zealand

Rehabilitation programmes for drink drivers have been established in many places in Australia and New Zealand. The available literature suggests that if maximally effective in changing behaviour, rehabilitation programmes may have a limited impact on both road safety and alcohol related problems. There is an urgent need for further research evaluating the cost-effectiveness of such programmes. There is little evidence to indicate that existing programmes result in improvements in the relevant behaviours, although it appears that programmes adopting a skill-based approach may be most effective. Of the existing programmes few appear to include those treatment components most likely to result in optimal changes in behaviour.

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Rehabilitation programmes for drink drivers have been established in many places in Australia and New Zealand. The available literature suggests that if maximally effective in changing behaviour, rehabilitation programmes may have a limited impact on both road safety and alcohol related problems. There is an urgent need for further research evaluating the cost-effectiveness of such programmes. There is little evidence to indicate that existing programmes result in improvements in the relevant behaviours, although it appears that programmes adopting a skill-based approach may be most effective. Of the existing programmes few appear to include those treatment components most likely to result in optimal changes in behaviour. There is a need for further research using randomised clinical trial methodology to examine first whether existing rehabilitation programmes can alter road traffic safety and rates of alcohol related problems and second, to evaluate the treatment components which are most effective.

KEYWORDS: DRINK-DRIVING; REHABILITATION PROGRAMMES; ALCOHOL

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"REHABILITATION OF DRINK DRIVERS IN AUSTRALIA AND NEW ZEALAND"

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REHABILITATION PROGRAMMES FOR DRINK-DRIVERS

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Executive Summary

In Australia and New Zealand, road crashes are a major cause of death and serious injury. Since alcohol has been implicated in a significant proportion of traffic crashes, preventive efforts including random breath testing have been aimed at the reduction of drink driving. As well as primary prevention, secondary interventions such as rehabilitation courses for drink drivers have been implemented at some centres.

Rehabilitation programmes for convicted drink-drivers adopt one of two models. The first involves a road traffic approach in which the programme attempts to reduce the incidence of road crashes. In the second model, the health or alcohol-related problems approach, the programme attempts to reduce and intervene with those individuals who experience alcoholism or alcohol-related problems. The success of the rehabilitation programme within this framework is the effectiveness of the approach at reducing community rates of alcoholism.

The objective of the project was to review the status of rehabilitation programmes for drink-drivers. The project includes a comprehensive literature review of existing research into rehabilitation programmes. The review emphasizes those studies which evaluated the effectiveness of rehabilitation programmes, and includes a list of methodological requirements for such evaluative studies. There is an attempt to delineate the treatment components which are most likely to prove effective in changing drink-drive behaviour. The project provides a description of rehabilitation programmes currently existing in Australia and New Zealand, and an analysis of the extent to which available programmes include effective treatment components.

1. Rehabilitation programmes in Australia and New Zealand:

The present review of drink-driver rehabilitative programmes involved a postal survey of existing rehabilitation programmes in Australia and New Zealand. Twenty seven programmes were identified. The survey indicated that rehabilitation programmes vary considerably both in their referral processes and in the approach adopted in the programmes. The surveyed programmes tended to operate in urban areas, with Victoria being the only state to have an extensive system of programmes. Surveyed rehabilitation programmes were most frequently either self-funded or funded by the Health Commission. The estimated treatment cost per person of the programmes

surveyed varied considerably ranging from an economical \$12 to \$470. There have been few attempts to systematize the sharing of information or expertise between programmes or to engage in multicentre comparison studies.

The type of intervention provided by existing programmes in Australia and New Zealand was also examined based on the survey responses. It could be argued that few programmes appear to include all those treatment ingredients which are likely to result in maximal and persistent changes in behaviour.

How effective are rehabilitation programmes?

In evaluating the effectiveness of rehabilitation programmes, it is necessary to consider both the maximum potential impact of such programmes on community road traffic safety and alcohol related problems as well as the extent to which existing programmes are able to alter the behaviour of interest.

- i) The maximum potential impact of rehabilitation programmes:
- a) Road traffic safety: The potential impact of rehabilitation programmes is currently difficult to evaluate due to the following factors, although several points emerge.

First, previously convicted drink-drivers appear to have both higher reconviction rates and more frequent road crashes than the driving population as a whole. They would therefore appear to represent an appropriate high risk group for intervention. However, the extent of the increased risk remains unclear because of detection and prosecution biases. Since some individuals, perhaps those who attend rehabilitation programmes, are more likely to be detected and/or prosecuted, the observed risk rate may be artificially inflated.

Second, rehabilitation programmes are unlikely to alter either reconviction rates or community rates of drink driving. Only a small percentage of community drink driving is detected and therefore affected by rehabilitation programmes. Currently, 75% of convictions for drink driving are for first offences and could therefore not have been prevented by rehabilitation programmes.

Third, few studies have estimated the potential impact of rehabilitation programmes on road crashes. One Australian study suggests that if 100% effective, rehabilitation programmes could result in a small (8.5%), but relatively cost-effective reduction in traffic crash mortality. However, this study was based on small numbers of subjects and localised in Victoria. There is a critical need for further research of this type.

Finally, it seems likely that primary prevention will result in more effective reductions in drink driving and road crashes than secondary prevention. However, given the need for secondary prevention, rehabilitation programmes may represent a better option than the other approaches.

b) <u>Alcohol related problems</u>: Several points also need to be considered in estimating the potential impact of rehabilitation programmes on alcohol related problems.

First, the confusion regarding an operational definition of alcoholism or alcohol related problems and subsequent bias in screening instruments complicates the detection of individuals who may benefit from such programmes. Second, it would appear that the majority of convicted drink drivers do not suffer from alcohol related problems. Estimates of the prevalence of alcohol related problems amongst this group range from 20%-63%, indicating that rehabilitation programmes are unlikely to be a cost-effective method of intervening for alcohol problems, due to the large proportion of treated individuals who did not require intervention. Third, while court referred drink drivers represent a population who are difficult to access through traditional screening methods, this group represents a relatively small proportion of total alcoholics. Over a 12 year period, only about 20% of community alcoholics are likely to be detected by this means, indicating the extent to which a maximally effective rehabilitation programme might be expected to reduce community alcoholism rates.

Overall, it appears that rehabilitation programmes may have a limited impact on both traffic safety and alcohol-related problems. There is, however, a need for more careful evaluation of the cost-effectiveness of

such programmes. There is also a need for research examining whether cost-effectiveness of rehabilitation programmes might be improved by enrolling only selected client groups such as repeat offenders or those with diagnosed alcohol related problems.

ii) The effectiveness of existing programmes in changing the behaviours of interest.

There are considerable differences in existing styles of rehabilitation programmes which might be expected to affect treatment effectiveness. Therefore, evidence for the effectiveness of each of four distinct treatment models was evaluated separately.

- i) Assessment alone programmes require individuals to undertake an assessment procedure designed to identify those at high risk of suffering from alcohol related problems, and constitute a relatively inexpensive method of screening for a high risk group. No adequate empirical data on the effectiveness of these programmes was found.
- Health education programmes provide knowledge or attitude change material to their clients. The majority of Australasian programmes are of this type. Although a large number of the existing evaluative studies were concerned with health education programmes, many of these studies have methodological flaws which make conclusions difficult to draw. However, the available data suggest that health education programmes do not result in improvements in recidivism rates, attitudes, knowledge or lifestyle measures.
- iii) Skill based programmes attempt to directly teach those behaviours which might prevent drink driving. Although skill based programmes are rare in Australia and New Zealand, overseas evidence suggests these programmes result in improvements in both recidivism and drinking behaviour.
- iv) Therapeutic programmes are aimed at curing alcohol related problems. Programmes which are entirely therapeutic in

orientation are rare and there is consequently little adequate evidence to indicate the effectiveness of this style of intervention. The research which does exist suggests that these programmes have little impact on alcohol related problems.

Overall, there is a need for further research to examine the effectiveness of rehabilitation programmes. While there is little evidence that health education or therapeutic interventions alter the behaviours of interest, existing studies indicate that skill based approaches may be effective in altering recidivism rates and drinking behaviour.

3. Recommendations for the Future of Rehabilitation Programmes

- i) An examination of the maximum potential impact of rehabilitation programmes on road traffic mortality and morbidity is a priority.
- ii) The pattern of established rehabilitation programmes varies considerably across Australia and New Zealand, and there is currently little sharing of expertise across geographical boundaries. It is therefore recommended that:
 - a communication structure for the sharing of information within Australia and New Zealand be developed;
 - b) multicentre comparison studies be undertaken in order to share skills
 - c) because of the lack of programmes in rural areas, consideration should be given to the establishment of rural rehabilitation programmes on an experimental basis
- iii) The majority of existing rehabilitation programmes appear to include few of the components likely to result in effective behaviour change. Both new and existing programmes should be encouraged to include the following components:
 - a skill-based approach in preference to health education or treatment orientation;

- b) systematic screening procedures which access a large proportion of the at risk population and are closely integrated with treatment:
- c) the provision of some consequence such as licence return contingent on changes in drink-driving or alcohol dependence. Failing this, coerced rather than voluntary programme attendance;
- d) targetting of the programme at a particular client group;
- e) thorough assessment of client problems prior to intervention;
- f) an individual programme or at least the provision of well-defined components within a group programme;
- g) the inclusion of maintenance procedures to ensure that changes in behaviour persist;
- h) programme monitoring and evaluation
- iv) There is a critical need for evaluative research in the area of drink driver rehabilitation. Research is needed firstly to examine whether existing rehabilitation programmes can alter road traffic safety and rates of alcohol related problems amongst their clients, and secondly, to evaluate the styles of programme which are most effective.

The research should meet the following methodological criteria:

- a) The study should be a randomised clinical trial
- b) Data collection should be prospective
- c) Sample size should be sufficient to avoid Type II errors
- Outcome measures should be appropriate to the programmes' aims and have demonstrated validity and reliability. Recidivism rates and cost-effectiveness should be included as they are important outcome measures.

- e) The intervention procedures should be accurately described and monitored for any changes occurring over the evaluation period.
- f) The minimum follow-up period should be two years. Attrition rates at follow-up must be clearly stated and as low as possible.

It is argued that until such a study is undertaken, valuable community resources may be wasted and some client groups may not receive effective assistance.

REHABILITATION PROGRAMMES FOR DRINK DRIVERS

CHAPTER ONE: AN OVERVIEW OF REHABILITATION PROGRAMMES FOR DRINK-DRIVERS

1.1 INTRODUCTION

The objective of the project was to review the status of rehabilitation programmes for drink-drivers. The project includes a comprehensive literature review of existing research into rehabilitation programmes. The review emphasizes those studies which evaluated the effectiveness of rehabilitation programmes, and includes a list of methodological requirements for such evaluative studies. There is an attempt to delineate the treatment components which are most likely to prove effective in changing drink-drive behaviour. The project provides a description of rehabilitation programmes currently existing in Australia and New Zealand, and analysis of the extent to which available programmes include effective treatment components.

In Australia and New Zealand traffic crashes are a major cause of death and serious injury. The Federal Office of Road Safety reports that 24,862 casualty crashes occurred in 1984 in which 2,822 people were killed. Road crashes constitute a particular problem for the younger age groups, accounting for 52% of deaths in those aged 5-29 years in Australia in 1984. The estimated cost of road crashes in Australia amounted to \$3 billion in 1985 (Federal Office of Road Safety, 1986).

Alcohol has been implicated in a high proportion of road crashes. Australian data reveal that about 50% of drivers, 25% of pedestrians, 25% of motorcyclists and about 20% of passengers killed have a blood alcohol concentration (BAC) of 0.05% or greater (South, 1980). Australian data regarding the role of alcohol in non-fatal casualty crashes are much less complete, but it has been estimated that alcohol contributes to between 5% to 25% of such crashes (Johnston, 1980). Similarly, overseas studies suggest that between 9% and 40% of non-fatal traffic injuries are alcohol related (Borkenstein, Crowther, Shumate, Ziel & Zylman, 1964; Tonge, 1968).

As a result of the contribution of drink driving to mortality and morbidity, the development of effective countermeasures is a health priority. Rehabilitation programmes for convicted drink drivers represent one such countermeasure. Rehabilitation programmes use the courts to channel drink drive offenders to appropriate treatment programmes.

Although rehabilitation programmes have been implemented across Australia and New Zealand, there is currently little documentation of their scope or effectiveness. The present report therefore reviews the rationale for rehabilitation programmes and provides a description of existing programmes within Australia and New Zealand. A discussion of existing evaluation studies is provided, with recommendations on the components necessary for an effective rehabilitation programme.

1.2 RATIONALE FOR REHABILITATION PROGRAMMES

Rehabilitation programmes for convicted drink-drivers aim at preventing the reoccurrence of a further conviction. Most such programmes adopt one of two models. In the first the road traffic approach, the programme aims at reducing the incidence of road crashes. In the second model, the health or alcohol-related problems approach, the programme aims at detecting and intervening with individuals suffering from alcoholism or alcohol-related problems and the success of the rehabilitation programme is evaluated in terms of its effectiveness at reducing community rates of alcoholism. In order to assess the potential usefulness of rehabilitation programmes, it is necessary to review the assumptions underlying both approaches.

1.21 Rehabilitation Programmes and Road Crashes

Rehabilitation programmes for drink drivers were initially established to reduce the rate of road crashes by selecting out a group of individuals who were believed to be at greater risk of having a crash than the driving population as a whole. Such an approach assumes that those drivers convicted of drink driving on one occasion are more likely to have traffic crashes in the future. The argument underlying this approach appears to be as follows. The more frequently one drinks and drives the more likely one is both to have a road crash and to be detected as a drink driver. Those individuals who have been previously convicted of drink driving are more likely to drink drive in the future and consequently to be both reconvicted and to have a crash. The following section will attempt to evaluate these assumptions as they relate to rehabilitation programmes for drink drivers.

i) Are Convicted Drink Drivers More Likely to Reoffend?: A number of studies have indicated that reconviction rates for drink-driving are higher than would be expected based on the conviction rate in the population as a whole. Whether reoffence rates are estimated over a relatively short period such as two to two and a half years (e.g.

Spielman, Knupp & Holden, 1976) or over a person's entire driving career (e.g. Whitehead, 1975), recidivism rates for first offenders range from 12% to 25%.

However, it is not currently clear whether these rates accurately represent the true pattern of community drink driving. In particular, it appears that some individuals are more likely to be detected and prosecuted than others, resulting in an artificially inflated recidivism rate. For example, Whitehead (1975) suggests that getting caught may be the result of having a variety of social and personal characteristics which makes an individual's likelihood of being detected far greater than in the population as a whole. Research indicates that police rely on other factors such as age and sex of driver or type of car in deciding who to test in non-random breath testing (Homel, 1983). It has been argued that detection is more likely to occur at certain times of day, in streets having a large traffic volume and with a good history of past arrests (Whitehead, 1975; Marshall, 1974). Since drivers in such areas do not constitute a random sample of the driving population, it follows that some individuals have a greater chance than others of detection. Even when "random" breath testing procedures are used, detection biases will be introduced as a result of the streets and areas selected for setting up the unit as well as the time of day of testing.

Homel (1983) has considered the question of bias in detection and prosecution procedures in Australia. He presents data indicating that, compared with non-police administered roadside surveys, young men (particularly young unskilled men) are over-represented in drink drive conviction statistics. Homel argues that the over-representation of young men is most likely to be attributable to the processes leading to a positive breath-test, that is detection variables, rather than to pre-trial variables such as plea or charge bargaining. Along with the bias in detection procedures, there is also some evidence that magistrates penalize young and unskilled drink-drivers more severely than other groups (Homel, 1983).

Overall, it is clear that previously convicted drink-drivers are more likely to be reconvicted in the future. However, given the potential bias in detection and prosecution procedures, it is difficult to ascertain whether or not convicted drink drivers drive while intoxicated at a higher rate than the driving population as a whole.

ii) Are Convicted Drink Drivers More Likely to Have a Road Crash?: Even if the reoffence rate for drink driving is high, there can be little support for the introduction of rehabilitation programmes unless previously convicted drink drivers also show a greater rate of traffic crashes than the driving population as a whole. Despite the fundamental importance of this question, there are few adequate data available to support the assertion that convicted drivers have a higher future involvement in road crashes than the driving population as a whole.

Using data from the North Carolina Traffic Authority records, Lacey, Stewart and Council (1977) found that with previously convicted drink-drivers the risk index of being involved in an alcohol related road crash ranged from 10.10 to 12.31 compared with the general population value of 1. Other studies (Perrine, Waller & Harris, 1971; Sterling-Smith, 1976; Filkins, Clark, Rosenblatt, Carlson, Kerlan & Manson, 1970) have also been cited as supporting the argument that drink drivers have an increased rate of road crashes. In Australia, it has been reported that 6.5% of 46 drivers killed (Whitlock, Armstrong, Tonge, O'Reilly, Davison, Johnston and Bilcroft, 1971) and 0.4% of 230 drivers involved in injury producing crashes (Jamiesen, Duggan, Tweddell, Pope and Zvirbulis, 1971) had a previous conviction for drink driving.

While these rates indicated that convicted drink drivers appear to be more likely than the driving population as a whole to have a road crash, several qualifications should be noted. First, the proportion of previously detected drink drivers represented in the statistics will be a function of the efficiency of previous detection programmes. Second, the majority of these studies refer to alcohol related crashes and not road crashes as a whole, suggesting that the contribution of drink drivers to the <u>overall</u> road toll might be lower than that reported. Third, there is a shortage of recent data (post-1980) and it is therefore not clear whether these patterns have altered with increased publicity directed at drink driving. Fourth, in the absence of adequate Australian or New Zealand data, it may be unwise to assume that overseas rates necessarily generalize to other countries.

In conclusion, although some overseas data do support the claim that previously convicted drink drivers have a higher rate of road crashes than the general population, the data are not as robust as might

be expected given the importance of the argument to the establishment of rehabilitation programmes. The collection of recent Australasian data in respect of this question should be a high research priority.

- Programme can have in Terms of Reductions of Drink Driving Incidents,
 Recidivism Rates and Road Crashes?: Underlying the establishment of
 rehabilitation programmes there is an assumption that these programmes
 could, if maximally effective, significantly alter the rates of drink
 driving, recidivism and road crashes. That is, if every convicted drink
 driver was sent to a rehabilitation programme and "cured", considerable
 improvements in road safety would result. The following discussion
 attempts to evaluate this argument.
- a) Impact on Community Drink-Driving Rates: It is difficult to accurately estimate community drink-driving rates, but it is generally argued that the community rate of drink driving is much higher than is revealed by current detection procedures. Estimates of the likelihood of a drink driving incident being detected vary, however Borkenstein's (1975) estimate of 1 in 2000 is the most widely accepted. Given the low detection rate, few drink-driving incidents result in the individual ending up in a rehabilitation programme, and the potential for these programmes to alter drink driving behaviour in the community as a whole is therefore small. Whitehead (1975), for example, estimated that a rehabilitation programme which was maximally effective would result in only one eightieth of one percent reduction in community drink driving incidents. Further, unlike mass media campaigns or random breath testing, the effects of rehabilitation programmes are largely limited to the convicted individual and have little impact on the wider community of drink drivers.
- b) Impact on Drink Drive Conviction Rates: The potential effectiveness of rehabilitation programmes in reducing conviction rates for drink driving is limited by the relatively low recidivism rates which currently exist. Assuming the 20-25% recidivism figure to be approximately correct, it is evident that three quarters of drink-drive offenders in any given year are first offenders. Thus 75% of convictions could not have been prevented by rehabilitation programmes.

Whitehead (1975) discussed the potential impact of rehabilitation programmes in some detail, taking London as an example. Given a recidivism rate of 25%, he estimated the effects of a 100% effective rehabilitation programme on reoffence rates. Assuming 1000 arrests for impaired driving a year, at the end of 5 years there would still have been well over 4000 arrests, even if no one was a recidivist. That is, since most drink driving offences are first offences, rehabilitation programmes can only prevent a small percentage of drink drive convictions.

Rehabilitation programmes might make a more cost-effective impact on conviction rates by admitting only those convicted drivers who have at least one previous conviction, since these individuals have a higher likelihood of subsequent reoffence (Maisto, Sobell, Zelhart, Connors & Cooper, 1979) However, in the survey conducted by the authors of the present report and described in Appendices 2,3 and 4, no programme currently existing in Australia or New Zealand limits participation to those with more than one conviction for drink driving.

c) Reductions in the Road Toll: Given the importance of the question, surprisingly few estimations of the potential impact of rehabilitation programmes on traffic fatalities exist. South & Key (n.d.) estimated the potential impact of such programmes on fatalities in Victoria over a 12 month period to October 1981. They argued that only those individuals who had had a previous conviction for drink driving and who had been drinking at the time of the crash could have been affected by prior rehabilitative measures. From their data, South & Key estimated that in 8.5% of fatal crashes the driver had both been drinking at the time of the crash and had a previous conviction for drink-driving. Consequently, the maximum potential reduction from increased rehabilitation measures is 8.5% of fatal crashes. As South & Key point out, this figure assumes rehabilitation to be 100% effective - if it is effective over only a short period of time then clearly the reduction in crashes would be less than 8.5%. Similarly, the impact on road crashes would be reduced by selecting out groups such as young drivers or those with prior convictions for rehabilitation.

While there are some data to indicate that rehabilitation programmes reduce the road crash rate, there is a need for further research. It is suggested that before further rehabilitation programmes are developed in Australia and New Zealand modelling of their potential effectiveness in

iv) Are Rehabilitation Programmes Cost-Effective?: In deciding between alternate approaches to reducing road traffic fatalities, estimation of the cost-effectiveness of the available strategies is of some importance.

Based on the data described above, South & Key (n.d.) attempted one of the few cost benefit analysis of the health care savings from an optimally effective rehabilitation programme. They estimated that the maximum reduction in crashes from a maximally effective programme would have been 8.5% of fatal crashes. The cost of these crashes was estimated to be \$21.26 million in 1981 values. Since approximately 15,000 persons were convicted of drink driving in 1981 in Victoria, South & Key suggest that spending \$1,410 on each detected drink driver would be justifiable if the rehabilitation programme was 100% effective. While these data suggest that rehabilitation programmes may be cost-effective in terms of road traffic aims, a repetition of their analysis in other geographical areas with more recent figures would provide useful information for health administrators.

Conclusion to 1.21: The extent to which rehabilitation programmes can be expected to increase road traffic safety remains unclear. While existing evidence indicates that convicted drink-drivers are more likely to be reconvicted for drink-driving than is the driving population as a whole, it is not certain to what extent these figures represent detection and prosecution biases. There is currently little relevant Australasian data to indicate whether convicted drink-drivers are more likely to be involved in a future road crash. The low probability of detection as well as the low recidivism rate indicate that a 100% effective rehabilitation programme is unlikely to significantly alter community rates of drink driving or drink driving convictions. Few studies have estimated the potential impact of rehabilitation programmes on road crash rates. The single Australasian study located by the authors of the present report suggests that if 100% effective, rehabilitation programmes may result in a small but relatively cost effective reduction in traffic mortality and morbidity.

1.22 Rehabilitation Programmes and Alcohol Related Problems

An alternative rationale for rehabilitation programmes is based on the argument that individuals detected as drink drivers are a subgroup of the population suffering from alcohol related problems. Consequently, rehabilitation programmes represent a method for the detection of and intervention of alcohol related problems. In order to evaluate the validity of this argument two issues need to be evaluated:

i) What Proportion of Drink Drivers have Alcohol Related Problems?: Within the alcohol research literature there is little concensus on how to define or measure alcoholism or alcohol related problems (Pattison, Sobell and Sobell, 1977). Alcoholics have variously been defined as only those admitted to a treatment facility, as those having an uncontrollable craving for alcohol with which they are unable to cope, and as drivers charged with at least one drink-driving offence (Vingilis, 1983). The problem of measuring alcohol related problems amongst drink drivers is further complicated since two commonly used assessment instruments, the Michigan Alcoholism Screening Test (MAST) and the Mortimer-Filkins Test both use items of drink driving behaviour to define alcoholism. Use of either measure will result in artificially elevated levels of alcohol related problems amongst drink drivers (Vingilis, 1983). It has been suggested that all drink-drivers must have alcohol related problems. However, such an argument runs the risk of circularity unless an independent measure of alcohol related problems is used. When convicted drink-drivers are assessed using independent and well-validated measures, a substantial proportion have been judged not to suffer from alcohol related problems (Vingilis, 1983).

As a result of these measurement difficulties, estimates of the prevalence of alcohol related problems in convicted drink drivers have been extremely variable. Vingilis (1983), in an excellent review of the area, estimated the prevalence of alcohol related problems amongst drink drivers to be between 20% and 63%, suggesting that a substantial proportion of drink drivers would not be an appropriate group for an intervention designed to reduce alcohol related problems. Thus, even if rehabilitation programmes were successful in changing the behaviour of all their clients, they are unlikely to be cost effective due to the high numbers of treated individuals who did not require intervention.

It has been suggested that rehabilitation programmes could function as a more cost-effective intervention for alcohol related problems if a high risk group of drink drivers were selected by additional screening prior to intervention. However, the scarcity of reliable and valid measurement instruments and associated bias in detection, raise the

ethical issue of legally requiring a person to undertake an intervention designed for alcoholism. If rehabilitation programmes aimed at reducing alcohol related problems are to continue, some public discussion of this question is warranted.

ii) Do Rehabilitation Programmes Represent a Good Opportunity for the Treatment of Community Alcohol Related Problems? What Impact Can Rehabilitation Programmes have on Community Alcoholism Rates?: While the above discussion indicated that not all drink drivers are alcoholics, it is important to consider what proportion of community alcoholism could be treated or detected by drink driver rehabilitation programmes. Since rehabilitation programmes are competing for funding with other types of alcohol treatment programmes, the extent to which such programmes represent a cost-effective alternative needs to be considered. Factors likely to affect the choice of treatment options will include the percentage of at-risk individuals which can be detected as well as the likelihood of the intervention being successful. Two factors are important here. First, attenders at rehabilitation programmes are typically young males. Although this group are at relatively high risk of suffering from alcohol related problems, they are difficult to identify at more traditional detection sites. Such individuals for example, are relatively unlikely to attend their general practitioner (Clarke, unpublished data; Finlay-Jones & Burvill, 1978) and neither are they likely to be detected via marital counselling or other social work agencies. Second, while it seems clear that alcoholics are more likely to have drink driving offences than the population as a whole, not all alcoholics are high risk drivers. Vingilis (1983) notes that a large number of studies are consistent in finding that alcoholics as a population are involved in significantly more collisions and violations. particularly drink related violations, when compared with the general driving population. The most usually reported relative offence ratio is However, although higher than the drinking population as a whole the conviction rates of alcoholics are still relatively low. Schmidt & Smart (1959) report that 26.5% of a sample of alcoholics had convictions over a 12 year period while Zylman (1975) found that 83% of alcoholics had not had a drink-driving conviction during a six year period. That is, a relatively small proportion, around 20%, of community alcoholics will be detected via drink driving convictions. Although rehabilitation programmes include only a small sample of the total alcoholic population, they provide access to young males who are difficult to detect through other channels.

Conclusion to 1.22: Several conclusions about the rationale underlying rehabilitation programmes which aim at reducing rates of alcohol related problems can be drawn. First, the confusion regarding an operational definition of alcoholism or alcohol related problems and subsequent bias in screening instruments complicate the detection of individuals who may benefit from such programmes. If clients are included who do not suffer from alcohol related problems, this would reduce the cost-effectiveness of rehabilitation programmes. Second, while court referred drink drivers represent a population who are difficult to access through traditional methods, this group represents a relatively small proportion of total alcoholics. Third, over a 12 year period only about 20% of community alcoholics are likely to be detected by this means, indicating the extent to which a maximally effective rehabilitation programme might be expected to reduce community alcoholism rates.

1.3 EXISTING PROGRAMMES IN AUSTRALIA AND NEW ZEALAND

In the following section, a general overview of the pattern of rehabilitation programmes within Australia and New Zealand will be presented. The comments are based on responses to the survey described in Appendix 2.

The first rehabilitation programme was established in 1973 (St. Vincent's) and the present review was able to locate 27 programmes currently in operation within Australasia. These programmes have been established at a fairly constant rate over the years between 1976 and 1984, averaging around three programmes a year. There is no evidence of a decline in the rate of establishment of rehabilitation programmes. Rehabilitation programmes in Australasia are either self-funded (40.7%), funded by the Health Commission (40.7%) or by another State department (18.6%). Rehabilitation programmes are most frequently run by psychologists. Of the 19 responses to the survey where it was possible to determine the area of training of the director, 48% were psychologists, 21% nursing staff, 26% social workers, and 5% were administrators.

Several points emerged from the review which are of particular note. First, programmes are unevenly distributed throughout the states in Australia and New Zealand as shown in Table 1.

 $\frac{ \text{Table 1}}{ \text{Overview of Programmes in Australia and New Zealand} }$

		Overall Number of Clients	
State	Number of Programmes	Attending Programmes Per Year	
A.C.T.	. 1	275	
N.S.W.	2	170	
N.T.	1	302	
Q'land	2	414	
S.A.	1*	50	
Tas.	1	311	
Vic.	18	4037**	
W.A.	1	239	
N.Z.	-	•	

^{*} Programme soon to begin

^{**} Two programmes did not include information on client numbers

There were no programmes identified in New Zealand which were conducted specifically for the rehabilitation of drink drivers. All rehabilitation of drink drivers in New Zealand appears to take place within general programmes designed for the treatment of alcohol related problems.

Within Australia, Victoria has a much greater number of programmes and larger client throughput than the other states both because of its referral system and because of the early model and impetus provided by the St. Vincent's programme. Currently, despite the diversity of experiences across states, there is no systematised procedure for the sharing of information or data.

Second, the cost of programmes also varies considerably. While a number of programmes did not supply budget information, the cost per head to the funding agency based on the information provided ranged from \$12 (Ballarat Regional Alcohol & Drug Association of Victoria) to \$470 (Hunter Drug Advisory Service of N.S.W.). Such differences in cost may be attributable to the style of programme presented, cost to the individual participant as well as organizational factors. Nonetheless, the cost differential emphasizes the varied nature of existing rehabilitation programmes.

Third, all of the programmes identified by the survey operated in urban rather than rural areas. The spread of rehabilitation programmes to rural areas seems likely to be a slow process. However, the operation of programmes only within urban areas creates some problems since the degree of legal coercion to attend is limited by availability of rehabilitation programmes. Moreover, magistrates may be less willing to refer individuals to a programme if they feel that this provides them with an advantage or disadvantage relative to their rural peers.

Conclusion to 1.3: The situation in respect of rehabilitation programmes varies considerably between the different states in Australia and New Zealand, in terms of both referral processes and the programmes themselves. Of particular note is the extensive system of rehabilitation programmes existing in Victoria.

There is a need for a comparison of the different types of referral processes. Further, to facilitate the sharing of information and expertise, a communication structure for those working in the area needs to be established. Finally, if rehabilitation programmes in Australia and New Zealand are to be widespread, there is a need to foster rural rehabilitation programmes.

1.4 DESCRIPTION AND EVALUATION OF REHABILITATION PROGRAMMES FOR DRINK DRIVERS

Rehabilitation programmes can be classified according to the type of intervention provided. Essentially four types of intervention can be delineated:

- i) Assessment alone
- ii) Health education
- iii) Skill-based programmes
- iv) Therapeutic programmes

Hybrid approaches containing two or more of the above strategies also exist.

In the following sections, the rationale for each type of programme will be discussed and existing programmes of each type in Australia and New Zealand described. There will also be an attempt to critically evaluate the effectiveness of each approach based on overseas and Australian data. The effectiveness will be assessed in terms of the impact of the programmes on four different outcome measures: traffic safety, recidivism, knowledge about drinking and/or drink driving, and lifestyle measures. Since the aims of the different types of interventions differ, the relative importance of each outcome measure for each approach will also be different.

1.41 Assessment

Rationale: 'Assessment alone' programmes do not offer formal treatment to the convicted drink-driver, but the individual is required

to undertake a rigorous assessment procedure. The assessment may consist of structured interviews, self-report tests, physical examinations and blood tests. The aim of assessment is most usually to establish whether the individual suffers from alcoholism, alcohol-related problems or is alcohol dependent.

Assessment alone programmes make one of two assumptions about the relationship of their intervention to drink-driving:

- i) Assessment alone will reduce the frequency of drink-driving
- ii) Assessment will screen out those individuals at high risk. High risk individuals can then be referred for treatment elsewhere or legally prevented from driving again.

The second assumption is the more common. In both cases, the primary goal is one of improving road safety, although in the second model, improvements in individual and community rates of alcoholism would also be expected.

Description of Existing Programmes: The assessment alone approach is currently used in South Australia and in New Zealand. In South Australia, if an individual is convicted of more than one drink-driving offence in three years or has a BAL over 0.15%, he/she is automatically sent to the Driver Assessment Clinic, which is part of the Alcohol and Drug Addiction Treatment Board. Assessment consists of the following: a) nurse interview consisting of family and personal history, alcohol scales, medical examination, and the Eysenk Personality Inventory; b) doctor interview: consisting of drinking questions and a physical examination including blood tests. If the individual is diagnosed as alcohol dependent, the licence will not be returned at the end of assessment but the individual can voluntarily request reassessment where licence return will occur only if he/she is no longer judged to be alcohol dependent. The individual is responsible for finding his/her own alcohol treatment programme. This system currently operates only in Adelaide, because of the difficulty in establishing standardized assessment centres. The system operating in New Zealand is similar. The Transport Amendment Act (1983) made referral to an assessment centre compulsory if the individual had committed two drink-drive offences or

one offence with a BAC over 200 mg. Concomitantly, the individual is suspended from driving for two years. The individual can choose to be assessed at any point during the two year period and there is no obligation to accept treatment. Licence return is at the Minister's discretion. At the time of writing there is no indication as to the policy which will be adopted as the two-year disqualification period has not elapsed since the passing of the 1983 Act.

Evaluation: Assessment alone programmes have the advantage of being directed at those individuals most at risk and of being relatively inexpensive interventions. It is currently difficult to evaluate the effectiveness of the assessment alone option, although several factors are likely to be important in determining its success. First, the quality of the assessment procedure needs careful evaluation. It is important that the measures used have established reliability and validity. It is also important that if licence return is to be contingent on being diagnosed as non-alcohol dependent, that the measures are sufficiently robust to be independent of attempts at deception by the client. Second, assessment needs to be carefully standardized between different assessment centres and the possibility of individuals "shopping around" for a favourable diagnosis controlled for. Thirdly, the quality and availability of intervention programmes for alcohol related problems will be an important determinant of the success of assessment-alone programmes. Finally, the consequences of being diagnosed alcohol dependent need to be carefully spelled out and systematically administered. Making licence return contingent on being judged non-dependent is likely to be an effective consequence for behaviour change.

<u>Empirical Evidence</u>: There have been no empirical evaluations of assessment alone programmes.

Conclusion to 1.41: Assessment alone programmes require individuals to undertake an assessment procedure designed to identify those at high risk of suffering from alcohol-related problems. They constitute a relatively inexpensive method of screening for a high risk group. While no empirical data on their effectiveness currently exist, these procedures represent an interesting intervention warranting evaluation.

1.42 Health Education Programmes

Rationale: Health education programmes attempt to change the behaviour of interest indirectly by providing individuals with knowledge or attitude change material. Education programmes appear to assume that drink-driving results from a lack of knowledge about: the effects of alcohol on driving, the circumstances leading to drink driving, the consequences of drink driving, the nature of the individual's drinking habits, or ways of modifying drinking practices. Consequently, it is thought that the delivery of such information will result in a lower probability of recurrence of drink-driving and ultimately, in a reduction in alcohol-related traffic crashes (Klajner, Sobell & Sobell, 1984). Health education approaches may aim either at road safety outcomes such as a reduction in mortality or recidivism or they may attempt to use drink-drive programmes to reduce alcohol related problems.

<u>Description of Existing Programmes</u>: Both in Australia and overseas, the health education approach has been the most common strategy used in rehabilitation programmes. The postal survey conducted by the authors of this report and described in Appendix 3 indicated that 80% of programmes used primarily an educational model.

Most of the programmes in Australia which use a health education approach are based on the model developed at St. Vincent's Hospital, Melbourne. This course was established in 1973 and was intended as an early alcoholism intervention procedure rather than a road safety measure (Findlay & Ross, 1984). The programme is oriented towards early intervention for drinking patterns which are "high risk" on health grounds with a view to preventing progression to alcoholism or further alcohol-related damage. The general aim of the course is to educate drivers to understand the risks associated with their drinking by providing information aimed at increasing awareness of the effects of alcohol, particularly as it affects driving performance. The course is presented on a small group basis, with around 8-10 drivers in each group. The St. Vincent's course is run on a face-to-face lecture style in which information is provided by a key speaker and discussion takes place around the following topics:

Session 1. The general effects of alcohol, alcohol's effect on driving, individual differences in alcohol consumption, metabolism, tolerance and so on. This session is conducted by the co-ordinator or a group leader from the health team at the hospital.

Session 2. The physiological effects of alcohol: the development of alcohol dependence. Session 2 is conducted by a doctor or medical officer.

Session 3. Drink-driving legislation and penalties: how the breathalyzer works. This session is conducted by a Police Officer.

Session 4. Personal experiences with alcohol. In this session a member of Alcoholics Anonymous talks about his/her experiences with alcohol. This is followed by a summary of the course presented by the co-ordinator/group leader.

The majority of rehabilitation programmes in Victoria use a similar structure to the St. Vincent's programme. Some of the programmes have modified the course in various ways, for example, the inclusion of a Road Safety session or the omission of the Alcoholics Anonymous component. While superficially similar, there have been no comparisons of the details of these programmes or their outcomes, and it can therefore not be assumed that results from one programme are generalizable to the others. The similarity between Victorian programmes and those which operate in other states and New Zealand is not clear.

<u>Effectiveness</u>: Health education programmes for drink driving as for other health-related behaviours, are popular in part because they are relatively inexpensive to run. They can be delivered on a group basis and standardised easily from site to site.

However, there is a growing body of evidence to indicate that educational programmes aimed at knowledge and attitude change alone do not necessarily result in behaviour change in areas such as smoking cessation, dietary changes or a reduction in alcohol consumption (Green, 1970: Hunt, Barnett & Branch, 1971: Vicker & Bottelier, 1976). Although changes in attitudes or knowledge may be necessary to change behaviour, they are rarely sufficient (Bernstein & McAlister, 1976). Consequently, it might be expected that rehabilitation programmes which use the health education model do not result in optimal behaviour change.

Empirical Evidence: Despite their popularity there is little methodologically adequate empirical evidence to demonstrate the effectiveness of health education programmes for drink driving either within Australasia or overseas.

The studies reviewed below are classified according to the outcome measures used: the relative merits of the different outcome measures are discussed in Section 3.14. The method of literature review and selection of studies for inclusion in the report are described in Appendix 6.

<u>Traffic Safety Measures</u>: Although reductions in the road toll are an important measure of the effectiveness of a rehabilitation programme, the authors of this report were unable to find any study which examined the impact of a health education programme on traffic fatalities or injuries.

Drink-Driver Recidivism: Of the 15 studies reviewed in this report which used an education approach, 9 of these used recidivism as an outcome measure. The results of these studies are inconsistent. Three of these studies (Neff & Landrum, 1983; Strachman, 1973; Malfetti, 1975) found a significant improvement in recidivism rates amongst the treatment group following completion of an education course. In contrast, six studies (Department of the Attorney General and NSW Bureau of Crime Statistics and Research, 1976; Eddy, 1976; Michelson, 1979; Holden, 1983; Northern Metropolitan Region of the NSW Health Commission, 1981; Vingilis, Adlaf & Chung, 1981) reported negative results when evaluating the effectiveness of education programmes on recidivism, finding that drink-drivers who had completed an education course had worse reconviction rates for drink-driving than control groups.

However, the majority of these studies used a quasi-experimental design in which experimental subjects were matched with similar aged subjects who did not attend the course (e.g. Malfetti, 1975; Michelson, 1979). Failure to randomly assign subjects to treatment and control groups can result in bias and can make the results difficult to interpret (see Section 3.1).

Only three studies which used recidivism as an outcome measure were randomised clinical trials (Holden, 1983; Neff & Landrum, 1983; Vingilis et al., 1981). Neff & Landrum (1983) reported that the health education programme decreased recidivism rates. Drink-drive offenders were randomly assigned to one of 4 conditions: probation, rehabilitation, probation plus rehabilitation, or no treatment. Recidivism was examined over a 2 year period. The results indicated a slight reduction in the mean number of re-arrests for the education group relative to controls.

However, the authors did not report on whether these differences were significant. In contrast, both Holden (1983) and Vingilis et al. (1981) randomly assigned subjects to treatment and control groups and found no significant effect upon recidivism rates when compared with the control group.

It therefore appears that overseas evidence indicates that health education programmes have little impact on recidivism rates. It should be noted that the current report is less optimistic about the effects of rehabilitation programmes than an earlier review by Mann, Leigh, Vingilis & de Genova (1983). These authors report that of the eighteen quasi-experimental studies they found, fourteen report positive effects of "traffic safety" while three report a negative influence. While "traffic safety" as an outcome measure has not been clearly defined by these authors, it appears that it primarily refers to measures of drink-driver recidivism and/or driving records excluding drink-driver convictions. The following studies are reported as having positive effects - Crabb, Gettys, Malfetti & Stewart, 1971; Essex & Weinerth, 1982; Ginnett & Whitebeck, 1979; Hagen, Williams & McConnell, 1979; McGuire, 1978; McGuire, 1982; Nichols, Weinstein, Ellinstad & Struckman-Johnston, 1978, 1981. Mann et al (1983) cite only one quasi-experimental study which found a negative effect on recidivism (Anderson & Merrick, 1980). However, the authors of this report were unable to obtain the majority of these studies and therefore cannot comment on their results or methodological adequacy. It should, however, be noted that when considering the three studies which they found to consist of randomized clinical trials (Preusser, Ulmer & Adams, 1976; Vingilis et al., 1981 and Essex & Weinerth, 1982), Mann et al., (1983) reported all to have found negative programme effects in agreement with the conclusions of the present report.

There have been few empirical evaluations of health education rehabilitation programmes within Australia and New Zealand. Both the Northern Metropolitan Region of the NSW Health Commission (1981) and the Department of the Attorney General and NSW Bureau of Crime Statistics and Research (1976) have evaluated the drink-driver diversion programme which operated in Sydney. The 1976 study used a quasi-experimental design to compare offenders who undertook the driver education programme (n=345), eligible offenders who declined to enter the programme (n=424), offenders not eligible for the programme (n=556) and a control group (n=483).

There were significant differences between the groups prior to intervention and in their treatment by the courts at sentencing. Individuals tried by participating courts in the periods March 1976-December 1976 were included in the study. The follow-up period was 2 years. Convictions for drink-driving in this period were as follows: treatment group 15.7%; eligible non-attenders 10.7%; controls 9%; ineligibles 5.4%. The authors do not indicate whether these differences were significant. They are, however, difficult to interpret because of the small subject numbers and the non-equivalence of the four groups prior to intervention. Participants had worse reconviction rates for drink-driving than any of the other groups. The Northern Metropolitan Region of the NSW Health Commission (1981) ran two studies to evaluate the effectiveness of the Sydney DDDP. With a subject size of 206, the study examined knowledge and attitudes before and after the intervention. The results indicated a significant increase in knowledge about alcohol, a significant improvement in attitudes towards alcohol, alcohol use and self-reported consumption at the end of the intervention procedure. In the second of these studies, in which the impact of the intervention on recidivism was assessed, 481 individuals referred to the programme between June 1976 and July 1978 were checked for police record in the period August-September 1979, giving a follow-up period of 13 to 36 months and a sample size of 461. The control group (n=468) was selected from court attendances and were matched with the experimental group for sex, age and number of PCA charges. There was no significant difference for the rate of subsequent PCA charges between the two treatment groups (8.73%) and the control group (10.3%). However, the small subject size and the matched control design are problems in drawing firm conclusions from this study.

Raymond (1980) evaluated the effectiveness of the St. Vincent's programme. She compared 261 drivers who had attended the St. Vincent's course over a two year period (1974/75), with two control group samples drawn from the Breath Analysis Squad of the Victorian Police. Both control groups were selected to be comparable with those attending the course in that they had a conviction resulting from the breath test, were under 26 years of age, had a metropolitan address and their records could be found at a Motor Registry Branch. In addition, the second control group was matched with the experimental group on date of testing. There were 105 drivers in the matched comparison groups. Ten percent of drivers who had attended the St. Vincent's course and 16% of the matched

control group were reconvicted in the following 2-3 years. However, the sample size was too small to draw reliable conclusions. Raymond (1980) used the control group data to estimate expected reconviction rates in the absence of the rehabilitation programme. She notes that 18 months after programme completion, 9 of the treatment group had been reconvicted compared with an expected 15 to 22, while of those who were examined 12 months after programme completion, 7 had been reconvicted with an expected value of 16 to 24. While these results are suggestive of a treatment effect, the small subject size and quasi-experimental design make it difficult to draw firm conclusions from the data.

Overall, it must be concluded that there is little evidence to indicate that health education rehabilitation programmes improve recidivism rates.

Knowledge/attitudes: Aside from traffic crashes and recidivism, most drink-driver rehabilitation programmes have two other goals: to increase the client's knowledge, and to produce a positive change in attitudes concerning drink-driving. Six studies reviewed examined these two measures (Malfetti & Simon, 1974, 1975; Northern Metropolitan Region of the NSW Health Commission, 1981; Papandreou, Brooksbank & McLaughlin, 1985; Vingilis et al., 1981; Malfetti, 1975). Of these, all studies found a positive effect on both attitudes and knowledge outcome measures. although the results are difficult to interpret since the majority failed to include a control group. For example, Malfetti (1975) used a quasi-experimental design to evaluate the effectiveness of the DWI Phoenix education programme for convicted drink-drivers. Pre- and post-test measures of knowledge and attitude about alcohol and drink-driving showed a significant improvement in participants' scores. In Australia, two studies have examined the effects of rehabilitation programmes on knowledge and attitudes. Papandreou et al. (1985) found a significant increase in participants' knowledge scores after completion of the Western Australian Probation and Parole Alcohol Education Programme. The Northern Metropolitan Region of the N.S.W. Health Commission (1981) found a positive change in attitudes and knowledge levels of participants who completed the Chatswood drink-driver education programme. However, neither study compared the changes in the treatment group with those in a control group.

The authors of the present report found only one randomized clinical trial which used knowledge and attitude outcome measures. Vingilis et al. (1981) compared the pre- and post-treatment measures of multiple drink-driver offenders randomly assigned to an educational programme or control group. Results indicate that the programme had a positive effect on knowledge. However, both the treatment and control groups scored significantly more positively on the attitude scale and the authors argue that the passage of time, not the programme caused the positive changes.

There is therefore little evidence to indicate an improvement in either attitudes or knowledge as a result of educative rehabilitation programmes. No consistent evidence was found to indicate behaviour change.

Treatment/Lifestyle Measures: Only three studies reviewed in this report examined programme effectiveness in terms of either drinking behaviour (Scoles and Fine, 1977; Northern Metropolitan Region of NSW Health Commission, 1981) or in terms of alcohol-related problems (Pennock and Pondrier, 1978). Scoles and Fine (1977) compared convicted drink-drivers who completed the "Educational Safe Driving School Programme" with those who did not on measures of alcohol drinking patterns and alcohol-impaired behaviour. Results indicated that scores on both measures decreased for both the education and control group and that no significant differences were detected. Pennock and Pondrier (1978) examined the effects of an 11-week educational programme on convicted drink-drivers' concepts of alcoholics and self. Pre-post test results indicated more positive concepts of alcoholics but no attitude change. In contrast, the Northern Metropolitan Region of the NSW Health Commission (1981) reported positive changes in self-reported drinking behaviour following completion of the Sydney Drink-Drive Programme.

Conclusion to 1.42: Health education programmes attempt to change the behaviour of convicted drink-drivers by providing material designed to change knowledge or attitudes. Such programmes are most commonly used in Australia and New Zealand.

The majority of studies which have evaluated health education programmes have not been methodologically adequate. However, the randomised clinical trials which do exist have failed to demonstrate improvements in recidivism rates, knowledge, attitude or lifestyle

measures following the rehabilitation programme. No study has examined the impact of Health Education programmes on road crashes.

1.43 Skill-Based Intervention Programmes

Rationale: Skill-based intervention programmes attempt to directly teach behaviours which can be used to prevent drinking and driving. For example, it has been suggested that some young drivers may have a learning problem associated with learning to drink and drive (Carlson, 1973). For these people, a useful skill to acquire may be that of being able to discriminate when alcohol is altering behaviour and the effects this may have on driving performance. Another approach which may be useful is to develop skills to help individuals reduce their blood alcohol concentrations when driving by "controlled drinking". For example, drivers might be taught to consume less, drink slower, and drive on a falling rather than rising BAC level, or they could be taught to avoid driving e.g. to take a taxi home if drunk. Skill-based programmes assume that drink-driving results from some of the following: a lack of skills associated with the effects of alcohol on driving; failure to understand the circumstances leading to and the consequences of drink-driving; lack of ability to modify their drinking practices in order to decrease drink-driving. Therefore, such programmes assert that the acquisition of the above skills will result in a lower recurrence of drink-driving.

<u>Description of Existing Programmes</u>: Very few rehabilitation programmes which operate in Australia and New Zealand use the skill-based model. Typically, programmes that use this approach use either a treatment or health education approach as well. In Australia, the Pleasant View Centre in Victoria uses a skills-based approach as one of its two main intervention modalities.

The Pleasant View Centre was established in 1976 in an attempt to incorporate a variety of approaches tailored to the characteristics of the drink-drive population. The resultant approach combines blood alcohol discrimination training, controlled drinking, behavioural counselling, spouse involvement, alternatives training, video-taped self-confrontation and experimental alcohol education, in a single integrated behaviour change technique. There are a number of aspects of this programme which utilize a skills-based approach. For example, Pleasant View runs a weekend course which includes information on

drink-driving and the wide ranging effects alcohol can have on a person's life. Participants consume alcohol and are tested on a driving simulator and this is videotaped. The videotape is used the next day to analyze the behaviour after drinking. This helps participants to learn to discriminate their level of "drunkenness" and its effect upon their driving skills. The behavioural counselling, alternatives training and controlled drinking strategies are also examples of skill-based approaches.

In New Zealand, Brown (1980) used a controlled-drinking educational course for drink-drivers. This involved drinking under ad libitum conditions in an experimental bar, an assessment of baseline drinking behaviour, practice in reducing drinking by lessening drink strength and nip size and increasing spacing between drinks, videotaped feedback of the client's intoxicated behaviour, and homework assignments to record daily alcohol intake. This course provided participants with at least three skills associated with reducing drink-driving. Participants learned to discriminate their level of intoxication and its effect upon their driving performance; they learned some techniques to help reduce the amount of alcohol consumed; and, participants also gained a greater awareness of how much alcohol they actually consumed. However, this programme was established as part of an evaluative study and is not run on a regular basis.

Effectiveness: Skill-based programmes tend to be less popular than educative approaches across all aspects of health-behaviour change since they frequently require greater therapist expertise, more intensive therapist-client contact and may be costly in terms of equipment. However, skill-based programmes have been shown to result in greater and better maintained changes in health-behaviours such as smoking cessation and dietary change (Colletti & Kopel, 1979). Of particular interest, is the work of Sobell & Sobell (1973) and William Miller (1978) demonstrating the effectiveness of a skill-based programme in changing drinking behaviour. It therefore seems likely that skill-based rehabilitation programmes may prove more effective than educative models.

Empirical Evidence: Few studies have evaluated skill-based rehabilitation programmes. It should be noted that an evaluation of the Pleasant View programme has recently been carried out, but the results are not yet available (Didsbury, personal communication).

<u>Traffic Safety Measures</u>: The authors of this report were unable to locate any evaluative studies of skill-based programmes that use traffic mortality as outcome measures.

Recidivism: There is only one study (McGuire, 1978) which evaluates the effects of a skill based programme on drink-driver recidivism.

McGuire evaluated the effectiveness of the "3-D" (Don't Drink and Drive Programme) which used traditional educational approaches as well as "controlled" drinking and driving techniques for drink-drive offenders. Subjects were required to consume alcohol and drive while being videotaped. When sober, they viewed the videotape and discussed the effects of even small quantities of alcohol on their driving as well as ways of interrupting the drink-drive sequence. Results showed that the programme significantly reduced recidivism as well as crashes, moving traffic violations and licence suspensions relative to a control group. The control group showed 78% more alcohol-related violations, 34% more crashes, 23% more moving violations and 40% more suspensions. However, subjects were not randomly assigned to groups and the follow-up period was for one year only.

<u>Knowledge/Attitudes</u>: There are no studies which evaluate changes in participants' knowledge or attitudes about drink-driving following a skill-based programme.

Treatment/Lifestyle Measures: Brown (1980) evaluated the effects of a traditional education course and a "controlled drinking" education course on convicted drink drivers' drinking behaviour and psychosocial adjustment. In this study, subjects were randomly assigned to a traditional education course, to a controlled drinking course, or to a no-treatment control group. In the "controlled drinking" condition, subjects attended sessions on: experimental drinking in a bar environment which assessed baseline drinking behaviour; training in self estimation of BAC with the aid of breathalyzer feedback; videotape replay of the participant's intoxicated behaviour; practical controlled drinking by reducing drink strength and sip size and spacing drinks to established "normal" drinker values; discussion of homework assignments which recorded daily alcohol intake and the benefits of controlled drinking. The programme was evaluated after one year on the basis of subjects' self reports about their drinking and drink-driving

behaviours. Results indicated that only the "controlled drinking" group showed a significant reduction in the number of uncontrolled drinking days. There was a reduction in the frequency of reported drinking and driving episodes across both treatment conditions between baseline and follow-up but the reduction was greatest for the "controlled drinking" condition. Both treatment conditions scored significantly higher on a measure of psychosocial adjustment than did the control group. While Brown's results indicate positive effects of a skill-based programme, it should be noted that sample size was small (20 subjects per treatment group) and the follow-up period short (one year).

Conclusion to 1.43: Skill-based programmes attempt to change drink-driving behaviour by directly teaching relevant skills or behaviour. Such programmes are relatively rare in Australia and New Zealand and have not been evaluated frequently either in Australia or overseas. There is some evidence to suggest that skill-based programmes result in improvements in both recidivism and drinking behaviour. This type of rehabilitation programme warrants further empirical investigation.

1.44 Therapeutic Programmes

Rationale: Therapeutic programmes adopt a primarily psychotherapeutic orientation to treatment, arguing that drink-driving results from an unrestricted problem within the individual which is expressed by difficulty in dealing with alcohol (Klajner et al., 1984). Such programmes most usually infer that drink-driving is either caused by or related to a primary problem with alcohol or alcoholism. Therapeutic programmes therefore attempt to reduce drink-driving rates indirectly by "curing" the individual's alcohol problem. The important outcome variables for these types of programmes are consequently measures of alcohol-related problems, consumption or lifestyle factors. Such programmes therefore represent the purest example of a 'health' rather than 'road safety' orientation.

Description of Existing Programmes: Therapeutic rehabilitation programmes are relatively uncommon both in Australia and New Zealand and the authors of this report were unable to identify any therapeutic programmes aimed solely at drink-drivers. Therapeutic components may be provided in conjunction with programmes which are primarily educative or

skills-based (e.g. Belmont Hospital). Therapeutic programmes are more usually aimed at second or subsequent drink-drive offenders, a category assumed to include a greater proportion of alcoholics.

A more usual strategy for the delivery of 'therapeutic' interventions to convicted drink-drivers is by referral. From either the courts or a rehabilitation programme itself, individuals may be referred to an independent programme catering for those with alcohol related problems. For example, the Illawarra Drink-Drive Course may refer clients to the Chatswood Drug and Alcohol Co-ordination Unit. Of the programmes surveyed by this report, 70% included referral to an alcohol treatment agency if appropriate. In New Zealand and South Australia individuals are assessed and categorized as 'alcohol dependent' or not, but are not referred to programmes or given treatment. The drink-driver must seek out a treatment programme him/herself.

It should be noted that these considerations imply a category of programme which includes drink-drivers but is not strictly 'rehabilitative' since a high proportion of participants in the programme will not have been convicted of a drink-drive offence.

Effectiveness: Therapeutic interventions for alcohol abuse have frequently been found to be less effective than skill-based programmes at changing alcohol-related behaviour (Pattison et al., 1977). Moreover, such programmes tend to be expensive in terms of patient-therapist contact time and often require highly trained counsellors. However, due to the small number of programmes with a therapeutic component aimed only at drink-drivers, evaluation of this type of treatment remains difficult.

Empirical Evidence: i) Traffic Safety Measures: Of the 12 studies reviewed in this report which used a "therapeutic" approach as the major focus for intervention, only one study (Amrick and Marshall, 1984) used traffic morbidity as a measure of outcome. These authors used a before-after analysis to evaluate the effectiveness of "Project Safety" in the Bonneville County in the U.S.A. Project Safety involved efforts to increase detection of drink-drivers by police officers. It established an increased number of specialists providing pre-sentence and probation services for drink-drive offenders, and a public information programme was established to educate the public about the project and the drink-drive problem. In addition, the programme also included a therapeutic component.

Amrick and Marshall (1984) compared the Bonneville County with two comparison locations using the rate of night time fatalities and injury crashes as outcomes. Results indicated a significant reduction in the number of crashes in the treatment area but not in the comparison areas. It is, unfortunately, impossible to determine the effect of Project Safety's therapeutic component on traffic crashes apart from the influence of other preventative efforts initiated by the Project.

Similar problems are associated with evaluation of the Alcohol Safety Action Projects (ASAP) in America. The ASAP projects were the first nationwide federally funded alcohol/highway safety programmes in the U.S. ASAP attempted a systematic approach consisting of four interrelated components: (1) a national public education campaign on alcohol and highway safety (2) funding assistance to the states (3) a series of comprehensive start-up action projects in selected communities and (4) research and development to provide new, more effective countermeasures for community use (Cameron, 1979). Although individual ASAP programmes were encouraged to implement their own selected countermeasures which employed a wide range of strategies, an overall heavy emphasis was placed on problem drinker rehabilitation and treatment. Among the goals of the ASAP system were the identification of problem drinkers from the drink drive population and referral of such individuals to alcohol treatment facilities. The assessment and referral criteria included checks of driving and criminal records for alcohol-related convictions, checks of previous contacts with health and social service agencies, pre-sentence interviews with the offender and family members, diagnostic tests for problem drinking and medical and psychological evaluations.

Evaluations of the ASAP programmes have shown negative effects in terms of traffic mortality and morbidity generally. Zador (1976) analysed the impact of 28 of the 35 ASAPs by comparing year-to-year variation in fatality statistics in groups of areas with ASAP programmes, with groups of similar areas without ASAPs. Zador found no evidence of any decline in the total number of fatalities in any communities studied that could be attributed to the ASAP programme. Levy, Voos, Johnson & Klein (1978) evaluated the 35 ASAPs in terms of the impact on night time fatal crashes and found that only 12 sites reported significant reductions. The authors attributed the positive effects that occurred to

the deterrent measures rather than to the rehabilitation components, although it must be emphasized that in such integrated programmes the effects of the different components are impossible to tease apart.

ji) Drink-Drive Recidivism: A number of evaluation studies have used recidivism as an outcome measure. Six studies reviewed in this report used recidivism as a measure of treatment success (Fine, Steer & Scoles, 1977; Hagen et al., 1979: Holden, 1983; Nichols, Ellingstad & Struckman-Johnson, 1979; Preusser et al., 1976; Sadler and Perrine, 1984). None of these studies, however, found a positive effect of therapeutic treatment upon recidivism. In fact, all of these studies found either no significant differences or an actual increase in recidivism between the treatment group when compared with controls. For example, Hagen et al (1979) compared the driving records of multiple drink-drive offenders in four Californian counties assigned to alcohol abuse treatment for 12 months to those of two control groups. Over the 12 months after conviction, the treated group were found to have significantly higher crash rates than one of the control groups, and no other differences were significant. Sadler and Perrine (1984) evaluated California's pilot treatment programme for convicted drink-drivers. A therapeutic treatment group was compared with a "control" group of convicted drink-drivers who received licence suspensions by examining driving records over a 4 year period. No significant differences were found between the treatment and control groups in terms of recidivism. Moreover, this study found that, on measures of non-alcohol related crashes and convictions, the controls did better than the treatment group.

Fine et al. (1977); Holden (1983): Nichols et al. (1979) and Preusser et al. (1976) all used randomized clinical control research designs and reported null findings. For example, Preusser et al. (1976) randomly allocated convicted drink-drivers to treatment and no-treatment (control) groups. Driver records were monitored and no significant differences were found between treatment and control groups for either recidivism or for other traffic convictions excluding drink-driving. Similarly, Holden (1983) randomly allocated convicted drink-drivers to one of several treatments: control, probation supervision, therapy, or supervision plus therapy. Each client was followed up for two years following referral. No significant differences among the reconviction rates of the four groups were observed. Mann et al. (1983) drew more positive conclusions

about the effectiveness of therapeutic interventions, although many of the studies to which they refer were not available to the authors of the present report. In their review, Mann et al. (1983) reported three quasi-experimental studies that demonstrated a positive treatment effect (Seixas and Hopson, 1975; Horowitz, Lasowski & Cline, 1981; Essex & Weinerth, 1982;) compared with three studies that found either a null or negative treatment effect (Ryan & Varquez, 1981; Hagen et al, 1979; Salzberg & Klinberg, 1982). For example, Seixas and Hopson (1975) compared the pre- and post-test treatment driving records of individuals who had successfully completed job-related alcoholism treatment with matched non-alcoholic control subjects. Treated individuals had significantly fewer drink-driver convictions, reckless driving convictions and total collisions after treatment, while controls demonstrated significant increases in drink-driver violations and collisions with property damage. Similarly, Essex and Weinerth (1982) examined the impact on multiple drink-driver offenders of unspecified treatment in comparison with two untreated control groups. Positive programme effects (unspecified by Mann et al., 1983) were obtained in all 4 years of follow-up. Horowitz et al. (1981) found that problem drinkers assigned to alcohol education and group therapy did not differ from untreated controls but had significantly lower recidivism over the follow-up period than those assigned to driver education alone. However, problem drinkers assigned to a combination of group therapy, alcohol education and driver education demonstrated significantly greater recidivism than that observed for any other group, except controls. et al. (1983) also reported two experimental studies using random allocation which found positive treatment effects (Nichols, et al., 1979: Reis & Davis, 1980) e.g. Nichols et al., (1979) found a significantly lower rate of recidivism for the treated group compared to controls in the third month of follow-up. However, during the last 13 months of the 18-month follow-up, recidivism rates for the treatment group were significantly worse than for controls. Reis and Davis (1980) randomly assigned multiple drink-drive offenders to one of four groups. Skills workshop participants given medication were found to have the best outcome while skills workshop participants not given medication had the worst outcome, with two eclectic educational therapy groups fitting in between. This pattern reached significance for measures of combined drink-drive offenders and reckless driving offences and combined moving violations with alcohol-related offences. A significant positive influence of medication versus no medication, regardless of therapy, was found on the same measures.

Ellingstad and Springer (1976) have analysed the impact of the rehabilitation systems of all 35 ASAPs in terms of arrest recidivism and crash recidivism from evaluations made in 1975 and 1974. Of the 12 studies submitted on crash recidivism only 3 were considered by the authors to be methodologically adequate, and only one of these reported positive results of the rehabilitation programme. Of the 35 studies that reported on arrest recidivism only 10 were judged methodologically adequate and only four of these reported positive effects of the rehabilitation programmes. Many more claims of positive results were issued by methodologically weak studies. Similarly, Ellingstad and Struckman-Johnson (1978) evaluated 11 ASAPs where drink-drivers were randomly assigned to either a treatment programme or control condition. The results were clearly negative: none of the treatments, either alone or in combination, had a marked impact on driving behaviour or on measures of drinking or social adjustment.

iii) <u>Knowledge/Attitude Measures</u>: Of those studies reviewed in this report that examined therapeutic style, none used knowledge or attitude about drink driving as an outcome measure.

Treatment/Lifestyle Measures: Of those studies reviewed in this report that examined the effectiveness of therapeutic treatment, five studies examined drinking behaviour, alcohol-related problems and life activities or some combination of these three measures (Fine et al., 1977; Hagen et al., 1979; Nichols et al., 1979: Swenson, Struckman-Johnson, Ellingstad, Clay & Nichols, 1981; Swenson & Clay, 1980). Four studies examined drinking behaviour (Fine et al., 1977; Nichols et al., 1979; Swenson et al., 1981; Swenson & Clay, 1980). Of these, only Nichols et al. (1979) found a positive effect on drinking behaviour. In this study a sample of moderate problem drinkers were randomly allocated to treatment and control groups. Treated participants were found to have a significant reduction in drinking behaviour compared with controls. However, in this study no impact was found on any other measure including: alcohol-related problems, traffic convictions excluding drink-driving, recidivism, traffic morbidity and life activity measures. All of the other three studies which found a null result used a randomized clinical trial research design. Swenson et al. (1981) randomly allocated convicted drink-drivers to one of three short-term treatment groups (power motivation training, therapy workshop and

control). Significant differences were not found between groups on measures of drinking behaviour or on measures of social adjustment at 6 months, 12 months and 18 months after treatment.

None of the studies which examine alcohol-related problems (Fine et al., 1977; Nichols et al., 1979; Swenson et al., 1981; Swenson & Clay, 1980) have found a positive effect of treatment.

<u>Conclusion to 1.44</u>: Therapeutic programmes attempt to offer a psychotherapy-style intervention to help the individual cope with his alcoholism or alcohol-related problems. Programmes which are entirely therapeutic in orientation and directed only at drink-drivers are rare, both in Australasia and overseas. Consequently, there is little adequate evidence indicating the effectiveness of this style of intervention.

Conclusion to 1.4: Assessment alone programmes require individuals to undertake an assessment procedure designed to identify those at high risk of suffering from alcohol-related problems, and constitute a relatively inexpensive method of screening for a high risk group. No empirical data on the effectiveness of these programmes could be found. Health education programmes provide knowledge or attitude change material to the individual, and although the majority of studies which have evaluated these programmes have been methodologically inadequate, some evidence does exist that they have failed to demonstrate improvements in recidivism rates, knowledge, attitude or lifestyle measures. Skill-based intervention programmes attempt to teach behaviours which can be used to prevent drinking and driving. Although rare in Australasia, overseas evidence suggests these programmes result in improvements in both recidivism and drinking behaviour. Therapeutic programmes attempt to "cure" alcohol problems, and have frequently been found to be less effective than skill-based programmes at changing alcohol-related behaviours.

There is consequently an urgent need for further evaluative studies examining the effectiveness of rehabilitation programmes for drink-drivers. However, existing evidence suggests that skill-based programmes may be the most effective of the four models reviewed.

CHAPTER TWO: CHARACTERISTICS OF A GOOD REHABILITATION PROGRAMME

2.1 CHARACTERISTICS OF A GOOD REHABILITATION PROGRAMME: COMPONENT ANALYSIS

Programmes designed to change health risk behaviours have been shown to differ in their effectiveness as a function of the components or intervention strategies included in the programme (Rabkin, Boyko, Wilson & Streja, 1983; Bass, 1982). Research has begun to delineate the treatment components which will be included in a maximally effective behaviour change programme in respect of a wide variety of health risk behaviours (Miller, 1983; Stuart, 1967).

However, few studies have directly examined the most effective components in rehabilitation programmes for drink drivers. Further, it would appear that there has been little attempt to systematically apply knowledge from other health risk behaviours to designing rehabilitation programmes. If rehabilitation programmes are to deliver a maximally effective programme, documentation and analysis of treatment components is essential.

The following discussion considers some of the programme components which may be likely to result in an optimally effective programme. The components can be grouped roughly into two categories: factors relating to the recruitment of clients into the programmes and factors relating to the intervention itself. The evidence for including each component and current use within rehabilitation programmes in Australia and New Zealand will be discussed.

2.11 Recruitment Factors

a) Screening: Detection and Programme Referrals.

The procedure of detection, prosecution and referral to rehabilitation programmes can be conceptualized as a screening procedure for the secondary prevention of drink driving.

The effectiveness of a programme aimed at changing health related

behaviour will depend to a large extent on the success of the programme in reaching the at-risk population, since only those individuals who are exposed to the intervention can benefit. In secondary prevention programmes the intervention is delivered only to identified at-risk individuals and consequently the screening procedure by which they are admitted to the programme may be critical in determining effectiveness (Drussen & Bryk, 1973; South, 1980).

Screening procedures need to be developed to ensure that a high and relatively unbiased sample of the at-risk population are referred to treatment programmes. Screening procedures therefore need to be systematic and closely integrated with treatment programmes (Draper, 1982; Battista, Beaulieu, Feighter, Mann & Owen, 1984).

The development of effective screening procedures represents a particular problem for rehabilitation programmes. The available evidence indicates that only a small and relatively biased proportion of drink drivers are currently detected and referred to rehabilitation programmes (Borkenstein, 1975; Hurst, 1980; Homel, 1983). The potential effectiveness of rehabilitation programmes is therefore limited by a failure to recruit high-risk individuals. Further, in rehabilitation programmes, the effectiveness of the screening procedure depends on the police (for detection) and the courts (for referral). Sometimes hospitals, health centres or other agencies may also refer. There is currently little communication between these agencies and rehabilitation programmes. Screening programmes are therefore rarely systematic or closely integrated with treatment.

The Situation in Australia and New Zealand

Detection and referral processes vary considerably throughout Australia and New Zealand. Few studies have addressed themselves to bias in detection procedures, however Homel (1983) suggests that a similar pattern exists to that reported overseas.

The legal process resulting in referral to rehabilitation programmes is also varied within Australasia. Appendix 5 contains a series of flow charts illustrating the procedures in each state of Australia and in New Zealand. In Western Australia, Tasmania, A.C.T., Queensland, Victoria and New South Wales referral to rehabilitation programmes is at the

discretion of the sentencing magistrate and figures available show that few magistrates adopt this strategy.

In the Northern Territory the individual is offered the option of attending a rehabilitation programme voluntarily, and on attendance may be offered a reduction in sentence (at the discretion of the magistrate). In South Australia and New Zealand drink drivers who have a BAC greater than 0.15 or who have been previously convicted of a drink-drive offence, and are sentenced to licence disqualification are given a mandatory assessment. If the individual is assessed as alcohol dependent, licence return may not be issued until such time as the person is assessed as alcohol independent.

No attempts have been made to compare the relative merits of referral procedures, and it would appear that there is little awareness of the different systems operating in different states, even amongst those working in the area. Evidence from the 1976 review of the Sydney DDP indicates that referral procedures may be biased, in that the referred group in this study had higher previous conviction rates and BAC levels. Further, several programmes commented on the limited nature of court referrals (e.g.-Queensland) and the effect of small numbers on programme maintenance.

<u>Conclusions:</u> Screening procedures make an important contribution to programme effectiveness, and should be systematic and closely integrated with treatment programmes. <u>Currently, screening procedures for drink</u> drivers appear to result in referral of a small and biased population and are not well integrated with treatment. Given between-state differences, an empirical evaluation of screening procedures is needed, paying particular attention to a comparison of the effectiveness of the South Australian and New Zealand systems with those operating in other Australian states.

b) Compulsory versus Voluntary Attendance

The effectiveness of a behaviour change programme will also be affected by its success in ensuring that referred individuals complete the programme. Programmes with high attrition rates have been found to be less successful in promoting behaviour change (West & Hore, 1980). When programmes have a high attrition rate, it is likely that only the

more highly motivated individuals will continue to attend. It is frequently argued that this self-selected group are least in need of the intervention (Bass, 1982; Hunt & Bespalec, 1974).

Brink-driving rehabilitation programmes are relatively unique amongst health-risk behaviour programmes. In contrast to programmes designed to change behaviours such as smoking or eating, rehabilitation programmes are frequently able to coerce attendance, since the legal system can make driver's licence return contingent upon participation. Under such systems, all referred individuals are likely to complete the programme.

To date, no research has examined the relative effectiveness of coerced versus voluntary attendance at rehabilitation programmes. It has been argued (Klajner et al., 1984) that coerced attendance results in reduced cost effectiveness, since attendance does not guarantee motivated participation. Klajner et al (1984) argue that coerced attenders may functionally drop out of programmes by participating in only a perfunctory manner. However, coerced attendance ensures that all referred individuals are exposed to the intervention and avoids the problem of intervening with a biased or self-selected population.

However, for rehabilitation programmes there is a more fundamental issue in terms of coercion. A large body of research indicates that if behaviour is followed by positive consequences it is more likely to occur in the future (Bandra, 1977; Miller, 1983; Skinner, 1938; Mahoney, Moura & Wade, 1973). Consequently, rehabilitation programmes increase attendance rates by making licence return contingent on attendance. However, the aim of rehabilitation programmes is to change drink-driving behaviour rather than programme attendance per se. Therefore, a more effective coercive tactic for rehabilitation programmes would be to ensure that licence return was contingent on the behaviour of interest such as a demonstrable decrease in alcohol dependence.

The Situation in Australia and New Zealand: Thirty seven per cent of programmes surveyed indicated that referral to the programme was coercive, 37% used voluntary referral and 26% of the programmes included both coerced and voluntary participants.

The pattern of voluntary and coerced attendance at rehabilitation programmes varies throughout Australia and New Zealand. In the Northern

Territory, attendance is voluntary. In Victoria, attendance at a rehabilitation programme is highly recommended prior to licence return.

A more interesting approach has been adopted in South Australia and New Zealand where licence return has been made partially contingent on a demonstrated reduction in alcohol related problems rather than on programme attendance. In both South Australia and New Zealand, assessment following conviction may be legally coerced. Although neither location currently includes a treatment component, in South Australia licence reissue does not occur until assessment indicates that the individual is no longer alcohol dependent. This system is currently the closest to maximising the advantages of coercion, since it necessitates active participation in behaviour change by the individual and places the contingency on the behaviour of interest.

Conclusions: There is currently a mixture of voluntary and coerced attendance at rehabilitation programmes in Australia and New Zealand. It seems likely that coerced attendance will result in more effective behaviour change than voluntary participation and therefore the encouragement of coercive programmes would be seen as advantageous. However, it should be emphasized that coerced behaviour change where the consequence is contingent on a change in alcohol dependence or drink driving behaviour as in the South Australian model, seems more likely to be effective than simply coercive attendance at the programme.

c) <u>Targetting in Client Selection</u>: Interventions which are targetted at particular groups of individuals are more likely to be effective than those delivered to the population as a whole for several reasons. First, targetting permits the intervention to be tailored to the specific beliefs and behaviours of particular sub groups. Tailored interventions have been shown to result in more effective behaviour change (Best, 1975; Hallburg, 1970). Second, when the intervention is directed at a subgroup based on a uniting characteristic such as age, peer group support can be used to encourage behaviour change. The use of such social support is more likely to result in maintained changes (Pomerleau, Adkins & Pertschuk, 1978). Third, it may be that some subgroup is at particularly high risk and therefore delivery of the intervention to this group will be more cost-effective (Driessen & Bryk, 1973). In the case of drink driving, repeat offenders constitute one such group.

The Situation in Australia and New Zealand: The majority of programmes in Australia and New Zealand appear to accept all referred and/or volunteering individuals, making targetting of the intervention difficult. Only one programme (St. Vincent's) accepts only offenders aged under 26 years and only two programmes (those run by Chisholm Institute of Technology & Queensland Road Safety Council) restrict participation to repeat offenders. Although Pleasant View accepts all referred individuals, this programme is able to provide some tailoring of the intervention by streaming drivers into different programmes. In South Australia, some attempt at targetting rehabilitation programmes at the high risk groups is made by requiring only repeat offenders to be reassessed.

<u>Conclusions</u>: Programmes targetted at particular subgroups of drink drivers are likely to be more effective. Appropriate subgroups might include particular age groups or repeat offenders. Few programmes in Australia and New Zealand currently direct their intervention at target groups.

2.12 Intervention Factors

a) Assessment: Assessment of an individual's problems prior to his/her involvement in a behaviour change programme has several advantages. First, it permits tailoring of the intervention towards the particular needs of the individual or groups of individuals. Tailored interventions are more likely to be effective in changing behaviour (Borkenstein, 1971; Best, 1975; Rose, 1977; Rose & Hamilton, 1978). Second, it provides an ongoing record of the types of problems experienced by referred individuals useful for programme development. Third, if combined with post-intervention measures it permits a non-experimental estimation of treatment effectiveness. Fourth, it provides a means of monitoring referral patterns. Fifth, it forms a data base for examining interactions between type of treatment and the characteristics of the clients.

In rehabilitation programmes, demographic information along with a history of drink-driving behaviour provides useful client descriptors. Given the use of drink driving programmes as secondary prevention for alcohol problems, assessment of alcohol related problems and alcohol

consumption patterns would appear to be critical to the development and evaluation of appropriate programmes. The measures used to assess these factors should have demonstrated reliability and validity (West & Hore, 1980; Nunnally, 1978) and be standardised in order that programme comparisons can occur.

The Situation in Australia and New Zealand: While the majority of existing programmes (78%) collect information on drink-driving history, a smaller percentage (67%) collect information on alcohol related problems or alcohol consumption. Two programmes indicated that they used the MAST, and one programme the Alcohol Dependency Scale, both relatively reliable and valid measures (Selzer, 1975; Zung, 1984; Gibbs, 1983; Skinner and Allen, 1982; Skinner & Horn, 1984). A third (the Hunter Drug Advisory Service) used a scale (Al confrontation) developed and tested with the programme itself.

The remainder of the programmes surveyed did not specify the questionnaires used, and consequently the degree of reliability and validity of the measures cannot be estimated. Unfortunately, the lack of specificity in responses to the survey's question about which measurement instruments were used may indicate that the nature of the assessment instrument has been little considered.

It is surprising that no programme indicated use of the Mortimer-Filkins test which was developed specifically for use with drink-drivers and has been thoroughly tested and validated (Mortimer, Filkins, Kerlan & Lower, 1973; Ennis & Vingilis, 1981).

<u>Conclusions</u>: Although a thorough assessment of clients' needs is an important step in the tailoring and evaluation of interventions, approximately one third of existing programmes in Australia and New Zealand do not currently assess alcohol related problems or alcohol consumption amongst their clients. The majority of those programmes which do assess alcohol related problems did not indicate using a measure with established reliability and validity.

b) <u>Group vs. Individual Intervention</u>: Secondary prevention can be provided at the group or individual level (Sanson-Fisher, 1985). Both approaches have some advantages associated with their use, although it seems likely that the individual approach will result in greater changes

in behaviours such as drink driving.

The major advantage of group interventions is that they are relatively cheap to deliver. However, unless substantial changes in the target behaviour result, they may not be more cost-effective than individual programmes. Further, group programmes provide the opportunity to elicit social support from other participants – a strategy effective in changing behaviour (Dellellis, 1975; Pomerleau et al., 1978). However, it cannot be assumed that social support will be elicited simply by providing the intervention within a group setting, but rather it is important that programmes include specific strategies to develop social support (Delellis, 1975).

In contrast, individual programmes permit the provision of a tailored intervention which is more likely to result in effective behaviour change (Borkenstein, 1971: Best, 1975; Rose, 1977). In addition, within the individual approach behaviour change strategies derived from social learning theory can be incorporated. These strategies include self-monitoring (Glasgow & Rosen, 1979; Dunbar, 1977), stimulus analysis and contingency management (Homme, De Baca, Cottingham & Homme, 1968), and have been shown to be particularly effective in changing health risk behaviour both alone and when used in integrated programmes (Keefe & Blumenthal, 1982). Such techniques are difficult to use within group interventions.

Education programmes are typically group-based where group leaders and/or experts provide information for the group, usually in a lecture or classroom environment. In individual-based programmes, an assessment is made of the particular needs of the individual and a programme is developed which provides specifically for these needs. For example, a treatment programme may provide psychotherapy or marriage counselling for a particular individual rather than information about drink driving. In practice, rehabilitation programmes may incorporate both approaches, so that within a primarily group based programme, "remediation" is provided for individuals who are having difficulty with course content, and personnel are available for individualized counselling. The usual approach within rehabilitation programmes is therefore to provide a fixed course which is sufficiently flexible to allow for the unique needs of individual participants.

Despite the evidence indicating the advantages of an individual-based approach to health risk behaviour change, such an approach has been rarely implemented in the area of drink-driver rehabilitation. The use of an individual programme has been argued to be of particular importance in dealing with drink-driving as a result of the heterogeneity of the drink-driving population (Klajner et al., 1984). Moreover, it would appear that there is little attempt to maximize the effectiveness of group based programmes by utilizing social support strategies, since these are rarely mentioned in either the evaluative literature or in programme descriptions.

The Situation in Australia and New Zealand: There are no programmes in Australia or New Zealand which currently use an exclusively individual-based programme. Seventy four percent of programmes use a group delivery only, while 26% use both group and individual interventions.

In general, in existing programmes the content of group presentations is readily described although the individual components are less clear. In the absence of a clear specification of the individual treatment components, it seems likely that these are delivered in an ad hoc manner. For example, it seems unlikely that effective individual programmes can be developed in the absence of thorough individual assessment prior to programme onset. Two (Coburg Community Health Centre and VADCARE) of the six programmes who reported using some individual interventions indicated that they did not collect basic information such as measures of alcohol related problems or consumption amongst their participants.

Pleasant View Centre provides an example of a more systematic use of individual interventions. All individuals are assessed on a variety of measures prior to being placed in either of the two types of intervention run by the Centre, thus ensuring some degree of initial tailoring. Part of the intervention is based on videotaped feedback which involves an individual component.

<u>Conclusions:</u> Currently, few programmes in Australia or New Zealand use an individual approach to treatment, either alone or in combination with a group format. While group-based approaches are both cheaper and permit the use of social support, individual approaches permit tailoring

to client needs, and inclusion of specific behaviour change techniques. Given the effectiveness of such techniques and the apparently greater changes in health risk behaviour programmes which result from individual approaches, rehabilitation programmes may be more effective if they adopt an individual intervention style or develop well-defined individual components.

c) Maintenance: Interventions aimed at changing health risk behaviours have typically observed an initial positive change in behaviour immediately after intervention, followed by a return to baseline levels over the next 2-3 months (Hunt and Bespalec, 1974). In general, it appears that follow-up contacts with clients over the 3-6 months following intervention are likely to result in better maintained behaviour changes (Hall and Hall, 1980). It seems likely that maintenance procedures may be particularly important in programmes designed to change behaviours such as drink-driving, where lifestyle changes may need to be relatively radical. Since the usual period to reconviction for recidivists is two years (Maisto et al., 1979), maintenance procedures associated with rehabilitation programmes for drink drivers may be required over a long period.

The Situation in Australia & New Zealand: Of the programmes surveyed, only 7 (26%) reported including maintenance or follow-up procedures.

<u>Conclusions</u>: The inclusion of even minimal maintenance procedures appears to improve the likelihood of enduring changes in behaviour. Currently few programmes include such procedures.

d) <u>Programme Monitoring and Evaluation</u>: Programme monitoring and evaluation is a critical component of any effective programme for health behaviour change. It is important for staff training and feedback, developing and improving the programme, establishing effective components and as evidence for the justification of continued funding.

Rehabilitation programmes may wish to use a pre-post design to assess changes in attitudes, knowledge and especially behaviour at programme completion. The collection of long term follow-up data documenting recidivism rates and/or levels of alcohol consumption and alcohol related problems is also important.

The Situation in Australia and New Zealand: The majority of existing programmes have not been formally evaluated. Twenty-five percent of surveyed programmes indicated that some formal programme evaluation occurred, although few of these evaluations had been published. The authors of this report located only three programmes for which published information as to effectiveness existed: St. Vincent's programme Melbourne (Raymond, 1979) Sydney. DDP (Department of the Attorney General of Justice N.S.W. Bureau of Crime Statistics, and Research, 1976) Pleasant View. Melbourne. (Didsbury. 1985).

<u>Conclusions</u>: Although programme monitoring and evaluation are important in the establishment of and development of effective programmes, there have been few such evaluations of rehabilitation programmes in Australia and New Zealand.

Conclusions to 2.1: Few studies have examined the most effective programme components for changing drink-driving behaviour. However, based on research from other health risk behaviours, inclusion of the following components seem likely to result in an optimally effective programme:

- Systematic screening procedures which access a large proportion of the at risk population and are closely integrated with treatment.
- The provision of some consequence such as licence return contingent on changes in drink-driving or alcohol dependence. Failing this, coerced rather than voluntary programme attendance appears desirable.
- iii) Targetting of the programme to a particular client group.
- iv) Thorough assessment of client problems prior to intervention.
- v) An individual programme or at least the provision of well-defined individual components within a group programme.
- vi) The inclusion of maintenance procedures.
- vii) Programme monitoring and evaluation.

While it is argued that the inclusion of these components in rehabilitation programmes would increase effectiveness, few programmes in Australia and New Zealand include all the above components.

CHAPTER THREE: EVALUATIONS OF REHABILITATION PROGRAMMES: METHODOLOGICAL CONSIDERATIONS

3.1 EVALUATIONS OF REHABILITATION PROGRAMMES: METHODOLOGICAL CONSIDERATIONS

It is difficult to draw firm conclusions about the overall effectiveness of rehabilitation programmes or the contribution made by different components of the programmes because of the scarcity of methodologically adequate empirical data.

In the survey of the literature described in Appendix 6, fifty experimental studies were found which evaluated drink drive rehabilitation programmes. Of these, only 36 were obtainable by the authors of this report. Of the 36 studies only four were from Australia and two from New Zealand. Further, relatively few of the 36 studies were methodologically adequate. Only three studies (Holden, 1983; Nichols et al., 1979; Vingilis et al., 1981), for example, were prospective randomised clinical trials with a follow-up period of more than two years.

There is thus an urgent need for methodologically adequate studies within the Australasian context. In the following section, there is an attempt to delineate the criteria which should be considered in establishing an adequate evaluation study.

3.11 Design: Establishment of Control Groups

The inclusion of a control group in the design of an evaluation study enables conclusions to be drawn about the impact of the intervention procedure on the outcome variables. A control group allows the investigator to determine which changes in the outcome measures are due to intervention effects rather than the influence of extraneous variables. Random assignment of individuals to control or experimental groups ensures that the two populations are equivalent within the limits of sampling error at the start of the experiment. Random assignment to experimental and control conditions is generally considered to be the optimal design for evaluating treatment effects (Sackett, Haynes & Tugwell, 1985; Feinstein, 1977) and is the only design which ensures that changes in the outcome measures in the experimental but not the control group can be confidently attributed to treatment effects.

Unfortunately, only 9 of the 36 evaluation studies reviewed for this report used control groups with random assignment of subjects to treatment and control. Mann et al. (1983) drew similar conclusions from their review of the literature. Many of the evaluation studies were either quasi-experimental or used no control group. In 11 of the studies no control group was used. Interpretation of the results of those studies which do not provide random allocation to treatment and control groups is difficult, since effects may be due to factors aside from treatment.

There are several reasons for the scarcity of randomised clinical trials. First, there is resistance to assigning drink-drivers to no-treatment control groups and to randomly assigning drivers to different treatment programmes. For example, in Australia, Raymond (1980, 1982) has argued that randomization is unethical. Second, randomization must occur within the constraints of the health and legal system where drink-drivers are adjudicated and treated. The legal system has the task of meting out fair, just and socially responsible consequences to offenders while the health system has the task of providing correct and effective treatment to each individual (Jones & Joscelyn, 1978). Neither goal is compatible with random assignment to treatment and control groups. Random assignment has therefore not occurred because of an inability or refusal to co-operate by health or legal authorities and a perception amongst health workers that real world constraints prevent its use. In situations where studies using random assignment have been established, various agencies have failed to co-operate (e.g. Struckman-Johnson & Ellingstad, 1979; Blumenthal & Ross, 1975). For example, Blumenthal & Ross (1975) found that judges conformed to the schedule of sanctions to be imposed 94% of the time during the months when fines were the agreed sanction; 68% of the time when conventional probation was scheduled and only 48% of the time during rehabilitative probation months.

Despite such difficulties, a number of factors suggest that every attempt should be made to implement a randomised trial methodology. First, the effectiveness of existing drink-driving programmes are likely to be affected by factors outside of the programme itself such as changes in community perceptions, legislation or detection policies. Unless a randomised methodology is used, the results of the trial may be contaminated by such factors. Consequently, in areas such as drink-driving, reliable evaluations are not possible without the use of a randomised trial methodology. Second, despite the difficulty in performing such trials, it might be argued that it is unethical not to rigorously evaluate an intervention strategy which demands resources,

facilities and client and provider time. To continue to spend community funds on a programme in the absence of a clear demonstration of its effectiveness is difficult to justify. Finally, treatment programmes other than drink driver rehabilitation programmes face difficulties in random allocation of clients to treatment groups, but have attempted rigorously to overcome these problems. For example, despite a similar ethical position surgeons regularly perform randomised clinical trials (e.g. Perry, Dunphy, Fruin et al, 1964), as do those involved in providing treatment for other life-threatening diseases, such as acute myocardial infarction (Mather et al, 1971).

An alternate methods of ensuring some degree of control for non-random factors is provided by the methodology used to evaluate mass media campaigns such as those designed to reduce cardiovascular risk (Egger, Fitzgerald, Frape et al 1983; Meyer, Nash, McAlister, Maccoby & Farquhar, 1980). In such cases, geographic areas rather than individuals are randomly assigned to treatment. Consideration could be given to the use of such designs in evaluating drink drive programmes.

When randomised clinical trials are seen to be impossible, matched control and cluster sampling methods provide methodological weaker methods of evaluation. Twenty seven of the 36 studies used one of these methods. Despite their weaknesses, such designs have appeal to practitioners for several reasons. First, they avoid the ethical questions of denying clients the opportunity to enter treatment when facilities are available as would a randomized clinical trial methodology. Second, patient selection is not restricted to persons willing or able to participate in an experiment. The problem of providing "non-therapeutic" control conditions (e.g. waiting lists, advice, minimal treatment), does not arise.

Nonetheless, it must be emphasised that such designs do not permit the investigator to draw confident conclusions about treatment effects. The problems associated with matching have been outlined by several authors (e.g. Schlesselman, 1982; Feinstein, 1977) and include the following: matching on any one variable prevents an assessment of its effect on treatment; matching is a complicated procedure which can only take place after experimental subjects have been recruited; no matter how carefully matching factors are selected, it remains possible that the groups are unmatched on key factors which confound the analysis.

<u>Conclusion to 3.11</u>: Despite the important advantages of randomized clinical trials, relatively few evaluations of rehabilitation programmes

have used this design. Matched controls or cluster sampling has been a more common method of providing a control group. It is critical that future evaluation studies use a randomized clinical trial methodology, if confident conclusions about the effectiveness of rehabilitation programmes are to be drawn.

3.12 Design: Prospective vs. Retrospective

An investigator can assemble research data using either retrospective or prospective techniques. In retrospective collection the person under study was originally observed by people who were not performing a specific investigation, and who reported the observations in routine records. Afterward, to get the research data, the investigator extracts the information available in those records. In prospective data collection, the investigator makes special plans beforehand for the techniques with which each person is to be examined and the data recorded. This distinction parallels that commonly made between retrospective and prospective collection.

There are a number of problems associated with retrospective data collection, (see Feinstein (1977) for a detailed discussion). First, it is clearly impossible to ensure random allocations to treatment or no-treatment groups. Second, retrospective studies do not permit the collection of pre-intervention measures. Third, while subject attrition is a problem for both prospective and retrospective studies, when a retrospective design is used it is impossible to estimate either the magnitude of attrition rates or the degree of bias resulting from them. Consequently, when retrospective data are collected, it is difficult to be certain that treatment and no-treatment groups were similar prior to intervention or that observed differences between the groups after treatment are attributable only to intervention effects.

Retrospective data collection has been used fairly commonly in the evaluation of rehabilitation programmes. A typical procedure has been to identify individuals who were processed by the courts, some of whom were sent to rehabilitation programmes and then assess the recidivism rates of the two groups over the years between prosecution and study onset. Of the 36 studies examined in the current review, the majority, 24, were prospective studies, 8 were retrospective and 4 did not clearly specify whether the data were collected retrospectively or prospectively. The

relatively small number of retrospective studies appears to indicate that researchers in the area are aware of the problems associated with retrospective evaluations.

<u>Conclusion to 3.12</u>: Evaluations of rehabilitation programmes should ensure that data collection is prospective rather than retrospective.

3.13 Sample Size

An important aspect of evaluation studies is the size of the sample studied. If the sample selected is too small, the researcher runs the risk of making a Type II error, of finding that there is no difference between treatment and control groups when in fact one exists. However, estimating an adequate sample size in advance is difficult since it is likely to depend on the characteristics of the particular study. It will depend, for example, on the design of the study, the methods of analysis to be used, the number of analyses to be performed and the size of the treatment effect which will be accepted as significant. It will also be affected by factors relating to the outcome variables such as whether they are continuous or discrete, the number of levels of discrete variables and the distribution of the outcome variables (Fleiss, 1981; Armitage, 1983). Therefore, it is recommended that sample size be carefully considered independently for each evaluation study during the design phase.

In the studies reviewed for the present report, large sample sizes were relatively common with 6 studies including more than 1000 subjects in their treatment groups and 12 with treatment samples greater than 500. However, for the reasons discussed above, it is still difficult to be certain that these studies had sample sizes large enough to avoid a Type II error.

Conclusion to 3.13: Consideration of sample size is important in order to avoid the possibility of finding no difference between treatment and control groups when in fact one exists. Since the necessary sample size will depend on a variety of study-specific factors, no particular sample size figure can be accepted as adequate across studies. It is recommended that each evaluation study be independently assessed for adequacy of sample size by a statistician, prior to data collection.

3.14 Outcome Measures

The specification of reliable and valid outcome measures is a critical component of an adequate evaluation study. Reliability refers to the extent to which the measures are free from measurement error, while validity refers to the extent to which the measure assesses what it claims to (Nunnally, 1978). In the case of road crashes, many of the behaviours of interest can only be measured by direct observation and therefore reliability must be assessed by comparing the measures of different raters of the same sequence of behaviour. In such studies the validity of the measure should also be established by evaluating whether the behavioural observations are free from bias, are generalizable to other situations, and reflect the defined behaviour of interest.

The establishment of adequate outcome measures has proved to be a particular problem in the area of drink-drive rehabilitation programmes. The table below indicates the variety of measures which have been used and the proportion of the 36 experimental studies included in this report's review which used each outcome measure.

TABLE II
Outcome Measures Used in Evaluation Studies

	Dutcome Measure	Frequency	<u>%</u>
1.	Knowledge about alcohol/drink-driving	6	16.7
2.	Attitude about alcohol/drink-driving	5	13.9
3.	Drinking behaviour	9	25
4.	Alcohol-related problems	7	19.4
5.	Life functioning	4	11.1
6.	Drink-driving convictions	19	52.8
7.	Traffic convictions excluding drink-driving	g 12	16.2
8.	Epidemiological	2	5.6
9.	Cost-effectiveness	1	2.8
10.	Other	7	19.4

It is evident that drink-driver convictions was the most commonly used outcome measure. Self-reported drinking behaviour and traffic convictions other than drink-driving were also commonly used. In the following section, the relative advantages of the different types of outcome measures will be considered:

- i) & ii) Knowledge or Attitudes about Alcohol/Drink Driving:
 Attitude and knowledge measures are useful in assessing whether the intervention has successfully imparted information which it considers important. While they might usefully be collected in order to provide feedback to intervention deliverers, as measures of outcome they are not good measures. A change in attitude and knowledge measures cannot be assumed to indicate a change in drink-driving behaviour. If attitude or knowledge measures are used, it is important that the reliability of the measures be demonstrated and that some evidence for the validity of the measures be presented.
- iii) Drinking Behaviour: Two types of measures have been used to assess drinking behaviour: self-report questionnaires (Guze, Tuason, Stewart & Picken, 1963; McCall, Cullen & Wearne, 1978) and assessment of blood alcohol levels. The reliability and validity of self-report measures of drinking behaviour have been well studied (Cooper, Sobell, Sobell & Maisto, 1981; Hesselbrock, Babor, Hesselbrock, Meyer & Workman, 1983; Bagurst & McMichael, 1978). In general, it appears that such measures can provide accurate estimates of drinking behaviour, with self-report diaries yielding better estimates than the more indirect measures (Redman, Sanson-Fisher, Wilkinson & Fahey, unpublished data). However, if an intervention occurs in one group and not the other or some outcome such as licence return is dependent upon the self-report, accuracy is likely to decrease. While blood alcohol measures are also reliable, they are open to unreliability since they will reflect only recent drinking behaviour. The individual who is tested mid-week but continues to drink heavily at the weekend will not be detected.

The extent to which blood alcohol outcome measure is appropriate will also depend on the aims of the particular programme being evaluated. For example, it may be that the programme organizers are relatively unconcerned about the drinking behaviour of participants, provided that they do not drive while drunk.

iv) Alcohol-Related Problems: Alcohol-related problems are typically assessed using self-report measures and/or semi-structured interviews. The most commonly used measures are the Mortimer-Filkins test, the Michigan Alcoholism Screening Test (MAST) and the CAGE. All of these measures have demonstrated reliability and validity (Mayfield, McLeod, McLeod & Hall, 1974; Gibbs, 1983). Interviews with employers or other independent sources are also valuable.

There are three problems associated with their use. First, as with self-reported drinking behaviour, they are open to bias from experimenter demands or environmental contingencies. Second, as has been argued by Vingilis (1983), they are potentially confounded when used with drink drivers since both the MAST and the Mortimer-Filkins test use the occurence of drink-driving as part of the definition of alcohol related problems/alcoholism. Thirdly, both tests use a temporal focus which is extreme. That is, the client is asked "Have you ever had a problem with x?" This approach assumes that once an individual experiences alcohol problems, they are always an alcoholic. That is, the measure does not permit an estimation of improvement over time.

As with drinking behaviour, the relevance of this outcome measure to the objectives of the programme under evaluation needs to be carefully considered.

v) <u>Life Functioning</u>: These measures are most usually self-report and may include assessment of such factors as psychiatric illness, personality, interpersonal relationships, work history and physical health. Self report should be supplemented by independent reports.

The acceptability of these measures will depend largely on the extent to which reliability and validity have been demonstrated. The extent to which they are open to bias and their relevance to the objectives of the programme being evaluated will again be critical factors in determining their usefulness.

vi) <u>Drink Driving Convictions or Recidivism</u>: This measure can be collected using traffic department/police records or by self-report. Independent records are a better measure and represent a hard outcome measure which can be little influenced by the perceptions of the individual driver. Reliability and validity can be readily demonstrated.

While a second prosecution is the most usual measure, assessments of traffic crashes while drunk by previously convicted drivers have also been made.

Recidivism rates, however, represent a relatively crude outcome measure since they indicate only detected, and most usually convicted, drink driving. Since a large proportion of drink driving incidents remain undetected, this measure is both insensitive and open to bias from detection or prosecution procedures. The average time to reconviction is two years and therefore recidivism should be used as an outcome measure only if the follow-up period is two years or longer.

Nonetheless, recidivism remains an important outcome measure because of its established reliability and validity and its obvious relevance to rehabilitation programmes.

vii) Traffic Convictions Excluding Drink-Driving: Traffic convictions other than drink driving include speeding offences, reckless driving etc., which are not related to alcohol. As with recidivism, these measures can be collected from official records or by self-report, with official records being readily tested for reliability and validity.

Although it is fairly commonly used, the relevance of this measure for rehabilitation programmes is somewhat unclear. It seems unlikely that attending a course aimed at improving either drink-driving or drinking itself would be expected to result in improvement in non-drink-related driving infringements, unless the frequency and/or duration of driving is reduced following the programme.

- viii) <u>Traffic Crashes</u>: Rather than focusing on the individuals who have attended the drink driving programme, these outcome measures examine changes in community rates of traffic safety following introduction of a rehabilitation programme. These measures are sometimes referred to as 'epidemiological' measures. Several types of measure have been used:
- a) Rates of arrest for drink-driving
- b) Proportion of road traffic fatalities over a given blood alcohol
 level
- c) Proportion of night time crashes

d) Number of road crash/fatalities

All of these measures can be collected from official records, and are of obvious significance in terms of the overall aims of rehabilitation programmes.

However, they are all relatively rare events and consequently necessitate the use of large subject numbers to avoid the possibility of making a Type II error. They require the careful establishment of control procedures to ensure that changes are not due to factors other than the rehabilitation programme. Further, the rates of arrest for drink-driving are open to bias from changes in detection or conviction procedures.

ix) <u>Cost-effectiveness</u>: Cost-effectiveness is ultimately a critical outcome measure, in relation to decision making about programme establishment or continuation. However, in the present review, only one study evaluated the cost-effectiveness of the programme.

Conclusion to 3.14: While a number of outcome measures have been used in evaluating rehabilitation programmes, none appear to be entirely satisfactory. However, some general comments can be made. The outcome measure(s) selected should be closely related to the aims of the programme. An evaluation study of rehabilitation programmes should at least include measures of recidivism and cost-effectiveness. Evaluation studies should not limit their outcome measures to attitudes or knowledge assessments as these may have a weak relationship to changes in behaviour. If measures of drinking behaviour, alcohol related problems or life activities are used, then assessment instruments which have demonstrated reliability and validity should be selected and steps should be taken to minimize biases from experimenter demands or subject deception. There is a need for a large scale study examining the impact of rehabilitation programmes. Where possible multiple sources of information should be used to determine community rates of road crashes and drink-driving.

3.15 Intervention

An adequate evaluation study must accurately describe the nature of the rehabilitation programme in sufficient detail to ensure that the programme could be replicated elsewhere. It should also include clear specification of monitoring procedures to ensure that the programme does not change over the period of evaluation, or that changes have been recorded.

Relatively little attention has been paid to these factors in evaluation research within the area of rehabilitation of drink-drivers. While no attempt was made to formalize this aspect of the review of outcome studies, subjective impressions indicated that it was frequently difficult to ascertain basic details about the intervention procedure in the 36 studies reviewed. For example, basic details such as whether intervention was on a group or individual basis, consisted of educative, skill-based or psychotherapeutic components were frequently not specified. Comparisons between evaluation studies are therefore difficult.

No study included procedures designed to ensure that the programme remained consistent across the evaluation period. Given the evolving nature of rehabilitation programmes and their likely interaction with legislative changes or personnel changes within the organization, the inclusion of monitoring procedures is essential. Also, it is important that drop out rates be monitored.

<u>Conclusion to 3.15</u>: Further evaluations of rehabilitation programmes should ensure that they clearly describe the nature of the programme and provide evidence of its consistent administration throughout the period of study.

3.16 Follow-up

The adequacy of the evaluation study will depend to a large extent on the follow-up procedures used. Issues relating to follow-up include the length of the follow-up period and the degree of attrition at follow-up.

The duration of the follow-up period needs to be carefully considered in rehabilitation studies. Research indicates that the average interval between first and second drink-drive conviction is about 2 years (e.g. Maisto et al., 1979). If outcome success is being measured in terms of recidivism, follow-up measures should not be collected for at least two years after intervention. Similarly, if the study is using other outcome measures such as attitude towards drink-driving, alcohol-related problems or lifestyle variables, follow-up needs to be of sufficient duration to

determine whether initial positive effects are maintained over time. Alcoholism research also indicates that changes in alcohol-related problems need to be evaluated at a follow-up of one to two years duration. An ideal follow-up procedure involves collecting follow-up measures at regular 3 monthly or 6 monthly intervals during a two year follow-up.

Of the 36 studies reviewed, only 30.6% used a follow-up period that was greater than 24 months. 30.6% of studies used a follow-up period of less than 6 months and another 16.7% of studies only used a 12 month follow-up period.

In addition to follow-up duration, an adequate evaluation study must also minimize attrition rates at follow-up. If attrition rates are high, then it is possible that the follow-up sample is not representative of the initial sample. Most usually, non-representative samples of this type are considered to bias the findings towards an observation of treatment effectiveness, since those subjects who can be most readily contacted are assumed to be better rehabilitated.

Of the studies reviewed for the present report, 42% reported a good follow-up rate of more than 80%. However, 44% of studies failed to report the contact rate at follow-up.

<u>Conclusion to 3.16</u>: Evaluation studies of rehabilitation programmes should ensure that follow-up duration is of at least 2 years and attempt to maximise contact rates at follow-up.

<u>Conclusions to 3.1</u>: It is currently difficult to draw firm conclusions about treatment effectiveness as the majority of evaluation studies of rehabilitation programmes fail to meet adequate methodological standards.

There is a clear need for further research which should be designed to meet the following criteria:

- The study should be a <u>randomised clinical trial</u>.
- ii) Data collection should be prospective.

- iii) Sample size should be determined by a statistician and be sufficient to avoid Type II errors as evaluated by a statistician.
- outcome measures should be appropriate to the programmes' aims and have demonstrated validity and reliability. Recidivism rates and cost-effectiveness are important outcome measures.
- v) The intervention procedures should be accurately described and monitored for any changes occurring over the evaluation period.
- vi) The minimal acceptable follow-up period appears to be two years.

 Attrition rates at follow-up should be clearly stated and as low as possible.

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Appendix 1

Networking: The identification of agencies involved in drink-drive rehabilitation programmes.

This appendix describes the method used to identify agencies involved in conducting drink-drive rehabilitation programmes in Australia and New Zealand. The networking process is described under the following four headings:

- 1.1 General Networking Method
- 1.2 Lists of Initial Agencies provided by the Commonwealth Department of Transport.
- 1.3 The networking letter which was sent to each agency.
- 1.4 The reminder letter.

1.1 General Networking Method

The Commonwealth Department of Transport supplied the authors of the report with an initial list of 23 agencies involved in providing, or referring to, drink-driving rehabilitation courses in Australia and New Zealand. The initial contact list is attached in Section 1.2.

This contact list was used in the networking process to ensure that as many as possible of the existing drink-drive courses were identified.

Each organization on the initial contact list was sent the letter shown in Appendix 1.3 which enquired whether any additional agencies were known to conduct drink-driver programmes. Any additional agencies identified by this process were sent the letter shown in Appendix 1.3 along with the updated list of addresses.

The letter was sent to each agency on the initial contact list on April 15, 1985. Each agency was given 15 days to reply. If a response was not received within this time the reminder letter (as shown in 1.4) and a copy of the original letter and list was sent.

54 agencies were identified overall through this process (see Appendix 2 for a complete list). Each agency was sent a copy of the Postal Questionnaire (see Appendix 2).

1.2 Initial Contact List of Agencies Involved in Drink-Driving Rehabilitation Courses Supplied by the Commonwealth Department of Transport

The Director, N.S.W. Drug and Alcohol Authority, Department of Health, P.O. Box K110, HAYMARKET 2001

The Director, Probation and Parole Services, Department of Corrective Services, Roden Cutler House, 24 Campbell Street, SYDNEY 2000

The Director, Magistrates' Courts, Head Office, 302 Castlereagh Street, SYDNEY 2000

Ms. Ann Foon,
Alcohol and Drug Dependence Unit,
A.C.T. Health Authority,
Moore Street,
CANBERRA CITY 2600

The Director,
Probation and Parole,
Dept. Territories and Local Government,
Melbourne Building,
CANBERRA CITY 2600

The Director,
Alcohol and Drug Services Division,
Victorian Health Commission,
555 Collins Street,
MELBOURNE 3000

Ann Raymond,
Co-ordinator,
Drivers' Course,
Dept. of Community Medicine,
St. Vincent's Hospital,
FITZROY 3065

The Director,
The Drug and Alcohol Bureau,
Department of Health,
Central Office,
DARWIN 5790

The Director,
Department of Community Development,
Correctional Services Division
(Probation and Parole)
and Community Welfare Division,
DARWIN 5790

The Director, Alcohol and Drug Dependency Board, Department of Health Services, 119a Hampden Road, HOBART 7000

The Director, Probation and Parole Service, Kropwood House, 38 Montpelier Road, Battery Point, HOBART 7000

The Director,
Alcohol and Drug Addicts' Treatment
161 Greenhill Road,
PARKSIDE 5063

The Director,
Dept. for Correctional Services,
25 Franklin Street,
ADELAIDE 5000

The Director,
Department for Community Welfare,
50 Grenfell Street,
ADELAIDE 5000

The Director,
Alcohol and Drug Authority
C/- Community Health service,
35 Outrum Street,
WEST PERTH 6005

The Director, Health Department of W.A., 60 Beaufort Street, PERTH 6000 The Director, Probation and Parole Services, 638 Murray Street, PERTH 6000

The Director, Health Department, Administration Building, George Street, BRISBANE 4000

The Director, Probation and Parole Services, Ampol House, 44 Herschel Street, BRISBANE 4000

The Director,
National Society on Alcoholism
and Drug Dependency (NSADD),
WELLINGTON
New Zealand

The Director,
Alcohol and Drug Dependence Services,
270 Roma Street,
BRISBANE 4000

The Director, Magistrates' Courts, 179 North Quay, BRISBANE 4000

The Director,
Alcoholic Liquor Advisory Council
(ALAC)
Private Bag,
WELLINGTON
New Zealand



THE UNIVERSITY OF NEWCASTLE

New South Wales 2308
Australia.

TELEX: AA28194 NEWUN
TELEPHONE 680401
EXT

FACULTY OF MEDICINE

Dear

Re: Rehabilitation of Drink Drivers in Australia and New Zealand

The Commonwealth Department of Transport has recently asked Dr. Sally Redman and myself, to examine and evaluate the effectiveness of programs concerned with the rehabilitation of drink driver offenders in Australia and New Zealand. As you are 10 doubt aware, there is a need for accurate information concerning the existing programs, so that there can be some sharing of the expertise and strategies within the Australasian geographical area. Consequently, this program aims to gather information to evaluate the effectiveness of drink driver rehabilitation programs, perceived common ingredients of successful programs and the development of basic requirements for effective research in the field.

One important aspect of the research is to provide a description of the rehabilitation programs which currently exist in Australia and New Zealand. We are now in the process of contacting representatives of a variety of organizations in an attempt to identify existing programs. It is hoped that we can extend our present, rather limited list of progams with the collaboration of organisations and individuals such as yourself.

We would like your assistance two ways:

- 1. If you could provide a list of those people and organisations you know to be working in this area. Enclosed is a list of centres to whom this letter will be sent, but as you will see, many are organisations, and if you have any suggestions about any specific individuals within these groups that we should contact, it would be appreciated.
- 2. We would also appreciate receiving some basic information about what you or your organisation is doing in the area of rehabilitation of drunk drivers. It would be helpful if you could let us have data on your programs organisation and the number of participants that proceed through any course you run per annum, the method of referral, staff/client ratios, the philopsphy of the program, whether an evaluation of a successful program is undertaken, and funding and any other areas you feel might be important would be appreciated. On the basis of this information, we will construct a more structured questionnaire which will then be sent out to everybody who has been identified in the field.

I realise that obtaining this information may be somewhat onerous, but I do hope that you think the effort worthwhile, and I look forward to hearing from you, preferably by the 15th July, 1985.

Yours,

Rob Sanson-Fisher

Professor of Behavioural Science in Relation to Medicine

Encl.



THE UNIVERSITY OF NEWCASTLE

New South Wales 2308 Australia. TELEX: AA28194 NEWUN
TELEPHONE 680401
EXT

FACULTY OF MEDICINE

Dear

Re: Rehabilitation of Drink-Drivers in Australia and New Zealand

On the 15th April, I sent your organization a letter requesting assistance in accessing all those groups undertaking drink-driver programmes in Australia and New Zealand.

Unfortunately, it seems that either our letter has gone astray or that you might have been too busy to respond. Given the importance of the survey and that we are anxious to complete it as soon as possible, I am enclosing a copy of the original letter and would be most grateful if you could respond to it as soon as possible.

I realise that such requests are common, but hope that you'd accept the potential benefits in undertaking this survey on behalf of the Commonwealth Government.

I look forward to hearing from you.

Yours

ROB SANSON-FISHER
Professor of Behavioural Science
in Relation to Medicine

Encl.

Appendix 2: Development and Administration of the Postal Questionnaire.

Appendix 2 describes the development and maintenance of the Postal Ouestionnaire which was sent to each of the 54 organisations identified by the Networking Process (described in Appendix 1). The questionnaire was designed to elicit information on the structure and format of the drink-drive rehabilitation programmes.

The appendix contains five sections:

- 2.1 General Method
- 2.2 List of organisations that the questionnaire was sent to
- 2.3 The cover letter sent with the Postal Questionnaire
- 2.4 The Postal Ouestionnaire
- 2.5 The reminder letter.

2.1 General Method

A postal questionnaire entitled "A Survey of Drink-Driver Rehabilitation Programmes in Australia and New Zealand" (see section 2.4) was designed to provide information on the aims, structure and format of existing rehabilitation programmes. It was developed to cover the areas believed to be important by the authors of the report and by those working in the area of drink-driving. Several programmes completed a pilot version of the questionnaire, prior to its distribution, and their comments were helpful in the revision and development of the final version.

The postal questionnaire and a cover letter (see 2.3) were sent to the 54 organisations listed in section 2.2 which had been identified by the networking process as conducting drink-drive rehabilitation programmes in Australia and New Zealand.

The questionnaire was sent to each agency on July 17, 1985. Each organisation was asked to reply by August 27, 1985, and to return the questionnaire marked N/A if no course was conducted. If the questionnaire was not received by this date a reminder letter was sent on September 10. If a reply had still not been received by September 18, a reminder phone call was made requesting that the questionnaire be returned as soon as possible.

In total, 54 agencies responded yielding a return rate of 100%. Of these, 27 indicated that they conducted drink-drive programmes, these agencies are indicated by an asterisk in the list shown in 2.2.

2.2 List of Organisations that the Postal Questionnaire was sent to.

Victoria

*Ann Raymond,
Co-Ordinator,
Drivers' Course,
Department of Community Medicine,
St. Vincent's Hospital,
FITZROY Vic. 3065

*Dr. Charles Hamilton,
Ballarat Regional Alcohol and
Drug Dependence Association,
1001 Main Street,
BALLARAT Vic. 3350

*Dr. Richard Trembath, Chisholm Institute of Technology, Chisholm Drivers Educational Clinic, McMahons Road, FRANKSTON Vic. 3199

*Sr. Judy Uren,
Doveton - Hallam Community
Health Centre,
Cnr. Power Road and Eugenia Street,
DOVETON Vic. 3177

*Geelong Centre for Alcohol and Drug Dependence, 59 Sydney Parade, GEELONG Vic. 3220

*Ms. Lis Arctander,
Lakes Entrance Community Health
Centre,
22-26 Jameson Street,
LAKES ENTRANCE Vic. 3909

*The Director,
Pleasant View Centre,
131 Wood Street,
EAST PRESTON Vic. 3072

*Mr. Barry Glugston, Stawell Alcohol and Drug Dependence Associaton, Frencham House, 22 Scotland Place, STAWELL Vic. 3380

*Mr. Frank Mastroianni, Wangaratta Base Hospital, WANGARATTA Vic. 3677 *Road Traffic Authority,
Alcohol Education Programme,
Victorian Road Traffic Authority,
854 Glenferrie Road,
HAWTHORN Vic. 3122

*Mr. Jeff Wallis/Ms. Beverley Ellingsen Bendigo Drink Drivers Course, Seymour Street, EAGLEHAWK Vic. 3556

*Ms. Veronica Brown,
Delmont Private Hospital,
298 Warrigal Road,
BURWOOD Vic. 3125

Sr. Kate McKie, East Glenroy Community Health Centre 89 Justin Avenue EAST GLENROY Vic. 3046

*Sr. Ann Boucher, Hobson Park Hospital Drink Drive 59 Program P.O. Box 761, TRARALGON Vic. 3844

*Mr. Peter Mackie, Maroondah Social Health Centre, 75 Patterson Street, RINGWOOD EAST Vic. 3135

*Coburg Community Health Centre, 362 Sydney Road, COBURG Vic. 3058

*Mr. Dan Brophy, Vadcare, 30 Welsford Street, SHEPPARTON Vic. 3630

*Ms. Jenny Murray, Warrnambool Base Hospital, Ryott Street, WARRNAMBOOL Vic. 3280 *Mr. Dennis Quinn. Westadd, 49 Nicholson Street, FOOTSCRAY Vic. 3011 Dr. John Moran, Wodonga Base Hospital, WODONĞA Vic. 3690

New South Wales

The Director, Drug and Alcohol Court Assessment Programme, Westmead Hospital, WESTMEAD N.S.W. 2145

Mr. Chris Browne, Kenmore Hospital, GOULBURN N.S.W. 2580

Ms. Christine Dalnevv, Alcohol Clinic, Griffith Base Hospital, GRIFFITH N.S.W. 2680

*Mr. Garry Lake, N.S.W. Department of Health, "Kembla House", 34 Kembla Street, WOLLONGONG N.S.W. 2500

*Mr. Raoul Walsh, The Hunter Drug Advisory Service, 56 Stewart Avenue, HAMILTON N.S.W. 2303

Dr. W. Mackay-Sim, Regional Drug and Alcohol Co-ordination Unit. Northern Metropolitan Region, 8A McIntosh Street, CHATSWOOD N.S.W. 2067

Traffic Accident Research Unit, Traffic Authority (Behaviour Section), Magistrate, SYDNEY N.S.W. 2000 BATHURST N

C.M. Webster, BATHURST N.S.W. 2795

Ms. Pat Dixon, C/- Alcohol Clinic. Armidale District Hospital, ARMIDALE N.S.W. 2350

Queens land

The Director, Alcohol and Drug Dependence Services, G.P.O. Box 8161, BRISBANE 01d. 4001

Assoc. Prof. B.A. Smithurst, Department of Social and Preventative Medicine, Medical School, Herston Road, HERSTON 01d. 4006

*The Director, Oueensland Road Safety Council, P.O. Box 673, FORTITUDE VALLEY 01d. 4006

*Mr. Greg Farrugia, Royal Brisbane Hospital, (Pavilion 4 Programme), HERSTON Old. 4006

The Director, Alcohol and Drug Prob. Association of Queensland. P.O. Box 320, SPRING HILL Qld. 4000

The Director, Old. Road Transport Association Ltd., Department of Transport, C/- Transport House, Velley Centre Plaza, FORTITUDE VALLEY 01d. 4006

Northern Territory

*Mr. Ian Pitman,
Darwin and District Alcohol and Drug
Dependence Foundation,
G.P.O. Box 3360,
DARWIN N.T. 5790

Western Australia

The Director,
National Safety Council of
Western Australia Incorporated,
P.O. Box 42,
MT. LAWLEY W.A. 6050

The Director,
Health Department of
Western Australia,
60 Beaufort Street,
PERTH W.A. 6000

South Australia

R.G. Pols, Director of Treatment Services, and Alcohol Service Council, 3/161 Greenhill Road, PARKSIDE S.A. 5063

A.C.T.

The Director,
Salvation Army,
Mancare Community,
P.O. Box 181,
KINGSTON A.C.T. 2604

Alcohol and Drug Dependence Unit, A.C.T. Health Authority, Moore Street, CANBERRA CITY A.C.T. 2600

Tasmania

The Director, Alcohol and Drug Dependency Board, Department of Health Services, 119a Hampden Road, HOBART Tas. 7000

The Director,
Probation and Parole Service,
Kropwood House,
38 Montpelier Road,
Battery Point,
HOBART Tas. 7000

The Director,
Alcohol and Drug Authority
&/or Community Health Service,
35 Outram Street,
WEST PERTH W.A. 6005

*Western Australian Probation and Parole Service, 638 Murray Street, PERTH W.A. 6000

*Ms. Kathryn Upton,
S.A. Department of Correctional
Services,
25 Franklin Street,
ADELAIDE S.A. 5000

The Director,
Drug Dependence Unit,
Woden Valley Hospital,
Yamba Drive,
GARRAN A.C.T. 2608

*Alcohol and Drug Foundation
Association of the Capital Territory,
G.P.O. Box 1219,
CANBERRA CITY A.C.T. 2601

The Controller of Prisons, P.O. Box 24, LINDISFARNE Tas. 7015

Medical Superintendent, John Edis Hospital, Creek Road, NEW TOWN Tas. 7008 *Mr. Barry Madden, Division of Road Safety and Transport Collins Street, HOBART Tas. 7000

New Zealand

Dr. R.B. Fisher, Assistant Director, Mental Health, P.O. Box 5013, Wellington New Zealand

Dr. Paul Hurst, Chief of Traffic Research, Ministry of Transport, Private Bag, Wellington New Zealand Director of the Road Transport Division, Ministry of Transport, Private Bag, Wellington New Zealand

2

2.3 The Cover Letter For The Postal Questionnaire THE UNIVERSITY OF NEWCASTLE

New South Wales 2308 Australia.

TELEX: AA28194 NEWU	١
TELEPHONE 680401	
FXT	

FACULTY OF MEDICINE

RSF:JW

Dear

Re: Rehabilitation of Drink Drivers in Australia and New Zealand

We have heard from a variety of sources that you are involved in organizing rehabilitation programmes for drink drivers. As you may be aware, we are currently undertaking a review of such programmes in Australia and New Zealand, on behalf of the Commonwealth Department of Transport and Road Safety. Consequently, we would like to obtain some detailed information from you about what your organization is doing in the area.

As a mechanism for collecting and collating this information, we have formulated the enclosed questionnaire, which is a result of extensive consultations with a variety of people in the field. We would be most appreciative if you could complete and return it in the replied paid envelope by August, 27. I realise that to collect the information will require some time, but I hope that you perceive that the expenditure of energy is worthwhile.

On the basis of this information, publications will result which will be available by the Department of Transport, and will provide the field with an overview of what is currently going on in Australasia.

I look forward to receiving your reply.

Yours.

ROB SANSON-FISHER
Professor of Behavioural Science
in Relation to Medicine

Encl.



2.5 The Reminder Letter. 87. THE UNIVERSITY OF NEWCASTLE New South Wales 2308

New South Wales 2308 Australia.

ELEX: AA28	194	NEWUN	
ELEPHONE	680	401	
XT.			

FACULTY OF MEDICINE

RSF: JW

Dear

As you may recall, some time ago we sent you a questionnaire asking for information about rehabilitation programmes for drink drivers. We are currently undertaking a review of such programmes in Australia and New Zealand, on behalf of the Commonwealth Department of Transport and Road Safety. Consequently we would like to obtain some detailed information from you about your organization's work in the area.

In case you have misplaced your questionnaire, I am enclosing another copy and would appreciate it if you could return it to me as soon as possible. If you do not run a programme for the rehabilitation of drink drivers, could you please return the questionnaire, marked "Not Applicable", along with your name and address.

I realise that completing questionnaires is an onerous task, but hope that you accept that there is a need for such a review in the area of drink driving rehabilitation.

If you have already completed and returned the questionnaire, thank you for your assistance.

Yours,

ROB SANSON-FISHER
Professor of Behavioural Science
in Relation to Medicine

Encl.



2.4 The Postal Questionnaire. THE UNIVERSITY OF NEWCASTLE

New South Wales 2308 Australia.

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FACULTY OF MEDICINE

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		a) Indivi b) Group c) Indivi	basis		basis	5					
	ix)	Orientation of the pro			ne: I	Please pro	ovide	a brief d	escri	ptic	n
		••••••	• • • • • •	, , .	••••	• • • • • • • • •	• • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • •	• • • •	

2. Components of Programme

a)	Training of Staff		
	Does your programme include staff train	ning? .Yes/No	
	If yes, describe how training is undert	aken	
	•••••	•••••	
		•••••	
	***************************************	•••••	
	How many hours of administrative time i	s involved in	this component
	ḥours		
	Who delivers this component		
b)	Client Changes		
	What changes in the client would you li your programme?	ke to see as a	result of
	Please rank in order of importance. (I important)	=most important	t, 5≃least
	Sho	Occur	Rank Importance
	alcohol intake	Yes/No	
	alcohol related problems	Yes/No	
	rate of drink driving offences	Yes/No	
	knowledge about the effects of alcohol	Yes/No	
	attitudes about the effects of alcohol	Yes/No	
c)	ma11.		
	Follow-up contacts.		
		letion of the	
	Do you follow-up clients after the compinitial programme. Yes/No	eletion of the	
	Do you follow-up clients after the comp		า
	Do you follow-up clients after the compinitial programme. Yes/No	are undertaken	
	Do you follow-up clients after the compinitial programme. Yes/No If yes, describe how follow-up contacts	are undertaken	

Who delivers this component of treatment

1

	d)	Referral:			
		Does your progr	amme include refe	erral to:	
		Alcohol t	reatment?		Yes/No
		Health ca	re or social wor	agencies ?	Yes/No
	e }	Medical Examina	tion:		
		Is client exami	ned by a doctor:	Yes/No	
3.	Organ	ization:			
	i)	To which organ	ization is your p	programme res	ponsible:

	ii)	Who provides t	he funding for yo	our programme	:
	iii)	What is your a	pproximate annual	budget:	• • • • • • • • • • • • • • • • • • • •
	iv)		t to participants st per client		se estimate
1.	Parti	cipants:			
	Pleas	e provide appro	ximate numbers fo	er each of th	e following questions:
	i)	Number of part	icipants per year	::1983	•••••
		•		1984	•••••
	ii)	Percentage of	enrolled partici	ants who fin	ish the programme:
				1983	•••••
				1984	••••
	iii)	Percent of enr who are males:		1983	•••••
				1984	
	iv)	Age of partici	pants:		
			Average age :	1983	•••••
				1984	
			Age range :	1983	•••••
				1984	

	v)	Percent of clients who had been convicted for drink driving prior to the current conviction:
		1983
		1984
	vi)	Blood alcohol concentrations of clients referred:
		Average
		Range
		If you have other information this would be helpful

5.	Refer	ral method:
	i)	Is referral to the course? voluntary
		coerced
	ii)	If coerced, what is the penalty for non-attendance

	iii)	What agencies refer clients to your course and approximately what percentage of clients come from each agency:

		• • • • • • • • • • • • • • • • • • • •
6.	Asses	sment:
		ou collect information from your clients in any of the owing areas:
	i)	Alcohol related problems or alcoholism assessed. Yes/No If so, please state measures used.
		•••••
	iii)	Alcohol consumption patterns. Yes/No If so, please indicate the measures used.
	iv)	A history of previous drink drive behaviour. Yes/No If so, please state measures used.
		••••••

	V)	What, if any, other asessment information is collected from participants prior to or at the outset of the programme:

7.	i)	At the present time, how many staff are employed on the programmeStaff
		Please provide information on training and hours of employment for each member of staff.
		Staff position Area of Training Hrs./week employed

	ii)	Is this your usual staff position. Yes/No If not, how is it different from usual?

	iii)	If you had the funds to employ more staff, what types of staff would you employ
		••••••

8.	Course	evaluation:	
	i)	Is the success of the course formally evaluated ? Yes/N	lo
	ii)	If so, could you provide documentation of the course evor briefly describe	aluation
		•••••	• • • • • • • •

			•••••
9.	Future pr	iorities:	
	i)	If funding was increased, could you please list what yo consider to be the five priority areas?	u would

		***************************************	• • • • • • •

			• • • • • • •

	ii)	Would you consider any of the following appropriate for inclusion within your programme:	
		different programmes for rural and urban environments	Yes/No
		alternatives to the timing of your current programme	Yes/No
		sessions where the participants return for a number of "booster sessions" after the initial programme has finished	Yes/No
10.	Any Othe	r Comments You May Wish To Contribute	
	• • • • • • •		• • • • • • •
	****	***************************************	• • • • • • • •
			• • • • • • •
	******	***************************************	• • • • • • •
	Could yo	u please return this questionnaire	
	Thank vo	u very much for your participation	

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Appendix 3: Description of existing drink-drive rehabilitation programmes.

Appendix 3 contains a descriptive summary of each of the 27 organisations presently conducting drink-drive rehabilitation programmes in Australia and New Zealand. The summary is based on the responses made by each programme to the "Postal Questionnaire" (Appendix 2). The programmes are grouped into state categories, and are in alphabetical order. The Appendix contains eight sections.

There were no programmes identified in New Zealand which were conducted specifically for the rehabilitation of drink drivers. All rehabilitation of drink drivers in New Zealand appears to take place within general programmes designed for the treatment of Alcohol Related Problems.

- 3.1 Victoria
- 3.2 N.S.W.
- 3.3 Queensland
- 3.4 Northern Territory
- 3.5 Western Australia
- 3.6 South Australia
- 3.7 A.C.T.
- 3.8 Tasmania
- NB The symbol "-" has been used to indicate no response to the relevant question.

3.1 VICTORIA

DESCRIPTION OF PROGRAMME

Name: Alcohol Education Program

Address: Road Traffic Authority, 854 Glenferrie Road, Hawthorn, Victoria, 3122

Contact Person: M. Davis

Organisation

What organisation is the programme responsible to: Road Traffic Authority of Victoria

Who provides the funds for the programme: Road Traffic Authority of Victoria

Course Profile

1984 Year established: 2.5 hours Course duration:

Number of sessions per course: 1 Number of hours per session: 2.5

as required Number of courses per year:

Time of day that course is run: 9.30a.m., 1.30p.m., 5p.m. (Day of week not

specified)

Enrolment wait: 1-2 weeks Nil

Cost to participants:

Client Profile

Number of participants per year: -Sex of participants:

Percentage of drink drive recidivists:

Age of participants: Range: Mean: -Range: B.A.C. of participants: Mean: -

Staff Profile

Is staff training included: Yes

Part-time: -Number of staff: Full-time: 3

Course Components

Orientation of Programme: Quizzes about drink-driving. Discussion of alcohol

and accidents, developing alternatives to drink-

driving.

Alcohol related problems, alcohol consumption, drink-drive Measures collected:

history

group and individual basis Type of delivery:

Is referral to the programme voluntary or coerced: coerced Does the programme include referral to: alcohol treatment: yes Health care or social work agencies:

Are the clients examined by a doctor: yes

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: No

DESCRIPTION OF PROGRAMME

Name: Ballarat Regional Alcohol and Drug Dependence Association (BRADDA)

Address: 1001, Main Street, Ballarat, Victoria, 3350

Contact Person: Alan Cooke

Organisation

What organisation is the programme responsible to: BRADDA

Who provides the funds for the programme: BRADDA

Course Profile

Year established: 1979
Course duration: 4 weeks
Number of sessions per course: 4

Number of hours per session: 1.5-2 Number of courses per year: 10

Time of day that course is run: 7.30p.m. - 9p.m. Wednesday

Enrolment wait: 4-6 weeks

Cost to participants: Nil

Client Profile

Number of participants per year: 140 Sex of participants: 94% male Percentage of drink drive recidivists:

Age of participants: Mean: 31 Range: 18-80 years B.A.C. of participants: Mean: 0.09 Range: 0.07-0.126

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 10

Course Components

Orientation of Programme: Films, discussion on drink-driving and medical

consequences of excessive alcohol consumption.

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary

Does the programme include referral to: alcohol treatment: No

Health care or social work agencies: No

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: No

Name: Bendigo Drink Drivers Course

Address: C/- Eaglehawk Community Health Centre, Seymour Street, Eaglehawk,

Victoria, 3556

Contact Person: Janice Kotze, Jeff Wallis

<u>Organisation</u>

What organisation is the programme responsible to: Eaglehawk Community Health Centre

Who provides the funds for the programme: Eaglehawk Community Health Centre

Course Profile

Year established: 1978
Course duration: 4 weeks

Number of sessions per course: 4 Number of hours per session: 2

Number of courses per year: 9 or 10

Time of day that course is run: 7p.m. - 9p.m. (Day of week not specified)

Enrolment wait: 1 or 2 months

Cost to participants: Nil

Client Profile

Number of participants per year: 120 Sex of participants: 90% male Percentage of drink drive recidivists: 6

Age of participants: Mean: 23 Range: 18-58 years B.A.C. of participants: Mean: 0.17 Range: 0.06-0.31

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: 2 Part-time: 1

Course Components

Orientation of Programme: Educate about long term effects of heavy drinking,

alternatives to heavy drinking.

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced

Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Chisholm Institute of Technology

Address: McMahons Road, Frankston, Victoria, 3199

Contact Person: Dr. Richard Trembath

Organisation

What organisation is the programme responsible to: Indirectly to the Courts

Who provides the funds for the programme: Self funded

Course Profile

Year established: 1980 Course duration: 4 weeks

Number of sessions per course: 4
Number of hours per session: 2
Number of courses per year: 12-14

Time of day that course is run: 10a.m. - 12noon, 7p.m.-9p.m. (Day of week not

specified)

Enrolment wait: 3 months
Cost to participants: \$20

Client Profile

Number of participants per year: 325 Sex of participants: 5%

Percentage of drink drive recidivists: 100

Age of participants: Mean: - Range: -

B.A.C. of participants: Mean: 0.16 Range: 0.08-0.21

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 3

Course Components

Orientation of Programme: Effects of drinking on driving, medical effects of

alcohol, breathalyzer and the law, avoiding drink-

driving.

Measures collected: Drink-drive history

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: **Coerced**Does the programme include referral to: alcohol treatment: Yes
Health care or social work agencies: Yes

Are the clients examined by a doctor: no

Is follow-up contact provided: No

Course Evaluation

Name: Coburg Community Health Centre

Address: 362 Sydney Road, Coburg, Victoria, 3058

Contact Person: Ann Robertson, Cally Berryman

Organisation

What organisation is the programme responsible to: Coburg Community Health Centre

Who provides the funds for the programme: Community Health Funding

Course Profile

Year established: 1979
Course duration: 2 weeks
Number of sessions per course: 4
Number of hours per session: 2

Number of hours per session: 2 Number of courses per year: 11

Time of day that course is run: 6p.m. - 8p.m. (Day of week not specified)

Enrolment wait: 4-6 months

Cost to participants: Nil

Client Profile

Number of participants per year: 170
Sex of participants: 96% male
Percentage of drink drive recidivists: 58

Age of participants: Mean: 43 Range: 25-70 years B.A.C. of participants: Mean: 0.139 Range: 0.05-0.32

Staff Profile

Is staff training included: No

Number of staff: Full-time: - Part-time: 2

Course Components

Orientation of Programme: -

Measures collected: Drink-drive history

Type of delivery: Individual and group basis

Is referral to the programme voluntary or coerced: voluntary

Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: Yes refer to Anne Robertson or Cally Berryman for results.

Name: Delmont Hospital

Address: 298 Warrigal Road, Burwood, Victoria, 3125

Contact Person: Veronica Brown

Organisation

What organisation is the programme responsible to: Delmont Hospital

Who provides the funds for the programme: Delmont Hospital

Course Profile

Year established: 1983 Course duration: 4 weeks Number of sessions per course: 4

Number of sessions per course: 4
Number of hours per session: 2
Number of courses per year: 11
Time of day that course is run: -

Enrolment wait: 2 months
Cost to participants: \$25

Client Profile

Number of participants per year: 425
Sex of participants: 91% male
Percentage of drink drive recidivists: 23

Age of participants: Mean: 38 Range: 26-73 years B.A.C. of participants: Mean: 0.16 Range: 0.06-0.38

Staff Profile

Is staff training included: No

Number of staff: Full-time: - Part-time: 5

Course Components

Orientation of Programme: Towards the psycho-social problems of alcoholism Measures collected: Alcohol related problems, alcohol consumption, drink-drive history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary

Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: No

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Doveton-Hallam Community Health Centre

Address: Cnr. Power Road and Eugenia Street, Doveton, Victoria, 3177

Contact Person: Sr. Judy Uren

Organisation

What organisation is the programme responsible to: Doveton-Hallam Community Health Centre

Who provides the funds for the programme: Self funded

Course Profile

Year established: 1978
Course duration: 4 weeks

Number of sessions per course: 4 Number of hours per session: 2 Number of courses per year: 12

Time of day that course is run: 7p.m.-9p.m. Wednesdays

Enrolment wait: up to 2 months

Cost to participants: Nil

Client Profile

Number of participants per year: 185
Sex of participants: 98% male
Percentage of drink drive recidivists: 17

Age of participants: Mean: 29 Range: 18-65
B.A.C. of participants: Mean: 0.15 Range: 0.08-0.28

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 2

Course Components

Orientation of Programme: Short and long term effects of alcohol physically

and psychologically. Effect of alcohol on driving.

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history.

Type of delivery: Individual and group basis

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment: Yes Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Geelong Centre for Alcohol and Drug Dependence

Address: 59 Sydney Parade, Geelong, Victoria, 3220

Contact Person: Marcus Romanic

Organisation

What organisation is the programme responsible to: Itself, and Barwon Regional Assoc. for Alcohol and Drug Dependence

Who provides the funds for the programme: Victorian Health Dept.

Course Profile

Year established: 1976 Course duration: 3 weeks

Number of sessions per course: Number of hours per session: 1-1.5 Number of courses per year: 12

Time of day that course is run: 6p.m. (Day of week not specified)

Enrolment wait: 4 weeks maximum

Cost to participants: Nil

Client Profile

Number of participants per year: 105

94% male Sex of participants: Percentage of drink drive recidivists: nil

Range: 19-64 Mean: 30 Age of participants: B.A.C. of participants: Mean: 0.16 Range: 0.075-0.26

Staff Profile

Is staff training included: Yes

Part-time: 2 Number of staff: Full-time: -

Course Components

Orientation of Programme: Discussion of road laws and B.A.L.'s, risk factors

for health and psycho-social functioning.

Measures collected: Alcohol related problems

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced Does the programme include referral to: alcohol treatment: Yes Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Hobson Park Hospital

Address: P.O. Box 761, Traralgon, Victoria, 3844

Contact Person: Sr. M. DalPozzo, Sr. S. Henderson

Organisation

What organisation is the programme responsible to: Health Dept. of Victoria

Who provides the funds for the programme: Not funded

Course Profile

Year established: 1979
Course duration: 1 month

Number of sessions per course: 4
Number of hours per session: 1
Number of courses per year: 10

Time of day that course is run: 7p.m. - 8 p.m. (Day of week not specified)

Enrolment wait: 1-2 months

Cost to participants: Nil

Client Profile

Number of participants per year: 220 Sex of participants: 99% male Percentage of drink drive recidivists: -

Age of participants: Mean: 35 Range: 18-65 years B.A.C. of participants: Mean: 0.18 Range: 0.08-0.4

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 3

Course Components

Orientation of Programme: Films, talk by police, discussion of physical and

psychological effects of alcohol.

Measures collected: None

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary

Does the programme include referral to: alcohol treatment: No

Health care or social work agencies: No

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Lakes Entrance Community Health Centre

Address: P.O. Box 427, Lakes Entrance, Victoria, 3909

Contact Person: Lis Arctander

Organisation

What organisation is the programme responsible to: Lakes Entrance Community
Health Centre

Who provides the funds for the programme: Lakes Entrance Community Health Centre

Course Profile

Year established: 1976 Course duration: 4 weeks

Number of sessions per course: 4 Number of hours per session: 2 Number of courses per year: 3

Time of day that course is run: 7p.m. - 9p.m. (Day of week not specified)

Enrolment wait:

Cost to participants: Nil

Client Profile

Number of participants per year: 18
Sex of participants: 95% male
Percentage of drink drive recidivists: 80

Age of participants: Mean: 30 Range: 20-60 years B.A.C. of participants: Mean: 0.15 Range: 0.09-0.26

Staff Profile

Is staff training included: No

Number of staff: Full-time: 1 Part-time: -

Course Components

Orientation of Programme: Films and videos, discussion of effects of drinking

on probability of accidents and other consequences.

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history.

Type of delivery: Individual and group basis

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment: No Health care or social work agencies: No

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: No - Has an incourse pre and post knowledge test.

Name: Maroondah Social Health Centre

Address: 75 Patterson Street, Ringwood East, Victoria, 3135

Contact Person: Peter Mackie

Organisation

What organisation is the programme responsible to: Maroondah Social Health

Centre

Who provides the funds for the programme: the participants

Course Profile

Year established: 1982 Course duration: 4 weeks

Number of sessions per course: 4
Number of hours per session: 1.5
Number of courses per year: 22

Time of day that course is run: 6.15p.m.-7.45p.m. Tues, 6.30p.m.-8p.m. Wed.

Enrolment wait: 2 months

Cost to participants: \$15

Client Profile

Number of participants per year: 330

Sex of participants: 90% male Percentage of drink drive recidivists: 5

Age of participants: Mean: 25 Range: 20-50 B.A.C. of participants: Mean: - Range: -

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 2

Course Components

Orientation of Programme: The physical and psychological effects of drinking

on the individual and his family. Myths about

alcohol.

Measures collected: None

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced

Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: No

Are the clients examined by a doctor: Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: No - However has within course evaluation by participants.

Name: Pleasant View Centre

Address: 131 Wood Street, East Preston, Victoria, 3072

Contact Person: Kris Willis

Organisation

What organisation is the programme responsible to: Health Dept. of Victoria

Who provides the funds for the programme: Health Dept. of Victoria

Course Profile

1976 Year established:

Course duration: 4 weekends or 3 weeks

Number of sessions per course: 4 or 6 Number of hours per session: -, 2 42 and 24 Number of courses per year:

Time of day that course is run: 9a.m. Sat till Sunday 1p.m. or 7p.m. - 9p.m.

Mon, Tues, Wed, Thurs.

10-12 weeks Enrolment wait:

Nil Cost to participants:

Client Profile

Number of participants per year: 791 Sex of participants: 94% male

Percentage of drink drive recidivists: 35-40

Age of participants: Mean: 35 B.A.C. of participants: Mean: 0.14 Range: 18-90 years Range: 0.06-0.34

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: 6 Part-time: 5

Course Components

Orientation of Programme: Examine drinking situation, main emphasis is on

lifestyle and health.

Alcohol related problems, alcohol consumption, drink-drive Measures collected:

history, family background, employment, leisure interests,

relationships.

Individual and group based Type of delivery:

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment: Yes Health care or social work agencies: Yes

Are the clients examined by a doctor: Yes

Is follow-up contact provided: Yes

Course Evaluation

Has the effectiveness of the course been evaluated: Yes - refer to Kris Willis for results.

Name: Stawell Alcohol and Drug Dependence Association (SADDA)

Address: Frencham House, 22 Scotland Place, Stawell, Victoria, 3380

Contact Person: Mrs. E. Musumece

Organisation

What organisation is the programme responsible to: SADDA

Who provides the funds for the programme: SADDA

Course Profile

Year established: 1981
Course duration: 4 weeks
Number of sessions per course: 4
Number of hours per session: 1.5

Number of hours per session: 1. Number of courses per year: 3

Time of day that course is run: 7.30p.m. - 9p.m. (Day of week not specified)

Enrolment wait: Yes (Does not specify duration)

Cost to participants: Nil

Client Profile

Number of participants per year: 15

Sex of participants: 100% male Percentage of drink drive recidivists: 6

Age of participants: Mean: 33 Range: 17-65 years B.A.C. of participants: Mean: 0.118 Range: 0.09-0.21

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 5

Course Components

Orientation of Programme:

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment: No

Health care or social work agencies: No

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: Yes - refer to Mrs. Musumece for results.

Name: St. Vincents Hospital

Address: Victoria Parade, Fitzroy, Victoria, 3065

Contact Person: Anne Raymond

Organisation

What organisation is the programme responsible to: St. Vincents Hospital

Who provides the funds for the programme: Health Commission of Victoria

Course Profile

1973 Year established: Course duration: 4 weeks

Number of sessions per course: 4 2 Number of hours per session: Number of courses per year: 65

Time of day that course is run: Afternoon and evenings (Day of week not

specified)

Enrolment wait: Up to 3 weeks

Cost to participants: Ni I

Client Profile

Number of participants per year: 750 Sex of participants: 6% male Percentage of drink drive recidivists: 20

Age of participants: Mean: 21 Range: 17-25 years

B.A.C. of participants: Mean: 0.15

Range: 0.06-0.31

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: 1 Part-time: 3

Course Components

Orientation of Programme: Aimed at early intervention in drinking patterns. Measures collected: Alcohol related problems, alcohol consumption, drink-drive history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: Yes

Are the clients examined by a doctor: No Is follow-up contact provided: Yes

Course Evaluation

Has the effectiveness of the course been evaluated: Yes - refer to Proceedings of Autumn School of Studies on Alcohol and Drugs, St. Vincents Hospital, 1979.

Name: Vadcare

Address: 30 Welsford Street, Shepparton, Victoria, 3630

Contact Person: Alison Sinclair

Organisation

What organisation is the programme responsible to: Vadcare

Who provides the funds for the programme: Victorian Health Commission

Course Profile

Year established: 1983 Course duration: 5 weeks

Number of sessions per course: 5
Number of hours per session: 2
Number of courses per year: 9

Time of day that course is run: 7p.m.-9p.m. Wednesday Enrolment wait: from 1 to 8 weeks

Cost to participants: nil

Client Profile

Number of participants per year: 65

Sex of participants: 77% male Percentage of drink drive recidivists: -

Age of participants: Mean: 31 Range: 20-60 B.A.C. of participants: Mean: 0.15 Range: 0.07-0.23

Staff Profile

Is staff training included: No

Number of staff: Full-time: 2 Part-time: -

Course Components

Orientation of Programme: Education course about alcohol and it's effects on

the body and whilst driving.

Measures collected: None

Type of delivery: Individual and group basis

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment: Yes (if requested)
Health care or social work agencies: Yes (if requested)

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Wangaratta District Base Hospital

Address: Green Street, Wangaratta, Victoria, 3677

Contact Person: Frank Mastrojanni

Organisation

What organisation is the programme responsible to: Wangaratta Hospital

Who provides the funds for the programme: Wangaratta Hospital

Course Profile

Year established: 1983 Course duration: 4 weeks

Number of sessions per course: 4
Number of hours per session: 2
Number of courses per year: 2

Time of day that course is run: 5p.m. - 7 p.m. (Day of week not specified)

Enrolment wait: Nil
Cost to participants: Nil

Client Profile

Number of participants per year: - Sex of participants: -

Percentage of drink drive recidivists:

Age of participants: Mean: - Range: - B.A.C. of participants: Mean: - Range: -

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: -

Course Components

Orientation of Programme: Physician discusses the effect of alcohol on the

body and brain, a young person from A.A. relates own

case history, police discussion of road trauma,

films.

Measures collected: Case history leading up to court appearance.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary

Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Name: Warrnambool Base Hospital

Address: Ryott Street, Warrnambool, Victoria, 3280

Contact Person: Ms. Lesley Keillar

Organisation

What organisation is the programme responsible to: Warrhambool Base Hospital

Who provides the funds for the programme: Warrhambool Base Hospital

Course Profile

Year established: 1982 Course duration: 4 weeks

Number of sessions per course: 4
Number of hours per session: 2
Number of courses per year: 9

Time of day that course is run: 7p.m.-9p.m. Wednesday

Enrolment wait: Nil
Cost to participants: Nil

Client Profile

Percentage of drink drive recidivists:

Age of participants: Mean: 22.5 Range: 19-46
B.A.C. of participants: Mean: - Range: -

Staff Profile

Is staff training included: No

Number of staff: Full-time: - Part-time: 1

Course Components

Orientation of Programme: Discussion of the short and long term effects of

alcohol. Attempts to increase knowledge and awareness of the risk from drink-driving.

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history demographic data.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced

Does the programme include referral to: alcohol treatment: No

Health care or social work agencies: No

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: No - Has an incourse evaluation, pre and post knowledge test.

Name: Westadd

Address: 49 Nicholson Street, Footscray, Victoria, 3011

Contact Person: Marlyn Tabone

Organisation

What organisation is the programme responsible to: Westadd

Who provides the funds for the programme: -

Course Profile

1985 Year established: Course duration: 1 Number of sessions per course:

Number of hours per session: 3 Number of courses per year: 38

Time of day that course is run: 5.30 p.m. - 8.30 p.m. (Day of week not

specified)

Enrolment wait:

\$20 Cost to participants:

Client Profile

Number of participants per year: 180

Sex of participants: 90% males Percentage of drink drive recidivists: 60

Age of participants: Mean: 32.5 Range: 26-55 years B.A.C. of participants: Mean: 0.2 Range: 0.125-0.25

Staff Profile

Is staff training included: No

Number of staff: Full-time: 2 Part-time: -

Course Components

Orientation of Programme: Alcohol information: Physical effects of alcohol on

body, effects on behaviour, driving.

Drink-drive history Measures collected:

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced Does the programme include referral to: alcohol treatment: No Health care or social work agencies:

Are the clients examined by a doctor: No Is follow-up contact provided: No

Course Evaluation

3.2 N.S.W.

DESCRIPTION OF PROGRAMME

Name: Hunter Drug Advisory Service

Address: 56 Stewart Avenue, Hamilton South, N.S.W. 2303

Contact Person: Mr. Raoul Walsh

Organisation

What organisation is the programme responsible to: Health Dept. of N.S.W.

Who provides the funds for the programme: Health Dept. of N.S.W.

Course Profile

1976 Year established:

Two months Course duration:

Number of sessions per course: Number of hours per session: 1.5

Number of courses per year:

on-going
12.30p.m., 5p.m. (Day of week not specified) Time of day that course is run:

Enrolment wait: Nil Ni 1 Cost to participants:

Client Profile

Number of participants per year: 70

Sex of participants: 97% male Percentage of drink drive recidivists:

18-63 years Range: Age of participants: Mean: 31.6 Range: 0.06-0.31 B.A.C. of participants: Mean: 0.16

Staff Profile

Is staff training included: Yes

Part-time: 1 Number of staff: Full-time: 7

Course Components

Orientation of Programme: Alcohol education, confrontation, assertiveness

training, relaxation training and exposure to self

help.

Alcohol related problems, alcohol consumption, drink-drive Measures collected:

history.

Type of delivery: Individual and group basis.

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment: Health care or social work agencies:

Are the clients examined by a doctor: No

Is follow-up contact provided: Yes

Course Evaluation

name. Illawarra urink uriver course

Address: Kembla House, 34 Kembla Street, Wollongong, N.S.W. 2500

Contact Person: Garry Lake

Organisation

What organisation is the programme responsible to: N.S.W. Dept. of Health -Illawarra

Who provides the funds for the programme: N.S.W. Dept. of Health - Illawarra

Course Profile

1978 Year established: Course duration: 6 weeks

Number of sessions per course: 6 Number of hours per session: 2 12 Number of courses per year:

Time of day that course is run: Wednesday 6p.m. - 8p.m.

Enrolment wait: Nil Cost to participants: Nil

Client Profile

Number of participants per year: 100 Sex of participants: 98% male Percentage of drink drive recidivists: 50

Range: 18-40 Age of participants: Mean: 28 Range: 0.08-0.32 B.A.C. of participants: Mean: 0.12

Staff Profile

Is staff training included: Yes

Part-time: 3 Number of staff: Full-time: -

Course Components

Orientation of Programme: Alcohol education, medical implications of alcohol,

lifestyle issues.

Alcohol related problems, alcohol consumption, drink/drive Measures collected:

history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary Does the programme include referral to: alcohol treatment: Yes Health care or social work agencies: Yes

Are the clients examined by a doctor: Yes
Is follow-up contact provided: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: No - Has an incourse evaluation - pre and post knowledge test.

3.3 QUEENSLAND

DESCRIPTION OF PROGRAMME

Name: Pavilion 4 - Royal Brisbane Hospital

Address: Herston Road, Herston, Brisbane, Queensland, 4006

Contact Person: Greg Farrugia

Organisation

What organisation is the programme responsible to: Royal Brisbane Hospital

Who provides the funds for the programme: Oueensland Health Department

Course Profile

Year established: 1982 Course duration: 2 weeks

Number of sessions per course: 2
Number of hours per session: 1.5
Number of courses per year: 20

Time of day that course is run: 1.30 p.m. - 3 p.m. (Day of week not

specified)

Enrolment wait: Nil Cost to participants: Nil

Client Profile

Number of participants per year: 367
Sex of participants: 71% male
Percentage of drink drive recidivists: 61

Age of participants: Mean: 36 Range: 20-67 years

B.A.C. of participants: Mean: - Range: -

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 3

Course Components

Orientation of Programme: Alcohol's effect on mind and body, alcohol and

driving skills, popular myths, countermeasures.

Measures collected: Alcohol related problems, alcohol consumption, drink-drive

history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary
Does the programme include referral to: alcohol treatment: Yes
Health care or social work agencies: Yes

Are the clients examined by a doctor: Yes

Is follow-up contact provided: Yes

Course Evaluation

Name: Oueensland Road Safety Council

Address: P.O. Box 673, Fortitude Valley, Queensland, 4006

Contact Person: Mr. Russell Massie

Organisation

What organisation is the programme responsible to: Queensland Dept. of Transport

Who provides the funds for the programme: Queensland Road Safety Council

Course Profile

Year established: 1983
Course duration: Number of sessions per course: 2
Number of hours per session: 2
Number of courses per year: 5

Time of day that course is run: 7.30p.m. - 9.30p.m. (Day of week not

specified)

Enrolment wait: ordered by the court

Cost to participants: Nil

Client Profile

Number of participants per year: 10

Sex of participants: 100% male Percentage of drink drive recidivists: 100

Age of participants: Mean: 26 Range: 18-35 years B.A.C. of participants: Mean: 0.14 Range: 0.07-0.29

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: - Part-time: 1

Course Components

Orientation of Programme: Course of accidents, medical, legal and social

consequences of drinking. Aimed at young first

offenders.

Measures collected: Court records of drink-driving history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced

Does the programme include referral to: alcohol treatment: No

Health care or social work agencies:

Are the clients examined by a doctor: No.

Is follow-up contact provided: No

Course Evaluation

3.4 NORTHERN TERRITORY

DESCRIPTION OF PROGRAMME

Name: Darwin and District Alcohol and Drug Dependence Foundation Inc. - "Amity

House"

Address: 155 Stuart Highway, Parap Darwin, N.T., 5790 (G.P.O. Box 3360,

Dawin, N.T. 5790)

Contact Person: Mrs. Eileen Brooks

Organisation

What organisation is the programme responsible to: Drug and Alcohol Bureau,

Dept. of Health, N.T.

Who provides the funds for the programme: N.T. Dept. of Health

Course Profile

Year established: 1978

Course duration: 3 weeks

Number of sessions per course: 3
Number of hours per session: 2
Number of courses per year: 12

Time of day that course is run: 5.30p.m. - 7.30p.m. (Day of week not

specified)

Enrolment wait: 4 weeks maximum

Cost to participants: \$10

Client Profile

Number of participants per year: 1983: 302 Sex of participants: 88% males Percentage of drink drive recidivists: 50

Age of participants: Mean: 28 Range: 17-51 years B.A.C. of participants: Mean: 0.18 Range: 0.1-0.31

Staff Profile

Is staff training included: No

Number of staff: Full-time: - Part-time: 1

Course Components

Orientation of Programme: Drink-driving films, education, brochures,

discussions.

Measures collected: Alcohol problems, alcohol consumption, drink-drive

history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary

Does the programme include referral to: alcohol treatment: Yes

Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

3.5 WESTERN AUSTRALIA

DESCRIPTION OF PROGRAMME

Name: Western Australia Probation and Parole Service

Address: 638 Murray Street, Perth. W.A. 6000

Contact Person: Mr. N. Papandreou, Ms. M. Wauchope.

Organisation

What organisation is the programme responsible to: W.A. Probation and Parole Service

Who provides the funds for the programme: Crown Law Dept.

Course Profile

1981 Year established: Course duration: 5 weeks

Number of sessions per course: 5 Number of hours per session: 1-2 Number of courses per year: 14

6p.m. (Day of week not specified)
Up to 6 weeks Time of day that course is run:

Enrolment wait:

Cost to participants:

Client Profile

Number of participants per year: 162 Sex of participants: 95% male Percentage of drink drive recidivists:

Range: 17-60 years Age of participants: Mean: 23

B.A.C. of participants: Mean: Range:

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: 2 Part-time:

Course Components

Alcohol, law, and problem drinking; physical and Orientation of Programme:

psychosocial effects of alcohol, alternatives to

drinking.

Alcohol related problems, alcohol consumption, drink-drive Measures collected:

history, famly background, employment, leisure interests.

relationships.

Type of delivery:

group basis

Is referral to the programme voluntary or coerced: both

Does the programme include referral to: alcohol treatment:

Health care or social work agencies:

Are the clients examined by a doctor: Yes

Is follow-up contact provided: Yes

Course Evaluation

Has the effectiveness of the course been evaluated: Yes - refer to Australian and New Zealand Journal of Criminology, June, 1985, 18, 67-72.

3.6 SOUTH AUSTRALIA

DESCRIPTION OF PROGRAMME

Name: South Australian Department of Correctional Services

Address: 25 Franklin Street, Adelaide, S.A. 5000

Contact Person: Ms. Kathryn Upton

Organisation

What organisation is the programme responsible to: Dept. of Correctional Services

Who provides the funds for the programme: Dept. of Correctional Services

Course Profile

1985 Year established: 8 weeks Course duration: Number of sessions per course: 8

2 Number of hours per session: 3 Number of courses per year:

Evenings (Day of week not specified) Time of day that course is run:

Nil Enrolment wait: Nil Cost to participants:

Client Profile

Number of participants per year: 50 97% male Sex of participants: Percentage of drink drive recidivists: 70

18-35 years Range: Age of participants: Mean: 26.5

Range: B.A.C. of participants: Mean:

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: 5 Part-time: -

Course Components

To provide an awareness of problems which result Orientation of Programme:

from drug and alcohol abuse and to develop strategies for coping with related problems.

Alcohol consumption, alcohol related problems, drink-drive Measures collected:

record.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary Does the programme include referral to: alcohol treatment: Yes Health care or social work agencies: Yes

Are the clients examined by a doctor: No

Is follow-up contact provided: Yes

Course Evaluation

Has the effectiveness of the course been evaluated: Yes - refer to Kathryn Upton for results.

3.7 A.C.T.

DESCRIPTION OF PROGRAMME

Name: Alcohol and Drug Foundation, A.C.T.

Address: G.P.O. Box 1219, Canberra, ACT, 2061

Contact Person: Amrit Turnbull

Organisation

What organisation is the programme responsible to: A.C.T. Health Authority

Who provides the funds for the programme: Alcohol and Drug Foundation

Course Profile

1978 Year established: Course duration: 3 weeks

Number of sessions per course: 3 Number of hours per session: 1.5 Number of courses per year: 11

Time of day that course is run: 5.30p.m.-7p.m. Wednesday

Enrolment wait: 2 months \$30

Cost to participants:

Client Profile

Number of participants per year: 275 Sex of participants: 97% male Percentage of drink drive recidivists:

Age of participants: Mean: 30 Range: 20 - 40B.A.C. of participants: Mean: Range:

Staff Profile

Is staff training included: Yes

Number of staff: Full-time: -Part-time: 3

Course Components

Orientation of Programme: Develop knowledge on alcohol - B.A.C., physical and

psychological efects. Reduce drink-driving.

Measures collected: Alcohol related problems, alcohol consumption patterns,

drink-drive history.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: voluntary Does the programme include referral to: alcohol treatment: Health care or social work agencies: Yes

Are the clients examined by a doctor: Usually

Is follow-up contact provided: Yes

Course Evaluation

Has the effectiveness of the course been evaluated: Yes - See: A. Foon: An evaluation of an Educational Programme for Multiple D/D offenders. Alcohol and Drug Service Community Unit, A.C.T. Health Authority, 1984.

3.8 TASMANIA

DESCRIPTION OF PROGRAMME

Name: Division of Road Safety & Transport

Address: Collins Street, Hobart, Tasmania, 7000

Contact Person: Mr. Barry Madden

Organisation

What organisation is the programme responsible to: Tasmanian Transport Dept.

Who provides the funds for the programme: State Government Treasury, Tasmania

Course Profile

1979 Year established: -Course duration: 2 hours

Number of sessions per course: 1 Number of hours per session: Number of courses per year: 2 48

7.30 p.m. - 9.30 p.m. (Day of week not Time of day that course is run:

specified)

Enrolment wait: 1 month Nil Cost to participants:

Client Profile

Number of participants per year: 311

89% male Sex of participants: Not known Percentage of drink drive recidivists:

Range: 15-36 years Mean: 20 Age of participants: Range: 0.02-0.21 B.A.C. of participants: Mean: 0.087

Staff Profile

Is staff training included: yes Number of staff: Full-time: 10 Part-time: -

Course Components

Orientation of Programme: Dangers of drink/driving. Regime of legislation

films.

No set measures collected, all information gathered Measures collected:

informally from group discussion.

Type of delivery: Group basis

Is referral to the programme voluntary or coerced: coerced Does the programme include referral to: alcohol treatment: No Health care or social work agencies:

Are the clients examined by a doctor: No

Is follow-up contact provided: No

Course Evaluation

Has the effectiveness of the course been evaluated: An evaluation is being conducted.