ALCOHOL CONTROLS AND DRINK DRIVING: THE SOCIAL CONTEXT

Prepared by

MARY SHEEHAN

Dept of Social and Preventive Medicine - Brisbane South

University of Queensland

For

The Federal Office of Road Safety

ISBN 0 642 51133 0

ISSN 0810-770X

Published for the Department of Social and Preventative Medicine, University of Queensland by the Australian Government Publishing Service.

A43771 Cat. No. 94 2283 9

FEDERAL OFFICE OF ROAD SAFETY

DOCUMENT RETRIEVAL INFORMATION

Report No.	Date	Pages	ISBN	ISSN
CR 142	NOVEMBER 1994	222	0642 511330	0810-770x

Title

ALCOHOL CONTROLS AND DRINK DRIVING: THE SOCIAL CONTEXT

Author

MARY SHEEHAN

Performing Organisation

DEPARTMENT OF SOCIAL AND PREVENTIVE MEDICINE
UNIVERSITY OF QUEENSLAND

Sponsor

Federal Office of Road Safety
GPO Box 594
CANBERRA ACT 2601

Project Officer: M J Smythe

Available from

Federal Office of Road Safety
GPO Box 594
CANBERRA ACT 2601

Abstract

This report presents the findings of a study aimed at developing an overall picture of the drink driving elements that comprise the social contextual influence in Australia.

Open ended discussions were held with key opinion leaders in the field of research and policy related to drink driving. In addition a survey which was mailed to a large sample of persons who were identified by snowball sampling as experts and/or workers in the defined areas. These included respondents from areas of treatment/rehabilitation, lobby groups, education/ prevention, research, policy, the alcohol industry and the mass media.

The attitudes and beliefs of these key players are reported on. Among other things, a noteworthy finding is that on a number of key issues the representatives from the Alcohol Industry responded significantly differently to the majority of the informed community.

Keywords

DRINK DRIVING, ALCOHOL CONTROLS

TABLE OF CONTENTS

LIST OF TABLES

FIGURES

APPENDICES

ACKNOWLEDGMENTS

The following members of the Drink Driving Prevention and Rehabilitation Research Team made a major contribution to the development of the project or the preparation of this report

Cynthia Schonfeld
Jeremy Davey
Mark King
David Steadson
Barry Watson

Particular acknowledgment for their help in the development and completion of this report should be given to Ms Bronwyn Willmott who provided stimulating and critical ideas on the issues raised and undertook the major part of the literature retrieval task. Ms Margaret Smythe from FORS provided ongoing support and encouragement at both the development and completion stages. Ms Elizabeth McCormick assisted with the development of the interview proforma and survey instrument and completed many of the telephone interviews and Ms Sara Haines reviewed much of the literature and provided a fresh view on well established beliefs. I would also like to thank Ms Bev Duff-Richardson who provided invaluable help in organising and formalising the manuscript and Ms Christina Kello who undertook the heroic task of completing it after at least seven other people had worked on the document file.

Finally I would like to acknowledge the other members of the drink driving prevention and rehabilitation team who whilst they were not directly involved in this study provided the intellectual climate and debate which helped to formalise some of the ideas developed and tested in the model. They include Mr Laurie Lumsden, Dr Vic Siskind, Inspector George Pugh, Mr Joe Nucifora, Sergeant Ross Whittaker, and Mr Gavin Palk.

Mary Sheehan
University of Queensland
15.9.94

EXECUTIVE SUMMARY

This report on alcohol controls and drink driving in Australia was funded by the Federal Office of Road Safety as part of the research initiatives taken under the Prime Minister's ten point Road Safety Plan.

Model

* A model is developed which proposes that **drink driving occurs as a result of formal and informal social influences which exert both positive and negative pressures in the community**. Further reductions in the numbers of fatalities due to drink driving in Australia are unlikely unless current counter measures are strengthened and new strategies which concentrate on alcohol controls and the social context are introduced. [Ch.1]

Research Methods

* To test this model a research methodology was implemented which involved:

  - **identifying Interest Groups** which were perceived to represent the formal and informal and positive and negative dimensions of influence. They included representatives of National and State Health and Transport Departments; researchers; persons working in treatment and rehabilitation services; education specialists; policy analysts; members of the media; representatives of the alcohol industry; persons belonging to the different occupational groups engaged in law enforcement and executive members of community lobby groups;

  - relatively **unstructured telephone interviews with 54 persons** identified as key opinion leaders;

  - identifying a national sample of relevant workers from these Interest Groups and mailing them **a survey based on the key informants' views** of the current context of drink driving in Australia. A total of 417 (64%) completed questionnaires were returned and analysed. [Ch.2]

Current Situation

* The overwhelming majority of people interviewed and surveyed believed that there had been **a major reduction in drink driving in Australia which was attributed at least in some degree to Random Breath Testing (RBT)**. [Ch.3]

* There were **significant State and Territory differences** in respondents' views as to the extent to which drink driving remained a serious problem in their State. **Victorians were pleased about the major decrease** they had experienced and believed that it was a less acceptable behaviour in Victoria than in the rest of Australia. **Territory respondents reported** that drink driving **was still a major problem** and that social changes would be required to improve this. [Ch.3]
* Particular **problem subgroups** for whom new initiatives should be developed and promoted **included young males, recidivist drink drivers and aboriginal persons in the Northern Territory**. [Ch.3]

* The **community needed more information** about safe drinking and driving levels. All except those working in the Alcohol Industry believed that **labelling alcoholic beverages** with the number of standard drinks they **contained would be a useful initiative**. There was some concern that there has been an increase in driving by young persons after use of drugs other than alcohol. [Ch.3]

Formal controls on the individual drink driver

* The most direct formal control on drink driving is the legislature relating to **proscribed BAC levels and licence suspension and cancellation penalties**. Key informants approved of the relative uniformity between Australian States on these issues and the **high levels of control which are routinely practiced and accepted**. Favourable comparisons were drawn with the international scene on these issues. [Ch.4]

* **Zero BAC levels for novice drivers were supported**, particularly those from the NT, TAS, and VIC. **Existing legal penalties were** thought to be very important but there was not a great deal of support for increasing these. **Assessment for alcohol dependency** was likely to be introduced as a condition for licence renewal in the near future and this was strongly supported by persons working in law enforcement, education and treatment. [Ch.4]

* There was **not much support for the introduction of other legal driving restrictions** such as curfews or "interlocks" for high risk drivers. [Ch.4]

Community-based controls

* **Media campaigns** were rated as being **very effective** particularly by those working in the media. **Drink driving education was seen as a moderately important** strategy to reduce drink driving though workers from the Alcohol Industry believed that it was very important. There was very strong agreement **that rehabilitation programs would be increasingly important in the future**. [Ch. 4]

* **RBT was considered the key formal and positive influence in the social context of drinking and driving in Australia.** The introduction of RBT and its high visibility were rated as extremely important by all respondents and particularly by members of the Media. **RBT is highly effective and it will only work if there is a high perceived risk of being caught**. [Ch.5]

* RBT effectiveness could **be improved still further if it was more systematically implemented by police; if licensed premises were targeted** and if there was more support given to police working in RBT in the future. [Ch 5]

Alcohol controls

* The **core cultural role of alcohol** in Australian social life and the strong informal and negative influence it exerts on drink driving were noted by all respondents. **Very high levels of accessibility and availability were identified as major risk factors** given the association of alcohol with all social functions and heavy dependency on the use of private vehicles for transport to such activities. [Ch.6]

* The **progressive lessening of restrictions on liquor licensing** was a negative influence and **had encouraged drink driving.** Better enforcement of existing laws would reduce it but there was less support for tightening the laws in a context in which the current laws were not being enforced. Respondents from **the Alcohol Industry and the Media were less convinced** that enforcing licensing laws would reduce drink driving. [Ch 6]

* **Alcohol advertising campaigns were seen to encourage drink driving**. Not surprisingly, the respondents from the Alcohol Industry, and to a lesser extent the Media, did not share this opinion but

rated the influence of advertising as being relatively low. **Key informants projected changes** in advertising in the future **and serious attempts to control content.** [Ch.6]

* Australia in recent years has become a culture in which there are very few barriers to drinking. **Heavy and Binge drinking are socially accepted and encouraged** by normative values such as " the tradition of celebrating with alcohol", "the association of mateship and alcohol", and "alcohol promotions" such as "happy hours" and "free drinks for women". All respondents except those from the Alcohol Industry and the Media **rated these influences as very important in encouraging drink driving**. [Ch.8]

* **The introduction of low alcohol beer, public debate** about drinking and drink driving and **increased interest in health and fitness contribute to reducing drink driving** but respondents were unsure about the possible effects of the recession. [Ch.9]

* There was strong agreement and consensus between respondents from all States and Territories and Interest Groups that introducing **a price structure to promote low alcohol beer would reduce drink driving.** [Ch.8]

Major sources of positive influence

* **Major important sources of influence** *contributing to reducing drink driving include* **Parliamentary and other Government Committees** such as Staysafe, Travelsafe, NRTAC and the NDS. **The remarkable uniformity, consistency and communication between workers from all States** reflects the information processes set in train by these Committees, and the activities of the NDS (or NCADA), and FORS. [Ch.6]

* The **low level of recognition of the important communication role that these groups play** suggests that they need to be promoted and given a more dominant profile in the area of informal influence, liaison and education. [Ch.6]

* There is a **need to recognise important sources of influence** that remain either untapped or unrecognised. These include **Insurance Companies** amongst which TAC is a remarkable exception. There is potential for a positive impact in reducing drink driving by more overt and well publicised Insurance Company initiatives. [Ch.6]

* **Other informal groups** such as PADD, CARS etc., **were seen as exerting very little influence** in the Australian context. International literature on the other hand indicates that they are very important *influences on government opinion in other countries.* [Ch.6]

Research

* **Research was noted as important** and all issues that were given priority in the future were recognised as requiring further research. **The major reduction** in drink driving in Australia **has been underpinned by focused research** [Ch.7]

* One respondent summed up Australian research as "defined by what major sponsors will fund" and that **policy makers direct and determine the content of research**. [Ch.7]

A major outsider in the debate : The Alcohol Industry

* **Overall the study was characterised by high levels of agreement between persons from differing States** who also were very aware of national statutes. [Ch.10]

* **A major finding** of this study **was a marked divergence views between the views of the Alcohol Industry respondents and** to a lesser extent those from the Media from respondents in all **other Interest Groups** for example, there was more similarity in attitudes between respondents from Tasmania and the Northern Territory than between respondents working in the Alcohol Industry and those in Education or Treatment or any other relevant Interest Group. [Ch.10]

Future strategies

* **All supported maintaining and reinforcing the message that drink driving isn't acceptable behaviour in Australia.** [Ch.9]

* A high level of approval was given to **developing alternative forms of transport**, but only moderate support to the introduction and development of coin operated or personal breathalysers. **Server training initiatives were strongly supported.** [Ch.9]

* **Future influences on drinking and driving were** seen to lie in **changes in technology, medical services and the culture of alcohol.** [Ch.9]

* **Future policy and strategies for drink driving will have to address alcohol controls and confront and resolve the dichotomy of interest and influence which exists between the Alcohol Industry and other workers in this area.** [Ch.9]

1. A MODEL FOR ALCOHOL CONTROLS ON DRINK DRIVING IN AUSTRALIA

1.1 Introduction

The past decade has seen growing attention being paid in the drink driving literature to the social context in which it takes place. In 1988 a collection of writings edited by Laurence et al (1988) was published which explicitly considered international differences in the social control of drink driving The book brought together the work of many well established researchers who over the years had examined the issue from a variety of different perspectives and areas of concern. The thesis was an attempt to reorient the conceptual debate from an established paradigm which concentrated on understanding and controlling the individual drink driver or "killer drunk" to the social forces that create, maintain and potentially may be harnessed to control such behaviour. This perspective has been developed further by Ross (1992) who places particular emphasis on the social policies encouraging drinking and driving.

Prior to this time the overwhelming concentration of work has examined the mechanisms that have been developed to control a behaviour that is deemed to be an established "given" in the debate. That is the debate has been concerned with deterrent, punitive and controlling initiatives that can be enlisted or created to exert negative pressures which will control the actor and/or the activity. At the same time the irreducibly social nature of drink driving has led to a relatively constant underlying recognition of the continuing need for the analysis to be broadened to address the social forces which encourage and support it

In an interesting historical overview Gusfield (1985) questions whether a growing emphasis on an alternative social orientation is a reflection of Public Health interest

in the problem. He argues that the changing orientation is consistent with, and probably strongly influenced by, national policies growing out of the general debate around the problem use of alcohol that has developed over the same period. It may also be the case that the extension of the health sector's interest in this behaviour has been stimulated by government concerns about the economic costs of the morbidity and mortality due to road crashes. In an era of "accountability", "targets", "goals" and "measured outcomes", the achievements of Transport and Law Enforcement agencies in reducing the behaviour from the high levels of the seventies could be posed as a model. These endeavours provide a rare example of the measurable success of the use of focussed strategies against drug and/or alcohol abuse.

A changed focus towards primary prevention leads logically to an extension of the control approach from the offender to the institutions/structures that provide alcohol to the supposedly vulnerable individual. Such a broader framework includes agencies that sell or profit from the sale of alcohol and also implicates government, liquor industry regulations, the role of excise, lobby groups, and a variety of less readily identifiable players in an explanatory model.

The need for Australians to take a broader approach to alcohol problems in the community has been succinctly argued by Hawks (1991) who has criticised the narrowness of much work in the alcohol education and prevention field. He stresses the need to take a broader view if any long term significant change is to be achieved and advocates the development of lobby skills to address the macro level of alcohol problem creation.

His argument is probably equally relevant to drink driving. There has been a tradition in this area that dreams of solutions being found by making roads, or more recently cars "drunk proof". The underlying belief in the inevitability of the problem has been humorously expressed by a leading worker in this field. Henderson wrote in the seventies that it was legitimate to argue that a primary use for Australian roads was to enable people to move from one drinking place to another or to move between their homes and drinking places with a minimum risk (Henderson, 1972). This model has become less overtly fashionable in recent years, however in their time, they characterised a community that accepted heavy drinking and the use of a motor vehicle (not necessarily at the same time) as an integral part of the social context of Australia (Henderson & Freedman, 1977).

The more recent temporal association of government concern at the personal and economic costs of problem drinking with community awareness of the environmental costs of uncontrolled private use of motor vehicles has enabled a broader view of the behaviour to be taken. As part of this wider perception the extent to which these behaviours represent what at least in the USA might be considered to be "inalienable rights" can also be raised. These are issues which would have been unquestioned even two decades ago

The need for a theoretical model of drink driving which places it in a social context and moves away from the " individual deficiency" explanation has been advocated for a number of years by the American sociologists Ross (1992) and Gusfield (1985). They have stressed the need to examine the historical and normative contexts in which the behaviour occurs Gusfield paraphrasing Ross writes of the need to examine the "cultural and social organisation in which the daily events of DUI are situated, to support and/or resist DUI" He also draws attention to the

almost universal reduction in drink driving offences in English speaking countries in recent years in spite of very different approaches to deterrence and control and questions whether this may reflect a socio-historical process in which the " un-official ,informal, and interactive "society" may itself be in the process of change." (Gusfield, 1985, pp 111-112). It may also be the case that there is a temporal gap between the emergence of a social problem and measures to manage it.

The crucial role of cultural expectations in mediating behaviour controls has been demonstrated for many years by the marked contrast between the strict drink driving legislations and lower levels of offending in Scandinavian countries and (until recently) those prevailing in Australia (Andenaes, 1988; Ross, 1992; Valverius, 1985). Clearly such differences grow out of religious, moral and historical traditions but it is also the case that traditions are created and moderated by community experience.

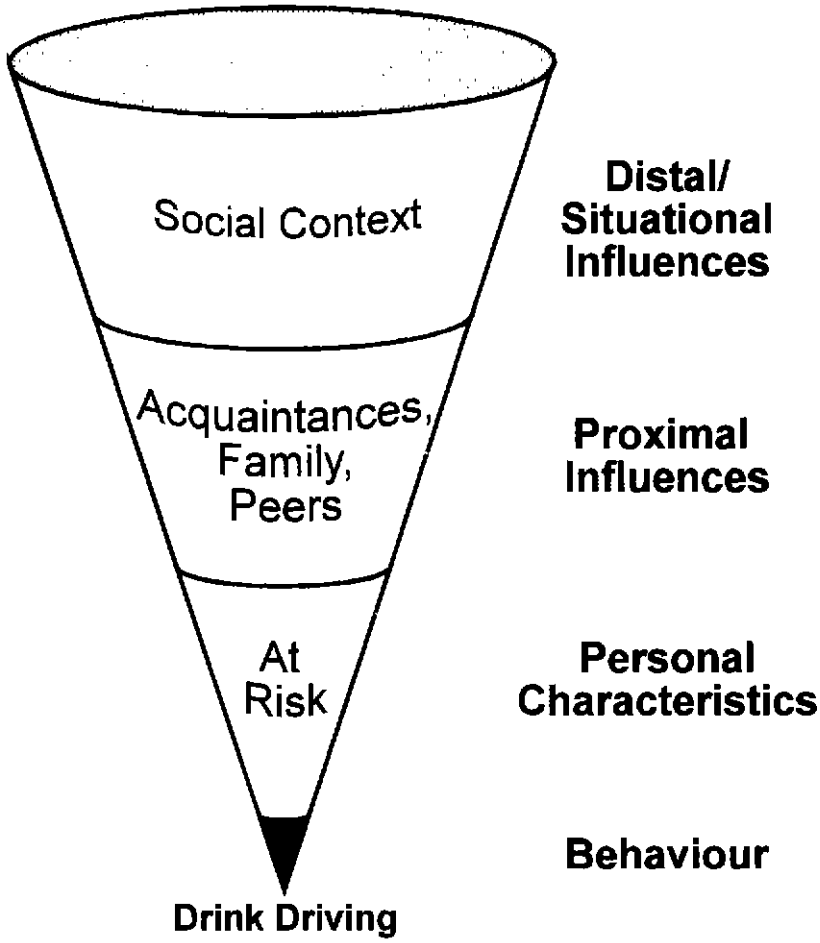
It has been argued in respect of the development of drug control policies that: "when the community learns about something ..... it wants to encode that learning in laws so that it can remember. Perhaps laws emphasise what has been learned, and extend that learning not only across individuals in the society without first-hand experience but also into the future to try to warn future generations of the problem" (Moore, 1991, p551) If this is the case then it may well be that the Australian community is currently in the process of learning ways to deal with the threat posed by increasing levels of alcohol consumption combined with increased access to vehicles. This learning is being strikingly accelerated in recent years by the need to deal with the effect of increased affluence on access to alcohol and vehicles by younger members of the community.

1.2 A Model for the Social Context of Drink Driving

An alternative model for a broader view of drink driving can be found in recent criminology literature on their role of the interaction between the person and their environment in promoting recidivism by delinquents /offenders (Gottfriedson & Taylor, 1986; Geller & Lehman, 1988) This work looks at whether predictive variance in recidivism can be increased by controlling for post release situational characteristics It has theoretically extended the person-environment link from a readily demonstrable simple interaction to a more complex association that proposes that "the person, the environment, and the person's behaviour in that environment are interwoven or integrated in a system-like fashion; that these three classes of variables have a functional integrity; and that this is reflected in processes of reciprocal influence." (Gottfriedson & Taylor, 1986, p154).

An application of this theory to levels of influence on drink driving is presented schematically in Figure 1 below.

FIGURE 1: Theoretical Model of Tiers of Influence on Drink Driving Behaviour



The theoretical model has been extended to differentiate between proximal and distal elements of the environment. The third or proximal environmental tier represents the personal peer, acquaintance and family level of the environment. This level of influence and potential control has been noted in the psyChiatric literature as an important focus for contextual management of problem drinking. The fourth tier represents what we have elected to define as the social context of drink driving. It includes the broad range of forces in the community which impact on drink driving in ways that may either encourage or deter the person from the behaviour. The behaviour or dependent variable is predicted from the interaction of all elements and modification of behaviour involves change at all levels.

Our reading of the drink driving literature suggests that at least the latter two levels of these variables have been intensively examined. The behaviour of driving after drinking is strongly addressed by interventions such as RBT, licence suspension, interlocks and the like It is also clear that attention is being given increasingly to the "person" characteristics of the drink driver (Donovan & Marlatt, 1982, Sheehan et al, 1992). Examples of this focus include the increased attention and interest being given to assessing convicted offenders for alcohol dependency and the development and testing of rehabilitation programs of increasing degrees of therapeutic sophistication (Foon, 1988; Stewart & Ellingstad, 1988; Victorian Social Development Committee, 1988).

The distal or situational contribution to the system remains comparatively ill-defined and under studied. There are very few interventions concerned with modifying the environment which creates and supports drink driving. There have been very few media campaigns reported in Australia or elsewhere that have addressed the situational context even though this is an interventional method that

is essentially targeted to the community as such. The "bloody idiot" and "it could happen to me" messages (Forsyth & Ogden, 1993) are focussed on behaviour change by the individual driver (person) rather than on stimilating change in the situational elements in the community system that are part of the problem. No campaigns have explicitly encouraged the use of alternative beverages to alcohol or admonished the community to think about reducing the access and availability of alcohol. We found no record of government supported media campaigns encouraging the community to resist or be more critical of alcohol advertising and/or to push for more stringent advertising guidelines, though some of these issues have been given viewing time in current affairs programs. Similarly there have not been any media campaigns which aimed to increase the community demand for more public transport or for entertainment venues to be responsible for their patrons' safe return to their homes. Whilst these situational and social environment issues are contributors to the behaviour they appear to be forgotten players in anti-drink driving campaigns Morever, as has been clearly described by Elliott (1993), such campaigns tend to focus heavily on "attempts to get people to do what they (the marketers) think is good for them even if they don't like or want it" (p.4).

An interesting issue here relates to the role of RBT and the element of the behaviour paradigm that it affects. Whilst the literature and analysis places RBT firmly as a deterrent to an 'individual' at the person level it is also the case that it has a major impact on the environment or social contextual level of influence.

The above argument is not meant to dismiss the remarkable effectiveness that has accompanied the "person" and "behaviour" initiatives. The reduction in the nine years since 1981 of alcohol involved fatalities from 44% to 33% in Australia is

impressive (FORS, 1991). However, the Scandinavian experience suggests that it may be difficult to reduce the current figures of around one-third of motor vehicle fatalities involving alcohol may not be further moderated until a different focus for initiatives is introduced.

1.3 Intersectoral Approaches

Another historical impetus to broaden the conceptual perspective on drink driving arises from the relatively recent interest being shown by government policy in intersectoral approaches to public service issues. In the main at this early stage such initiatives are probably more frequently to be found in policy documents than in policy in action The barriers to cross department cooperative activities are relatively formidable in a parliamentary system with ministerial responsibility, accountability and not least of all, funding (Lennie, 1989). At the same time drink driving in the Australian context clearly crosses departmental boundaries. Four Departments can be identified readily as having responsibility for the offending stage of the behaviour. These include Justice, Transport, Police and those carrying the task of punishment and/or rehabilitation. To date with the exception of Corrective Services and possibly, Justice departments, these have also carried most of the responsibility for prevention It is not surprising given the end point of these responsibilities that (with the exception of road improvement activities) the focus of prevention has tended to be person and behaviour rather than environment based

The other clearly identifiable Department which has a stake in this issue is the Health Department which carries responsibility for those injured or killed in alcohol-related crashes. For a variety of policy and economic reasons health departments have been encouraging prevention policies and interventions fairly

actively in recent years. A move towards more intersectoral approaches has also been apparent in public prevention documents (Nutbeam et al, 1993).

The genesis of this more broadly based orientation to health initiatives is generally credited to the WHO declarations in 1979 and 1986. These provided broadly based definitions of health and in the latter year made specific reference to the contribution of "ways of living" and the "social and economic environment" to health. This brief has been interpreted as encouraging an intersectoral approach to health and at the first International Conference on "Intersectoral Initiatives in Health" in Adelaide in 1987 one of the invited papers related to drink driving education (Lennie, Najman and Sheehan, 1988). More recently, in a document written for the Commonwealth Department of Health, Housing and Community Services (a department title which incorporates three relevant sectors) on "Goals and Targets for Australia's health in the year 2000 and beyond" the need for intersectoral solutions to health problems is reiterated. The point is made that a review of international health initiatives demonstrates "the usefulness of a broad conceptual framework which legitimises a range of actions across sectors to promote better health" and "emphasises the importance of developing coalitions of interest involving communities, government, and non-government organisations in the formulation and common pursuit of individual targets." (Nutbeam et al, 1993, p.12).

The need to take a multidisciplinary approach to drink driving has been recognised for many years. The key international association concerned with alcohol, drugs and driving (I.C.A.D.T.S) includes representatives from most of the social sciences, engineering, medicine, highway design and traffic planning, law, police and forensic science. Even in this environment with its overt promotion of the

multidisciplinary nature of the issue it is surprising how rigid the territorial boundaries of disciplines remain. Very few multidisciplinary papers are presented at I.C.A.D.T.S conferences or published in alcohol and driving journals even though the event or medium may explicitly recognise the different areas of expertise.

Interestingly, two very different Australian organisations have been established in recent years both of which are concerned with road safety and overtly committed to an intersectoral approach. Both organisations place a high priority on reducing the association of driving with driving with alcohol or other drugs. The National Road Trauma Advisory Council (NRTAC) was established by the Prime Minister in 1990 to provide a national focus to improve road safety. It also "represented a recognition of the need to bring the fields of Transport and Health together in a concerted effort to address road trauma problems." (National Road Trauma Advisory Council, 1991, p6). Membership is even more clearly intersectoral with representatives from not only the cognate areas but also from Police, Industry, University and Road Safety organisations.

At the other or community based end of the dimension, the Australian College of Road Safety also has been established over the last ten years by concerned members of the community to work on a national approach to road safety. The College membership includes people from a very wide range of University, Government and Non-government organisations and private memberships from persons in a wide variety of occupations and professions with an interest in road safety. It is currently working to establish a multidisciplinary postgraduate training program in road safety. This proposal may presage a constructive move towards formalising and skilling people in intersectoral exchange and work in this area.

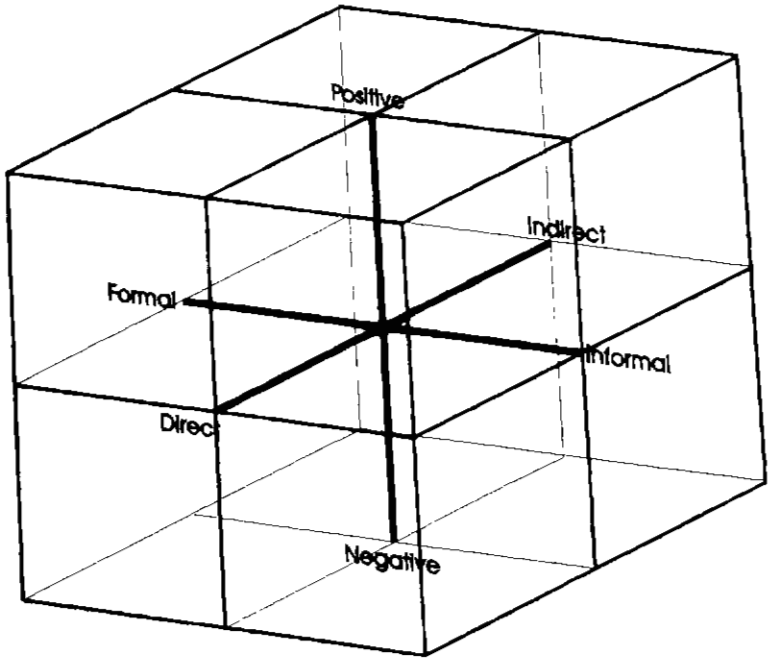
If an intersectoral model is to be maximally effective however, we propose that action for change will need to be taken at the level diagrammatically represented as the fourth tier. The fourth level represents what we have called the social context. It includes the range of influences and forces by which the broader community impacts either positively or negatively on drink driving.

1.4 Defining Social Contextual Influences

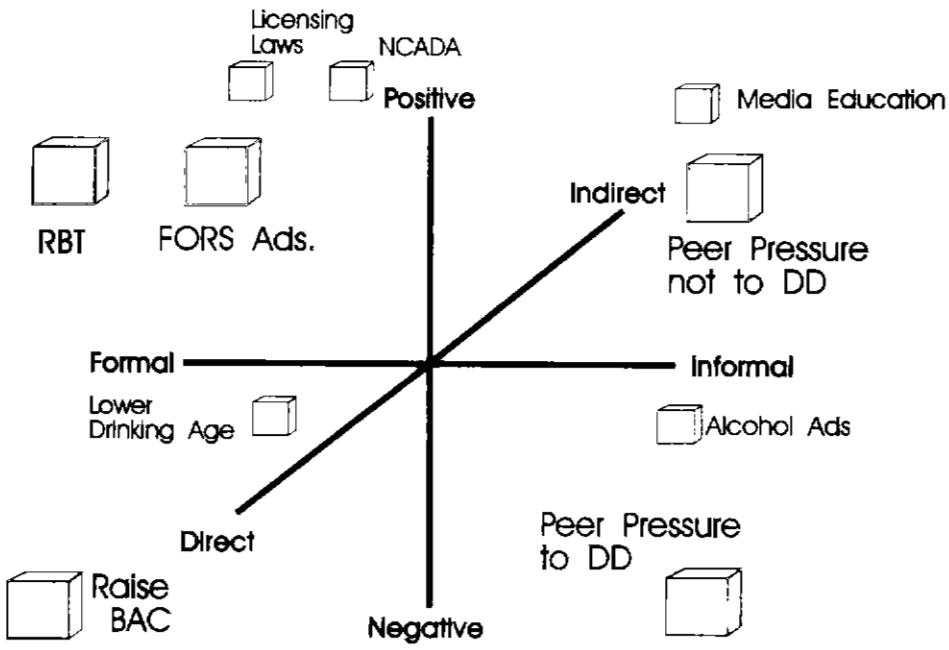
The present study identifies and examines elements which comprise the fourth tier of this model. It aims to identify the people, situations and influences that make up the social context of drink driving in Australia. We conceptualise the social context of drink driving as the interaction between three key bi-polar dimensions of influence (See Figure 2), these being **formal** and **informal** influences; **positive** and ***negative*** influences; and **direct** and **indirect** influences. Theoretical examples of influences in these dimensions are given in Figure 2(b). These figuratively represent possible influences, direction and degree of influence. **Formality** refers to the institutionalised status of the influential body and as can be seen in the figure moves from highly formal influences such as 'licensing laws' and 'RBT' to informal influences such as 'Alcohol advertising' and 'peer pressure to drink drive' or 'not to do so'.

FIGURE 2: Alcohol Controls (Social Context)

a)



b)



The **positive** and **negative** direction of contextual influences is defined by their potential for deterring or facilitating drink driving. For example the National Campaign Against Drug Abuse (NCADA) and 'RBT' are considered positive influences whilst "lowering the drinking age" is a negative influence. Finally, the dimension of **direct** and **indirect** influence is used to classify the extent to which an influence focuses upon drink driving. It is possible for example to contrast (Federal Office of Road Safety) FORS media advertisements which are concerned **directly** with drink driving, with NCADA advertising concerned with youthful binge drinking. The latter's focus upon reducing binge drinking may be considered to have an **indirect** influence on young adults' drink driving behaviour.

In a social situation as complex as the context of drink driving the relative weightings which such influences exert are not directly measurable. It is possible, however, to identify key players in the social context and to obtain their opinions of the indicators of these contextual influences and their estimates of the contribution of these to the behaviour. It is also arguable that the attitudes and beliefs of key players are dynamic contributors to the creation and maintenance of the social context in their own right.

It should be noted that an issue such as this is fraught with interpretative difficulties. Not only do social contextual influences impact on drink driving but drink driving initiatives and community changes in drink driving may have a reciprocal deterrent effect on related drinking behaviours. Such an effect is most likely to occur in relation to drinking mores but arguably may also influence other road safety behaviours such as speeding. For example, RBT enforcement may have led to a change in the drinking and possibly driving mores of middle class Australia.

1.5 Overview

The present study aims to develop an overall picture of the drink driving elements that comprise the fourth or social contextual influence in Australia.

In order to examine these issues and to begin to place some weighting on the contribution of these influences the study was designed in two phases. The first involved relatively open ended discussions with persons who were considered to be recognised key opinion leaders in the field of research and policy related to drink driving. The second phase involved structuring the information obtained through these interviews within the constraints of the theoretical model. This was then operationalised into a survey proforma concerned with the issues identified by informants. The survey was mailed to a large sample of persons who were identified by snowball sampling as experts and/or workers in the defined areas.

The second chapter of this report describes the methodology in more detail and the following chapters review the findings concerned with each of the theoretically derived spheres of influence. Because of the high level of interest and attention given to Random Breath Testing (RBT) a separate chapter five is particularly given to the area.

References

Andenaes, J. (1988), The Scandinavian Experience, in Laurence, M.D.,Snortum J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 43-63.

Donovan, D.M. & Marlatt, G.A. (1982), Personality sub-types among driving while intoxicated offenders: Relationship to drinking behavior and driving risk, **Journal of Consulting and Clinical Psychology,** Vol.50(2), pp 241-249.

Elliott, B. (1993), **Road Safety Mass Media Campaigns: A Meta Analysis,** Elliott and Shanahan Research, CR188, FORS, Canberra, ACT.

Federal Office of Road Safety (1991), **The impact of the 0.05 alcohol limit in the Australian Capital Territory: An analysis of the first 6 months,** Department of Transport and Communication, Canberra, ACT.

Foon, A.E. (1988), The effectiveness of drinking-driving treatment programs: A critical review, **The International Journal of the Addictions,** Vol. 23(22), pp 151-174.

Forsyth, I. & Ogden, E.J.D. (1993), Marketing traffic safety as a consumer product in Victoria, Australia, in Utzelmann, H.D., Berghaus, G. & Kroj, G. (eds.), **Alcohol, Drugs and Traffic Safety-T92**, Band 3, Verlag TUV Rheinland, Cologne, Germany, pp 1437-1442.

Geller, E.S. & Lehman, G.R. (1988), Drinking-driving intervention strategies: A person situation behavior framework, in Laurence, M.D., Snortum, J., Zimring, F.E.(eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 290-320

Gottfriedson, S.D. & Taylor, R.B. (1986), Person-environment interaction in the prediction of recidivism, in Byrne, J.M. & Sampson, R.J. (eds.), **The Social Ecology of Crime,** Springer-Verlag, New York.

Gusfield, J.R. (1985), Social and cultural contexts of the drink driving event, **Journal of Studies in Alcohol,** Supplement 10.

Hawks, D. (1991), Whistling in the wind, or Health education as it is usually practiced, **Drug Education Journal of Australia,** Vol.5(1), pp 1-6.

Henderson, M. (1972), Drinking and driving: Sociological aspects, **Conference Proceedings: National Road Safety Symposium,** Canberra, ACT, pp 244-251.

Henderson, J.M. & Freedman, K. (1977), Attitudes to drinking and driving in Australia, in Johnston I.R, (ed.), **Alcohol, Drugs and Traffic Safety,** Melbourne, Victoria , Canberra, ACT.

Lennie, J. (1989), Intersectoral collaboration of drink driving prevention programs: Problems, strategies and issues, Paper presented to the Fourth National Drug Education Workshop,
10 November, Adelaide, S.A.

Moore, M.H. (1991), Drugs, the Criminal Law and the Administration of Justice, in **The Milbank Quarterly,** Vol. 69(2), Cambridge University Press, New York, pp 529-560.

Najman, J.M., Sheehan, M., Lennie, J. & Forbes S. (1988), Drink Driving Intervention for Queensland Youth: The Contribution of Intersectoral Health Planning; in **Healthy Public Policy: 2nd International Conference on Health Promotion,** April 1988, Adelaide, S.A

National Road Trauma Advisory Council (1991), **Annual Report,** FORS, Canberra, ACT, p6.

Nutbeam, D., Wise, M., Bauman, A., Harris, E. & Leeder S. (1993), **Goals and Targets for Australia's Health in the Year 2000 and Beyond,** Report prepared for the Commonwealth Department of Health, Housing and Community Services, AGPS, Canberra, ACT, p12.

Ross, H.L. (1988), Deterrence-based policies in Britain, Canada and Australia, in Laurence, M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 64-78.

Ross, H.L. (1992), **Confronting drink driving: Social policy for saving lives,** Yale University Press, New Haven, Conn.

Sheehan, M., Siskind, V., Woodbury, D. & Reynolds, A. (1992), **The systematic trial of an innovative community based drink driving rehabilitation program,** Report to FORS, April 1991, Drink Driving Prevention Program, University of Queensland, Qld..

Stewart, K. & Ellingstad, V.S. (1988), Rehabilitation counter-measures for drink drivers: Treatment, in **The Surgeon-General's Workshop on Drunk Driving: Background Papers**, Department of Health and Human Services, Public Health Service, Office of the Surgeon General, Washington DC, pp 234-246.

Valverius, M.R. (1985), Punishment and/or treatment for driving under the influence of alcohol and other drugs: An overview, in Valverius M.R. (ed.), **Punishment and/or treatment for driving under the influence of alcohol and other drugs,** International Workshop, 19-20 October 1984, Stockholm, Sweden, pp 7-11.

Victorian Social Development Committee (1988), **Second report into the management of drink drivers apprehended with high blood alcohol levels - drink driver education and treatment,** Melbourne, Victoria.

2. RESEARCH STRATEGIES

2.1 Introduction

The study aimed to collect comprehensive information on perceptions of the social context of drink driving in Australia. It was therefore primarily a study of attitudes and beliefs. The methodology involved identifying key formal and informal influences from the literature and then attempting to measure the perceptions of these influences which were held by persons who were working in this area in Australia. In order to focus the study and limit the range of material covered information was sought initially from key informants by a telephone interview of recognised opinion leaders. This was followed up by a survey which was mailed to workers in the field. This latter sample were identified by the opinion leaders or by key agencies as holding positions which were believed to mediate either positive or negative influences in the social context of drink driving.

2.2 Interviews with Influential Stakeholders

Persons with extensive experience and interest in the areas related to drink driving and alcohol treatment and prevention were identified. These included senior Australian and New Zealand workers in the following areas:

Transport,

Health (drug and alcohol experts);

Media consultants;

Research workers with relevant expertise within Government, University and the private sector;

Peer and community pressure and lobby groups;

Representatives of the Liquor industry;

Members of law enforcement institutions including military and police staff. Discussions were held with a number of these people and a small sub-group selected for telephone interviews which were completed during March-April 1992. A small number were interviewed personally. The list of persons interviewed is provided in Appendix I.

2.2.1 *Proforma*

The telephone interview proforma included the following open questions broadly focussed around the theoretical dimensions developed from the social context model.

a) What do you think the general situation with drink driving is at the moment?

b) Do you think there has been any change/s? In what way?

c) What do you think has influenced drink driving over the years? What about in the other way?

d) What is the future? Do you think the same influences will be operating on drink driving?

e) Will there be any new developments?

f) Where do you see your field of interest going in respect to drink driving?

g) Where do you think the work (or research) in the general field of alcohol will be heading?

Finally, in order to identify the broadest possible sample of persons to be contacted for the postal survey,

h) Who are the other important people in your State we should be talking to?

2.2.2 *Sample and Method*

Seventy-one people were identified as key opinion leaders and interviews were held with the fifty-four people who could be contacted. It is recognised that the sample does not represent a random or representative sample of core Interest Groups. We sampled identifiable leaders in the relevant fields within Australia Following Rogers (1993) and related researchers examining diffusion of ideas it is considered that it is such influential persons or "innovators" who in fact create, maintain and modify the social context in which drink driving occurs. It is their experience, insights and influence on the social process which ultimately informs that context. Letters were sent two weeks in advance of when telephoning was to begin, explaining the relevance of the study and its format (see Appendix 1), and indicating that a telephone interview would be requested. These telephone interviews sought information on the current status of drink driving in Australia. All questions were open-ended to keep the interview as unstructured as practicable, and where possible interviews were recorded using phone jacks. The respondents were also asked for names of relevant people they thought should be included in the mail survey. Interviews were conducted by the investigators and the senior research officer.

2.2.3 *Analysis*

Two levels of analysis have been undertaken with this interview data. The first involved a simple content analysis extracting core issues from responses to define indicators to be used in the postal survey. The findings from this analysis are presented in summary form in Appendix 2. These materials were then organised into areas of particular interest noted by

more than one respondent or mentioned across more than one interest group. They form the key issues included in the post survey.

The second level of analysis involved converting the interview proforma into Ethnographic qualitative data. These materials provide the qualitative data which informs the quantitative analyses of the postal survey data.

2.3 Interest Group Mail Survey

2.3.1 *Defining the Social Context of the Survey*

Two conceptual decisions informed the methodology of the mail survey The first was that social context is defined not only by perceptions of contextual elements, but also by the perceiver's background and interests. The second was that only those contextual issues raised by the key opinion leaders should be included in the survey The latter decision subsequently limited the study in that at least one important but relatively invisible element of content which was insurance company policies was not included in the survey.

In order to sample the interested players as widely as possible an exhaustive range of persons interested in the problems of alcohol and drink driving were identified. Researchers, field workers, magistrates, administrators, senior representatives of the liquor industry, insurance workers and involved citizens were included in the sampling. Involvement may have been through their work or as members of committees, professional organisations, or private citizen groups such as lobby groups. The sample also included members of the Armed Services, various church groups, attendees at conferences concerned with alcohol and/or drink driving, the

mass media and civil liberties groups. Where the questionnaire was being sent to a person in a particular employment position, every effort was made to establish the name of the person in that position, and in the majority of cases this was successful. Respondents in all these categories were sought throughout Australia.

2.3.2 *The Questionnaire*

The information and ideas obtained from the telephone interviews were used to design the mailout questionnaire and nearly all questions were precoded according to the range of information provided in the telephone interviews. An introductory/explanatory letter was included with the questionnaire (see Appendix 3), similar to that sent prior to the telephone interviews, and a reply paid return envelope was also included.

The issues included in the mail questionnaire were as follows:

- respondent's areas of involvement in alcohol issues
- main area of involvement
- area of employment if that was the reason for their involvement in alcohol issues
- assessment of the present situation with respect to drink driving
- subgroups in society which have the greatest need for research and intervention
- importance of a range of influences that encourage drink driving
- importance of a range of influences that discourage drink driving
- the importance of cultural traditions
- suggestions to reduce the influence of cultural traditions
- usefulness of various strategies proposed to reduce drink driving

- effectiveness of the RBT campaigns
- other future issues associated with alcohol and drink driving.

Prior to mail out relevant government departments were approached and asked to formally encourage staff to complete the questionnaire. Two weeks after the mail questionnaire was sent, a follow-up reminder pamphlet was sent to those who had not returned their questionnaire (Appendix 3) A further two weeks later, a second reminder (Appendix 3) was sent together with another copy of the questionnaire in case the original had been misplaced

A total of 648 questionnaires were mailed out and there were 417 respondents (64.3%).

2.4 Sample Characteristics

2.4.1 *State*

The size of the sample representing each state was in the same rank order as the general population statistics, with the exception of the ACT which was over represented. This was acceptable, and indeed desirable, since there needed to be adequate representation of Federal Government departmental personnel involved in the areas of alcohol and drink driving policy.

2.4.2 *Age*

The age group between 30 years and 50 years accounted for 65.2% of the sample, with a further 27.6% being 50 years or older. Only 5.8% were

younger than 30 years of age which suggests that opinions will be more likely to reflect "established" views.

2.4.3 *Area of Interest*

Respondents were asked in which areas they were involved with alcohol issues. They could nominate as many areas as they wished. Education/prevention was the most frequently nominated area of involvement, with 59.7% of respondents giving this as one of their areas. The next most frequently nominated areas were research (39.8%), policy (38.1%) and treatment/rehabilitation (31.9%). Legislation (24.0%) and law enforcement (20.4%) which was nominated mostly by members of the Police Service in various states and magistrates, were also represented. Members of formal associations such as the Royal College of Surgeons and Parliamentary committees, and members of the mass media were included (14.6% and 14.4% respectively). Community lobby groups such as PADD and MADD and the alcohol industry (manufacturing and marketing) were also represented (6.5% and 5.8% respectively).

Respondents were also asked to specify their most important area of involvement. This was used to classify them for analysis of interest group differences. Table 2.1 gives the distribution of responses.

TABLE 2.1 Respondents' Main Area of Involvement in Alcohol Issues

Area	Freq.	%
Research	60	14 4
Education/prevention	78	18.7
Treatment/rehabilitation	59	14.1
Law enforcement	53	12.7
Policy	39	9.4
Mass media	32	7 7
Formal association	12	2 9
Community lobby group	11	2.6
Alcohol industry	10	2.4
Legislation	9	2.2
Other	40	9.6
Missing	14	3.4

2.4.4 *Employment*

Nearly half (48.9%) of the respondents were employed in State Government departments or agencies. Tertiary education institutions were the next, but much smaller, major employer (9.6%). The mass media (7.0%), Federal Government departments or agencies (5.8%) and private industry (5.0%) were the other major employer groups. Smaller employment representation was from church organisations (3.6%), politics (3.1%), research institutions (1.4%) and local government (0.7%). A small proportion (4 1%) of respondents were involved in alcohol issues on a voluntary basis.

2.5 Analysis

The three issues of **item content**, **State of residence** and respondent's **interest area** have been used to direct the analysis. The primary focus is on the formal theoretical model. Items are grouped for analysis and interpretation according to their classification on the "Formal -Informal/Positive-Negative" dimensions. If the number of relevant items was sufficiently large within each of these theoretical classifications Factor Analyses were used to organize associated items for interpretive purposes. One set of items which concerned future developments could not be readily placed within the model. In this case PCA was used to define underlying dimensions and interpretation was related to the dimensions as well as to the individual items. (See Chapter 9)

The analyses related to possible differences in perceptions of context reflecting respondents' main area of interest presented some methodological constraints because of the small sizes of the groups who were sampled from the media (7.7%) and the alcohol industry (2.4%). In the event because the findings from these subgroups were sufficiently different from the other groups and their patterns of response were meaningfully consistent across issues it was decided to use them as separate groups in analyses.

Most analyses have involved simple Chi^2 and/or T tests or where a number of groups have been compared Anova and the Multiple Range LSD Test (SPSS). To moderate the methodological problems created by a large number of items and significance tests and because it was not concerned with hypothesis testing but with defining meaningful social trends and context, a conservative (.01) level of significance has been used for the main analyses. Tables which summarise the analyses of variance are presented in Appendix 5.

References

Rogers, E.M., (1993), **Diffusion of Innovations** (3rd ed), The Free Press, New York.

3. IS DRINK DRIVING A PROBLEM?

3.1 Introduction

The first issue to be examined is the extent to which drink driving is considered a problem in the Australian community. This is complicated by the generally accepted belief that there have been major changes in the community in drinking and driving in recent years. There are at least three readily identifiable questions here and they include:

a) the extent to which drink driving has lessened in recent years;

b) whether there are subgroups of the population who remain consistent and serious offenders and who are at risk of causing injury and fatality to themselves or others; and

c) are there any unintended consequences of the changes.

3.2 The Current Situation

There is consensus in the literature that there is an international trend towards reduction in motor vehicle crashes and fatalities and that drink driving has decreased significantly despite very different approaches to legislature and deterrence (Anderson, Adena and Montesin ,1993; NHTSA 1989). That this is the situation in Australia was a view that was strongly held by all the key informants we interviewed.

I would say the attitudes have changed that makes it socially unaccepted. Without having statistics, a general impression that things have improved. Statistics wouldn't show up unless there had been a dramatic decrease in the road toll. (Administrator of a Non Government Organisation (N.G.O.))

Theoretically, at the broadest social level, this universal trend may support the concept of a socio-historical control mechanism which becomes evident when a problem reaches a particular level of impact upon a community. (Moore, 1992) This concept was mentioned by one of the key informants in the telephone survey.

It seems like certain problems reach a point ... or level ... when they effect the general community and people decide they are going to do something about it. I don't know how this works or what triggers the change, but I think it happened with drink driving. (Senior Transport Officer)

Whatever triggers action, it is the case that most developed countries have established more active drink driving control strategies and alcohol problem prevention programs in recent years (Gusfield, 1988) and that effects are now being observed A key informant described the process of change and compared it with seat-belt use.

The social cultural changes have built up over a period of time, it has been rather like seat-belts where we had to do an enormous amount of work ahead and then legislation came in, people accepted it and it has been a high level of acceptance. You had the same thing debate (and raised) community awareness before RBT and then having that come in made enormous impact. (Insurance Industry spokesperson)

All informants regardless of background interest area agreed that drink driving had decreased and many pointed beyond the deterrence factor or RBT to what they believed was a substantial attitude and behaviour change.

Yes there are positive changes. People generally becoming more responsible. Making prior plans to avoid getting into drink driving situations. (Educator)

A significant change. A lot more people are not drinking and driving and are using alternative strategies. (Prevention/treatment N.G.O.)

3.3 State Differences

Reductions in Alcohol involvement in crashes are similar in most Australian States. FORS information and comparative statistics for alcohol involved fatalities across Australian States have been collated by Queensland Transport. The figures from 1981 to 1992 are presented in Table 3.1 below. During this period RBT was introduced in all Australian States and Territories. Figures corresponding to the year launch in each State/Territory are underlined in the table. Victoria introduced RBT in 1977 with a relaunch in 1989 and Northern Territory in 1980.

TABLE 3.1 Percentage of Drivers and Motorcycle Riders Killed with a BAC over the Legal Limit (Where BAC is Known)

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	*AUST
1981	42	38	50	44	48	43	71	23	44
1982	40	37	48	39	51	29	57	41	42
1983	36	37	47	32	55	19	70	57	40
1984	33	33	44	51	40	51	55	14	37
1985	33	38	47	44	45	37	64	12	39
1986	35	38	45	48	48	28	53	13	40
1987	32	38	39	40	47	39	45	17	37
1988	31	38	38	42	32	31	33	16	35
1989	33	32	34	37	37	44	52	25	34
1990	35	30	31	43	33	24	65	0	33
1991	33	29	31	29	33	22	59	0	31
1992	26	20	33	33	32	36	58	na	30

*Average value weighted by percent of driver and motorcycle riders fatalities within each State and Territory. Most State figures are taken from the Federal Office of Road Safety's "1992 Road Fatality Statistics Australia" publication. However, some figures have been corrected based upon finalised State figures. As a result, some of the "Aust" figures may be imprecise.

(Reproduced figures from Table 5.1 in Qld Transport (1994) p.36)

The most cogent feature of these figures is the marked decrease that has occurred in response to drink driving control initiatives. In some States the decrease preceded the introduction of RBT in that particular State and may have reflected a national response to the Victorian initiative. It is also possible as an informant noted, that it may have reflected benefits arising from awareness of road safety

triggered by the compulsory use of seat-belts. If the Northern Territory is excepted then it would seem that there is room for some satisfaction over the improved situation as far as alcohol related fatalities are concerned.

The pattern of reduction in NSW after the introduction of RBT at the end of 1982 indicates very high and sustained levels of improvement; a pattern which had not previously been observed in comparable initiatives (Ross, 1988).

RBT was the primary thing at least in NSW. And in the process you had changes in community attitudes. There is an interesting sort of thing in this, NSW I think did it as an innovation. NSW likes to be seen as being ahead ... there was impetus in NSW to be seen to be doing something and this was something they could do and perhaps lead in it. (Researcher)

It is likely that the contribution of the considerable publicity given to the NSW introduction of RBT raised drink driving on the national agenda as well. The move was viewed as controversial in other States so that the media focus on it ensured that the debate became a national one.

At the same time, drink driving driver and rider fatalities in the Northern Territory remain significantly higher than in the other States (National Road Safety Strategy, 1992). This difference clearly reflects a variety of social, demographic and geographic factors whose impact may be mediated through youth and the high average daily levels of alcohol consumption (A.B.S., 1992).

Of course one of the things about NT is the culture has been rather sympathetic to alcohol so it's been relatively easy for people to work out

where they (road blocks) are being done by RBT and people sort of flash their lights off the road. People try and duck around the corner in front of them. (Researcher)

The Northern Territory is a developing region which is sometimes reported as having a 'Frontier Character'. The population is disproportionately young and non-urban (Social Indicators, 1992). There are very long distances between urban (or for that matter provincial and rural) centres Since the early 1970's, the issues of aboriginal drinking and the contribution of ready availability of alcohol to a number of 'at risk' behaviours including drink driving has received considerable attention (Langton, 1990, Lyon, 1991).

In a joint effort of Vicroads, TAC Insurance and the Victorian Police in 1992 the combined effect of Victorian road safety measures between 1980 and 1991 was evaluated. They reported that the Victorian road toll for 1990/91 had been reduced to 1950's levels. The decline in road fatalities between 1989 and 1991 in Victoria was the greatest of all Australian states (TAC, 1991). There is some concern over what appears to be increases in this level during 1994. The need to maintain a strong profile in this area is evident.

Drawing on this background material, some items measuring respondents' perceptions of the drink driving situation in Australia and in the different States were included in the survey.

The survey respondents were asked about their perceptions of the current drink driving situation in Australia **The majority (81%) agreed that drink driving had decreased Australia-wide. There was strong agreement (m=7.8, s.d.=1.6)**

on a scale of "1=strongly disagree to 10=strongly agree" that most people are now using strategies to avoid driving after drinking. There were no significant differences between respondents from different States or between those from the various Interest Groups on these items. Whilst this is not surprising, in that it reflects the national figures, these widespread and general beliefs of themselves constitute an important background element in the social control of drink driving.

Two related items asked respondents to rate from '1=Completely Acceptable' to '10=Completely Unacceptable' their perceptions of the acceptability of drink driving in firstly, Australia and secondly, their own State. The respondents rated drink driving as unacceptable in both situations (Australia m=6.6, s.d.=2.2 / State m=6.9, s.d.=2.3). As can be seen there was considerable variability in the responses.

TABLE 3.2: Acceptability of Drink Driving in Australia and Own State

Items scored from *1 = completely acceptable* to *10 = completely unacceptable*)

Location	Acceptability	
	Mean	**s.d.**
Australia *(n = 390)*	6.6	2.2
Own State *(n = 408)*	6.9	2.3

In order to explore possible between State differences in these views a composite index was developed in which respondents were scored as to the correspondence between their ratings for Australia and for their home State. In this index if the respondent gave the same acceptability rating to drink driving in their State and the general Australian situation, they were scored 'same'. If, however, they rated drink

driving as less acceptable in their own State it was scored 'less acceptable'; and finally, if they considered that their State was more tolerant of drink driving than Australia as a whole, they were scored 'more acceptable'.

The ratings given by the respondents from the different States are given in Table 3.3 below.

TABLE 3.3 Acceptability of Drink Driving in States Compared with Australia

(Row Percentages)

State	Similarity to Australia		
	Same	**Less Acceptable in own State**	**More Acceptable in own State**
Tas *(n= 21)*	85.7	14.3	0 0
WA *(n = 43)*	76 7	11.6	11.6
SA *(n = 50)*	84.0	16.0	0 0
VIC *(n = 82)*	53.7	41.5	4 9
NSW *(n = 95)*	82.1	13.7	4.2
QLD *(n = 71)*	84.5	8.5	7.0
ACT *(n = 34)*	52.9	38.2	8.8
NT *(n = 20)*	35.0	25.0	40.1
TOTAL *(n=416)*	**72.1**	**20.2**	**7.7**

The majority (72 2%) considered that the attitudes were the same in their State as in Australia as a whole. On the other hand, the difference between respondents from different States (Chi^2=86.5, p=.000) is highly significant.

The main contrast is between the Victorian and ACT respondents and those from the Northern Territory. Forty-two percent of Victorians and just under two-fifths (38%) of respondents from the ACT rated drink driving as less acceptable in their State than in Australia as a whole. At the other extreme 40% of the respondents from the Northern Territory believed that it was more acceptable in their State than in Australia. The majority of the respondents from other States reported their local attitudes as similar to the Australian pattern.

These findings based on opinions of workers in the field can be compared with the National 'Wave' community surveys on attitudes to Road Safety issues conducted by FORS (Wave Surveys, 1992). Whilst perceptions of drink driving as a national problem have decreased over each of the last three surveys (1989-1992), residents of the Northern Territory have recorded most concern about drink driving whilst in the last two surveys, Victoria and NSW have recorded least concern.

Think work in the future is coming to grips with problems of alcohol in remote Australia. What are the prevailing things in our society which reinforce underlying attitudes and lead people to drink very heavily. (Policy Worker)

3.4 Subgroups at Particular Risk

There has also been an emerging understanding that whilst the numbers of alcohol impaired drivers are being reduced or controlled at the population level there are identifiable subgroups who remain at particular risk. Research in Finland indicates that whilst the rate of drink driving has been reduced since the seventies in recent years there are more hard core offenders among those drink drivers arrested in

random screening. (Pikkarainen, 1993). A similar problem has been identified in Australia (Sheehan et al, 1992) and was frequently mentioned in the interviews

I am quite certain that the RBT strategy and the combination of decreasing the blood alcohol level to .05, the high profile endorsement of drink driving and the associated publicity both in terms of campaigning and public education and editorials have been a perfect example of how to go about large scale change. And it has been very successful, particularly in NSW. However it has also demonstrated the capacity to influence the general population and a particular set of targets but not influence hard core and difficult groups. (Insurer)

Definitely improving, community taking more notice that it is a dangerous occupation and beginning to avoid it. There is still a hard core who are beginning to stick out like sore thumbs. (Rehabilitation Worker)

A North American examination of fatality statistics indicated that the majority of fatally injured drivers were alcohol dependent with diverse problems in driving, personal lifestyle and relationships, as well as drinking problems (Simpson & Mayhew, 1992). Bailey (1992) studied drivers involved in fatal accidents in New Zealand over a one year period. Drivers had extensive patterns of criminal offending, high BAC's and previous traffic convictions.

Age is also a factor here. Mookherjee (1992), in a study of all road crash fatality statistics in Tennessee (USA), found that disproportionately more young drivers 18-21 years of age are at greater risk of becoming involved in a fatal accident. Recent Australian data indicates that fatality rates remain highest for the 20-24 year

old group (28:100,000) followed by those aged 15-19 years (24:100,000) (FORS Fatality File, 1990).

I believe that we should be looking at 'at risk' groups and identify 'at risk' groups in the future. Obviously the population 18-26 years; the young lower SES males; assertive risk taking types of young people possibly with particular sorts of cars and single; are probably the group that I would identify that we would need to get into doing something about. (Researcher)

These issues were part of the experience of the key informants and many relevant comments were made.

I think we need more research into young drivers' behaviours and skills, social skill levels to try and make some sort of correlation there. Looking at young drivers attitudes and skills. We need some background stuff there so that we can target them effectively. (Treatment/rehabilitation)

More drinking at home. There are some negatives in this - it leads to an increase in binge drinking. The problem is that binge drinking leads to different problems. Leads to consumption levels increasing and particularly among women and younger persons. (Researcher)

Have to concentrate more on developing influences on older heavy habitual and younger binge drinkers ... what can be done to target those groups rather than the scatter gun approach of RBT. (Researcher)

The USA figures on alcohol involvement in fatal crashes indicate that overall male drivers were almost twice as likely as female drivers to be drunk (27.3% vs 14.4%). Analysis of the same data also indicated that drivers of age 21-24 years exhibited the highest rates (34 7%) of intoxication (here defined as 0.1) followed by drivers of age 25-39 (33.5%), whilst 20.8% of those of age 16-20 years were intoxicated (NHTSA, 1989).

I think there have been improvements - all over probably -Europe, North America and in Australia and New Zealand. I think there is a certain amount of enforcement enhancement such as with the random testing in Australia. It is quite effective with a fairly large number of thinking drivers. You tend to be left with a sort of hard core which is what they have now in Scandinavia. (Policy & Research)

It is not surprising then that the key informants believed that there was a need to place particular emphasis on specific subgroups in the population and that, with some exceptions these were not dissimilar to those mentioned in the literature.

Binge drinking, women and drinking, aboriginal question, as it gets more publicity, more examination, I think the issue of aboriginal drinking will come up again and there will be work or research wanted in order to define if there is a problem. Places like the Northern Territory where drinking is to the excess. (Policy Worker)

These opinions were also held by the survey respondents who strongly agreed (m=8.7, s.d.=1.5) drink driving was still a serious problem for some special sub-groups. There were no State or Interest Group differences on this issue.

In the interviews, a number of subgroups of people in the community were nominated as being particular risk groups. Using these, an item was included in the survey which asked respondents to prioritise two particular subgroup/s which they felt were more at risk and in need intervention.

The proportions rating a particular subgroup as their first and second priority for research and intervention are given in Table 3.4 below.

TABLE 3.4: Proportions of Sample Ranking 'At Risk' Groups as Priority for Research and Intervention

(Total percentages based on *n=417*)

'At Risk' Group	Ranking		
	Top Priority	**Second Priority**	**Combined Ranking (1 & 2)**
Young Men	35.5	18.9	54.5
Recidivist Drink Drivers	24.0	22.5	46.5
Drink Drivers with high BACs	23.0	19.9	42.9
Young Women	5.0	16.1	21.1
Aborigines	8.2	11.0	19.2
Remote Area Residents	2.4	9.4	11.8

Using the combined ranking of either first or second priority the highest priorities were given to programs for **young men**, **recidivist drink drivers** and **drink drivers with high BACs**.

An examination of the data by State using the combined ranking indicated interesting differences. Respondents from all States except the Northern Territory and Victoria, nominated 'young men' as the group which should receive highest priority for research and intervention The most markedly different State was the Northern Territory Although there are only 16 respondents from this State, over two thirds (69%) of these gave first priority to 'aboriginal drink drivers'. This contrasts markedly with the proportions of respondents in other States who mentioned this group as a high priority. (WA-13%, SA-14%, QLD-13%). The recency of a serious crash which had been mentioned by one of the key informants may have contributed to this.

And when there are fatal accidents with aboriginal people driving, they often tend to be horrendous. There was one about 6 months ago where a mini bus drove onto the highway right into the front of a semi-trailer. (Researcher)

Victorian respondents were significantly more likely to nominate 'recidivist drink drivers' (39%) as their major concern.

The proportions reporting a particular group as a first or second priority were also examined for any differences between respondents in differing interest or occupational areas. These data are presented in Table 3.5 below.

TABLE 3.5: Proportions of Respondents from Different Interest Areas Ranking 'At Risk' Groups as Priority for Research and Intervention

(Combined responses *add* to *more than 100%*)

Area	'At Risk' Groups			
	Drink Drivers (High BAC)	**Young Men**	**Young Women**	**Recidivist Offenders**
Research *(n=59)*	55%	65%	18%	30%
Education *(n=72)*	36%	56%	27%	33%
Treatment *(n=57)*	37%	49%	20%	58%
Policy *(n=39)*	44%	51%	21%	59%
Enforcement *(n=55)*	49%	40%	13%	74%
Media *(n=31)*	34%	69%	25%	44%
Alcohol Industry *(n=10)*	70%	60%	10%	50%

The first and most obvious feature of the data when it is classified in this way is the low priority given by respondents from all Interest Groups to drink driving by young women. If one considers only those groups nominated as a first or second priority by at least half the respondents from each area then most priorities tend to reflect the respondents' specific interest area and experience. The majority of Researchers nominated young men and drink drivers with high BAC's as a priority. This group gave very low priority to recidivists which may reflect the relatively pessimistic outcomes of research in this area (Sheehan et al., 1992). Those working in Treatment nominated recidivists as did persons working in Law

Enforcement and Policy. Persons working in Policy also nominated young men and the Media gave priority to young men. The representation of respondents in this table from the Alcohol Industry is very small (n=10) which no doubt explains the lack of a particular pattern though drivers with high BAC's were given priority by 70% of this group. This may also reflect a response to a perceived isolated event rather than to habitual drinking.

That there could be some problem issues raised by targeting particular 'at risk' groups was frequently mentioned by key informants. This was particularly (though not exclusively) seen as a problem in trying to reduce the drink driving of aborigines.

Also have to recognise and contend with the problem of being accused of being discriminatory or racist when target particular groups, eg. Aboriginals or older heavy habitual drinkers. (Policy Analyst)

3.5 Unintended Consequences of Reducing Drink Driving

In the interviews a number of the key informants commented on unanticipated negative consequences that they thought had occurred as a result of the major behavioural change that underwrote the reduction in drink driving.

The harsh effort directed against D/D is directing, at least young drivers, towards cannabis and other drugs. So that's not a direct influence on D/D but it's a direct consequence of the actions which are going on in this state (Vic). In this state there is no legally recognised way of detecting people on those drugs, so they know they are reasonably safe. (Researcher)

Young pedestrians, for example, with high alcohol levels will increase and are increasing. There are now kids being killed on bikes, riding home in country areas which we were not getting before. You are getting the occurrence with adults too - but not quite so much. But the one group you might want to look at is women. My wife now drinks more than she normally used to do if we decide I am going to drive. (Researcher)

The positive side of it is that if Mum or Father or partners sit down and have a drink and talk, and can be responsible over their drinks, this is a very good projected role model. On the negative side - if they start to drink excessively in the home, knowing that they are not going to drive, drinking at home will increase and you will get all sorts of problems. I think also that you will get increased sociability, social occurrences, BBQ's, parties, will increase with drinking as a focus, again, around the home (Researcher)

Three questions were included in the survey which related to these concerns. Respondents were asked if they believed that 'more people were drinking at home now' and whether there 'has been an increase in driving under the influence of recreational drugs (eg. marijuana)' in order to avoid drink driving. They were also asked how strongly they agreed that 'people drink more if they know they are not going to drive'.

Overall, whilst large proportions of the survey respondents were unsure about the first two issues (21.3% and 45.6% respectively), **nearly two-thirds (64%) agreed that there was more drinking at home**. There were differences expressed on this issue by respondents from the different States (Chi^2=35.5, p=.001). Fewer respondents from NSW believed it was the case (47%) whilst a large majority of

those from WA thought that it was happening (81%). These contrasting beliefs may have reflected an increase in home drinking as the outcome of publicity current in WA at the time of the survey regarding changes to the BAC. It also may reflect the concern expressed by some NSW informants that the effects of RBT might have peaked in the State.

Overall, **about one-third (34%) thought that there was an increase of driving in association with drug (non-alcohol) taking.** There were no significant State or Interest Group differences but, there was a greater tendency for the Media respondents to report that they didn't know whether this was the case (66%) whilst the majority of people (53%) working in Treatment and Rehabilitation thought that there had been an increase in such driving. On a scale from "1=strongly disagree" to "10=strongly agree" **there was very strong agreement that people drink more if they know they are not going to drive (m=7.9, s.d.=1.9). This decision presumably reflects current driving behaviours.**

3.6 'Safe' Drinking Levels

An issue raised by a large number of key informants which had not been mentioned in the literature on drink driving was the difficulty people experience working out the amount they can drink and 'stay under the limit'. A number of informants also drew attention to the possibility that this difficulty was being compounded by confusion of Transport Department safety levels with Health Department publicity about 'safe' drinking levels for health. A number questioned the value of the Health Department concept of 'safe drinking' and whether there was any justification for the NHMRC levels. Some illustrative quotes from the many comments are given below.

Profound increase in request for information regarding safe drinking and driving levels from the public. (Treatment and Policy)

People are starting to be confused by the conflicting health and drink driving messages and there will need to be some sorting out of this. The NH & MRC rules are not supported in Canada and other countries. In Canada they talk about 21 drinks a week as the safe limit and they do not discriminate between males and females. Another thing that needs to be sorted out is some sort of reasonable definition for binge drinking - five or more drinks in a session is simply not a realistic definition of binge drinking. (Policy)

Confusion about research findings regarding health protective aspects of alcohol consumption was also mentioned.

It particularly interests me, I guess, because when you come down to the question of how much is safe to drink - every year there seems to be a more sensational experimental design which shows lower thresholds of alcohol for something like liver damage or pancreatitis. On the other hand we hear evidence for an anti-atherosclerotic effect of alcohol consumption. Some people say it's not necessary to limit drinks, and if you take enough exercise, you can eat and drink. But there is probably one or two people in Australia who are going to drink and not do exercise. I think there seems to be this positive effect, at the same time there is no known threshold for the negative one. So it's just almost impossible, to give really definite advice for a person who drinks. (Transport and Law Enforcement)

Safe drinking levels won't last long in their present sense - they are not really very realistic. They only have meaning in a drink driving context. There are enormous problems trying to define what are drinking levels and what on earth do they mean when it comes to binge drinking? (Researcher)

The survey respondents' reactions to the issue of 'safe drinking' levels are presented in Table 3.6 below. Respondents were asked to rate the extent that they agreed or disagreed with the statement on a scale from '1 - strongly disagree' to '10 - strongly agree'.

TABLE 3.6: Attitudes to 'Safe Drinking'

(Items scored from *1=strongly disagree* to *10=strongly agree*)

Current Situation	Agreement	
	Mean	**s.d.**
The community wants more information about safe drinking levels for driving *(n = 394)*	7.3	2.2
Safe drinking levels for driving are now being confused with 'safe drinking' levels for health *(n = 370)*	5.9	2.8
Labelling alcoholic drinks with information on standard drinks would be useful in reducing drink driving *(n = 409)*	7.1	2.4

They consistently agreed that the community is more interested in learning about safe drinking levels of alcohol consumption for driving (m=7.3, s.d.=2 2) There were no differences in responses to this item related to either State or Interest Group.

The majority were 'unsure' about the question asking about confusion over 'safe drinking' levels (m=5.9, s.d.=2.8). This probably reflects the confusion noted by the key informants. It is possible that many of the respondents who were not in the health field were unfamiliar with the distinction and interpreted 'safe drinking' as referring to 'legal' driving levels rather than the NHMRC 'safe drinking' levels. There were no State differences and whilst the somewhat unusual combination of Educators (m=6.8) and Alcohol Industry workers (m=7.3) agreed that this confusion could be a problem [F=3.43, P=.002] all other interest group respondents were 'unsure'.

An item was also included in the survey which related to the need to provide the community with information on standard drinks.

3.7 Standard Drinks

There was a high level of agreement that it would be useful to label alcoholic drinks with information on standard drinks (m=7.1, s.d.=2.4). There were no State differences on the issue but a highly significant difference between respondents from the Alcohol Industry and all others [F=6.64, P=.000]. Respondents from the Industry (m=3.1) thought this strategy would not be very useful whilst all other groups and particularly those from Education (m=7.6) considered it a useful strategy.

3.8 Overview

This chapter examines the extent to which drink driving remains an issue of concern in Australia. There was a strong consensus that it has been significantly reduced Australia wide. Certain subgroups were identified as still being particular "at risk" sub-populations and the NT was identified by respondents from that State

as having a particular and continuing high level of drink driving. This was linked to the high level of alcohol consumption in the State and the emerging problems of Aboriginal drinking and driving. Respondents recognised that the latter issue was being complicated by the reduced safety of the type of transport used

Again with the possible exception of the NT respondents there was a high level of consensus that the groups that still needed particular and probably targeted interventions were young men, recidivist drink drivers and those with high BAC's.

There was a degree of uncertainty about whether there had been any unintended consequences of the reduction in drink driving. A sizeable group of respondents believed that more people were drinking at home rather than in public drinking establishments. Of some concern was the belief held by the majority of people working in Treatment and Rehabilitation that more people were driving after using drugs other than alcohol than had previously been the case.

Finally, respondents believed that there was considerable confusion in the community being caused by the perceived inconsistency in the messages promulgated by the Health and Transport departments respectively on the subjects of "safe" drinking levels for health and "safe" drinking levels for driving. There was also a degree of scepticism expressed by key informants that the former levels were scientifically sound and some concern that unrealistically low levels for either driving or health would challenge the credibility of the whole campaign The related need to pursue the issue of educating people as to what constitutes a standard drink was strongly supported by all except respondents working in the Alcohol Industry.

References

ABS (1992), 1989-1990 National Health Survey, **Alcohol Consumption, Australia,** Cat. No. 43810, ABS, Canberra, ACT.

Anderson, P.R., Adena, M.A & Montesin, H.J. (1993) , **Trends in road crash fatality rates: International comparisons with Australia 1970-1990,** CR115, FORS, Canberra, ACT.

Bailey, J.P.M. (1993), Criminal and Traffic Histories, blood alcohol and accident characteristics of drivers in fatal road accidents in New Zealand, in Utzelmann, H.D., Berghaus, G. & Kroj, G. (eds.), **Alcohol, Drugs and Traffic Safety -T92** , Band 2, Verlag TUV Rheinland, Cologne, Germany, pp 838-846.

Federal Office of Road Safety (1990), **Case for a 0.05 Blood Alcohol Concentration Limit,** Department of Transport and Communications, Canberra, ACT.

Federal Office of Road Safety (1991), **The impact of the 0.05 alcohol limit in the Australian Capital Territory: An analysis of the first 6 months,** Department of Transport and Communication, Canberra, ACT.

Federal Office of Road Safety (1992), Community Attitudes to Road Safety, **Community Attitudes Survey Wave VI,** CR101, FORS, Canberra, ACT.

Gusfield, J.R. (1988), The Control of Drinking-Driving in the United States: A Period in Transition, in Laurence, M.D. Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 109-135.

Langton, M. (1990), Too much sorry business, Aboriginal Issues Unit (N.T.), **Royal Commission into Aboriginal Deaths in Custody,** National Report Vol. 5, Darwin, NT.

Lyon, P. (1991), Liquor Licensing, Aborigines and take-away alcohol in Central Australia, **Aboriginal Law Bulletin,** August, pp 11-13.

Mookherjee, H.N. (1992), Patterns of traffic violation among young adults in Tennessee, U.S.A., in Utzelmann, H.D., Berghaus, G. & Kroj, G. (eds.), **Alcohol, Drugs and Traffic Safety- T92** ,Band 2, Verlag TUV Rheinland, Cologne, Germany, pp 891-901.

Moore, M.H. (1992), Drugs, The Criminal Law and the Administration of Justice, in **The Milbank Quarterly,** Vol. 69(2), Cambridge University Press, New York, pp 529-560.

NHTSA Technical Report (1989), **Alcohol Involvement in Fatal Traffic Crashes** (1988), National Highway Traffic Safety Information, DOT.HS.80, 448, Dept. of Transportation.

National Road Safety Strategy (1992), Australian Transport Advisory Council, April 1992, Canberra, ACT.

Pikkarainein, J. & Penttila, A. (1993), Drinking, driving and road side studies - the Finnish experience, in Utzelmann, H.D., Berghaus, G .& Kroj, G.(eds.), **Alcohol, Drugs and Traffic Safety-T92,** Band 3, Verlag TUV Rheinland, Cologne, Germany, pp 1582-1602.

Queensland Transport (1994), **Enhancing the Effectiveness of RBT in Queensland**, (unpublished report).

Ross, H.L. (1988), Deterrence-based policies in Britain, Canada and Australia, in Laurence, M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 64-78.

Sheehan, M., Siskind, V., Woodbury, D. & Reynolds, A. (1992), **The systematic trial of an Innovative Community based Drink Driving Rehabilitation Program,** Report to FORS, April 1992, Drink Driving Prevention Programme, University of Queensland, Qld.

Simpson, H.M. & Mayhew, D.R. (1993), The Hard Core Drinking Driver, in Utzelmann H D , Berghaus, G. & Kroj, G. (eds.), **Alcohol, Drugs and Traffic Safety -T92**, Band 2, Verlag TUV Rheinland, Cologne, Germany, pp 847-853.

TAC Insurance (1991), 5th Annual Report, TAC S.06 055 (945), Melbourne, Victoria.

4. FORMAL OR INSTITUTIONALISED INFLUENCES THAT IMPACT DIRECTLY ON DRINK DRIVING

4.1 Introduction

The model used in this study defines formal and direct influences as those aspects of the social context that are overtly and explicitly concerned with drink driving. The model also proposes that the social context contains influences which both encourage and discourage drink driving. Given the anti-social nature of the behaviour there are few, if any, formal influences that could be considered to directly promote the behaviour (negative).

4.2 State Differences in Legal BAC

It may be argued that between-State differences in legal BAC levels constitute formal influences which encourage driving at differing levels of risk and consequently encourage drink driving. It is obvious however, that governments do not hold this as the formal goal for such policies. Some comments made by the key informants noted that confusion in BAC levels may be inadvertently reducing the clarity of the drink driving message

I think perhaps there is some confusion of the requirements for different States and Territory with regard to penalties. Whether they be probationary or .08 or .05. I think that is one thing, conventional people aren't clear as the law is changing all the time. They know the laws exist but are not very clear about what they are mainly because of the changes. (Treatment Worker)

BAC legal limits still .08 - are moves to lower it to .05. (Researcher)

Alcohol limits getting a lot of media coverage. Hoteliers getting irate - same as at Christmas when enforcement greater and was a market difference. (Policy Worker)

This chapter examines the formal influences which were specifically initiated to reduce drink driving. The major role in this area played by RBT in Australia was stressed by respondents. It is discussed in the following chapter

4.3 Formal Strategies to Reduce Drink Driving

The direct formal influences that we were able to identify from the interviews and the literature review which are designed to reduce drink driving are listed below in Table 4 1.

TABLE 4.1: Direct Formal Influences in the Social Context of Drink Driving

Enforcement (DD)	Anti-D/D Media Campaigns
RBT	Rehabilitation Programs
Lowering BAC	DD Offence penalties
Education (DD)	DD Alcohol Screening

They include legal and enforcement strategies and formal initiatives that are directly concerned with behaviour and attitude change such as rehabilitation, intervention and media campaigns.

The place of media in influencing drink driving is particularly interesting. We believe that media influence is direct and formal through sponsored anti drink driving campaigns. There is also an informal and indirect influence through media

representations of drinking and driving, alcohol advertising and reports of drink driving incidents. In rural areas the publication of court records of drink driving convictions also acts as an important informal community control. This influence is considered in a later chapter.

4.4 Drink Driving Legislation

The most direct formal influences on the behaviour are drink driving laws and the penalties for breaking them. The present situation is that whilst there are some differences between States there have been strong moves towards standardisation as part of the Federal Government's Prime Minister's 10 point Road Safety Plan. It is also the case that from an international perspective most of these differences are relatively minor and the basic thrust of laws and penalties is very similar across Australia. From this perspective the Australian legislation regarding drink driving is considered to be both homogenous and conservative (Snortum, 1988). The remarkably uniform reduction in alcohol related fatalities across all States supports this perception. In the words of one informant:

There is a big difference between the U.S. and Australia. In Australia there is a greater appreciation of things that will apply equally across the population, they seem to appreciate things in which there will be a benefit to the community as a whole and if you say the thing rationally people seem to accept it. This contrasts with the US, if you have lived there you will know, a collection of individuals doing their own thing with no concern about community benefit and somewhere in the middle the Australian attitude between that and the Japanese attitude which is more that the welfare of the community just takes precedence over everything. (Researcher)

4.5 Legal BAC

Historically, in the last twenty years Australia has moved towards a drink driving policy that very closely resembles the Scandinavian approach. The two key elements in formal control in Australia and the Scandinavian countries are what is called the 'per se' laws and Random Breath Testing. Australian legal systems have established laws that punish a driver whose blood alcohol level exceeds a prescribed limit without the need to demonstrate impaired driving. It is an Australian initiative which was first introduced in 1966 in Victoria (Ross, 1988). There appears to be a very high level of community acceptance of this definition of culpability. A recent study in Queensland courts found that in 1992, of the very small proportion of charged drink drivers who challenged the recorded BAC, the challenges were on the grounds of inaccurate measuring devices not lack of impairment at a given level (Sheehan et al, 1992). There is current debate and in some jurisdictions growing support for extending the use of breath-testing to routine police monitoring of all drivers stopped for any reason (NRTAC, 1993). This broader base for testing may be introduced Australia-wide in the next few years.

Acceptance of **a prescribed BAC** as evidence of impaired driving contrasts markedly with the situation in some European countries where an arresting police officer has to produce proof of impaired or 'at risk' driving In Japan whilst a driver can be convicted if they have a BAC above .05 there has to be evidence of impairment as determined by a sobriety test (Watson, 1994) In these countries there is much more emphasis on development research into technological initiatives which will provide valid and reliable tests of sobriety or reduced skills (Bonte and Machata, 1993).

The existence of the 'per se' regulations was not mentioned by any of the interviewees as contributing to the reduction of drink driving in Australia. This is interesting in itself and no doubt reflects the lack of controversy and the high acceptance of this legal provision.

A number of issues relating to the 'at risk' BAC level itself were raised and comments made on what was considered to be a questionable association between the .05 level and increased risk. The then current WA debate about the .08 limit was noted by some respondents and there were concerns that the stricter and (it was suggested) possibly unrealistic limit, might in fact bring the whole issue into debate.

I sometimes worry about .05, that is how do we keep retaining public support in the drink driving measures when .05 is the limit. It may not be realistic. I'm not sure myself whether I can monitor when I've reached .05. (Researcher)

On the other hand some respondents raised the issue of a zero BAC for all drivers for consideration.

I think we can now move almost to accepting a zero BAC level for driving. Australians are interesting in their way of conformity. Well, Victoria is going to a zero BAC level for everyone. I don't know how that will work. I think we will definitely win the battle, at least on the D/D area. (Researcher)

At the same time it is a different case for the whole question of zero BAC. In Scandinavia, Valverius has done work on roadside surveys and they find with their (strict) regulations that very few come with higher than zero BAC.

Except there remains that very small minority that have a very high BAC. (Engineer)

Two items relating to BAC which were based on the interview comments were included in the questionnaire. These concerned the possibility of a uniform national BAC level and role of the zero BAC Level for novice drivers.

4.5.1 *Lack of Uniform BAC Level*

Using a scale from '1 - no importance' to '10 - extremely important' respondents rated the lack of uniform national BAC Levels as relatively unimportant in encouraging drink driving in Australia (m=4.6, s.d.=2.9). State differences did not reach the agreed level of significance but there were significant differences found in the ratings given by respondents from the different Interest Groups [F=3.07, P=.006]. Those persons who worked in Education were more inclined to believe that the lack of uniformity encouraged drink driving (m=5 4) than did persons working in the Alcohol Industry (m=2.1), Policy (m=4.2) or Research (m=4.2). The group of respondents who least considered this to be of importance were those involved in the Alcohol Industry (m=2.1) and they differed significantly from all other groups

4.5.2 *Zero BAC for Novice Drivers*

Another issue which was raised by a number of those interviewed related to the, at that time, relatively recent national introduction of the 'zero' BAC for novice drivers.

Most common group (25-35's) being picked up now. This is because younger drivers are affected by the zero BAC level. So is really working - although has taken a while to filter through - the legislative change. Young drivers accept it - the zero BAC - better than older ones did when the law change was being discussed. (Rehabilitation Worker)

There is a second influence on drink driving amongst young drivers in Victoria. In 1983 or 1984 there was zero blood alcohol legislation for first year probationary drivers and that was extended in about 1986 to the first two years of driving and extended fairly recently to the first three years of driving. We have quantitative data that shows the effects of the legislation and the random breath testing, and clearly the evidence of the zero blood alcohol on those young drivers is well documented. (Policy Adviser)

Respondents were asked how important the zero BAC for novice drivers had been in discouraging drink driving. Overall, this was considered to be an important and positive step (m=7.54, s.d.=2.25) and respondents from all States agreed that it had discouraged drink driving. There were some State differences, however, [F=2.86, P=.006] and it was considered more important by respondents from NT (m=8.5), TAS (m=8.4) and VIC (m=7.9) than those from other States. A comparison of the ratings given by persons from different Interest Groups did not reach the set significance level [F=1.58, P=.15]. There were differences in opinion between respondents from the Alcohol Industry

(m=6.0) who rated it as less important than did those from all other groups, particularly Educators (m=8.0)

4.6 Penalties

A wide variety of legal sanctions have been employed to deter drink driving: licence suspension, mandatory rehabilitation for drink drivers, imprisonment, rehabilitation in lieu of prison, two-tiered BAC punishment legislation ($<.15$; $\geq.15$), fines calculated as a percentage of income, employment restricted licences, coded number-plates for drink drivers, licence plates impounded or higher fines, but the effectiveness of these sanctions has been restricted to short-term effects (Andrews et al., 1980). The Social Development Committee of the Victorian Parliament (1988) concluded that heavier fines, longer disqualification periods and prison terms have had no demonstrable effect on the rate of drink driving reconvictions. There is a general consensus amongst sociologists and criminologists that increasing severity of punishment alone has little effect on unlawful behaviour (Elliott, 1992). It is the perceived risk of apprehension which appears more important.

There is also the issue of civil liberties and to what extent that can be threatened and how the whole problem of fines and other sort of disciplinary areas works. One has to be careful of that always - and that is a problem for, I suppose, enforced drink driving. (Research & Policy)

At the same time because most research on deterrence strategies is undertaken in the real world, it is very difficult to clearly measure change and the strategies producing it. One key informant made this point in regard to changes in Victoria in 1978:

In 1978 two things happened simultaneously - one was the implementation of RBT and supporting publicity and with a reasonably high level for the first time. Secondly, was the doubling of penalties for D/D in terms of mandatory licence periods... so we were never able to separate those two effects, but there was a marked sustained drop in the numbers of people D/D and the associated casualties. (Researcher)

With the exception of licence suspension neither type nor severity of penalty generally affects the probability of reoffending and severe penalties may be counterproductive by inducing leniency in police action and a reduction in the number of accidents reported (Homel, 1988; NRMA, 1985). There may be a threshold penalty where a balance is achieved between deterrent and counterproductive effects (NRMA, 1985). There is also the possiblity that it is the existence of a penalty rather than its severity per se which is important.

The key respondents however thought that the penalties had played an important role in reducing drink driving.

Don't think the health industry is having a major impact on D & D think the penalties are having a major impact. The evidence supports this. (Educator)

I think the future trends will be developing heavier penalties and be a greater deterrent. (Policy)

There are some State differences in penalties. Victorian Road Safety provisions require that some serious offenders produce evidence of the completion of a drink

driving education program before relicencing (Victorian Social Development Committee, 1988). New South Wales is currently trialing an initiative in which convicted drivers with a BAC of 0.15 and above are required to undergo a medical screening test for alcohol problems before relicencing (Smith, 1991).

4.6.1 *Licence Disqualification and Suspension*

The two main penalties for drink driving convictions used by Australian courts are fines and licence disqualification and suspension. Overseas and local research has identified loss of licence as the key control on drink driving (Homel 1988). Most of those interviewed agreed:

The chance of being picked up, the chance of losing your licence has been the major influence. I don't want to discredit education etc. and all that, because it is clearly very important. But it's just one of those things we have to accept. (Policy)

I think that the methods of detection will become more sophisticated and people will become terrified in the motorised society of losing their licence. (Policy)

There is a growing debate about the effectiveness of extended licence losses. Overly long suspension may lead to an increase in unlicenced driving and the proportions of unlicenced persons who continue to drink and drive are unknown. A Queensland study based on Department of Transport data found that 42% of third offenders were unlicenced at the time of offending (Sheehan, 1993). Nevertheless, extended suspension or disqualification remains the penalty of choice for offenders. Another

Queensland study (Sheehan et al, 1992) found in a comparison of fines, prison sentences and suspensions that magistrates tended to penalise to the upper limits of suspension penalties but to give relatively low fines and prison sentences. This tendency to reduce fines has increased with the deepening of the economic recession and Corrective Service Officers report that there has been a sizeable growth in the use of Community Service Orders for the unemployed and Restricted Work Licences for drink drivers who are in employment (Driver, 1993).

Homel (1988) suggests that probation may also have some positive effects, especially for non-problem drinkers. It appears, however, that licence suspension does not stop a large proportion (somewhere between 32% and 68%) of suspended licencees from continuing to drive (Homel 1988; Victorian Social Development Committee, 1988). Victorian research has indicated that a significant proportion of disqualified drink drivers do not apply for licence restoration within six months of the end of the disqualification period (Victorian Social Development Committee, 1988).

The New South Wales Parliament's Staysafe Committee investigated the feasibility of introducing automatic licence suspension for drink driving offenders with BAC's greater than .15. The Committee argued that licence suspension as a penalty is not implemented until after the court appearance and sentencing, which in some cases can be years after the offence occurred, during which time the offender has been legally allowed to drive (Staysafe, 1989, 1993). The Staysafe Committee believed that automatic licence suspension for high BAC's would increase the immediacy of punishment and thus increase its efficiency as a punishment. Immediate

suspension for drivers with BAC's greater than .15 was supported by the NRMA (1992) and has been subsequently introduced in N.S.W.

Automatic suspension for BAC's greater than .15 was introduced in Victoria in March 1987, but Staysafe was unable to pinpoint this as the cause of reduction in the number of drink drivers in 1988 from 1987 (Staysafe, 1989). However, it has been reported that administrative licence revocation in the USA laws lowered involvement of drivers in fatal crashes by approximately 9% during the evening, late night and early morning hours (Insurance Institute for Highway Safety, 1988).

An interesting but relatively unexamined issue here relates to the selection of the .15 BAC level as the key predictor of a high risk of re-offending. A recent examination of Queensland drink driving offences which followed all drink driving offenders in the State in 1988 for a four year period suggested that the .15 level of BAC was far from being a strong predictor of later convictions (Sheehan, 1993).

The key respondents saw a clear and important place for legal penalties and enforcement.

I think the climate of toleration has changed considerably. One because of enforcement and two, there has been prevention through the media of pushing outcomes. Heavy drinkers amongst the police now regard light alcohol as acceptable and this is a major change. (Police Researcher)

I see two things happening. One is the enforcement of penalties and the other is the gradual shift in morals. I think that the two are really complementary rather than two opposite. I think one helps the other quite a bit. I think, for example, if you were a guest at a party and someone has, you think, had too much to drink in order to drive, you can, if you had to tell him 'if you go out there you will kill yourself, you are too drunk', he might not take it very well. On the other hand if you tell him 'look the cops are all over this place with breathalysers tonight', he might take that a little better. (Research Engineer)

Four issues relating to current and proposed penalties which had been raised by the experts were used as items in the survey. They concerned the 'importance of current legal penalties in reducing drink driving'; the 'usefulness of increasing the present legal penalties'; the 'renewal of licence being subject to assessment for alcohol dependency' and 'increasing restrictions on high risk drink driving groups (eg curfews, speed deterrents, engine size limits)'.

Some of the penalties are also a very useful thing. Our kids say they won't drink and drive. Will argue with their peers about that. (Law Enforcement)

Survey respondents registered a high level of agreement that the existing legal penalties had been very important in reducing drink driving (m=7.7, s.d.=1.9) with neither State nor Interest Groups differing on this issue.

TABLE 4.2: Effect of Penalties in Reducing Drink Driving

(Items scored from *1=strongly disagree* to *10=strongly agree*)

Influence	Agreement	
	Mean	s.d.
Existing legal penalties in reducing drink driving *(n= 409)*	7 7	1.9
Increasing penalties will further improve drink driving rates *(n = 410)*	6.5	2.6

There was less agreement with the proposition that increasing these penalties would produce improvement (m=6.5, s.d.=2.6) Victorian respondents (m=5.6) and those from WA (m=6.2) rated penalty increases as less useful than did the respondents from all other States [F=2.7, P=.01]. There were no significant Interest Group differences on the issue.

4.6.2 *Alcohol Assessment for Licence Renewal*

A development in this field has been the move towards screening convicted drink drivers to discriminate between "problem" and "social" drinkers and referring or directing the former towards treatment. Evidence of freedom from dependency is required as a condition for licence renewal. This primarily has involved the use of alcohol assessment tests and/or interviews at a first offence if the offender is at or above a specified BAC level; and at a second or later offence. This approach is increasingly being adopted in southern states of Australia and in New Zealand, the UK and Germany where assessments at the point of licence loss and before licence renewal are being used.

There are a variety of sound health arguments for assessment screening (Smith, 1991) most notably the fact that a history of multiple offending with a high BAC is a very strong indicator of alcohol dependency. If warning people about the health risks of their level of alcohol consumption is accepted as a reasonable goal then assessment should be tied to intervention or change strategies if there is to be a health benefit.

The other issue here is the cost and practicality of doing such tests.

Early intervention should be brief, simple, well presented and not hard to give. Took our 10 item screening program and enclosed it with other questions, camouflaged it a little bit, but you don't really need more than five minutes and you don't really need major training programs to help people to use this. (Researcher/Treatment)

On the other hand, still a lot of people are getting picked up. Of these the recidivists are being assessed at Driver Assessment Clinics. (Researcher)

Alcohol assessment is being piloted in NSW and SA and is undertaken in VIC but as yet it is too early for systematic feedback to be available. The New Zealand Road Safety Authority is completing an evaluation of their program and in the absence of outcome findings their general feeling is not very positive (Personal Communication 1993). They have found that very few of those tested at licence loss have returned for relicencing; testing involves sessional fees for medical practitioners and is expensive; and they have no information on the offenders subsequent driving histories (Frith, 1992).

There are problems with the validity and reliability of both the psychological and biological tests currently used for assessment. In addition, there are methodological issues related to appropriate 'cut-off' points and the related problem of incorrect classification In a study examining type 1 and type 2 errors using the Mortimer Filkins test the number of persons incorrectly classified exceeded those correctly classified (Wells-Parker et al, 1985). From an administrative and practical standpoint the cost of such classification errors is very high and it is debatable given the level of unreliability that classifications would be upheld if challenged legally

Biological markers are also imperfect measures. In a trial in the United Kingdom the serum activity level of gammaglutamyl transferase (GGT) in offending drivers was measured. Over one-fifth of drivers had raised GGT levels and the incidence was related to age (10.2% at age under 30, 31.5% at ages 30-45 and 29.35% in drivers over 45 years). The researchers reported that GGT measures repeated 6-9 months after arrest indicated that most drivers remained at the same level or got worse during the period of the driving ban No significant association was found between elevated GGT levels and previous motoring, non motoring or criminal convictions. During this trial two psychological screening tests (MAST and CAGE) were also used but the researchers considered that little useful information was gained from the psychological tests as drivers saw through their purpose (Dunbar, 1990).

Respondents thought that the **renewal of licence being subject to an assessment for alcohol dependency was likely to be of some importance**

in the future (m=6.9, s.d.=2.6). There were no State differences on this item. There was a significant difference between the respondents from different Interest Groups [F=2.9, P=.01]. Respondents working in Law Enforcement (m=7.9) and Education (m=7.1) and Treatment (m=7.1) were strongly in favour of this. Researchers (m=6.1) and those in the Alcohol Industry (m=6.4) were less supportive.

4.6.3 *Restrictions on High Risk Drivers*

The respondents thought that **legal restrictions which target high risk population groups such as 'curfews' would be marginally useful (m=5.7, s.d.=2.9).** There were no State or Interest Group differences on this issue.

4.6.4 *Ignition Interlocks*

Another approach being used in the U.S.A. currently under consideration in Victoria, Queensland and elsewhere in Australia is the use of ignition interlock devices to prevent driving above the legal BAC by particular high risk individual drink drivers. Some selected comments from the many made on this issue by the key informants were:

I believe that there needs to be alternative strategies for the groups which are unresponsive to high profile policing and public education strategies. There needs to be strategies which will be targeting those who have offended and are likely to reoffend. I believe they need to be quite sophisticated and powerful. I'm inclined to the view that physical restraint is the only way to prevent most of those people from

reoffending, Ignition interlocks and things like that. I don't believe we can appeal to their better nature. (Policy Worker)

Hoping to have ignition interlock soon. (Transport Department Officer)

Most key respondents were optimistic about the role of interlocks in controlling the multiple recidivist drivers but some expressed disbelief about the likelihood of their being introduced in the near future.

I am very unsure about short term outcomes of any of the new technology. I would certainly be very surprised if any of these came into vogue in the next five years - that is interlock or any of these new technologies. (Researcher)

Ignition interlock may be the way to go if it is introduced carefully. We don't want to disadvantage other people who may want to use the vehicle. Perhaps if they are repeat offenders with high range alcohol you should impose an interlock. However, you realise that ignition interlock is still at a very early stage. We tried it here, fitted to the vehicle and simply the vehicle wouldn't get started. In the end we had to put a bypass in to get the vehicle operational. There is still a lot of work that needs to be done on interlocks. Might be the way to go but they are still very much in the early stage of use. (Insurance)

Maybe some of the work done on equipment - like Ignition interlocks - may be changes in technology - has some problems to overcome. (Educational Consultant)

These devices have been trialed and implemented in some states in the USA with somewhat mixed results in terms of road safety outcomes. Some other problems that were raised about them relate to their impracticality to the target group in terms of costs; and the lack of general availability of services to calibrate them for accuracy.

The introduction of Ignition interlocks for offending drivers as a strategy to reduce drink driving was moderately supported by survey respondents (m=6.9, s.d.=2.5). There were no State differences on this issue. There was some variation in opinions between respondents from different Interest Groups but this did not reach the set significance level. Interlocks were most strongly supported by Researchers (m=7.8) but those from the Alcohol Industry (m=4.9), were unsure about the device and only moderate support was given by those in Law Enforcement (m=6.8) and Education (m=6.8).

4.7 Drink Driving Media Campaigns

There has been an extended history of innovative drink driving media campaigns in Australia. The mass media has been used to highlight potential consequences; increase the perceived risk of drinking drivers being caught; and to increase drivers' knowledge of the law and the penalties for drink driving (TAC, 1991; Elliott, 1992).

So in those days the perceived chances of being caught were low and the people were telling me quite clearly that they were just unlucky. With RBT, and not only that, I think the advertising campaigns that have gone with it have been a very important part and have really increased the perceived chances. From what I understand, that has really made a difference to people's drinking and driving behaviour. (Treatment)

In conjunction with this information, however, research evidence indicates that the media must also communicate positive reinforcement for non-drink driving behaviour and provide concrete strategies as to how to avoid drink driving (Elliott, 1993).

In Australia media campaigns primarily have been sponsored by Government Departments or Authorities and by road safety organisations such as the NRMA, TAC and the RACV. In a comprehensive review of the effectiveness of mass-media road safety campaigns Elliott (1993) identified and reviewed 25 drink driving campaigns. He concluded that they play a role in raising community knowledge and concern about the designated problem. He also concluded from a comprehensive meta analysis of published findings that a specified estimate of behaviour change can be made. The magnitude of such expected change was related to the baseline level and was negatively related to the level of community acceptance of the message being promoted. In direct relation to the social content of such campaigns in Australia he concludes "Campaigns in Australia have resulted in a greater impact than for the rest of the world and this reflects Australia's use of mass media as a support for the activities aimed at more directly influencing safe road behaviours" (p.70).

The Victorian Transport Accident Commission (TAC) launched a drink driving and speeding advertising campaign in Victoria at the end of 1989 and beginning of 1990. It focussed on tragic outcomes with emotive and explicit simulated real-life situations. It was designed to change community attitudes about drink driving and speeding (TAC, 1990). The aims of the campaign were to haul the public out of complacency, associate drink driving and speeding with the deep emotional trauma of the death of a loved one, and convey the message that "this could happen to me" (TAC, 1990). Six months after the start of the drink driving campaign 92% of the adults surveyed could recall the message and the commercial unaided and it was best remembered by male drivers aged 18 to 25 years of age (TAC, 1990). This was considered a highly successful campaign and it was received enthusiastically by international observers and was screened in other Australian states (TAC, 1991). This success occured in a context in which the campaigns supported enforcement programs. Another evaluation of the program in 1992 also suggested that the successful TAC publicity campaigns were those that supported enforcement programs (Cameron et al, 1993).

There were frequent references to the success of the anti-drink driving media campaigns in the informal interviews. Some representative comments are:

I am quite certain that RBT strategy and the combination of decreasing to .05, the high profile enforcement of drink driving and the associated publicity both in terms of campaigning, public education and editorials have been a perfect example of how to go about large scale change. And it has been very successful, particularly in NSW. (Research, Policy).

I would say it has improved because of the high media, heavy media campaign, random breath testing, and the attitudes have changed that makes it socially unaccepted. (Treatment educator)

Certainly the social climate in terms of drinking alcohol itself has changed very much. So that actually RBT and advertising campaigns, I think are critical, they have been of some value. (Researcher)

Three items were included in the survey which looked at the importance of specifically targeted campaigns in reducing drink driving. Respondents were asked to comment firstly on media drink driving campaigns in general; and then on campaigns by Government Departments. They were also asked to indicate how likely it might be that there could be campaign overexposure in the future.

TABLE 4.3: Effect of Media Campaigns on Drink Driving

(Items scored from *1=not at all important* to *10=very important*)

Influence	Importance	
	Mean	**s.d.**
Specially targeted media campaigns *(n = 403)*	7.6	1.6
Campaigns by government departments such as Transport and Health *(n= 397)*	7.0	1 9
Overexposure to anti drink driving campaigns *(n= 388)*	5.6	2.6

The respondents as a group believed that the use of specially targeted media campaigns had been important in discouraging drink driving (m=7.6, s.d.=1.6).

There were no State differences on this issue however there was a major Interest Group difference [F=6.06, P=.000]. Respondents working in the Media Industry rated the importance of such campaigns much more highly (m=8.8) than did respondents in other groups. The lowest ratings given were by the Researchers (m=7.0).

The respondents agreed that the campaigns undertaken by Transport and Health Departments had been important in reducing drink driving (m=7.0, s.d. =1.9). Again there were no State differences nor significant Interest Group differences on this issue. (Whilst not significant, it is consistent that the media respondents gave the highest rating of importance (m=7.4)).

The Respondents did not have any clear opinion about whether the future effectiveness of the media campaigns could be reduced by an over-exposure to campaigns. (m=5.6, s.d.=2.6). There were no State or Interest Group differences on this issue. Eliott's work suggest that an 'over-exposure' effect may simply be a reflection of reduced apparent community change in a context of consensual agreement with a campaign's message.

4.8 Drink Driving Education

A number of school based education programs have been developed with the explicit goal of reducing the incidence of drink driving by young people. Most high school alcohol education programs also include components which focus on this issue.

There are at least three well established drink driving education programs in Australia: the PASS (Plan a Safe Strategy) drink driving alternatives program, (PASS, 1988); the "Thrills Without Spills" community-school program to reduce

drink driving at celebrations (Thrills Without Spills, 1991); and "Are You in Control" which includes units of learning which can be incorporated into core subject teaching (Are You In Control, 1988).

A number of evaluation studies have examined the effectiveness of this type of specially designed drink driving education program. Albert and Simpson (1985) undertook a pre- and post-test survey evaluation immediately before and three months after a two hour skills based program to reduce impaired driving was taught to Year 11 students. Significant positive changes were found in relevant attitudes and intentions. In a more extended evaluation Duryea and Okwumabua (1988) evaluated an alcohol education program for Year 9 students which also included a skills based segment on being the passenger of a drink driver. Again using a non-randomised control design the program was followed up in the school setting on three occasions - after 2 weeks, after 6 months, and after 3 years. The effects were favourable at the first two follow-up occasions but had ceased to be measurable at three years.

McKnight and McPherson (1986) evaluated the effectiveness of a training program which aimed to increase the likelihood of peer interventions in the drink driving behaviour of others. They found a significant positive impact maintained at four months by the treatment groups.

The PASS program was taught experimentally in Queensland schools in 1988-89 and three month follow-up indicated significant changes in the desired direction in attitudes, knowledge and intentions (Queensland Drink Driving Project, 1990) These results were maintained at a three year follow up after the students had left school. There was some indication that the program was particularly effective with

students who were experimenting with drink driving behaviours at the time they were exposed to the program (Sheehan, Siskind and Schonfeld, 1993).

The evidence suggests that these are useful prevention programs which at least have an impact on attitudes and knowledge.

We have had success with the young people and they will be leaders of tomorrow - I think we should keep focusing on the young and perhaps take it to even younger groups ie Primary School. (Industry)

Whilst the focus of the research literature has been on whether such programs can reduce drink driving by students the concern for most Transport and Educational reviewers has been the barriers encountered in having such programs systematically implemented in a school setting. A recent review by Queensland Transport (Secondary School Road Safety Education Resources, 1994)) of secondary school road safety education resources available in Australia identified fifteen which included materials related to drink driving. Nearly all these were found to have problems which might preclude their inclusion in school curriculum. Similar findings emerged from a series of case studies on road safety education practice conducted for FORS (Marsh and Hyde, 1990). In a study of practice it was found that with a few notable exceptions (eg., PASS in a research trial school) only a relatively small minority of students in any one school were involved in the courses. Parental support and involvement and /or the existence of a charismatic and committed teacher were the best predictors of implementation.

The key informants were ambivalent in their attitudes to such educational approaches.

Education programs will continue to have an impact by addressing the drinking culture with young people. (Health Worker)

I see more interest in education of young because of the costs of adult programs and need to keep the pressure up. (Educator-Researcher)

Ignition interlock offers great promise rather than educational programs (Treatment Researcher)

Respondents to the survey were asked how important they considered that the education programs in the schools had been in discouraging drink driving. The group as a whole thought such education had only been moderately important (m= 6.9, s.d.=2.1). There were some State differences on this issue [F= 2 45, P=.018] though this was below the set significance level. Respondents from the NT (m=7.7) and NSW (m=7.3) were more enthusiastic about their contribution than those from WA (m=6.0) and VIC (m= 6.4). There were much larger differences however between respondents from the different Interest Groups on this issue [F=4.77, p=.000]. Workers in the Alcohol Industry (m=8.1) and in the Media (m=7.8) rated education as much more important than did those working in Policy (m=5.9) or Research (m=6.0).

A similar picture emerged when respondents were asked how useful in reducing drink driving it would be to **extend alcohol education programs to tertiary institutions and the wider community.** Overall, they thought it would be useful **(m=7.1, s.d.=2.2**). State differences here did not reach the set significance level however the Interest Group difference was significant [F=7.74, P=.000] and in a similar direction to the previously discussed item. Workers in Policy (m=5.5) and

Research (m=6.0) were the least enthusiastic about education whilst those working in the Alcohol Industry again were most supportive of an educational approach to the problem (m=8.3).

It can be agrued that there is not "one answer" to reducing drink driving. Change is required at all four levels of social context and the role of education programs, rehabilitation, penalties and potentially interlocks conceptualised as key components in a comprehensive and multi-faceted overall strategy.

Where enforcement and public education are coordinated and in balance, good consistent results are being achieved. Improved results (ie reducing the involvement of alcohol and crashes) are being achieved incrementally with better targeting of education and strategic enforcement. (Educator)

4.9 Rehabilitation Programs

There is a voluminous literature on drink driving rehabilitation programs and an almost equally extensive evaluation literature concerned with assessing their effectiveness. This interest in evaluation is noteworthy in the alcohol treatment field and may reflect the fact that many of these programs are supported by Transport Departments in which competition for the road safety dollar is strong.

There are three relevant Australian reviews by Foon (1988), Sanson-Fisher et al (1990), and the Victorian Social Development Committee (1988). In addition, an extensive review was undertaken by Stewart and Ellingstad for the 1988 United States Surgeon-General's Report on Drink Driving (Stewart and Ellingstad, 1988).

A consistent theme in these reviews is the difficulty evaluating such programs within a strict experimental methodology ie. random assignment to control and experimental groups, pre and post test measures. The problem of assignment combined with small numbers and relatively low recidivism rates over the short term renders outcome evaluation extremely difficult (Sheehan et al, 1992) Reid (1981) quoted in Stewart and Ellingstad (1988) using United States statistics established that even if all persons arrested for drink driving were prevented from drinking and driving again fatal crashes would decrease by only 3%. The methodological problems for outcome evaluation in this context are very high.

An examination of the findings of the reviews and particularly the US and Victorian reports leads to the following conclusions about rehabilitation.

a. Rehabilitation/treatment programs must be used in addition to licence suspension rather than instead of licence penalties;
b. Licence suspension remains the most effective means of reducing drink driving offences;
c. Treatment should not be used as a substitute for legal sanctions but rather as an important component of a comprehensive traffic safety program;
d. Driving under the influence of alcohol is a multi-faceted problem for which there is no single effective treatment of any type (medical, legal or punitive), and
e. There is a need to broaden the base of interventions directly examining this problem (Sheehan et al., 1992)

The comments made by the key respondents were consistent with the research evidence No one believed that the rehabilitation approaches currently available in Australia were very effective. At the same time there was no mention of

abandoning the effort to improve such approaches though some mentioned the need for supplementary use of interlocks.

I believe that there needs to be alternative strategies for the groups which are unresponsive to high profile policing and public education strategies. There needs to be strategies which will be targeting those who have offended and are likely to reoffend. That's secondary prevention if you like rather than primary prevention strategies need to be concentrated on. I believe they need to be quite sophisticated and powerful or else there will be a continued and possibly an increase in the hard core recusant drivers who are a serious problem. I'm inclined to the view that physical restraint is the only way to prevent most of those people from reoffending, ignition interlocks and things like that. I don't believe we can appeal to their better nature.
(Policy & Research)

One item was included in the survey which reflected these findings. It asked respondents to indicate on a scale from "1 = not at all important" to "10 = very important" **how important they believed "tailoring drink driver rehabilitation programs to a variety of needs would be in the future". This approach was rated highly as an important future development (m=7.8, s.d.=2.0)**. Whilst State differences did not reach the set level of significance [F=2.4, P=.02] the WA respondents were less likely to see this as a future development (m=6.8) whilst those from Tasmania (m=8.3) and Qld (m=8.3) were most likely to do so. There were Interest Group differences on this item [F=5.69, P=.000]. Respondents from the Media (m=8.2) and those working in Treatment and Rehabilitation (m=8.1) were most enthusiastic about this initiative whilst those from Research (m=6.5), Policy (m=7.1) and the Alcohol Industry (m=7.2) were less positive.

4.10 Overview

The only identifiable direct formal influence which might promote drinking and driving was the variation between States in legal BAC levels. This was only considered of moderate importance The issue of the zero BAC for novice drivers was considered to be much more important and it was particularly supported by respondents from the NT and VIC and by those persons working in Education. It was not considered to have much influence by those in the Alcohol Industry.

There was a very strong consensus on the role of penalties in reducing drink driving and particular support given to "loss of licence" as an effective deterrent Various strategies to "toughen up" the penalties for drink driving even further were promoted by the telephone sample. These included assessments for alcohol dependency prior to licence renewal, and restrictions on high risk drivers such as interlocks. They were not however consistently supported by the majority of survey respondents who were unsure about their likely effectiveness. Respondents working in the Alcohol Industry were those least likely to support more punitive measures.

Two formal sources of education and behaviour change were also considered. Mass media drink driving campaigns were considered to be an effective strategy in reducing drink driving. Not surprisingly, this view was held most strongly by members of the Media. Drink driving education programs were thought to have a moderate importance in reducing drink driving. There was a degree of difference in respondents attitudes to this issue. Those working in Policy and Research were least supportive of such programs whilst persons working in the Media and the Alcohol Industry were most supportive The

consensus on media educational approaches was that they are important elements in an overall multi-component approach to the problem.

Whilst there was not a great deal of confidence in rehabilitation programs as such, there was considerable support for the future development of programs that were tailored to "at risk" sub-groups. This initiative was particularly supported by those respondents who worked in Treatment and Rehabilitation. Again, as with education, rehabilitation was generally considered to be most appropriately undertaken as part of a coordinated and integrated overall strategic approach to the problem.

References

Albert, W.G. & Simpson, R.I. (1985), Evaluating an educational program for the prevention of impaired driving among Grade 11 students, **Journal of Drug Education,** 15, pp 57-71.

Andrews, J.S., Eaton, E.G., Hore, T., McTaggart, S. & West, L.H.T. (1980), **An Analysis of Drink Driving Research,** Higher Education Advisory and Research Unit, Monash University, Melbourne, Victoria.

Are You in Control (1988), Traffic Authority, NSW.

Bonte, W. & Machata, G. (1993), Modern Developments in Measuring and Screening, in Utzelmann, H.D., Berghaus, G. & Kroj, G. (eds.), **Alcohol, Drugs and Traffic Safety - T92**, Band 1, Verlag TUV Rheinland, Cologne, Germany, pp 387-391.

Cameron, M., Haworth, N., Oxley, J., Newstead, S. & Le T. (1993), **Evaluation of Transport Accident Commission Road Safety Television Advertising** (Report No.52), Melbourne: Monash University *Accident Research Centre.*

Driver, R. (1993), **Personal Communication**, Area manager, Central Region Corrective Services, Qld.

Dunbar, J. (1990), The High-Risk Offender in Britain, **Alcohol, Drugs and Driving,** 6(3-4), pp 109-117.

Duryea, E.J. & Okwumabua, J.O. (1988), Effects of a preventive alcohol education program after three years, **Journal of Drug Education,** 15, pp 57-71.

Elliott, B. (1992), **Report on achieving high levels of compliance with road safety laws - A review of road user behaviour modification,** Report to the Legislative Travelsafe Committee, Brisbane, Qld.

Elliott, B. (1993), **Road Safety Mass Media Campaigns: A Meta Analysis,** Elliott and Shanahan Research, CR118, FORS, Canberra, ACT

Foon, A.E. (1988), The effectiveness of drinking-driving treatment programs: A critical review, **The International Journal of Addictions,** Vol.23(22), pp 151-174.

Frith, W. (1992), **Personal Communication,** National Director, Road Safety New Zealand, N.Z.

Homel, R. (1988), **Policing and Punishing the Drinking Driver, A study of General and Specific Deterrence,** Springer-Verlag, New York Inc.

Insurance Institute for Highway Safety (1988), **New laws to curb drinking drivers save many lives,** Status Report, Staysafe, 14 March, V23, N3, Sydney, NSW.

Marsh, C.J. & Hyde, N H. (1990), **Road Safety Education in Australian Schools: A study of dissemination, implementation and exemplary practice,** Vol.2, CR89, FORS, Canberra, ACT.

McKnight, A.J. & McPherson, K. (1986), Evaluation of peer intervention training for high school alcohol safety education, **Accident Analysis and Prevention,** 18, pp 339-347.

National Roads and Motorist's Association (1985), **Random breath testing: NRMA submission to the NSW Standing Committee on Road Safety,** NSW.

National Roads and Motorists Association (1992), **Public Policies**, April 1992, Sydney.

NRTAC, **Annual Report** (1992), AGPS, 27 July 1993, Canberra, ACT.

PASS - **Plan a Safe Strategy** (1988), Department of Education, Qld.

Queensland Drink Driving Project (1990), **Development and Implementation of the Plan: A Safe Strategy Drink Driving Prevention Program,** NCADA Monograph Series No.13, AGPS, Canberra, ACT.

Ross, H.L. (1988), Deterrence-based policies in Britain, Canada and Australia, in Laurence M.D., Snortum, J., Zimring, F. E. (eds.), **Social Control of the Drinking Driver,** University of Chicago Press, Chicago, pp 67-68.

Queensland Transport (1994), **Secondary School Road Safety Education Resources: A review ,** Brisbane, Qld.

Sanson-Fisher, R., Redman, S., Homel, R. & Key, W. (1990), Drink Driver Rehabilitation Programs - An Australian Perspective, **Alcohol, Drugs and Driving,** Vol.6(3-4), pp 133-145.

Sheehan, M., Siskind, V., Woodbury, D. & Reynolds, A. (1992), **The systematic trial of an Innovative Community based drink Driving Rehabilitation Program,** Report to Federal Office of Road Safety, April 1992, Drink Driving Prevention Programme, University of Queensland, Qld.

Sheehan, M. (1993), Alcohol Recidivism, Paper presented to **Safely on the road:to the 21st century,** National Road Trauma Advisory Council Conference, Oct. 1993, Canberra, ACT.

Sheehan, M., Schonfeld, C. & Siskind, V. (1993), The longitudinal evaluation of a drink driving education program, in Utzelmann, H.D., Berghaus, G. & Kroj, G. (eds.), **Alcohol, Drugs and Traffic Safety -T92,** Band 3, Verlag TUV Rheinland, Cologne, Germany,
pp 1304-1313.

Smith, D.I. (1991), Assessment of Drivers convicted of having a BAL of .015% or higher, Paper presented to the **Drink Driving Assessment Workshop**, University of NSW, NSW.

Snortum, J.R. (1988), Deterrence of alcohol impaired driving: An effect in search of a cause, in Laurence, M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 189-226.

Staysafe (1989), **Immediate and Certain Loss of Licence for Extreme Drink-Driving,** Report 13 of the Joint Standing Committee on Road Safety to the Parliament of New South Wales, April 1989, Sydney, NSW.

Staysafe (1993), **Alcohol and Other Drugs on N.S.W. Roads 2 , Offences, Penalties and the Management and Rehabilitation of Convicted Drivers**, Report 13 of the Joint Standing Committee on Road Safety, October 1993, Sydney, N.S.W.

Stewart, K. & Ellingstad, V.S. (1988), Rehabilitation counter-measures for drink drivers Treatment in **The Surgeon-General's Workshop on Drunk Driving:Background Papers,** Department of Health and Human Services, Public Health Service, Office of the Surgeon, Washington DC, pp 234-246

Thrills Without Spills (1991), Department of Education, Brisbane, Qld.

Transport Accident Commission (1990), TAC, **Fourth Annual Report,** Melbourne, Victoria.

Transport Accident Commission (1991), TAC, **Fifth Annual Report,** Melbourne, Victoria.

Victorian Social Development Committee (1988), **Second report into the management of drink-drivers apprehended with high blood alcohol levels - Drink driver education and treatment,** Melbourne, Victoria.

Watson, B. (1994), **Personal Communication**, Senior Officer, Road User Safety-Vehicles, Queensland Transport.

Wells-Parker, E., Landrum, J.W. & Cosby, P.J. (1985), **Classifying the DUI Offender: A Cluster Analysis of Arrest Histories,** Mississipi Alcohol Safety Education Program, Mississipi State University, US.

5. RANDOM BREATH TESTING

5.1 Introduction

Random Breath Testing (RBT) is the key element in the Australian social context of alcohol consumption and drink driving. It was first introduced in Victoria in 1976. Its use has since spread to virtually all States, though there are variations in the way it is implemented both between and within urban, rural and remote regions of States. Randomness has been given a number of operational definitions. It may refer to the chance of being stopped at a particular testing site which is chosen to maximise the likelihood of detecting and deterring drink drivers (Monk, 1985). It may also be used to describe selections of sites based on time.

Most researchers argue that the impact of RBT is through deterrence. This is achieved by raising the perceived risk of apprehension and punishment (Levy, 1986; Ross, 1988; South Australian Legislative Council, 1985; Homel, 1988) rather than by detection, and in fact, low detection rates may indicate effective deterrence.

I remember when it was first initiated in the middle to late 70's, used to drink at a pub and it would be almost impossible to park in the parking lot. After RBT the thing was almost completely, or one third empty. The drama and the advertising was very important. (Police Researcher)

It is argued that in order for RBT to achieve this general deterrent effect, it is necessary for it to be enforced and publicised with a high profile. This 'boots and all' model has been used in New South Wales and Tasmania. That is, accompanied by intensive police activity, extensive advertising and free coverage generated by wide-spread media interest (Cameron et al, 1981; Homel, 1988)

Highly visible RID and RBT operations had a short-term effect; the reduction to .05 has changed the drinking habits of more responsible members of the driving population who weren't the problem anyway. Don't see much success without highly visible RBT - it has to be highly visible. (Health - Policy)

According to the deterrence model (Homel, 1988), RBT units should be: highly visible; unpredictably located; perceived as difficult to evade, and highly publicised as certain to detect drink drivers. In turn, RBT should be accepted as certain to have consequences which are also severe, thought to be a successful road safety initiative (not revenue raising), and consistent with a particular society's rejection of drink drivers (social norms) It is claimed that each of these components is required to be maintained continuously for successful RBT and that there is a non-linear relationship between crash reduction and the amount of resources given to RBT; a minimum threshold of investment is required to achieve effects but relative returns can diminish as extensive resources are applied (Elliott, 1992).

Australia has a greater commitment to mass breath-testing than almost any other Western nation (Homel, 1988) There have however been some questions raised about the effectiveness of its implementation. RBT is said to be less effective in rural than urban areas (Elliott, 1992). British and North American researchers have questioned the applicability of the method to their own communities which are seen to have different (and more rigorous) constitutional rights (U S.A.) and valued (U.K.) on individual freedom and civil rights (Ross, 1992) On this issue the main counter arguments which appear to be acceptable to the Australian community are that the civil liberties of drivers are not infringed by RBT unless they are detained without arrest (Levy, 1986); and that the civil liberties of innocent victims of drink

drivers outweigh the liberties of those who may be inconvenienced by RBT (South Australian Legislative Council, 1985).

There has been extensive Australian research done on this method of deterrence and it is generally accepted that the implementation of RBT in NSW has been the most effective model. RBT was the single intervention mentioned by all members of the expert panel as a major contributor to the reduction in alcohol related driving.

In NSW the major change came out because of RBT in 1982. I think the whole success depends on enforcement. It has been enforced fairly well. It is interesting that studies show that behaviour change actually came before attitude change in this area. I gather from what I have read that it was not particularly well received, ie RBT, and it took some time to be regarded as a good thing. (Treatment Worker)

Well I can tell you one change where I work, it has had a major effect on the senior staff. Before RBT, seventy or more used to drink in the big meeting room and have drinks and discussions on Friday afternoon and socialise. Now you would be lucky if three or four got together with orange juice. The effect has been quite dramatic. (Treatment Researcher)

Respondents also raised a wide variety of opinions and concerns about RBT and its effectiveness and the ways in which this effectiveness might be increased or impaired.

RBT - part of the impact is the doing of it. The other part is that discussion, the legislation, fact that community has argued through the issues. Its implementation as preventive rather than punitive, social model of policing - changes in attitudes. (Transport Policy Worker)

Increased perception of RBT toward end of 1991 but little visible presence since then. The public perception of apprehension for DUI has diminished. (Treatment Worker)

5.2 Police Enforcement of RBT

The effectiveness of RBT is dependent upon the expectation of being caught and of sure and certain punishment if caught (Bungey and Frauenfelder, 1986; Homel, 1988).

Research in terms of D/D - should be - why police don't do RBT properly. The attitudes and framework of police doing this, is the difference between policy people and foot sloggers out in the road. Think it is the main problem in the implementation of RBT - hunch is that patrols aren't out there. (Health Policy Worker)

My personal view, I believe people are more aware, they are more educated, they are taking more positive steps and this has been a very positive side of the change. At the same time I think you have to accept that law enforcement has been the big incentive. (Policy)

This means that RBT depends upon police attitudes and behaviour and in the main RBT is not considered very productive police work. Homel in NSW estimated that

the apprehension rate of a driver over the legal BAC is quite low with an average rate of arrest between .4% and .5% and in peak times at most 1.5% for the number of tests initiated (Homel, 1988). The indirect and informal social context is also relevant here in that liquor licence infringements are widely regarded as 'social' rather than 'real' criminal offences. Staysafe (1993) reports that police morale suffers because heavy caseloads and backlog in the court system means that it takes a long time for RBT offenders to be dealt with. In Scotland offenders were before a court within 24-36 hours (Dunbar, 1990) whereas in NSW it was 14 days for a first appearance and up to 6 weeks before sentencing.

Homel argues that as a matter of law the world of police, attorneys, lawbreakers and magistrates see drink driving as no more than a traffic violation. This thinking may be responsible for magistrates' reluctance to enforce automatic penalties or to be concerned with mandatory minimum penalties (Staysafe, 1992). Vingilis et al (1986) examined police enforcement practices and perceptions of drink driving laws in Canada to obtain an insight into the problems facing police. Reasons for low enforcement included not only administrative problems but public and police perception of drinking and driving as a "folk crime" not a serious criminal offence.

At times not working so well. Need visibility of police presence. Lots of tests and police expectancy of a greater likelihood of acceptable behaviours where people feel they are likely to be picked up. (Policy)

In some ways specific police campaigns are useful in raising both police and community awareness.

The other thing that is very important is Xmas and Easter, when there is a lot of drinking going on, to maintain enforcement and keep police attitudes very positive at that time. (Researcher)

5.3 Traffic Offence Notices

A recommendation made to the New South Wales Staysafe Committee (1993) by police as well as others concerned the simplification of the drink driver apprehension process by the use of an automatic penalty citation notice system as an alternative to the court hearing of arrested drink driver offenders. This alternative already exists in Queensland and Victoria though has not been implemented as widely as might have been expected

Surprisingly, none of the key informants mentioned the use of traffic infringement notices to improve drink driving policing though there was considerable current debate about the issue. Items were not included on this issue in the questionnaire and nobody included any comment on these in their response to the open question.

5.4 Current RBT Practice

Many respondents mentioned concerns with the current application of RBT.

It could be greatly improved - when stopped should be thorough going over of car re rego, licence as well as high publicity - to get high awareness and high expectation that you will be picked up. (Insurance Worker)

Some expressed concern about what they perceived as reduced returns for RBT as the public and the police become more realistic about the likelihood of detection.

We are seeing a plateau as far as RBT goes in NSW there is definitely a perception of the reality of detection is lower than it used to be. The police simply cannot monitor sufficiently highly to maintain that or to curb the 'at risk' groups and that is becoming the perception. We have to be careful too that this perception does not leak through the community that this problem group is not being attended. There is also the issue that police probably cannot monitor or use that method to cover 'at risk' groups. It is the middle and upper class who will be contained by RBT in the future as they probably are today. They're the group that are mostly orientated towards deterrence and the group that is most prepared to change its behaviour in order to maintain its health. (Policy and Research Worker)

In an attempt to determine how wide-spread these concerns were in the professional community seven items relating to RBT were included in the survey.

In order to classify these seven items into topic areas for ease of analysis and interpretation a Factor Analysis (PCA) of the items was undertaken. This indicated that the items measured three independent factors that related to:

- the **effectiveness of RBT** (explained 29.6% of variance);
- ways in which **RBT could be improved**; (20.9% of variance);
- **problems with RBT** (15.4% of variance);

Details of the analysis are provided in Appendix 4. In the following sections the items measuring these issues are discussed separately.

5.4.1 *Effectiveness of RBT*

Two items measured the direct effectiveness of RBT. They concerned the importance of the 'introduction of RBT' and 'its high visibility' in discouraging drink driving. Respondents rated each from '1 - not very important' to '10 - very important'. All survey respondents considered RBT to be very important. Consistently very high ratings of importance were given to both **the introduction of RBT** (m=8.9, s.d.=1.3) and its **high visibility** (m=8.9, s.d.=1.5) as key elements in discouraging drink driving in Australia.

TABLE 5.1: Effectiveness of RBT

(Items scored from *1=not very important* to *10=very important*)

Influence	Importance	
	m	s.d.
Introduction of RBT to discourage drink driving *(n= 417)*	8.9	1.3
High visibility of RBT to discourage drink driving *(n= 415)*	8.9	1.5

Respondents from all States and all Interest Groups rated both these aspects of RBT as 'very important' in discouraging drink driving. There was no significant difference in either of these items between States but there was a significant difference between respondents from different Interest Groups [F=2.87, P= 009] on the importance of the introduction of RBT. The highest rating of its importance in discouraging drink driving was given by the workers in the Media (m=9.4).

5.4.2 *Current Problems with RBT*

Two items loaded on this factor, they also shared some variance with the items on the third factor on ways to improve RBT and its effectiveness. (See Table 5.2)

TABLE 5.2: Current Problems with RBT

(Items scored from *1=strongly disagree* to *10=strongly agree*)

Influence	Agreement	
	m	s.d.
RBT has passed its peak effectiveness *(n = 392)*	3.6	2.4
RBT works only if there is a high perceived risk of being caught *(n = 407)*	8.4	2.3

Respondents strongly agreed (m=8.4, s.d.=2.3) that RBT works only 'if there is a high perceived risk of being caught' and there were no differences in levels of agreement between respondents from different States or Interest Groups.

Respondents did not agree that RBT had passed its peak effect (m=3.6, s.d.=2.4). There were no Interest Group differences but respondents from NSW (m=4.3) and the ACT (m=4.1) were more likely to consider this a possibility than those from VIC (m=2.9) [F=2.53, P=.015].

5.4.3 *Improvements to RBT*

Respondents were also asked to indicate the usefulness of three ways which had been proposed to improve RBT. Their ratings are presented in Table 5.3 below.

TABLE 5.3: Improvements to RBT

(Items scored from *1 = strongly disagree* to *10 = strongly agree*)

Opinion	Agreement	
	m	s.d.
RBT would work better if more systematic implementation by police *(n = 382)*	7.2	2.5
Licenced premises should be targeted *(n = 403)*	7.2	2.7
In the future, there should be more support for Police with RBT *(n = 410)*	7.9	1.8

There was strong endorsement for increased support to police working with RBT and this opinion was held across State and Interest Groups. Respondents also strongly agreed that RBT would work better if it was systematically implemented by police. There were no State differences on this item and Interest Group differences did not reach the set level of significance. However, researchers (m=8.0) and policy workers (m=7.6) were most in favour and Media respondents least certain about the effectiveness of such a measure (m=6.2)

Respondents also believed that licenced premises should be targeted by RBT though there were differences between Interest Groups on this strategy [F=3.36, P=.003]. Respondents from the Alcohol Industry (m=4.8) were unsure of its

effectiveness whilst those working in Law Enforcement (m=8.0) and Research (m=7.9) were strongly in favour of this initiative. There were no State differences.

5.5 Overview

There can be no question that RBT is viewed as the keystone in the social control of drink driving in Australia. There was consensus across Interest Groups, States and informants on its vital importance. There were some possible problems raised about ways and means to maintain its impact and some NSW (and to a lesser extent ACT) respondents were concerned that its effectiveness might have passed its peak.

Other core issues raised related to implementation of RBT and the central role of law enforcers in its current and future effectiveness. Strong endorsement was given to the need to support the police to target enforcement to problem liquor outlets; to enlarge the focus of surveillance to additional road safety issues and to educate all relevant players including police, magistrates and offender supervisors to the seriousness of the offence. Respondents working in the Alcohol Industry were less supportive of the need to target licensed premises than were those in Law Enforcement and Research.

References

Bungey, J.B. & Frauenfelder (1986), Modifying drink-driving behaviour: An overview, **Australian Journal of Social Issues,** Vol 21(2), pp 105-118

Cameron, M.H., Strong, P M. & Vulcan, A.P. (1981), Evaluation of random breath testing in Victoria, Australia, in **Alcohol, Drugs and Traffic Safety**, Vol.3, Almquist and Wiskell, Stockholm, Sweden

Dunbar, J. (1990), The High-risk Offender in Britain, **Alcohol, Drugs and Driving,** Vol.6(3-4), pp 109-117.

Elliott, B. (1992), **Report on achieving high levels of compliance with road safety laws - A review of road user behaviour modification,** Report to the legislative Travelsafe Committee, Brisbane, Qld.

Homel, R. (1988), **Policing and Punishing the Drinking Driver, A Study of General and Specific Deterrence,** Springer-Verlag, New York Inc

Levy, C. (1986), **Random Breath Testing - Who Pays? Why Queensland needs but does not yet have Random Breath Testing,** Brisbane Drug Awareness Relief Movement, Drug Arm, Qld.

Monk, K. (1985), **Public Attitudes to Random Breath Testing,** Road Traffic Authority, Melbourne, Victoria.

Ross, H.L. (1988), Deterrence-based policies in Britain, Canada and Australia, in Laurence, M.D., Snortum, J., Zimring, F.E (eds), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 67-78.

Ross, H.L. (1992), **Confronting drink driving: Social policy for saving lives,** Yale University Press, New Haven, Conn.

South Australia Legislative Council (1985), **Review of the Operation of Random Breath Testing in South Australia,** Report of the Select Committee of the Legislative Council, Adelaide, S.A.

Staysafe (1992), **Alcohol and Other Drugs on NSW Roads 1: The problem of Counter-measures,** Report No.19 of the Joint Standing Committee on Road Safety, Sydney, NSW

Staysafe (1993), **Alcohol and Other Drugs on N.S.W. Roads 2: Offences, Penalties and the Management and Rehabilitation of Convicted Drivers**, Report No 20 of the Joint Standing Committee on Road Safety, Sydney, NSW.

Vingilis, E.R. & Mann, R E. (1986). Towards an international approach to drink driving behaviour, Implications for prevention and research, **Health Education Research Theory and Practice,** Vol.1(4), pp 273-288.

6. FORMAL INDIRECT INFLUENCES

6.1 Introduction

The model of social context proposes that just as there are formal aspects of the social context that impact directly there are institutional influences that impact indirectly and in some cases invisibly on drink driving

The conceptual model led us to identify the following formal and indirect influences of this type. (See Table 6.1 below)

TABLE 6.1: Formal but Indirect Influences on Drink Driving

Liquor Licensing Laws/Hospitality Practices	National & State Alcohol and Drug Programs
Insurance Company Policy re Drink Driving	Research
Government Committees eg Staysafe	Alcohol Education

They include laws and regulations governing the sale and promotion of alcohol and in more recent years the active attempts to modify drinking behaviour which have derived from the Commonwealth Governments National Campaign Against Drug Abuse or NCADA (now known as the National Drug Strategy [NDS]); the political pressures and influences created by parliamentary road safety committees such as Staysafe and Travelsafe; Government support of research into drink driving and the findings and dissemination of that research; and Insurance company policy and practices in relation to drink driving.

All key interviewees, commented on the accessibility and availability of alcohol as a key contributor to the level of drink driving. A number noted what they thought was a major contribution made by the Parliamentary Committees, (or particular Chairpersons) to reducing drink driving in the State. Some mentioned the influence of NCADA either directly through sponsored activities or indirectly through attitude change; only one respondent commented on the possible influences of research and research findings and none mentioned the role that insurance companies play or might play in the issue.

6.2 Alcohol in the Australian Context

A Norwegian study has suggested that there is a high correlation (greater than .90) between alcohol consumption in the community and the number of drink driving convictions and drivers killed and injured (Hauge, 1988).

It is obvious but it needs to be restated that it is alcohol consumption that overwhelmingly defines the parameters and variance in Australian drink driving. It is the paramount factor in the social context of drink driving.

Alcohol is the ubiquitous Australian drug. Alcohol and other drug use arises as part of social practice and in the words of the Senate Standing Committee on Social Welfare (1977) ours is "a drug-taking even an intoxicated society". In large part alcohol and other drug use is an integral part of everyday life in Australian society and the hard drinking and hard living image is a symbol of our culture (The Second Task Force on Evaluation, 1992). The normative social approval of alcohol use and the economic and political power of its producers make it a particularly insidious drug in its impact on the Australian community and driving.

Australia is, of course, not unique in western countries in reporting high levels of alcohol use. A national survey conducted in the United States by NIDA in 1991 (Kandel, 1991) found a general population prevalence rate for the use of alcohol of 83.2%. Australia is distinguished however by having the highest per capita alcohol consumption level among English speaking countries with similar cultural backgrounds and in 1989 was ranked fifteenth country in the world for per capita alcohol consumption (Statistics on Drug Abuse in Australia, 1992).

6.3 Accessibility and Availability

The role of alcohol in society is regulated by licensing and liquor outlet legislation. The details of these vary significantly by State and are steeped in changes and accommodations.

Smith (1988) describes the theoretical relationship between alcohol availability and alcohol consumption as the "availability hypothesis". Smith has undertaken extensive reviews over many years examining information regarding the "availability hypothesis". He has concluded from United States and Australian data that overall the lowering of the drinking age had adverse effects on traffic and other aspects of safety. This was particularly the case for the age group affected by the change in drinking age ie. 18-21 year olds Raising the drinking age (as was done in some states in the USA but not in Australia) reduced the number of alcohol related road accidents (Smith, 1988). The issue of legal drinking is complicated by the continuing problem of poor enforcement of underage drinking regulations.

A serious negative influence is the fact that licensed hours have recently increased and under age drinking has not seriously been attacked. (Policy)

At the same time Smith and other researchers have indicated that the relationship is by no means clear. There are a number of variables that have an impact on findings including "on premises" or "off premises" drinking liquor outlets, "availability on particular days", "opening hours" etc. Smith (1990) examined the effects on traffic accidents of changes in alcohol sales legislation in Victoria (amendments to the 1968 Control Act). He observed that the manipulation of the days and hours of the sale of alcohol is the measurement used by legislators to control the availability of alcohol The introduction of trading on Sunday from 12 to 8pm resulted in a 32 6% increase in traffic casualty rates from 8-12pm. However, the introduction of two hour Sunday sessions by a small number of hotels and clubs resulted in no change (Smith, 1990).

It would also seem reasonable to predict that measures which increased "home drinking" would lead to decreased drink driving crashes. Between 1985 and 1989 the State of Iowa privatised the sale of wine and spirits which had previously been a state monopoly. This resulted in an increase of off-premises outlets, Sunday sales and advertising. Before and after surveys of the population found that there was little change in the rank order of drinking frequencies in different drinking places from one year to another There was however, a consistent trend toward drinking more alone and less with spouse, relatives and friends who were not work associates. There was an increase in the number of days of admitted drink driving but a decline in the number of drink driving arrests. (Fitzgerald and Mulfed, 1993) One of the key informants noted the complexity and unpredictability of changes in drinking locations.

On the negative side - if they start to drink excessively in the home, knowing that they are not going to drive, drinking at home will increase and you will

get all sorts of problems. I think also that you will get increased sociability, social occurrences, BBQ's, parties, will increase with drinking as a focus, again, around the home. (Policy Researcher)

Smith in 1992 studied the effect on liver cirrhosis and driver and motor cyclist mortality rates of changing the alcohol outlet rates in New South Wales relative to Victoria (between 1968 and 1982). He found that a 10.5% increase in the outlet rates was associated with significant increases in death from liver disease and from traffic accidents. The increases appeared due to higher outlet rates for restaurants and stores rather than hotels and taverns (Smith, 1992).

The particular situation in the Northern Territory is of interest. The Northern Territory in the early 1970's had a large number of liquor outlets relative to the population. The Northern Territory Liquor Act of 1978 was very progressive in that it allowed the tailoring of liquor licence conditions to local situations and the Liquor Commission was to take into account the "needs and wishes" of the community in licensing matters. It allowed some communities control over alcohol through the option of declaring their communities "dry" and there was provision for the public to complain regarding the operation of a licence. However, the Act did not live up to expectations in terms of producing major reductions in alcohol consumption and retail outlets. The Liquor Act was rejected by Aboriginal people and was seen to be "acting on behalf of businessmen selling grog and deliberately extending the availability of alcohol; the profit motive was seen to be its overriding principle" (Langton, 1990, p.84).

In August 1991 in response to belief by Aboriginal organisations that availability was the key factor in controlling Aboriginal drinking problems, the Sessional

Committee of the Northern Territory Legislative Assembly made a large number of recommendations. One of these was to acknowledge that availability is central to the control of all alcohol related problems including drink driving. Among their recommendations was a reduction in the number of liquor outlets (Lyon, 1991).

There is an ongoing debate in Australia between spokespersons for the liquor industry and those working in health and alcohol prevention on the control of alcohol availability. Hawks (1992) in a response to the Distilled Spirits Industry Council raised another pertinent issue regarding alcohol availability in Australia which was its cheapness relative to disposable income.

Hawks also noted that the availability issue is not straightforward and that research shows that different types of licensed premises are associated with different level of harm regardless of the amounts of alcohol sold. He quotes from a WHO study which notes international findings that "Growth in alcohol consumption is accompanied by an increase in a broad variety of problems related to drinking". This holds true not only for the consequences of prolonged drinking but also for the social and health problems related to single drinking episodes (p.109).

Maclean et al (1991) described a survey of hotel drinking behaviour and subsequent driving intentions. Their findings suggested that promotion of meals and low alcohol drinks might lead to lower BACs They found evidence of significant differences between hotels in BAC profiles of patrons and their risk of drink driving. The differences were related to the length of time at the hotel, the amount of alcohol consumed and the provision of "happy hours". The longer time spent, the more alcohol consumed (both of which were more likely to take place in places which provided "happy hours") and the more likely that patrons would

engage in drink driving. They concluded, as most of the literature in this area has concluded, that the relationship between accessibility and availability of alcohol is complex and includes such factors as the social geography of the situation, the policies of publicans, and types of premises. They also noted that server liability, which is an intervention which has developed following Dram Shop Legislation in the United States could affect the future of liquor outlets in Australia. At the time of writing there had been no legal cases successfully brought against a liquor outlet though a case is pending in Queensland.

Moskowitz (1989) reviewed research (primarily in the United States) evaluating the effects of programs and policies in reducing drink driving. He concluded that the research generally supported the efficacy of three alcohol specific policies as ways of reducing alcohol related trauma both on the road and in other areas: raising the minimum legal drinking age to 21; increasing alcohol taxes and increasing the enforcement of drinking laws; and driving laws.

Baume (1991) has described the particular problems faced in the political arena by any effort to reduce accessibility and availability of alcohol in Australia. He draws attention to the fact that when politicians are required to make decisions about the availability and advertising of alcohol they often see the choices as all or nothing - either prohibition or no controls - and choose "no controls". He also notes that alcohol and tobacco interests are well organised, strategically placed and use sophisticated lobbying activities continuously and skilfully.

A key interviewee commented upon this issue:

Industry itself and its promotion of alcohol is a major problem. When RBT was introduced in this State 24 hour liquor licences were also introduced. It was the politicians appeasing the industry. (Researcher)

Alcohol production is important to the economy of some regions and States in Australia and politicians representing these areas are likely to be particularly sensitive to the needs and demands of the alcohol production industry. In addition, there is a high income to treasury from the excise on alcohol and the Department of Primary Industry values the production of wine and barley highly. These two departments (and the Ministers in charge of them) may not be sympathetic to alcohol related bills proposed by the Minister for Health (Baume, 1991) or for that matter, the Minister for Transport The composition of Cabinet is such that there are more economic than health ministries so that in votes on alcohol related issues, the health ministries are likely to be out voted (Baume, 1991).

That change in these areas is possible has been shown by the recent development of the Northern Territory "Living with Alcohol" initiatives. In this case excise related to alcohol content and is dedicated to the development of prevention initiatives.

Four items concerned with access and availability were included in the survey. They are given in Table 6.2 below.

TABLE 6.2: Drink Driving and Liquor Licensing Laws and Pricing

(Items scored *from 1=strongly disagree* to *10=strongly agree*)

Influence	Agreement	
	m	s.d.
Less restrictive liquor licensing laws have encouraged drink driving *(n = 408)*	6.5	2.6
Better enforcement of existing liquor licensing laws would reduce drink driving *(n = 407)*	7.4	2.4
Tightening liquor licensing laws would reduce drink driving *(n = 413)*	6.9	2.6
Introducing a pricing structure to promote low alcohol beer would reduce drink driving *(n = 415)*	8.0	2.1

There was very high variability in the responses to these items but there were no differences in responses by different States. Overall, it was considered that less restrictive licensing laws (eg. lower drinking age and broader trading hours) had contributed to drink driving (m=6.5, s.d.=2.6). There were highly significant differences on this issue between respondents from different Interest Groups [F=3.52, P=.002]. Respondents from the Alcohol Industry considered that these changes had been relatively unimportant (m=3.8) in encouraging drink driving. Educators on the other hand thought this was very important (m=7.1) whilst those from the Media (m=5.9) and Policy (m=6.0) considered it to be of moderate importance.

The two other items which related directly to liquor licensing laws were firstly concerned with the usefulness of enforcing existing laws more stringently; and secondly, tightening the existing laws by, for example, banning "happy hours". The majority of respondents thought that it would be very useful (m=7.4, s.d.=2.4)

if there was more stringent enforcement of existing laws and somewhat less useful (m=6.9, s.d.=2.6) to tighten them. Respondents from different Interest Groups saw this issue somewhat differently. Educators (m=8.2) and Researchers (m=7.7) were significantly [F=2.97, P=.007] more in favour of stricter enforcement than representatives of Media (m=6 6) or Policy (m=7.5) though they supported this action as did respondents from the Alcohol Industry (m=6.9).

Tightening existing licencing laws (m=6.9, s.d.=2.6) was seen to be less useful by the respondents as a whole. A similar pattern emerged on differences between Interest Groups [F=4.65, P=001]. In this case, again respondents from the Media (m=4 8) were least in agreement with other respondents and considered that tightening licencing laws would probably not be very useful.

Overall the responses supported a comment made by a key respondent:

May be we should have stronger enforcement of liquor licencing laws in order to prevent drink driving. (Educator)

There was a **very high level of agreement across all respondent Interest Groups that introducing a pricing structure that would promote low alcohol beer would be a very useful strategy to reduce drink driving** (m=8.0, s.d.=2.1). This was rated highly by respondents from all States and Interest Groups.

6.4 Insurance Company Policies

As noted in chapter two there was relatively little information in the literature about the impact of insurance policies on drink driving, nor did any of the key

informants raise this as a potential influence on the behaviour. At the same time senior insurance staff were identified as appropriate key informants and the active media-political role taken by TAC (a public instrumentality) was mentioned.

Research experience involving discussion groups with convicted drink drivers indicated that their experiences in losing policies or coverage for damages associated with drink driving crashes were of concern to them and that they had very little understanding of the process or "rules" (Lennie and Sheehan, 1990).

In the main the position of insurance companies is reflected in the following summary based on information in an OECD report on road accident prevention and from international insurers. Accident prevention is not a major issue for the automobile insurance industries, whose essential function is to spread the financial burden of traffic accidents over the whole body of policy holders, and to shoulder part of the financial liability incurred by those involved in accidents. (Road Transport Research, 1990).

Two interesting examples of insurance companies with a nominated interest in this area are Ansvar and TAC. Ansvar is an international insurance group which is active throughout Australia and provides insurance to non drinkers. In their publicity they claim that they make a major contribution to reducing alcohol use and abuse by direct promotion and education and providing insurance in a professional manner for non-drinkers. AWARE insurance, which is part of Ansvar, provides insurance for social drinkers. Customers are recruited through the churches (Ansvar, n.d.).

As noted earlier the Victorian TAC Insurance claims to have successfully controlled claims-incurred expenditure and improved underwriting performance between 1988 and 1991 (TAC, 1991) through a combination of active claims and risk management activities including accident prevention. Their expenditure is seen as a major step in raising the industry's awareness of its potential for effective change in this area.

There is a history of industry lobbying the N.S.W. Staysafe Committee to permit them to use BAC data in court cases. Staysafe 19 eventually contained a recommendation on this matter.

Because of the low profile given to this issue by key informants, it was not included in the survey however, retrospectively, it would seem an area that could be encouraged to participate in applied prevention activities.

6.5 Formal Government Initiatives: NCADA and the Parliamentary Road Safety Committees

Another formal but indirect influence on drink driving that was not mentioned by the key respondents in their discussions of the issue of drink driving was the indirect role played by Government initiatives in either alcohol or road safety.

It became very clear in writing and researching this examination of the social context of drink driving in Australia that in the last 20 years there have been two major formal sources of control established. These are the Commonwealth and

State committees concerned with:

i) Alcohol and other drug issues: NDS;
ii) Road Safety: Staysafe (the NSW Parliamentary Standing Committee on Road Safety established in 1982); Travelsafe (the Queensland Select Committee on Road Safety established in 1990); and the Victorian Social Development Committee established in 1981.

These committees have representatives drawn from major political parties and can therefore "provide an objective and apolitical forum for debate" (Downey, 1994). NCADA has provided extensive funding and support for policies and activities directed towards reducing the harm caused by alcohol and other drug use in Australia.

I think the National Campaign has helped. The government's advertising on television now and the brewers would you believe, are also advertising - telling people to drink responsibly. (Researcher)

More recent moves to strengthen the association of Law Enforcement with Health in alcohol and other drug policy, planning and prevention activities could also provide a future impetus towards lessening the "folk crime" paradigm of alcohol related offences including drink driving.

The very strong impetus towards road safety provided by the Eastern State Parliamentary Committees is markedly apparent to anyone researching in the area of drink driving. Issue after issue has been debated at some time through these committees and their reports form key references in attempts to measure state of

the art concepts and practice in the relevant state. They have provided a recognisable and unique forum for communication between research, policy, parliament and law enforcement and frequently they form a bridge for the relevant material to reach the media.

A more recent complementary initiative is the establishing of the NRTAC by the Federal Departments of Health and Transport as a medium for achieving similar communication on a national level. The success of these models (if measured in terms of cross fertilisation of ideas and initiatives) is indicated by recent moves by the Governments of WA and SA to move to establish their own State Committees (Downey, 1994).

No particular direct references as such were made to these committees by the key respondents though one person particularly noted the achievements of the chair of one of these committees.

What I think happened was it was a cause that needs a champion, and in fact in NSW a champion emerged and that was the head of the Staysafe Committee, he was also in Parliament, and a member of the Parliamentary Committee who led this area. Because of his close relationship with Parliament and his dedication to the issue he really made it possible to get the legislation through. He did a lot of things besides working very hard on the committee and pushing this, he made himself available to media and worked hard for all sorts of organisations across the country, such as building up, softening up and pushing until the time was right and the role of the champion would be really taken into account. (Insurer)

There were many indirect recollections of finding reported to the committees or directions and changes which had grown out of their initiatives. The role of these committees as agents of change should be monitored in future research.

6.6 Overview

The major recognised formal but indirect influences on drink driving that have been identified in this study are controls and interventions in the areas of alcohol and more general road safety. The major negative influence perceived by key Interest Groups and Informants related to the availability and access to alcohol. There was agreement from all groups including the respondents from the Alcohol Industry that there should be stronger enforcement of current liquor licencing laws to reduce drink driving. Introducing new tighter laws was a less acceptable approach though there was strong support for a pricing structure which would encourage the use of lower alcohol drinks (light beer).

Very few positive informal influences were identified directly. The literature suggested that Insurance Companies, National Campaigns and Government Committees can play important roles. The low level of recognition of these influences suggest they could be strengthened and promoted to have a more dominant profile in the area of control. There would appear to be a need to develop consensus with insurance companies to develop prevention strategies and policies that would help control the drinking driver. There was support for the types of initiatives being modelled by TAC in Victoria.

Finally, the important and growing role of Government initiatives such as the NDS and the standing and select Parliamentary Committees as avenues for

communication between key stakeholders and the community should be noted and strengthened.

References

Ansvar Insurance, **For non drinkers only,** Ansvar Australia. (undated)

Baume (1991), Alcohol and Politics, **The Medical Journal of Australia,** Vol.154, pp 840-841.

Downey, R. (1994), **Personal Communication,** Parliamentary Secretary to Travelsafe, Select Committee, Queensland Parliament, Brisbane, Qld.

Fitzgerald, J.L. & Mulford, H.A. (1993), Alcohol availability, drinking context and drinking problems: The Iowa Experience, **Journal of Studies on Alcohol,** Vol.54, pp 320-325.

Hauge, R. (1988), The effect of changes in availability of alcoholic beverages, in Laurence M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 169-188.

Hawks, D. (1992), Response to the Distilled Spirits Industry, Council of Australia Inc. Position Paper: Alcohol Availability, July 1992, **Drugs in Society,** No.3, pp 35-37.

Hawks, D. (1992), Lying down with the lion: Co-operating with the alcohol industry: "The 1991 Leonard Ball Oration", **Drug and Alcohol Review ,** pp 51-58.

Kandel, D.B. (1991), The Social Demography of Drug Use, in **The Milbank Quarterly Vol.69(3),** Cambridge University Press, New York, pp 265-414.

Langton, M. (1990), Too much sorry business, Aboriginal Issues Unit (NT), **Royal Commission into Aboriginal Deaths in Custody, National Report,** Vol. 5, Darwin, NT.

Lennie, J., Sheehan, M., Siskind, V., Woodbury, D. & Reynolds, A. (1990), The Queensland Corrective Services Commission Drink Driving Programme: Findings of Qualitative Interviews with Participants and Co-ordinators, in Report to FORS, April 1992, **The systematic trial of an innovative community based drink driving rehabilitation program,** Canberra, ACT.

Lyon, P. (1991), Liquor Licencing, Aborigines and take-away alcohol in Central Australia, **Aboriginal Law Bulletin,** August, pp 11-13.

McLean, S., Wood, L. & Davidson, J. (1991), Risk Factors for Drink Driving, Paper presented at **"Window of Opportunity"**: First National Congress, Drug and Alcohol Services Council, SA.

Moskowitz, J.M. (1989), The primary prevention of alcohol problems: A critical review of the research literature, **Journal of Studies on Alcohol,** Jan., Vol.50(1), California School of Public Health, Berkeley, U.S., pp 54-58.

Road Transport Research (1990), **Automobile Insurance and Road Accident Prevention,** O.E.C.D., Paris, France.

Senate Standing Committee on Social Welfare (1977), Report in **Drug Problems in Australia - An Intoxicated Society,** AGPS, Canberra, ACT.

Smith, D.I. (1988), Effectiveness of restriction on availability as a measure of preventing alcohol related problems, **Contemporary Drug Problems,** Winter, pp 627-684.

Smith, D.I. (1990), Effect on casualty traffic accidents of changing Sunday alcohol sales legislation in Victoria, Australia, **The Journal of Drug Issues,** Vol.20(3), pp 417-426.

Smith, D.I. (1991), Assessment of Drivers convicted of having a BAL of .015% or higher, Paper presented to the **Drink Driving Assessment Workshop**, University of NSW, NSW.

Smith, D.I. (1992), Relationship between the number and type of alcohol outlets and mortality due to liver cirrhosis and traffic accidents, **Drug and Alcohol Review,** Vol.11(2), pp 145-151.

Statistics on Drug Abuse in Australia (1992), Commonwealth Dept of Health, Housing and Community Services, Australian Government Publishing Service, Canberra, ACT.

TAC Insurance (1991), **5th Annual Report,** TAC S 06.055 (945), Melbourne, Victoria.

The Second Task Force on Evaluation (1992), **No Quick Fix: An Evaluation of the National Campaign Against Drug Abuse,** commissioned by the Ministerial Council on Drug Strategy, AGPS, Canberra, ACT

7. INFORMAL INFLUENCES THAT HAVE A DIRECT IMPACT ON DRINK DRIVING

7.1 Introduction

There are a variety of influences which impinge directly on drink driving but are neither formal nor institutionalised. They include community based activities and influences such as community pressure groups like MADD (Mothers Against Drink Driving) and PADD (People Against Drink Driving) which have a specific focus on modifying drink driving behaviours. Other direct influences on drink driving include the availability of alternative transport which has a key impact on drink driving particularly in rural areas.

The influences which were identified in the literature and by the key informants as being informal but direct influences on drink driving are presented in Table 7.1 below.

TABLE 7.1: Informal but Direct Influences on Drink Driving

Availability of alternative transport	Community pressure groups
Access to breathalysers	Community attitudes to drink driving
Alcohol advertising associated with driving	Promotion of Server Training

7.2 Community Pressure Groups

Attempts by groups with a particular interest in the outcome to influence decision makers is an essential part of decision making. Following the demise of the temperance movement in the late 1920's the alcohol industry became the most effective lobby group in the alcohol arena. (Stewart and Caswell, 1988). In more

recent years with increased community interest in health issues, advocates for a more public health approach to drink driving have emerged as community forces. Community pressure groups operating in the United States include Mothers Against Drink Driving (MADD), Students Against Drink Driving (SADD), People Against Drink Driving (PADD) and Remove Intoxicated Drivers (RID).

In the UK the group known as CADD, Campaign Against Drink Driving was founded in 1984 In general, their main aims are to educate the general public about the effects of drink driving through using mass media and advocating tougher laws, education in the schools, court monitoring and victim witness programs (Underleider and Blosh, 1988). Knight (1990) reports that CADD has had major success in the media attention it has received and argues that this has resulted in an enormous increase in editorial coverage of drinking and driving as socially unacceptable behaviour This British group is campaigning for the introduction of RBT; the surrender of licence on positive breath test; introduction of zero BAC; the charge of murder or manslaughter to be brought against criminal drivers who cause death; and the right of appeal against too lenient sentencing.

American researchers believe these groups have been effective in the USA in maintaining a high visibility for alcohol related problems and in stimulating community legislative action against drink driving They have also achieved formal recognition for the need for long term comprehensive approaches to drink driving (Donelson, 1988). Snortum (1988) believes that the effectiveness of these groups has been a testament to the role of social factors in drink driving as opposed to laws and regulations They themselves have become social determinants (Donelson, 1988) and deserve much of the credit in the USA for the introduction of "per se" limits; implied consent laws; preliminary breath testing; roadside

revocations; sobriety checkpoints; and increased use of fines, licensing action and goal sanctions. The impact of community pressure groups in the United States led to the establishment of the Presidential Commission on Drink Driving in April 1992 (Homel, 1988). Snortum notes that while no systematic assessment has yet been made of the effectiveness of pressure groups, at least in the American situation they are frequently given honourable mention (Snortum, 1988; Underleider & Blosh, 1988).

In Australia however, citizens' groups mostly have been absent from involvement in the legislative process. Reviewing the situation in New Zealand Stewart and Caswell commented that there are several aspects of community pressure groups at least in New Zealand and probably Australia, which have hindered the amount of influence they might have had on legislative decisions and community attitudes. Their financial resources are often restricted (Stewart and Caswell, 1988; Underleider and Blosh, 1988) and they tend to act in isolation rather than exerting a combined and coordinated effort. In contrast the lobbying of the alcohol industry and related interest groups is funded by vast financial resources and the various industry groups tend to band together against any threats to the profitability of the alcohol industry. As noted in the previous chapter the commercial and economic agenda of alcohol industry lobbying organisations currently holds higher status with Australian policy makers than groups such as PADD or MADD or CARS.

One community pressure group which has had high respectability and community credibility over the years is composed of the Colleges of various medical specialties and in Australia, particularly the Trauma Council of the Royal Australasian College of Surgeons.

The key informants did not mention these groups and in the survey the respondents' ratings of their influence were consistent with the general literature.

TABLE 7.2: Interest Group Influences in Discouraging Drink Driving

(Items scored from *1=not at all important* to *10=very important*)

Influence	Importance	
	Mean	**s.d.**
Pressure by community lobby groups such as MADD, PADD, CARS *(n = 355)*	5.3	2.4
Campaigns by formal Associations such as the Royal College of Surgeons *(n = 380)*	6.2	2.2

Lobby groups such as MADD and PADD were seen to have only moderate influence in discouraging drink driving (m=5.3, s.d.=2.4). There were no State differences in opinions on these issues however Interest Groups gave different ratings of importance. [F=3.11, P=.006]. These community based lobby groups were considered to be of little importance by respondents in the Alcohol industry (m=3.5) and of moderate importance by Educators (m=6.0).

On the other hand respondents agreed that the campaigns by formal groups such as the College of Surgeons had (m=6.2, s.d =2.2) been useful in discouraging drink driving. There were no State or Interest Group differences on this issue.

7.3 Media Advertising in which Alcohol is Associated with Lifestyle (Driving)

Another informal but indirect influence on drink driving is alcohol advertising in which alcohol and the consumption of alcohol is portrayed in lifestyles. Because

of the travel realities of Australia, advertising situations in which drinking may be associated with driving occur frequently. There was no explicit literature on this issue and advertisements theoretically cannot directly present drink driving favourably. However the line is very fine.. A particular local example of this in recent years has been an advertisement depicting beer drinking as a way of relaxing after pushing a four wheel drive vehicle out of a rural bog. Other advertisements mentioned by respondents included specific scenes depicting travel to and from locations where alcohol was for sale. These types of advertisements avoid contravening the explicit provisions of the advertising code but informally provide examples of the association of drinking and driving.

Advertisements for alcohol are renowned for the use of emotional appeals which are irrelevant to the product (Wallack, 1985) The drinking contexts in alcohol beverage advertisements are appealing and targeted to life styles and viewers are encouraged to regard alcohol consumption as socially acceptable and appropriate in all life situations (Grant and Ritson, 1983).

Elliott in a report to the Travelsafe Committee (Elliott, 1992) proposed that stricter controls be introduced to outlaw the lifestyle advertising of alcohol in Australia because it recognised the impact of such advertising on driving. Some respondents felt this change was on the way:

I think alcohol consumption will continue to decline per capita. Advertising and promoting will be curtailed. Will be better labelling on bottles of alcohol. More mass media drink campaigns. (Researcher)

I think the community will accept initiatives to constrain advertising of alcohol - so the influence of advertising may diminish. (Policy)

The advertising industry is self-regulated in Australia with respect to the content of alcohol advertisements and has a voluntary code of ethics (general advertising) and code (alcohol advertising) outlining unsuitable content (Media Council of Australia, 1992; Northern Territory Department of Health, 1984) Problems arise due to self regulation because self-interest has the potential to create bias (Northern Territory Department of Health, 1984). This may be reflected in the membership of the Advertising Standards Council which adjudicates complaints about advertisements - members of the Council rarely represent health oriented interests and nearly half are from the advertising industry (Northern Territory Department of Health, 1984). Voluntary codes permit advertisements which link use of alcohol and cigarettes with sport and healthy recreational activities.

In a review of the code regulatory system of advertising of alcohol beverages, the Media Council of Australia (1992) examined many of the issues which have been raised during the current system of regulation and came out with decisions which basically preserved the status quo The role of alcohol advertising in encouraging drinking, let alone drink driving, is controversial and a variety of different and complex findings have been presented (Wilks et al, 1992; Makowsky and Whitehead, 1991; Single, 1979; and Skog, 1988). As yet there have been very few studies which have looked at drink driving or driving associated with alcohol consumption in advertising and its impact upon later driving behaviour though its role in lifestyle attitudes is obvious.

The association of alcohol advertising with sporting events was also frequently mentioned by interviewees as encouraging drink driving.

I think you have to see that cleaning up alcohol advertising does have to have an impact on drink driving. At the moment you have only got to look at all the loopholes the alcohol industry is getting through. One of the loopholes is that while you shouldn't advertise alcohol till 8.30 - that is the 8.30 cut off you can associate alcohol with sports and that is legal at any time and this of course opens the whole ball game of sports being broadcast all day at the weekend with alcohol advertising going on. Something has to be done about closing that particular loophole. In future alcohol and sponsorship will have to be addressed. It is a form of advertising and somehow have to get across the message and get some sort of control on that. (Policy)

An item relating to the role of alcohol advertising campaigns was included in a set which were concerned with rating the importance of such campaigns in encouraging drink driving.

Advertising campaigns by the liquor industry were considered to be moderately important in encouraging drink driving (m=6.7, s.d.=2.5) by respondents overall. There were no State differences but not surprisingly there were major predictable differences in the views of the Interest Groups [F=15.1, P=.000]. Respondents from the Alcohol Industry rated such campaigns as having minimal negative influence (m=3.1). Respondents working in Education (m=7.8) and to a lesser extent Treatment (m=7.3) considered the influence to be very important.

7.4 Community Tolerance of Drink Driving

Social acceptability and public tolerance of alcohol impaired driving is a factor which influences the occurrence of drink driving and the treatment of drink driving offenders (Donelson, 1988; Henderson and Freedman, 1979). There is a close association between attitudes towards drink driving and drink driving behaviour and the societal norm against drink driving varies in strength across cultures (Ross, 1988; Donelson, 1988). The perception of drink driving as a crime varies from country to country eg. Americans are less likely than Swedes to rate drink driving as a serious crime (Homel, 1988).

In 1986 Clayton reported that in Australia there was little social stigma associated with driving after drinking and that it was the consequences of drink driving eg. an accident that received social disapproval rather than the drink driving behaviour itself (Clayton, 1986). However by 1992 the public was thought to be much more sophisticated. The Travelsafe Committee reported that the public distinguishes between a BAC of .05% and a BAC of .15% and between first and repeat offenders with regard to suitable punishments (Elliott, 1992).

The Australian public support tougher measures to counteract drink driving than exist in the USA but they are still ambivalent in their attitudes to drink driving. This contradiction could be partly explained by Australians having an "us and them" attitude (Homel, 1988); individuals appear to believe that in essence, drink driving is not a crime or a problem but there are a group of drivers on the road (them) who are irresponsible with regards to drink driving and strict measures are required to curb this (other) group of drivers (Homel, 1988). In Australia drink driving is perceived as a much worse crime than speeding but it falls short of being perceived as a serious crime (Homel, 1988). Homel also believes that there is

evidence that Magistrates see drink driving as "not much more than traffic misdemeanours" (Homel, 1988, p.9) and that the perception of drink drivers as dangerous criminals has not been widely accepted in the community.

Support for random breath testing varies from country to country, and only 57% of the driving population in the USA support RBT but 95% support it in Norway (Homel 1988). The introduction of RBT in all Australian States and Territories has provided evidence of changes in nationwide attitudes towards RBT (Homel, 1988; Monk, 1985; Snortum, 1988).

The New Zealand Ministry of Transport has since 1974, periodically evaluated public attitudes towards drink driving as well as other safety issues. Perkins (1990) reports that the survey of 1990 continued to indicate a long term trend in New Zealand in the hardening of attitudes towards alcohol impaired driving, support for additional intensive enforcement and a move to random breath testing.

In a survey of Emergency Physicians, Chang et al (1992) found that despite some ethical and moral queries, a majority of physicians support the mandatory reporting of accident involved drivers whose BAC is above the legal limit. The researchers believed that this finding suggested that physicians view drink driving as a criminal offence rather than a purely medical condition.

In a comparison of acceptance by Victorian liquor outlets of breath alcohol testing devices, acceptability increased markedly between 1977 and 1983 (Lyttle and South, 1993). This probably reflected changes in attitudes as a response to RBT.

The majority of the key informants felt very strongly that there had been a major change in Australian attitudes to drink driving since the introduction of RBT or as part of that change. Some Australian research also has pointed to major changes in young peoples' beliefs and behaviours about drink driving over the period since the mid 80's (Sheehan et al. 1992). This change in attitudes has been documented in Chapter Three. The following quotes sum up the findings:

Definitely improving, community taking more notice that it is a dangerous occupation and beginning to avoid it. (Treatment)

I think we will definitely win the battle, at least on the D/D area. Community views have changed and in the future we won't need a terribly high profile to maintain that. We need to keep working on it but you won't need to have the same commitment of resources. (Policy Researcher)

The survey respondents expressed complete support for maintaining and reinforcing the message that drink driving is not socially accepted (m=8.6, s.d.=1.5). Importantly, there were no State or Interest Group differences on the item.

7.5 Availability of Alternative Transport and other Options

Drink drivers often weigh the chances of detection against the availability of transport alternatives and geography (eg rural localities) often limit these options (Elliott, 1992) The National Roads and Motorists Association (NRMA) in New South Wales in 1985 proposed that provision of alternative forms of transport should be maximised and that such transport be provided by each drinking -

establishment. In more recent report, the NRMA have moved to supporting extensions of public transport systems (NRMA 1992).

McKnight (1986) talks of the availability of options such as taxis and pub transport, as environmental interventions. Mostly these alternatives have been informal local initiatives such as offering attractive alternatives to drinking such as alcohol free events and establishments; driving (eg ride share arrangements) and ride services (eg hiring a bus); or regulations (eg. alcohol free residential college accommodation). It is difficult to gauge from the literature whether such interventions or strategies are successful because very few have been evaluated and they are difficult to evaluate for similar reasons as rehabilitation programs. For example "You Ride We Drive" services are really only viable when the community accepts the likelihood of RBT; the consequences are likely to occur, and within a city or urban environment.

Urjadku (1989) reports some options being pursued in the city of Croydon in Victoria through the guidance of the Local Office of Corrections (community based correction services). The first of these which aimed to combat poor public transport was a bus to take young people home from activities and was supported by the churches (shuttle bus programs); discounted cinema tickets; practice facilities for garage bands and outward bound type courses and no wine bars. The issue of options is relatively new but it may be an area that will see considerable development in the future.

The key informants had little to say about alternatives and the only ones mentioned were taxis and alternative drivers.

I think there has been a significant change that a lot more people are not drinking and driving and they are making alternative strategies - they will go out in a taxi or they will come home in a taxi. They'll alternate between two and be the non drinker of the night - not drinking and driving. (Treatment Educator)

A high level of importance was given to introducing alternative forms of transport (m=7.9, s.d.=1.9) as a way to reduce drink driving. The provision of better transport alternatives was rated very highly by all respondents across States. Interest Group differences did not reach the set level of significance though respondents working in the Media (m=8 3) and Education (m=8.1) rate this most highly.

7.6 Breathalysers

Personal feedback on BAC before leaving the location of drinking may reduce drink driving (Geller and Lehman, 1988). There are a number of types of self monitoring devices: BAC charts which estimate BAC based on body weight and number of drinks consumed in the last two hours, are not a very accurate index of impairment; hand held self-testing BAC meters may not be effective because only those who are already responsible about their drinking will use them Currently the only machine to met the Australian standard is a very expensive coin operated machine for use in hotels and other liquor outlets (Alcolizer, 1993). Field sobriety tests are popular with sober clientele but become less popular as BAC increases (Geller and Lehman, 1988) The recent development of coin operated breathalysers in Australia, which meet the Australian standard, is a major innovation in this area and promises to be another important input into the social context of drink driving (Lyttle and South, 1993).

The key respondents did not mention breathalysers but because of the current interest in an Australian Standard an item was included

In the major survey the existence of coin operated breathalysers was generally considered to be of little importance in creating the reductions which have been observed in drink driving (m=4.9, s.d.=2.5). At the same time the development of affordable personal breathalysers was rated more highly and considered to have moderate potential (m=6.5, s.d.=2.5) in further reducing drink driving levels.

TABLE 7.3: The Importance of Breathalysers (both coin operated and personal types) in Reducing Drink Driving

(Items scored from *1=not at all important* to *10=very important*)

Type of Breathalyser	Importance	
	Mean	s.d.
Coin operated breathalysers *(n= 345)*	4.9	2.5
Development of affordable personal breathalysers *(n= 389)*	6.5	2.5

There were no differences between respondents from different States on these issues. There were however, some differences related to respondent Interest Group although the overall p value [F=2.67, p=0.15] was not at the accepted level of significance Coin operated breathalysers were rated most poorly by respondents involved in the Alcohol Industry (m=3.8), and Law Enforcement (m=4.0). Those working in the Media (m=5.6), Research (m=5.4) or Treatment (m=5 2) were the most likely to consider that breathalysers had been an important influence. As will be noted however, no respondent groups rated these as

particularly useful which was consistent with the limited interest they received from the interviewees. There were no Interest Group differences on the issue of personal breathalysers.

7.7 Server Training

Server training programs which aim to train alcohol servers in hotels and clubs in responsible serving practices and include awareness of clients at risk of drinking and driving are a relatively new initiative in this field. This strategy has been implemented in Australia. Servers are encouraged to have food available to reduce the rate of absorption of alcohol by the body, to provide transport and to delay or refuse to serve alcohol to intoxicated customers (Geller and Lehman, 1988). In Australia considerable work has been done looking at server intervention programs which were initiated in Queensland by Queensland Health (Carvolth, 1990). European studies of training programs based on North American server education initiatives (Kayser, 1993) have been encouraging. This is clearly an approach which moves beyond the individual offender to the situational context.

No respondents raised the possibility of increased server training in the telephone interview but one mentioned server liability.

In terms of first offenders may use the industry to help here and deter in this regard. Could see server liability as occurring in the US. (Policy)

However, the promotion of server training in liquor outlets was thought to be potentially very useful (m=7.3, s.d.=2.2) by the survey respondents. There were no State differences but considerable diversity in views of respondents from different Interest Groups on its usefulness [F=6.8, P=.000]. In this case the

highest ratings of usefulness were given by Educators (m=8.2), and Researchers (m=7.8). Respondents working in the Media gave the lowest rating of usefulness to this intervention (m=5.5) and differed significantly from all other interest groups.

7.8 Research Initiatives

The NCADA was mentioned frequently by respondents in a variety of contexts, many of which have been discussed in previous Chapters. No questions specifically relating to the role of NCADA or Transport Department research initiatives were included in the survey though some interesting material was raised by key interviewees and is presented here.

A number of respondents raised particular issues which they believed should be considered in research.

People are starting to be confused by the conflicting health and drink driving messages and there will need to be some sorting out of this. Difficulties are that the Australian research shows that it isn't corroborated in other countries, the NH&MRC rules are not supported in Canada and other countries. (Policy)

Think work in the future is coming to grips with problems of alcohol in remote Australia. What are the prevailing things in our society which reinforce underlying attitudes and lead people to drink very heavily? (Social Researcher)

I think we need more research into young driver's behaviours and skills, social skill levels to try and make some sort of correlation there. Looking at young driver's attitudes and skills. We need some background stuff there so that we can target them effectively. (Treatment)

Research needed into binge drinking, women and drinking and the aboriginal question. As it gets more publicity and more examination, I think the issue of aboriginal drinking will come up again and there will be work or research wanted in order to define if there is a problem. Places like the Northern Territory where drinking is to excess. (Research and Policy)

Interlocks should be introduced and researched. (Treatment and Research)

One researcher however noted the reality that in Australia research is policy driven.

Our research interest is dictated by what major sponsors will fund. Now they want evaluation of major enforcement and publicity of it. There is scope to do research on rehabilitation - but doubt we will be doing it. Might move into interlock but hope Victorian Roads will pick up the responsibility. (Researcher)

7.9 Overview

There are a variety of influences that can be identified as exerting an informal community based influence on drink driving. In this study the role of "life style" alcohol advertising was rated as a very important negative influence of this type. Not surprisingly, respondents from the Alcohol Industry did not

agree that this was the case though there was consensus across all Interest Groups that the message that drink driving is not socially acceptable needs to be constantly maintained and reinforced. There was also complete consensus that it was extremely important that alternative methods of transport should be developed

Two initiatives that could be introduced within liquor outlets were mentioned. Server training was thought likely to be very useful by all respondents however breathalysers (particularly coin operated) were not considered to be likely to have much impact on drink driving.

Finally, no one mentioned research as a contributor to the social context of drink driving though a number of the key informants nominated areas and issues which they believed should be critically examined by researchers. One informant raised the issue that a major determinant of Australian research activity in drink driving is the agenda of funding bodies. Drink driving is an area which has mainly attracted applied researchers, and there has been little theory driven research on the problem.

References

Carvolth, R. (1990), Statewide Provision for responsible hospitality practices in Queensland, **Department of Health Primary Paper,** requested by Liquor Act Review Committee. Brisbane, Qld.

Chang, G., Astrachan, B., Weil, V. & Bryant K (1992). Reporting alcohol-impaired drivers' Results from a national survey of emergency physicians, **Annals of Emergency Medicine,** Vol.21(3), pp 284-290.

Clayton, A.B. (1986). Attitudes towards drinking driving: Their role in the effectiveness of counter-measures, **Alcohol, Drugs and Driving Abstracts and Reviews,** January-March, Vol.2 (1)1-8, British Institute of Traffic Education Research. Birmingham, England

Donelson, A.C. (1988), The alcohol crash problem, in Laurence, M.D., Snortum, J , Zimring, F.E.(eds), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 3-43

Elliott, B. (1992), **Report on achieving high levels of compliance with road safety laws - a review of road user behaviour modification,** Report to the Legislative Assembly of Queensland, prepared by Elliott and Shanahan Research. Sydney, Qld

Grant, M. & Ritson, B. (1983), **Alcohol: The Prevention Debate,** Croom, Helm, London.

Geller, E.S. & Lehman, G R (1988), Drinking-driving intervention strategies: a person situation behavior framework, in Laurence M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 290-320.

Henderson, J.M. & Freedman, K. (1979), Attitudes to Drinking and Driving in Australia, in Johnston I.R. (ed.), **Alcohol, Drugs and Traffic Safety,** January 1977, AGPS, Canberra , pp 633-648.

Homel, R. (1988), **Policing and Punishing the Drinking Driver, A study of General and Specific Deterrence,** Springer-Verlag, New York Inc.

Kayser, R.E.(1993), A server intervention training to prevent alcohol abuse, in Utzelmann H.D , Berghaus, G. & Kroj G. (eds.), **Alcohol, Drugs and Traffic Safety - T92**, Band 3 Verlag TUV Rheinland, Cologne, Germany, pp 1336-1343.

Knight, K. (1990), Britain's campaign against drinking and driving, **Journal of Traffic Medicine,** Vol 18(1), pp 27-30.

Lyttle, J. & South, D. (1993), Public Breath Testing, Paper presented at **Australasian Drink Drive Conference,** 22-23 November, World Congress Centre, Melbourne. Victoria.

Makowsky, C.R. & Whitehead, P C. (1991), Advertising and alcohol sales: a legal impact study, **Journal of Studies on Alcohol,** Vol.52(6), pp 555-567

McKnight, A.J. & McPherson, K (1986), Evaluation of peer intervention training for high school alcohol safety education, **Accident Analysis and Prevention,** 18, pp 339-347.

Media Council of Australia (1992), **A Review of the Media Council of the co-regulatory system of advertising insofar as it relates to the advertising of alcoholic beverages**, The Council, MCA, Sydney.

Monk, K. (1985), **Public Attitudes to Random Breath Testing,** Road Traffic Authority, Melbourne, Victoria.

National Roads and Motorists Association (1992), **Public Policies,** April 1992, Sydney.

Northern Territory Department of Health (1984), **The Advertising of Alcohol and Tobacco Products: The views and experience of the Northern Territory Drug and Alcohol Advisory Committee,** Drug and Alcohol Bureau, Darwin, NT.

Perkins, W.A. (1990), Public Attitudes Towards Alcohol Impaired Driving and Speed, **Traffic Research Report No.42,** Traffic Research and Statistics Section, New Zealand Ministry of Transport, Auckland, N.Z.

Ross, H.L (1988), Deterrence-based policies in Britain, Canada and Australia, in Laurence, M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 67-78.

Sheehan, M , Siskind, V., Woodbury, D. & Reynolds, A. (1992), **The systematic trial of an Innovative Community Based Drink Driving Rehabilitation Program,** Report to FORS, April 1992, Drink Driving Prevention Programme, University of Queensland, Qld.

Single, E.W. (1979), The "substitution hypothesis" reconsidered: A research note concerning the Ontario beer strikes in 1958-1968, **Journal of Studies in Alcohol,** Vol.40, pp 485-491.

Skog, O J. (1988), The effect of introducing a new light beer in Norway: Substitution or addition? **British Journal of Addictions,**Vol.83, pp 665-668.

Snortum, J.R. (1988), Deterrence of alcohol impaired driving: An effect in search of a cause, in Laurence, M.D., Snortum, J., Zimring, F.E. (eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 189-226.

Stewart, L. & Casswell, S. (1988), Persuading parliamentarians: Advocacy and lobbying on alcohol related issues, **Community Health Service,** Travelsafe, Vol.12(3), pp 273-281.

Underleider, S & Bloch, S.A. (1988), Renewed effectiveness of drinking-driving counter- measures: An evaluation of MADD, **Journal of Studies on Alcohol,** Vol. 49(2).

Urjadku, V.J. (1989), Community based initiatives in crime prevention, Paper presented at **Preventing Juvenile Crime Conference**, Office of Correction, 17-19 July 1989, Victoria.

Victorian Social Development Committee (1988). **Second report into the management of drink-drivers apprehended with high blood alcohol levels - drink driver education and treatment,** Melbourne, Victoria.

Wallack, L. (1985), The Prevention of alcohol related problems in the U.S.A: Health Education and the "new generation" of strategies, **Hygie,** Vol.67, pp 23-30.

Wilks, J., Vardanega, A.T & Callan, V.J. (1992), Effect of television advertising of alcohol and alcohol consumption and intentions to drive, **Drug and Alcohol Review,** Vol.11, pp 15-21.

8. INDIRECT AND INFORMAL INFLUENCES ON DRINK DRIVING

8.1 Introduction

There are a variety of influences which neither directly encourage nor discourage drink driving but which create or contribute to the social forces or environment in which it takes place. The most important of such influences is the social meaning of alcohol consumption which moderates when, where and why it is consumed and the roles it plays in the culture.

As mentioned in previous chapters a great many of the comments and issues raised by the expert interviewees related to the cultural role of alcohol. Changing the culture of drinking in Australia is seen as the key to moderating the social context of drink driving. Some other issues were raised which impact on the drinking culture and indirectly on drink driving They include changing attitudes towards more healthy life styles and the introduction of low alcohol beer. The only other issues that were raised as having an indirect impact on drink driving were community attitudes to road safety in general. The issues raised and considered are presented in Table 8.1 below.

TABLE 8.1: Indirect and Informal Influences on Drink Driving

Cultural attitudes to drinking	Attitudes to healthy lifestyle
Introduction of light beers	The economic climate
Religious traditions	Publicity and debate on drinking
Temperance movement	Community attitudes to road safety

A Factor Analysis (PCA) of the nine items designed to measure these influences indicated three independent factors (see appendix 4). The first was concerned with

the culture of drinking (34.8% of variance); the second with the influences which might discourage drink driving (17.6%); and the third which involved only one item loading on the third factor (10 7% of variance). This was the item concerned with the impact of reduced disposable income due to the recession.

8.2 The Culture of Drinking

Australia in recent years has become a culture in which there are very few barriers to drinking In a series of surveys conducted by NCADA over the period 1985 to 1991 the proportions of adults who reported having tried alcohol varied only between 93% and 94% (Makkai and McAllister, 1991). In contrast in an oral history of patterns of drinking undertaken in 1991 elderly males reported that whilst their fathers used to teach their sons how to drink this no longer seemed necessary. Whilst mothers rarely drank women are now encouraged to do so (Woolcock, 1991).

Historically, temperance groups were active and influential forces in the formation of public attitudes and alcohol related legislation earlier this century. The decline in the popularity of the temperance movement began in the mid 1920's and was affected by an increasing press sympathy with the liquor trade and nationwide unity among the liquor unions (Lewis, 1992). During the second world war thinking changed and the temperance analysis of, and solutions to, social problems began to seem misguided and antiquated and prohibition was seen as unacceptable (Lewis, 1992) The temperance movements main area of influence now is probably via insurance in the form of the Ansvar Company which is discussed in the section on insurance

The 1991 NCADA household study found that, of those persons who had ever tried alcohol, 71% of the males and 48% of females drank alcohol at least one day

a week (Makkai and McAllister, 1991). A National Heart Foundation survey in 1989 looked more closely at patterns of "at risk" drinking. Based on self report they estimated that overall 6.5% of males had an average daily intake of 5-8 drinks or more and 4.1% of females aged 20 years or over had an average daily intake of 4 drinks or more on any one day (National Heart Foundation of Australia, 1990).

Habitual drinking of this type can be distinguished from another pattern of drinking which is the "binge" or the occasional excessive consumption of alcohol in a quantity which far exceeds the individual's normal level of consumption. As yet such a drinking pattern has not been identified as being related to any particular chronic ill health but is more readily associated with impulsive "at risk" behaviours such as youthful drink driving.

An interesting and relevant aspect of binge drinking is the social justification that exists for the behaviour. By far the most commonly accepted reason for drinking more than the usual quantity is "to celebrate". Thus "weddings", "birthdays", "New Years Eve" etc are traditional occasions when planning ahead to drink more than usual is a common and accepted mode of behaviour. The historical association of celebrating the end of a job, the arrival of the cheque or the completion of an important stage of a task have been absorbed into community mores as acceptable occasions to engage in binge drinking. Many of these occasions were originally embedded in a male blue collar culture such as heavy drinking at the end of shearing when the shearers arrived back in town with their wages. There is also an established white collar tradition of sealing a deal with drinks all round and the earliest records of the colony describe heavy celebration drinking and rum as currency.

These historical traditions have been expanded and because of the relative cheapness of alcohol in some ways trivialised in more frequent celebratory occasions Thus the end of the week Friday night "happy hour'; the fortnightly arrival of the pension cheque; the end of the high school year, the Bachelor and Spinster's ball; are all marked as appropriate occasions for binge drinking.

Other social occasions for heavy drinking are less easily placed into an historical or cultural framework because they have been introduced by liquor outlets as ways to promote alcohol consumption Young males for example describe dinners, balls and the like in which the entry price covers all alcohol consumed, as key drinking occasions (Davey and Clarke, 1991). Liquor outlets have capitalised on this in particularly creative ways by among other initiatives, running "happy hours" or evenings in which drinks are relatively inexpensive or special Friday sessions at which free drinks are provided for female customers only.

It has frequently been replicated that more religious adolescents drink less alcohol and are less likely to engage in "at risk" behaviours such as drink driving (Jessor and Jessor, 1977). There is in fact quite a divergence in attitudes to alcohol by different churches or religions (Johnson, 1988). The Salvation Army's position is total abstinence from alcohol, tobacco and addictive drugs. The Uniting Church and other protestant groups take the middle ground in encouraging members to become either total abstainers or disciplined drinkers. The Catholic Church has no rule or policy relating to alcohol consumption. There are different traditions in European countries related to their emphasis on temperance and the Protestant ethic and to levels of alcohol consumption. For example, there was no temperance movement tradition in Latin cultures (France, Greece, Portugal, Spain and Italy) and the commercial importance of alcoholic beverages in these countries has a very

strong influence on consumption and attitudes towards drinking. On the other hand there is a temperance tradition in more Protestant areas of Anglo German countries such as Austria, the Federal Republic of Germany, Netherlands and the UK (Moser, 1989).

8.3 The Culture of Drinking and Driving

In Australia and the USA "competent" drinking or the ability to perform daily activities while under the influence of alcohol, is seen as a rite of passage into adulthood (Homel, 1988). The fact that a driver's licence is another rite of passage into adulthood, complicates this further. If a person can hold his or her drink they are regarded as a mature adult and driving after drinking may be seen as a measure of a person's drinking competence (Homel, 1988).

Earlier work in the seventies on this issue suggested that attitudes towards drink driving seem to be ego involved for some men. The ability to hold their drink and drive is regarded as an important component of a man's virility and his ability to drink and drive is proof of his drinking capacity (Henderson and Freedman, 1979). The Standing Committee on Road Safety (1980) commented that "all the attributes of the stereotypical Australian male are reflected in the ability to hold one's drinks. These attributes include adultness, sociability, manliness and virility" (p.37).

In a general "lifestyle" survey amateur rugby footballers were found to drink prodigious (12-24 schooners per session) quantities of beer. This was considered to be part of the tradition of mateship and the game and part of a long living tradition among this social group, according to past players in football clubs (Lawson and Evans, 1992).

The need to conform to group norms is a powerful contributor to behaviour (Ajzen and Fishbein, 1987) and where social and legal norms conflict, the threat of social sanctions will probably outweigh the legal sanctions by virtue of their perceived certainty of being carried out (Henderson and Freedman, 1979). For a long time it has been thought that social pressures to drink and drive are not as strong for women as for men (South Australian Legislative Council, 1985).

Further factors influencing this cultural tradition are the increase in available leisure time and available income that has occurred in the last 20 years combined with the relatively declining cost of alcoholic drinks in Australia The association of drinking with sociability in Australia occurs in the context of a community with high access to privately owned motor vehicles and poor availability of public transport.

Overall, there has been a fundamental change in the perceptions of alcohol in our society over the last 60 years In the 1930's the temperance movement influenced the dominant view that alcohol was a special commodity requiring restrictions and careful handling. Since then other influences such as increased affluence and the tolerance for diversity of alcohol outlets have had more influence on Australian views One interviewee raised the issue of aboriginal drinking and the polarisation of religious and cultural values on alcohol in that community.

Paradoxically, the thing about aboriginal drinking is that if aboriginal people drink - they either don't drink at all or if they do drink they tend to be binge drinkers and they really knock themselves about. So there is not so much tradition, almost no tradition of responsible drinking amongst aboriginal people. There are really two things - two themes that help aboriginal people

not to drink. One is religion and the other is sport. I mean there are a few young sportsman who take pride in the fact that they don't drink and they sort of use that as a positive example to others. (Researcher)

The interviews with the experts identified divergent influences on this cultural value. The first related to what was considered to be the pervasive influence of targeted life style alcohol advertising.

Continuing restrictions in advertising to promote responsible drinking. That alcohol is a product to be used in moderation not gluttony. Less in sexual association context ie. alcohol = social/sexual success. (Policy and Research)

The association of alcohol consumption in advertisements with well known sporting identities was a particular example noted by a number of those interviewed, as a major informal influence on drink driving.

There is a major social pressure to drink. Promotion of alcohol. And all this creates a problem for young people, with pressure on them to D/D. (Policy)

There is the role modelling. Sports stars now are increasingly being used for models of alcohol consumption with the line that alcohol consumption is part of a healthy life style, a relaxation from fitness. That all this is going on seems extraordinary. That there are young people who are modelling a healthy life style and at the same time modelling alcohol. This is going on in Canberra. A wonderful celebration if you have a sports team who is winning is to go out and get absolutely drunk. (Policy)

Again the growth in recent years of promotion strategies such as "happy hours" and free drinks was also seem to be exerting an unfavourable influence. The influence (or lack of) of churches and temperance societies on this culture was not mentioned by the interviewees.

As noted earlier a number of items in the survey examined the informal culture of alcohol. Firstly, the five items identified in the Factor Analysis as measuring common cultural influences which encourage drink driving are analysed. Secondly, a subset of items which examined the extent to which these influences had changed in recent years is presented.

There is a major social pressure to drink. Advertising to drink. Promotion of alcohol. And all this creates a problem for young people, with pressure on them to drink drive. (Policy)

The responses to the items concerned with the social pressures which encourage use of alcohol are given in Table 8.2 below.

TABLE 8.2: Cultural Influences which Encourage Drink Driving

(Items scored from *1=not at all important* to *10= very important*)

Cultural Influence	Importance	
	m	s.d.
The image of the Australian male as a good drinker *(n= 410)*	7.4	2.2
The tradition of celebrating with alcohol *(n= 415)*	7.7	2.0
The association of mateship and drinking *(n=415)*	7.8	1.9
The association of alcohol and sport success *(n= 407)*	6.9	2.6
Alcohol promotions such as "Happy Hours" and "Free drinks for women" *(n= 409)*	7.9	2.2

There was strong agreement by the respondents that all these indirect cultural factors encouraged drink driving. Respondents particularly noted the role of "alcohol promotions" and the "association of mateship and drinking" as strongly encouraging drink driving. The "tradition of celebrating with alcohol" and the "image of the Australian male as a good drinker" were also seen as very important contributions to drink driving. The "association of alcohol and sport" was also generally seen as encouraging the behaviour but this was not as strongly endorsed.

Analysis revealed no differences between respondents from different States so that there is a consensus that these are national cultural influences. There were highly significant differences however between respondents from the different Interest Groups on all items The pattern of differences on these items is clear and meaningful.

TABLE 8.3: Cultural Influences which Encourage Drink Driving (mean scores for Alcohol Industry, Media, and Other groups of respondents)

(Items scored from *1=not at all important* to *10=very important*)

Cultural Influences	Importance				
	Alcohol Industry	**Media**	**Other* groups**	**F**	**P**
The image of the Australian male as a good drinker	4.4 (n=10)	5.8 (n=31)	6 7 - 8 1	9.9	.000
The tradition of celebrating with alcohol	4.7 (n=10)	7.0 (n=32)	7.2 - 8.5	8.6	.000
The association of mateship with alcohol	4.4 (n=10)	6.4 (n=32)	7.3 - 8.5	13.1	.000
Association of alcohol and sport success	3.7 (n=10)	4.3 (n=31)	6.6 - 7.9	13.7	.000
Alcohol promotions such as "Happy Hours" and "Free Drinks for Women"	5.8 (n=10)	5.9 (n=32)	7.6 - 8.5	8.7	.000

* *n = 59-60* for Research; *n = 75-78* for Education; *n = 59* for Treatment; *n = 37-39* for Policy, *n = 51-53* for Law Enforcement.

8 3.1 *The Alcohol Industry*

All respondents other than those working in the Alcohol Industry and the Media rated all these influences as strongly encouraging drink driving. In contrast respondents from the Alcohol Industry consistently and significantly rated all these factors as having very little influence on drink driving. The means for respondents from the different interest groups on each item and the relevant F test values are given in Table 8.3.

As can be seen, respondents from the alcohol industry considered that "Happy Hours" and "Free Drinks" promotions might exert a moderate influence on drink driving (m=5 8). They did not believe that other cultural factors played an important role in encouraging drink driving.

8.3.2 *The Media*

This group gave low moderate importance to the association of alcohol and sports with drink driving (m=4.3). They were also very similar to the Alcohol Industry on alcohol promotions (m=5.9) indicating only a moderate influence by this factor on drink driving. However, their ratings were more similar to the other groups of respondents on all the other cultural factors which were seen as encouraging drink driving. The media consistently rated all these issues as being of less importance than did respondents from all other Interest Groups except those in the Alcohol Industry.

8.3.3 *Education and Treatment Workers*

The two groups which attributed the most importance to cultural factors in encouraging drink driving were those persons working in Education and in Treatment. Respondents in Education gave the highest ratings to the association of alcohol and sport (m=7.9), alcohol promotions (m=8.5) and the cultural value for masculinity being related to being a good drinker (m=8 1). Those respondents working in Treatment settings rated the association of alcohol and celebration (m=8.5) and mateship (m=8.5) more highly as an influence than did any other groups of respondents.

8.4 Changes in Cultural Values

In the interviews the experts frequently raised the possibility that these cultural values might be undergoing change.

I think alcohol consumption is and will continue to decline per capita. The advertising and promoting will be curtailed. Will be better labelling on bottles of alcohol. More mass media drink campaigns. (Research Education)

In order to explore for consensus about this issue the respondents were asked to indicate whether they thought these cultural traditions influenced drink driving more or less now than they had in the past. The responses are given in Table 8.4 below.

TABLE 8.4: Changing Influences of Cultural Traditions on Drink Driving (Row Percentages)

Cultural Influence	Current Influence		
	Stronger than past	No change	Weaker than past
Image of Australian male as a "good drinker" *(n = 416)*	3.8	30.9	62.4
Tradition of celebrating with alcohol *(n = 415)*	7.7	60.2	29.7
The association of mateship with alcohol *(n = 414)*	5.5	55.6	35.3

There was some confirmation by the respondents of the belief that attitudes and values might be changing. The image of the male as a good drinker is believed to

be weaker now. There was also a sizeable minority who believed that there are some changes in the association of mateship and celebration with drinking.

There were no State differences in these items and again it would seem that the cultural values are part of a national tradition. There were differences between respondents from different Interest Groups though these failed to reach the required level of significance. They are presented in Table 8.5 below.

TABLE 8.5: Changing Influences of Cultural Traditions on Drink Driving by Interest Groups

(Row Percentages)

a) Image of Australian male as a "good drinker"

Interest Group	Current Influence		
	Stronger than Past	No Change	Weaker than Past
Research *(n=59)*	5.1	20.3	74.6
Education/prevention *(n=74)*	8.1	33.8	58.1
Treatment/rehabilitation *(n=58)*	-	37.9	62.1
Policy *(n=39)*	-	17.9	82.1
Law Enforcement *(n=51)*	3.9	31.4	64.7
Media *(n=31)*	3.2	16.1	80.6
Alcohol Industry *(n=10)*	-	10.0	90.0

($Chi^2 = 21.06$, d.f.=12, P = .05)

b) Tradition of celebrating with alcohol

Interest Group	Current Influence		
	Stronger than Past	No Change	Weaker than Past
Research *(n=57)*	7.0	57 9	35.1
Education/prevention *(n=77)*	10 4	67.5	22.1
Treatment/rehabilitation *(n=50)*	10 3	60.3	29.3
Policy *(n=38)*	2.6	68.4	28 9
Law Enforcement *(n=51)*	9.8	58.8	31.4
Media *(n=32)*	-	68.8	31.3
Alcohol Industry *(n=10)*	-	30.0	70 0

(Chi^2 = 16.45, d.f.=12, P = 17)

c) The association of mateship with alcohol

Interest Group	Current Influence		
	Stronger than Past	No Change	Weaker than Past
Research *(n=56)*	5 4	53 6	41 1
Education/prevention *(n=74)*	8.1	68.9	23.0
Treatment/rehabilitation *(n=58)*	3.4	51.7	44.8
Policy *(n=38)*	2 6	55.3	42.1
Law Enforcement *(n=51)*	7.8	58.8	33 3
Media *(n=32)*	3.1	50 0	46 9
Alcohol Industry *(n=10)*	-	20.0	80 0

(Chi^2 = 19.34, d.f.=12, P = .08)

The interesting feature of these data is the strong, consistent and contrasting view of the respondents from the Alcohol Industry. They believe that all these cultural values are weaker than in the past.

8.5 Community Attitudes Towards Road Safety

Community attitudes to road safety measures in general are undoubtedly of major importance in the social control of drink driving. Community awareness however, is probably in part due to systematic gathering of information and subsequent publicising through education, awareness building and media reports. Most people are probably relatively unaware of the road toll and traffic crashes until they are personally involved.

From 1986 to 1992 the Federal Office of Road Safety has surveyed community attitudes to road safety on six occasions (The Wave Survey). Methodology has remained essentially the same with certain core questions being asked at each survey. Drink driving and speed were seen to be the most important factors leading to road crashes in all six surveys though drink driving has decreased in importance successively over the last three surveys 1989-1992. In Wave Six there was a rise in support for zero blood alcohol content for new drivers for the first time, 84% as against 80% in previous Waves. Young drivers thought this the most useful restriction for preventing road deaths in their age group but gave little support to a curfew on driving late at night or on carrying friends as passengers.

It is no doubt the case that the more concern the community feels about road safety issues in general the less likely it is that people will engage in drink driving as it is seen to be an "at risk" behaviour. The inverse may also hold and increasing disapproval of drink driving may generalise to other road safety risk behaviours.

Only one item in the survey was related to attitudes to a road safety issue other than drink driving. **Respondents were asked how important the issue of "speeding as a major cause of MVA" would be in the future. There was relatively strong consensus that this would be very important (m=7.7, s.d.=1.9)** There were no State differences on this issue however there were differences between respondents from different Interest Groups [F=3.55, P=.002]. Whilst all groups thought this would be important, significantly higher ratings were given by respondents from the Alcohol Industry (m=8.6), Law Enforcement (m=8.2) and Education (m=7.9).

8.6 Influences which Discourage Drink Driving

The growth of community "health consciousness" and health promotion and the development of new products including low alcohol beers were seen as important influences in reducing drink driving. A related issue which has been strongly supported by workers in the health promotion area is the linking of alcohol excise to the alcohol content of beverages. Outside the Northern Territory intiative this has had limited acceptance but the future may bring more campaigns to reduce the relative cost of lower alcohol content beverages These developments could function as a way to reduce "at risk" behaviour directly through lower BACs and through the encouragement of counter cultural values that retain drinking but do not support intoxication. One key informant had some doubts about the likelihood of this taking place based on his own experience.

I'm not sure that the light beer has made an impact on young people. A family twenty first birthday party and I bought a lot of light beer in, you'd think it was hemlock. So there is a need for more advertising, advertising more acceptability for light beer. (Law Enforcement)

Finally, some key interviewees wondered whether the continuing recession and high level of unemployment through the 80s might have had an indirect positive impact on drink driving. That is potentially by reducing the economic freedom of a large proportion of the population to purchase alcohol and to travel to situations where alcohol is available.

The respondents' rating of the importance of these influences in discouraging drink driving are given in Table 8.6 below.

TABLE 8.6: Importance of Selected Influences in Discouraging Drink Driving

(Items scored from *1=not at all important* to *10=very important*)

Influence	Importance	
	m	s.d.
Publicity and debate on drink driving *(n = 407)*	6.9	1.7
Increased community interest in health and fitness *(n = 413)*	6.7	1.9
The introduction of low alcohol beer *(n = 409)*	7.7	1.9
Impact of recession on disposable income *(n = 385)*	5.0	2.5

With the exception of the introduction of low alcohol beer (m=7.7) these issues were thought to have made only a moderate contribution to decreasing drink driving. Publicity and debate about drink driving was considered important (m=6.9) and a somewhat lower rating was given to interest in health and fitness though this was still deemed to have made a contribution (m=6.7). Respondents did not consider that reduced disposable income had much influence on drink

driving behaviour (m=5.0). This may have reflected the view that alcohol is a relatively inexpensive commodity in Australia.

Once again there were no State differences on these issues but there were differences between respondents related to Interest Group. There were no differences between the groups in the importance of publicity and debate or of low alcohol beer. Respondents from the Media (m=7 7) and Education (m=7 0) however, attributed more importance to the health and fitness movement than did respondents from other groups [F=4 13, P=.001].

The comparisons of the differing groups of respondents on their views of the role of reduced income due to the recession were significant [F=3.43, P=.003]. This difference was exclusively due to Researchers believing that this had decreased drink driving (m=6 1) All other groups were either unsure or believed it was of little importance.

8.7 Overview

Four issues and values were identified as informal influences in the culture in which drinking and driving takes place in Australia in the 1980s - 1990s. These included firstly, and predominantly, the dominant role that alcohol consumption and beliefs about alcohol use plays in male social mores. There are some countervailing attitudes which, whilst they are relatively minor influences now, may play more important roles in the future These include the economic climate and the direct impact that recession may have on the access to alcohol and to driving. Another was a growing health culture and industry that might be less sympathetic to the established drinking mores and finally, the overall attitudes of the community to road safety issues in general

The cultural associations of mateship, celebration and masculinity with drinking were seen as major determinants of drink driving by all respondents except those from the Alcohol Industry. The association of drinking with sports success and the promotion of alcohol through "happy hours" and similar alcohol promotions were also seen as important contributors to the behaviour by all but the Industry respondents. Conversely, and perhaps contra-expectation, these influences were seen to be waning in their strength as cultural values particularly by the members of the Alcohol Industry, the overwhelming majority of whom believed that these cultural influences were weaker now. At the same time the introduction of light alcohol beer was deemed to be a very important move towards reducing drink driving by all respondents.

Increased interest in health and fitness was thought to have had a modest impact on drink driving whilst the impact of the recession and reduced disposable income on alcohol consumption was only thought to be important by Researchers.

References

Ajzen, I. & Fishbein, M. (1980), **Understanding Attitudes and Predicting Social Behavior,** Prentice-Hall, Inc., Englewood Cliffs, NJ.

Davey, J. & Clarke, J. (1991), "Come to the Cabaret and get Legless: Tertiary student event drinking", **Youth Studies,** Vol. 10(4).

Federal Office of Road Safety (1992), Community Attitudes to Road Safety,**Community Attitudes Survey Wave VI,** CR101, FORS, Canberra, ACT.

Henderson, J.M & Freedman, K. (1979), Attitudes to Drinking and Driving in Australia, in Johnston I.R. (ed.), **Alcohol, Drugs and Traffic Safety,** January 1977, AGPS, Canberra, ACT, pp 633-648.

Homel, R. (1988), **Policing and Punishing the Drinking Driver, A Study of General and Specific Deterrence,** Springer-Verlag, New York Inc

House of Representatives Standing Committee on Road Safety (1980), **Alcohol, Drugs and Road Safety,** AGPS, Canberra, ACT.

Jessor, R. & Jessor, S. (1977), **Problem Behavior and Psycho-Social Development: A longitudinal study of youth,** Academic Press, New York.

Johnson, S. (1988), Report: Alcohol and the Churches, **Journal of Christian Education No.93,** Round Table, Sydney, NSW.

Lawson, J.S. & Evans, A.R. (1992), Prodigious Alcohol Consumption by Australian Rugby League Footballers, **Drugs and Alcohol Review,** Vol.11, pp 193-195.

Lewis, M. (1992), **A Rum State: Alcohol and State Policy in Australia,** AGPS, Canberra, ACT.

Makkai, T. & McAllister, I. (1991), **Patterns of Drug Use in Australian Society, An Analysis of National Trend Data,** (1985-91), AGPS, Canberra, ACT.

Moser, J. (1989), Alcohol Problems, Policies and Programmes in Europe, **WHO collaborative Study on Community Response to Alcohol Related Problems,** WHO-EURO ICP/ADA 017/ B.D 2, in Council of Europe Parliamentary Assembly, 1990, Report on a European Policy for Alcohol, Brussels.

National Heart Foundation of Australia (1990), **Risk Factor Prevalence Study,** Survey No.3, 1989.

South Australia Legislative Council (1985). **Review of the Operation of Random Breath Testing in South Australia,** Report of the Select Committee of the Legislative Council, Adelaide, SA.

Woolcock, H. (1991), Safe Drinking Project, Social History, Preliminary Report, **Community Intervention to Reduce Binge Drinking,** Progress Report: February 1991 (No.BD19:1), Drink Driving Prevention Program, University of Queensland, Qld

9. POSSIBLE FUTURE TRENDS

9.1 Introduction

During the qualitative interviews many people raised future trends that they thought would impinge on the drink driving situation in Australia. Those issues which were mentioned by more than one respondent were particularly noted and a related item included in the final section of the questionnaire. Respondents were asked to note from 1 to 10 how important they thought each issue would be in the future.* The identified issues and the respondents' overall rating of their likely future importance is given in Table 9.1 below. As could be expected in an area as conjectural as future trends there was considerable variation in opinion on many of these.

TABLE 9.1: Importance of Future Issues

(Items scored from *1=not at all important* to *10=very important*)

Issue	m	s.d.
Increasing public awareness that driving and alcohol issues are related to health and welfare *(n = 410)*	8.2	1.9
Safer vehicle design such as air bags *(n = 409)*	7.8	2.1
Better road design and construction *(n = 408)*	7.7	2.0
Alcohol and women *(n = 398)*	7.6	2.1
Use of alcohol excise to fund health promotions *(n = 403)*	7.5	2.4
Alcohol in the workplace *(n = 403)*	7.4	2.3
Specialised road accident trauma hospital units *(n = 374)*	6.3	2.3
Bio medical genetic research *(n = 354)*	5.4	2.7
Increased density leading to less reliance on motor vehicles *(n=388)*	5.3	2.6

* Some items included in this set in the questionnaire were directly related to material covered in earlier sections and have been discussed in the relevant context

The issue which was rated as being most important in the future was the belief that there would "be increasing public awareness that drug and alcohol issues are not separate from health and welfare" (m=8.2, s.d.=1 9) Other issues which were generally considered to be highly important in the future were the use of air bags (m=7.8, s.d.=2.1); better road design and construction (m=7.7, s.d.=2.0), the use of alcohol excise to fund health promotions (m=7.5, s.d =2.4); the problems related to women's drinking (m=7 6, s.d.=2.1), and alcohol in the workplace (m=7.4, s d.=2.3).

The likelihood of developing specialised road accident/trauma hospital units (m=6.3, s d =2 3) was considered to be only moderately important. Little importance was attributed to bio medical research to determine genetics underlying alcohol problems (m=5.4, s.d.=2.7); or to increased housing density leading to less reliance on motor vehicles for travel (m=5.3, s.d.=2.6). There were no State nor Interest Group differences on the last item

9.2 State Differences

Interestingly, whilst there were very few State differences on the social context items there were State differences on a number of items concerning future trends (but they are relatively difficult to interpret) Northern Territory respondents (m=6 7) were less likely [F=3.6, P=.001] to see women's drinking as a future issue than respondents from other States. whilst respondents from Tasmania (m=8.2), Victoria (m=8.1) and ACT (m=7 9) saw this as an important issue Controls on alcohol in the workplace was also seen differently [F=3.28, P=.01] by respondents from different States. Victoria (m=8.0); ACT (m=7 9); Tasmania (m=7.8); and Qld (m=7 6) all considered this more likely than did the respondents from other States.

There were also differences in the expectation that better road design and construction would be important in the future [F=3.1, P=.003]. Perhaps not surprisingly respondents from the N.T. did not consider this very likely (m=6.4) however Qld respondents (m=8.2) did expect this to occur.

Finally, there were differences [F=3.5, P=.001] in perceptions of the importance of bio-medical genetic research relative to State. No group considered this future development to be very likely however respondents from Tasmania (m=6.5) and NT (m=6.2) thought this possible whilst those from ACT (m=4.2) and WA (m=4.4) thought it unlikely.

9.3 Interest Group Differences

There were quite marked differences in expectations for future developments between respondents from the different Interest Groups. These are particularly interesting in that they reflect the different attitudes and beliefs of persons who in their own right form part of the social context.

9.3.1 *Alcohol and Health*

The use of alcohol excise to fund health promotions was thought to be very likely by those working in Education (m=8.2) and Treatment (m=8.0) and only moderately likely by those in the Alcohol Industry (m=6.1) [F=3.83, P=.001]. Similarly, increased public awareness that driving and alcohol issues are related to health and welfare (m=8.2, s.d.=1.9) was viewed very differently by these groups [F=5.83, P=.000]. In this case the major differences occurred between respondents from the Alcohol Industry

(m=7.1), research (m=7.2) and Policy (m=7.6), who considered it a less important issue for the future than the other interest groups.

9.3.2 *Alcohol and Special Groups*

There also were significant differences in Interest Groups ratings of the future importance of the issue of alcohol and women [F=9.37, P= 000] and alcohol in the workplace [F=6.11, P=.000]. Again those from Education (m=8.5) and Treatment (m=8.2) thought women's drinking was much more likely to be a future issue than did those working in the Media (m=5.9) or the Alcohol Industry (m=6.5). Those in Education (m=8.1) and Treatment (m=7.9) thought alcohol in the workplace would be more important than those working in the Media (m=6.1) or the Alcohol Industry (m=5.5). These findings are summarised in Table 9.2 below.

TABLE 9.2: Significant Differences in Importance of Future Trends in Relation to Drink Driving (representatives of the Alcohol Industry, Media, Educators and Treatment Workers).

(Items scored from *1 = not at all important* to *10 = very important*)

Issue	Interest Group			
	Alcohol m	**Media m**	**Education m**	**Treatment m**
Increasing public awareness that drink driving and alcohol are related to health and welfare	7.1 *(n=9)*	8.3 *(n=32)*	8.6 *(n=77)*	8.7 *(n=58)*
Use of alcohol excise to fund health promotion	6.1 *(n=10)*	6.6 *(n=31)*	8 2 *(n=73)*	8.0 *(n=59)*
Alcohol and women	6.5 *(n=10)*	5.9 *(n=29)*	8.5 *(n=74)*	8.2 *(n=59)*
Alcohol and the workplace	5 5 *(n=10)*	6 1 *(n=30)*	8.1 *(n=75)*	7.9 *(n=59)*

9.3.3 *Technological Innovations*

There were also significant differences between Interest Groups on the future importance of better road design and construction [F=2 95, P=.008] and the development of specialised road accident/trauma hospital units [F=3.65, P=.002]. Whilst all Interest Groups thought the development of road design was likely to be a future issue, it was rated most highly by those from the Media (m=8.8). Specialised road accident units also were rated most likely by those from the Alcohol Industry (m=7.3), the Media (M=7.1) and Law Enforcement (m=7.0). These findings are summarised in Table 9.3 below.

TABLE 9.3: Significant Differences in Importance of Future Technological Trends and Drink Driving (Representatives of the Media and Law Enforcement)

(Items scored from *1 = not at all important* to *10 = very important*)

Issue	Interest Group		
	Alcohol Industry	**Media** **m**	**Law Enf'mnt m**
Better road design and construction	7.6 *(n=10)*	8.8 *(n=32)*	7.7 *(n=52)*
Development of specialised road accident/trauma units	7.3 *(n=9)*	7.1 *(n=29)*	6.9 *(n=45)*

9.3.4 *Future Orientations*

A Factor Analysis (PCA) of the future trend items was undertaken and is presented in Appendix 4. Using an Oblimin rotation three factors were identified which were interpreted as representing medical and health

changes (F1), changes in relation to alcohol (F2); and technological changes (F3). With the exception of the item which relates to "changes in future housing density having an impact on use of cars" the factors were clearly defined. The medical factor explained 32.9% of common variance, the alcohol factor explained 18.9% and the technology factor explained 11.5%. The first factor was related to both other factors (r =.24; r =.34) but the alcohol factor was unrelated to technology (r =.07).

Factor scores were calculated for each factor and the Interest Groups were compared. There were no significant differences between Interest Groups on either the medical or the technological issues though there was a difference between the Media respondents and all others on the latter which did not reach the set level of significance. There was a significant difference on the alcohol factor [F=7.3, P=.000]. Workers in Education (m=.47) and Treatment (m= 30) anticipated future controls on alcohol and drink driving whilst workers in the Alcohol Industry (m=.95) and the Media (m=.70) rated this as much less likely.

9.4 Overview

A variety of initiatives and influences were identified as likely to have an impact on drink driving in the future There was considerable variation in respondents expectations of the likelihood that any of these would eventuate. There were some differences on these issues between respondents from the different States but these were relatively difficult to interpret. Projected changes could be classified as falling into the area of medical and health initiatives; technological changes and changes in the control of alcohol consumption or availability. It was in relation to this last area of change that a predictable pattern of difference emerged.

Respondents from the Alcohol Industry and the Media believed such changes were not very likely to occur whilst those from Education and Treatment and Rehabilitation thought that they were likely to emerge.

This marked diversion between these two particular groups of respondents was consistent with the findings of this report in relation to other attitudinal and belief areas and indicates marked differences between these two groups.

10. CONCLUSION

10.1 Introduction

In this chapter the main influences in the social context of drink driving in Australia and the links between them are examined. The chapter does not summarise or replicate the specific findings of the report. These have been described at the end of each chapter and are covered in the Executive Summary. This chapter presents an overview in which the main influential figures, groups and issues are identified and the network between these persons and institutions described. The extent to which there is consensus and diversity in attitudes and beliefs about drink driving is considered and recommendations to maintain the present impetus and to further facilitate change are suggested.

10.2 Influential Persons and Groups

A major finding of the report was the high level of national consensus and Interest Group diversity. This emerged even from the first objective of the study which was to identify the key opinion leaders in the areas of drinking and driving and to canvass their opinions on the influences creating the social context of drinking and driving in Australia. In order to do this the names of relevant people were sought primarily through persons in the cognate areas of Health, Transport, and the Alcohol Industry The term "snowballing" has been used to describe this sampling methodology in which respondents are sought by eliciting referrals from people with similar characteristics

The first major finding was that there was an exceptionally high level of cross-referencing between individuals within each of these three key areas The network included not only persons working in the interest areas in Australia but many cross references to and from colleagues in New Zealand.

The consistency of the cross referrals from different persons within each key area was remarkable. Any one of the individuals within each of the key areas could and did readily provide a wide-ranging and comprehensive list of relevant persons which in the main, replicated the lists provided by others in the area. In contrast to the close networks that existed within individual sectors such as Health and Transport the association between areas was much more limited.

This, and later findings suggest that there is an established and closely knit group of workers, from a variety of disciplines and backgrounds, who have strong professional involvement in drink driving. These professional people have frequent contact with each other either through their published work, conferences and committees or other forms of communication. Rogers (1983) has described the dissemination of innovation as working most effectively and expeditiously if there is close association and mutual respect and credibility between an innovator and the recipient. Such an environment does appear to exist at a national level in relation to drink driving in Australia.

In the telephone interviews, key respondents had their own particular views on different questions but most could and frequently did readily describe the views of other key informants and indicated whether they agreed with them or not. At the level of the broader survey sample the lack of State differences in most attitudinal measures was remarkable given the political differences and geographical separations between the Australian States. This high level of national consensus and uniformity in opinions can be explained by the very high levels of communication that exist within interest areas and across State boundaries in this relatively specialised problem area.

The mail survey respondents were recruited from identifiable interest groups and an attempt was made to make the sample as representative as was possible of the variety of people who see drink driving as relevant to their work. A wide variety of distinct interest stakeholders was identified and seven clearly delineated interest groups were used in analyses In contrast to the national consensus these groups were very different in their responses from others to attitudinal items.

The study indicated that these Interest Groups could be categorised on most issues into three broad groupings with significantly varying attitudes and beliefs. First, there were those respondents from Education, Treatment and Rehabilitation whose views frequently contrasted markedly with a second group of persons working in the Alcohol industry and the Media Third, somewhere between these two extremes of opinion were persons working in Research, Policy and Law Enforcement whose opinions fluctuated across the variety of issues in response to their specific relevance to their own particular disciplinary area. Attitudinal differences primarily reflected professional and disciplinary or ideological interests. In the main it was not difficult to estimate the support or degree of importance that respondents in each of these three broadly classified interest groups would give to a particular issue.

10.3 National Networks

In addition to the informal, closely knit networks which exist within the interest sectors of Transport, Health and the Alcohol Industry, there is clearly another framework for consensus and action developing in Australia This is the established and reportedly growing number of formally identifiable Government Committees which provide an opportunity to maximise communication within and between the

three main interest groupings. These are the State Parliamentary Committees and the National Council (NRTAC) which provide opportunities for all players to have input into the decision making process. There have been some preliminary steps towards facilitating cross communication between diverse groups. An example of such an innovatory model was the NRTAC 1993 National Conference which involved representation from all interest areas except the community lobby groups.

NRTAC has a goal of maximising communication across the wide variety of professional and non professional lobby groups, government workers, politicians and community members. The need for intersectoral association and communication between major players was stated in the theoretical model and highlighted in a number of areas in the data analysis. One pertinent example was the confusion described by different respondent groups in relation to the issue of "safe" drinking levels. In this context the recently strengthened liaison and interaction of Health and Law Enforcement in the National Drug Strategy (NDS) has potential to make a major contribution to changing the alcohol culture in Australia. If this association could be broadened to include Transport Department representatives it could usefully impact far more directly on drink driving.

10.4 Key Influences

The key social influences on drink driving identified in this research are the need to moderate the cultural values associated with drinking; the crucial role of RBT as a systematic control on the combination of drinking and driving; and the need for enforcement of the legislation currently regularising both drink driving and alcohol access, advertising and availability. A variety of sub-issues underlie the debate about each of these issues. They largely relate to methods and means and include

differences of opinion regarding the effectiveness of education or media campaigns as moderators of behaviour change (compared with technological and more passive prevention measures such as interlocks and airbags).

The roles that these influences are seen to play reflect both interest group knowledge and beliefs. The exception is the universal endorsement of the effectiveness of RBT and support for its enforcement. A major difference of opinion exists on the role of alcohol in the culture and this conflict is between members of the Alcohol Industry and the Educators, Treatment and Rehabilitation workers. It is especially interesting that it was the respondents from the Alcohol Industry who were most committed to the belief that education is the way to change drinking behaviours. The major differences in attitudes between these two groups on most other issues raises the question of what educational content the alcohol industry believes should be the focus in what it decides to promote. There is clearly a great need for debate and discussion between members of the industry and educators as to the key issues and what the focus of change should be.

10.5 Recommendations for Facilitating and Maintaining Change

The primary recommendation growing out of this study is the need to support broad ranging participation in the emerging intersectoral (government and non government) association and debate on issues that relate to drink driving. It seems clear that further systematic changes to drink driving require strengthening of specific controls on alcohol consumption, availability, advertising and distribution. Given the differences that exist between the alcohol industry and media and other workers in this field there is a major need to maximise communication with all groups, but considering the differences in attitudes and beliefs shown an achievement of this goal will not be easy. Some indication of

potential problems is provided in the recent debate on the problem of 'lying down with lion' (Hawks, 1992).

The second major issue which is raised in this research is the need to support RBT and to recognise the special relevance of Police, Magistrates and other Law Enforcers to obtaining maximum impact from this strategy. Australia has been extremely well served by promotion that RBT has received from research and political circles, but continued support and backup are required. Most workers identified a need for continued and increased initiatives in relation to the provision of legal restraints.

Research in drink driving in Australia is strongly applied and there is an important role for continued trialing and monitoring of innovative strategies. It is a major plus in road safety that research has ready avenues to policy-makers, and also is informed to a large extent by policy-makers looking for change. Given the very close communication between drink driving researchers, educators and policy-makers it seems feasible to predict that effective research which demonstrates the utility of innovation can be followed up quickly. It is likely that it is this involvement between researchers and policy-makers which has created the leading international role of Australian researchers in this field (Ross, 1988).

Finally, there is a strong need to support activities directed towards identified problems or "at risk" groups. In this study, groups at risk included drivers in the Northern Territory, and special emphasis was given to assisting Aboriginal and Torres Strait Islander people to address their particular road safety concerns. Other groups also, however, were identified in research as needing further or

continued attention. Particularly important in this respect were young male drivers and recidivist and high BAC drink drivers.

References

Hawks, D. (1992), Lying down with the lion. Co-operating with the alcohol industry: "The 1991 Leonard Ball Oration," **Drug and Alcohol Review** , pp 51-58.

Rogers, E.M. (1983), **Diffusion of Innovations** (3rd ed.), The Free Press, New York.

Ross, H.L. (1988), Deterrence-based policies in Britain, Canada and Australia, in Laurence, M.D., Snortum, J., Zimring, F,E .(eds.), **Social Control of the Drinking Driver**, University of Chicago Press, Chicago, pp 64-78.

APPENDIX 1

a) **List of Key Informants**

b) **Introductory Letter**

PHONE SURVEY NAMES

Mr Bob Aldred
Dr Robert Ali
Mr Steve Allsop
Mr Rod Ballard
Dr Michael Bolton
Sgt R. Bonny
Mr Rob Brewer
Mr Gordon Broderick
Ms Jill Bungey
Ms Julie Bunyard
Mr Tom Carroll
Dr Sally Casswell
Dr Ian Crundell
Mr Martin Derkley
Mr Barry Elliott
Mr Geoff Elvey
Prof. R. Sanson-Fisher
Dr Anne Foon
Mr Greg Goebel
Ms Sue Gordon
Assoc. Prof. Margaret Hamilton
Prof. David Hawks
Prof. Nick Heather
Dr Michael Henderson
Dr Paul Hirst
Assoc. Prof. Mike Hobbs
Archbishop Hollingworth
Mr Peter Homel
Prof. Ross Homel
Assoc. Prof. Peter Howat
Mr Ian Johnstone
Mr Graeme Jones
Ms Jenni Judd
Mr Joe Kenny
Ms Sue Kerr
Mr Mark Leggatt
Mr Laurie Lumsden
Mr B Maddern
Supt Kevin Maley
Prof Neville Matthews
Mr David McDonald
Dr Gerry McGrath
Dr Jack Mclean
Dr Stuart Mclean
Mr Mark McPherson
Ms Sue Moir
Mr Ron Parsons
Mr A. V. Peters
Dr Rene Pols
Ms Anne Raymond
Dr Sally Redmond
Dr Adrian Reynolds
Ms Lorna Risstrom
Prof. John Saunders
Assoc. Prof. Bill Saunders
Mr Bruce Searles
Mr Patrick Shanahan
Dr Ian Smith
Mr David South
Ms Lori St John
Mr Tim Stockwell
Ms Danni Stow
Sir Gordon Trinca
Mr George Van De Heide
Dr Peter Vulcan
Ms Robin Welham
Mr Roger Wheller
Dr Kate White
Dr Alex Wodak
Dr Les Wood
Mr Dennis Young

7 October 1994

1~

Dear 2~,

In the past four years we have been following the drink driving experiences of a cohort of young people. There is an indication that there has been a major change in attitudes in this group in recent years. In order to understand these changes we are trying to develop an overview of the variety of influences which create, maintain and control drink driving in Australia.

In trying to describe the social situation which may have created such a change we have become aware of the enormous complexity of positive and negative influences on drink driving To obtain an informed perspective on these influences we are asking people such as yourself who have established expertise in the field of 3~ how they view the social context of drink driving in Australia. Your feedback will be used to design a mail out questionnaire which will be forwarded to a broader audience.

We would like to take the opportunity to contact you by phone in the next two weeks to ask your opinions. We will call and if you agree, make an appointment to undertake an interview/conversation with you about your experiences and impressions. The issues we hope to cover are outlined on the attached page.

Thank you for your support.

Yours sincerely,

Mary C. Sheehan
Reader
Social and Preventive Medicine

APPENDIX 2

a) **Abbreviated Proforma for Telephone Interview**

b) **Summary of Qualitative Data for Survey**

ABBREVIATED PROFORMA FOR F.O.R.S. PHONE SURVEY

FEBRUARY 1992

NAME :.....

What do you think the general situation with drink driving is at the moment?

Do you think there has been any change/s?

In what way?

What do you think has influenced drink driving over the years?

Optional (if positive or negative influences are mentioned exclusively)

What about in the other way?

What is in the future? Do you think the same influences will be operating on drink driving?

Will there be any new developments?

Where do you see your field of interest going in respect to drink driving?

Where do you think the work (or research) in the general field of alcohol will be heading?

Who are the other important people in your State we should be talking to?

What do you think the general situation is with drink driving at the moment?

definite decrease in DD - due to change in community attitudes as well as economic factors

road fatalities are decreasing both in realtive terms and absolute terms.
contribution of alcohol steeply declining

generally now considered unacceptible by many people
general acceptance of low al beer

bahavioural changes eg people sleep over, throwing keys to others

however recidivists a lost cause - need education - early intervention
limited scope for improvement in DD because can't change heavy drinkers' high BACs

still a big problem with heavy/binge drinkers

the community thinks the DD problem has been dealt with

campaigns for sensible/responsible drinking

there is confusion also because different laws in different states, and recent changes in the law

climate of tolerance has changed considerably because of enforcement, and because of media push

heavy drinkers amongst the police now regard light alcohol as accepible

DD are different people before they drink - the grog is interacting with the sort of person - if someone is imprudent enough to drink heavily and drive, they are also a risk taking individual generally

visibility of police presence makes RBT work

NT has a higher fatality rate and higher consumption rate

problem with aboriginals - often tend to be in horrendous accidents - extremes

Do you think there has been any changes?

Legislation changes - more effective than educational - follows cultural change that has already happened

behaviour changes come first (coercian with legislation RBT etc) then attitudes - RBT gives an excuse for people to change their behaviours

RBT has been very successful - possibly past its peak effect now though has missed the "hard core" group - need to attack alcohol problem for these rather than just DD

more people being picked up now as drunk pedestrians because of no DD

RBT may have "selective" effect - people seem to be more prone at peak times such as Christmas, New Year, Australia Day, and the current system is working well at coping with these peak time, but maybe not as good at other (less well recognized) times of the year where there will also be heavy drinking such as wine fests, other public holidays etc

the 4/2 principle from NHMRC doesn't work - binge drinking is the norm

RBT successful for perhaps the wrong reason - working because people afraid of being caught - don't think they've got the message about risk of accident- perceived risk of being caught - should have programs to shift emphasis to risk of having serious accident

the more we work in DD the less we really understand what happens - reduction in fatalities, but not necessarily because of RBT

change in DD leads to more drinking at home which leads to more binge drinking - and probably more domestic violence

drinking at home may become a replacement problem for DD

DD on improve because of factor re general health conscious community - community now more aware of environmental and general health issues and DD is one of them

alcohol consumption down in last decade

has been profound increase in requests for information re safe drinking and drinking levels from the public

Public learning to plan alternative strategies to DD

police involvement has also changed police attitides

Although DD seems on the improve, there is the problem of people turning to other drugs instead of alcohol - no way of testing for these

What do you think has influenced drink driving over the years?

Press coverage and publicity/promotion better now

media has had big impact

RBT campaign has helped - government's advertising on TV now and brewers also advertising - telling people to drink responsibly

RBT Darwin culturally sympathetic to alcohol and public try to warn other motorists

Publication each weekend of road toll linked with alcohol

high profile enforcement of DD and associated publicity both in terms of campaigning and public education and editorial - led to large change in population behaviour

NT fight between the liquor commission and the govt on these issues has dragged it all into the public eye and people are starting to think about the issues

RBT implementation of
RBT debate surrounding

Education programs

health pamphlets

commercial firms not promoting alcohol as much - workers cannot have a drink but can buy a drink for a client

Ads - dramatic ads on TV

Soapies/ TV shows are addressing it more

P plates and zero BAC for young drivers

Low-al beer - cheaper - in some states industry fighting this idea of lower excise on low al beer

Effect of recession - possibly people drinking less, and also driving less

Effect of RBT is to increase the number of women being caught - trend for males to hand over the keys because they perceive no risk of woman being picked up for DD

Has not been as big an increase in female convictions as might expect from increase in women in the workforce and increase in women drinking

shame that legal measures have made an impact and educational ones have not

Royal college of surgeons

Peter Vulcan's work - longitudinal data - road safety and alcohol

legislation on RBT

major value shift has led to legislative change

Problem a cultural one- generations of norms in our society - drinking is a male problem - part of macho image - young males still have the belief they are only affected if they are visibly drunk

our society has always had high drinking for males - then when cars came along, combined both

continuation of association of drinking with celebrations - drnking still part of our culture - image of alcohol associated with high life style

Darwin - hot weather - outdoor lifestyle - sporting culture (esp football) also promotes drinking - aboriginals - tend to abstain or be binge drinkers - no history of responsible drinking - religion and sport are the two influences which make aboriginals not drink

groups such as Road trauma Ctee and Orthopedic Ctee - Royal Aust Surgeons - state parliamentary ctees, NCADA

state road safety groups

4 and 2 message being misinterpreted by the public - think this refers to DD behaviour

Ads promoting - still prominent at sporting events

vigorous promotion of alcohol by industry

weak national policy on alcohol

Big hotel carparks have promoted DD

Also greater hours and number of outlets

Breweries now producing good quality low-al beer

changes in liquor licencing laws

more coin operated breathalisers operating now

What is in the future? Do you think the same influences will be operating on drink driving?

maybe training still useful for 15-25 yearolds

need to promote acceptance of low-al beer among young people

NCADA needs to keep going - get their act together

RBT should work better - there is not uniformity in implementation by police - must be maximum exposure to it - people have to perceive high risk of getting caught or effect will drop off

probably more acceptible at the pub/party to tell someone "cops out everywhere - don't drive if you have been drinking" than to tell him "you're too drunk - you might kill yourself if you drive"

aim for better detection methods and increase perceived risk of being caught

Have to go further so that it is not just the risk of being caught - but consolidate the idea that DD is socially unacceptible

Education packages in schools - some states now have general health programs from grade 1 to end of secondary, with alcohol and DD part of this
- need to extend beyond secondary to tertiary to keep up the impact-
- need to have more community education as well

need to tighten licencing laws to get rid of happy hours etc

compulsory service training for all staff at licenced premises

ads - used to deter DD - but they are also a reflection of community attitudes - should be made to be more responsible in ads promoting sales of alcohol

workers compo could intervene and withdraw cover going home for drinkers

habituation effect of prevention - where knowledge does not lead to behaviour change - risk of over exposure to campaigns and the public will take no notice

backlash of people will say it is not a problem we thought it was - may not be seen as a major problem in 15 years

have to look at more cost-effective measures such as black spotting
- also aim at more "cost-effective young groups - older high risk groups not as good a result for the same money spent - these are a separate problem

Will continue to see DD being tackled through traffic acts - decision by parliamentarians and amendments to liquor acts will not be beneficial to DD problem

need to give people more information on levels of drinking and driving - like cards used in Qld

Hotel industry and advertising industry should have more influence in down direction

there might be changes in occupational health and workplace safety similar to no smoking bans

possibility of declaring 'dry areas' like aboriginal communities

liquor licencing probably won't change

should be better labelling on bottles of alcohol

should be levy on alcohol which will be spent on health enhancing messages

raising money through excise is potentially good because it connects the sources to the problems

apprehensive about what happens when we get out of recession - DD is tied to recreation and when people have more money for recreation, what will happen with DD?

need to support police morale so they see it as worthwhile to continue with RBT

need to target peak times - holiday seasons

has to be more work done on alcohol in the workplace

problem with resources (manpower and money) being spread too thin

Will there be any new developments?

taxi-home scheme

personal breathalizers

might see people starting to keep metres or monitors in the car

try having 0 BAC for everyone

server intervention

need more deterrants-

need to introduce more avoidance mechanisms- ignition interlock - server intervention - server liability - also passive sensor - self testing when it becomes cheaper

target alcohol in the workplace

develop program to stake out licenced premises and make sure anyone legless not allowed to drive

increase training for police on identifying DD and making it clear to people they should not be driving

have car engine size limitation for probationery drivers

new legislation cf US where parents held liable even if not present

possibility of introducing curfews (say 11pm) on young people - no passengers allowed - raise drinking age

promoting anti DD through TV soapies - community influence
labelling on bottles etc - defining standard drink and number allowable

more education on alcohol in the workplace and more programs to help here

target some specific problem groups eg aboriginals, older drinkers and accept risk of being accused of being discriminatory

may need to change from 05 to .08 - might be too difficult for people to monitor when they are .05 - might be easier with .08 - might be easier to get public support with .08 - may be more realistic

change to liquor venue environment - more group/family approach

have to target hotelliers and make them more reponsible - at the moment they have discounts on alcohol, happy hours, free entry women, free drinks women

have to look at problem of drunk pedestrians - no progress here so far
interventions using DD convictions

educational programs - continue to improve quality

tackling specific groups (eg aboriginals) or specific geographical areas

Where do you see your field of interest going in respect to drink driving?

have to work on changing social attitudes - fear that if rely on deterrants too much people will turn off and lose respect for legislators

also have to look at environmental aspects again - get back to looking at road design, bends etc

have to accept that there is a limit to how far the DD problem can be solved, and therefore have to look at damage minimization - also air bags

need to look at problem of speed - presently people think its OK to speed- don't see high risk of being caught or of having serious consequences

look at rural youth - aboriginals - remote locations

interventions so people can moderate their drinking

have to keep reinforcing need to not DD - change will go back wrong way if not continuous monitoring and support

important to keep DD component compulsory in driving questions
more detox and rehabilitation programs

greater scrutiny of alcohol industry

decriminalizing of marijuana and cannabis

looking at 10-20 year issue - need to make speeding a socially unacceptible idea as well

underage drinking

continue to evaluate PASS - refine the program

genetic biomedical research

compensation claims against people who supplied alcohol prior to some accident or injury

monitoring alcohol related accidents in relation to changes in availability and changes in legislation

assessments for referrals to alcohol programs need to be more professional/stringent

proper assessment, matching people to programs

better early interventions for DD

deal with problem of cirrhosis of the liver and other profound liver problems

role perception of health workers - police need to change their role - also magistrates - correctional officers - welfare workers

prevention education - trials with small grants for young people to run alcohol free activities

need to research high BAC s and establish if they are in fact alcohol dependent - not just a DD problem

try to define heavy drinkers

look at problem of literacy of drivers - can they read signs?

Where do you think the work (or research) in the general field of alcohol will be heading?

prevention needs more emphasis than treatment

role of classical conditioning on drinking patterns

how to make early and brief interventions work in the real world

make people aware that drug/alcohol area is not separate to health/welfare in general

should be lots of evaluative research in education and training

have to concentrate on problem of older and binge drinkers/low SES - programs so far successful with only low risk groups-younger and high SES

also need to look at testing accident victims in the hospitals

accent on prevention and harm minimization - not just DD but alcohol generally

need to research young drivers behaviours and skills - social skill levels

need more info on young drivers attitudes and skills

need research on young women also

aboriginals

NT which is the worst

account for seasonal changes

should be trying to understand the mechanism(s) of taking up drinking

stresses re unemployed and other special groups

understanding drinking patterns

starting point of drinking - research this area to avoid problem ever starting

also look at social change by alcohol - violence,aggression

recidivist programs

detection of other drugs now being used instead of alcohol

need to encourage a more multidisciplinary approach

how to engineer images for campaigning against DD without having heavy direct DD messages that will make the public tune out

need more research on rehab programs

need more in community development field

physiological effects of alcohol will continue to be researched - study thresholds, tolerance etc - how much is it safe to drink?

try to find antidotes that will reduce the effect of alcohol

must be careful not to neglect the role of education - putting too much emphasis on early intervention as the main preventative measure rather than education (although early intervention is NB also)

alcohol in the workplace

alcohol- one special group- police

problem that research might be seen as acceptible only if it supports govt policy

FORS, Health etc have to accept that research reports should be published even if they do not support policy of funding body

Is this a danger in Australia?

alcohol problem in remote areas

look at possible porblem of lowering the DD problem - where are we shifting the drinking problem to?

problem of defing binge drinking/safe drinking in a realistic sense

the more controls on DD and alcohol, the more ways people find to get around it

APPENDIX 3

a) **Introductory Letter**

b) **Reminders**

c) **Questionnaire**

d) **Frequencies**

7 October 1994

1~

Dear 2~,

In the past four years we have been following the drink driving experiences of a cohort of young people There is an indication that there has been a major change in attitudes in this group in recent years. In order to understand these changes we are trying to develop an overview of the variety of influences which create, maintain and control drink driving in Australia.

In order to obtain an overview of the social context in Australia we have recently interviewed some of the key researchers and workers in the areas of alcohol or drink driving and asked them to identify what they see as the range of influences. This work confirmed that there is an enormous and complex range of both positive and negative influences exerted on drink driving. We are writing to you now to ask if you would mind answering the enclosed questionnaire which is designed to develop information about the relative importance of these influences. We wish to obtain the views of persons such as yourself who are either directly involved with the problems of drink driving or who are indirectly involved with issues associated with the problems of alcohol.

We have tried to organise the issues so that they cover those influences which encourage drinking and driving and those which discourage it, and likely future developments in this area. The questionnaire is relatively short and should take no longer than 10 minutes for you to complete. Could please complete it and return it to us in the reply paid envelope enclosed?

All information obtained will of course be completely confidential and data will be published in a summative form only. The ID number is only included to assist with followup mailing.

Thank you for your support.

Yours sincerely,

Mary C. Sheehan
Reader
Social and Preventive Medicine

FACULTY OF MEDICINE

THE UNIVERSITY OF QUEENSLAND

Medical School, Herston Road
Herston Qld 4006 Australia
Telephone (07) 365 5345/365 5280
International +61 7 365 5345
Facsimile (07) 365 5442

BUSY !

BUSY !

BUSY !

Is our ***Drink Driving Questionnaire*** still on your desk ?

Could you possibly find time to complete it?
It should only take a couple of minutes.

If you have recently returned the questionnaire, please disregard this reminder and accept our thanks for your time.

If you have any questions or would like a copy of our report, please contact -

Cynthia Schonfeld 365 5257
Mary Sheehan 365 5298

FACULTY OF MEDICINE

THE UNIVERSITY OF QUEENSLAND

Medical School Herston Road
Herston Qld 4006 Australia
Telephone (07) 365 5345/365 5280
International +61 7 365 5345
Facsimile (07) 365 5442

Haven't found it yet ?

Here is another ***Drink Driving Questionnaire***, so you can stop looking.

PLEASE fill it in. It won't take long and will be of great help for our research.

THANK YOU !!!

If you have any questions or would like a copy of our report, please contact -

Cynthia Schonfeld (07) 365 5257
Mary Sheehan (07) 365 5298

DRINK DRIVING QUESTIONNAIRE

THE MEDICAL SCHOOL, HERSTON QLD 4006

. In which state do you currently live and work?
(circle one number only)

TAS.....1	NSW.....5
WA 2	QLD.....6
SA 3	ACT.....7
VIC.....4	NT.....8

. Your age?
(circle one number only)

Less than 30 years	1
30 years less than 50 years	2
50 years or older	3

. In which of the following areas are you involved in alcohol issues?
(circle one number for each)

	Yes	No
1) Research	1	2
2) Education/prevention	1	2
3) Treatment/rehabilitation	1	2
4) Policy	1	2
5) Legislation	1	2
6) Law enforcement	1	2
7) Alcohol Industry	1	2
8) Community Lobby Group (eg. PADD)	1	2
9) Formal Associations (eg. Royal College of Surgeons, Parliamentary C'tee)	1	2
10) Mass Media	1	2
11) Other (please specify)_____	1	2

. Of those circled above, which is your one MAIN area of involvement?
(write number in the box)

. If your involvement in alcohol issues is associated with your employment, what is your area of employment?
(circle one number only)

Local Government Department or Agency	1
State Government Department or Agency	2
Federal Government Department or Agency	3
Tertiary Education Institution	4
Research Institution (not part of any of the above)	5
Church Organization	6
Politics	7
Mass Media	8
Private Industry	9
Other (please specify)_____	10
Not applicable (voluntary involvement only)	11

THE PRESENT SITUATION

1. Do you think the following statements accurately describe drink driving at present?
(circle one number for each)

	Yes	No	Don't Know
Overall, drink driving has decreased in Australia	1	2	8
People are drinking more frequently at home now	1	2	8
There has been an increase in driving under the influence of other recreational drugs (eg marijuana)	1	2	8

2. To what extent do you agree or disagree with the following statements about drink driving (DD)?
(circle one number for each)

	Strongly Disagree									Strongly Agree	Don't Know
Drink driving is still a serious problem for some special sub groups	1	2	3	4	5	6	7	8	9	10	88
In my state DD is socially unacceptable	1	2	3	4	5	6	7	8	9	10	88
In Australia DD is socially unacceptable	1	2	3	4	5	6	7	8	9	10	88
Safe drinking levels for driving are now being confused with safe drinking levels for health	1	2	3	4	5	6	7	8	9	10	88
People drink more if they know they're not going to drive	1	2	3	4	5	6	7	8	9	10	88
The community wants more information about safe drink driving levels	1	2	3	4	5	6	7	8	9	10	88
More people are now using strategies to avoid driving after drinking	1	2	3	4	5	6	7	8	9	10	88

3. Which TWO of the following sub-groups do you think have the greatest need for research and intervention?
(write numbers in the boxes)

1) Drink drivers with high BAC's

2) Young men

3) Young Women — TOP PRIORITY

4) Aborigines

5) Recidivist drink drivers — 2ND PRIORITY

6) Remote area residents

7) Other (please specify)_____

INFLUENCES

4. How important do you think the following are in encouraging drink driving?

(circle one number for each)	Not at all Important									Very Important	Don't Know
Lack of uniform national BAC levels	1	2	3	4	5	6	7	8	9	10	88
Association of alcohol and sport/sporting success	1	2	3	4	5	6	7	8	9	10	88
Advertising campaigns by the alcohol industry.	1	2	3	4	5	6	7	8	9	10	88
Hotel promotions such as "happy hours", "free drinks for women"	1	2	3	4	5	6	7	8	9	10	88
Less restrictive licencing laws (eg drinking age, trading hours)	1	2	3	4	5	6	7	8	9	10	88
Low perceived chance of being caught by RBT	1	2	3	4	5	6	7	8	9	10	88
The image of the Australian male as a "good drinker"	1	2	3	4	5	6	7	8	9	10	88
The tradition of celebrating with alcohol	1	2	3	4	5	6	7	8	9	10	88
The association of mateship and drinking	1	2	3	4	5	6	7	8	9	10	88

5. How important have the following been in discouraging drink driving?

(circle one number for each)	Not at all Important									Very Important	Don't Know
Specially targeted media campaigns	1	2	3	4	5	6	7	8	9	10	88
Other publicity and debate on the issue	1	2	3	4	5	6	7	8	9	10	88
Increased community interest in health and fitness	1	2	3	4	5	6	7	8	9	10	88
The introduction of RBT	1	2	3	4	5	6	7	8	9	10	88
The high visibility of RBT	1	2	3	4	5	6	7	8	9	10	88
Drink driver education programs in the schools.	1	2	3	4	5	6	7	8	9	10	88
Legal penalties for drink driving offences	1	2	3	4	5	6	7	8	9	10	88
Zero BAC for young drivers	1	2	3	4	5	6	7	8	9	10	88
Low alcohol beer	1	2	3	4	5	6	7	8	9	10	88
Coin operated breathalysers	1	2	3	4	5	6	7	8	9	10	88
Campaigns by formal associations such as the Royal College of Surgeons and Road Safety committees	1	2	3	4	5	6	7	8	9	10	88
Pressures by community lobby groups such as PADD, MADD, CARS	1	2	3	4	5	6	7	8	9	10	88
Campaigns by Government Departments such as Transport and Health	1	2	3	4	5	6	7	8	9	10	88
Reduced disposable income due to the recession	1	2	3	4	5	6	7	8	9	10	88

6. (a) Do you think the following cultural traditions influence drink driving more now than they used to?
(circle one number for each)

	Stronger Influence Now	No Change	Weaker Influence Now	Don't Know
The image of the Australian male as a "good drinker"	1	2	3	8
The tradition of celebrating with alcohol	1	2	3	8
The association of mateship and drinking	1	2	3	8

6. (b) What can be done to reduce the influence of these factors?

.....

.....

.....

.....

7. How useful do you think the following strategies would be in reducing drink driving?
(circle one number for each)

	Not very Useful									Very Useful	Don't Know
Alcohol education programs extended to tertiary institutions and the wider community	1	2	3	4	5	6	7	8	9	10	88
Maintaining and reinforcing the message that drink driving is not socially acceptable	1	2	3	4	5	6	7	8	9	10	88
Tightening licencing laws (eg. ban "happy hours")	1	2	3	4	5	6	7	8	9	10	88
Better enforcement of existing licencing laws	1	2	3	4	5	6	7	8	9	10	88
Promotion of Server Training	1	2	3	4	5	6	7	8	9	10	88
Pricing structure to promote low alcohol beer	1	2	3	4	5	6	7	8	9	10	88
Labelling of alcoholic drinks with information on standard drinks	1	2	3	4	5	6	7	8	9	10	88
Provision of alternatives such a taxi home schemes, better public transport etc	1	2	3	4	5	6	7	8	9	10	88
Introduction of ignition interlocks	1	2	3	4	5	6	7	8	9	10	88
Development of affordable personal breathalysers	1	2	3	4	5	6	7	8	9	10	88
Increasing restrictions on high risk drink driving groups (eg curfews, speed delimiters, engine size limits)	1	2	3	4	5	6	7	8	9	10	88
Increasing penalties for drink drivers	1	2	3	4	5	6	7	8	9	10	88

8. RBT seems to be a very important issue in the campaign to reduce DD. To what extent do you agree or disagree with the following?

(circle one number for each)	Strongly Disagree						Strongly Agree	Don't Know
RBT has passed its peak effectiveness	1	2	3	4	5	6	7	8
RBT would work better if there was more systematic implementation by police	1	2	3	4	5	6	7	8
Licenced premises should be targeted for detection of drink drivers	1	2	3	4	5	6	7	8
RBT works only if there is a high perceived risk of being caught	1	2	3	4	5	6	7	8

FUTURE ISSUES

9. How important do you think the following issues will be in the future?

(circle one number for each)	Not at all Important									Very Important	Don't Know
Lack of uniform national BAC levels	1	2	3	4	5	6	7	8	9	10	88
Increasing support for police working with RBT	1	2	3	4	5	6	7	8	9	10	88
Alcohol in the workplace	1	2	3	4	5	6	7	8	9	10	88
Alcohol and women	1	2	3	4	5	6	7	8	9	10	88
Speeding as a major cause of motor vehicle accidents	1	2	3	4	5	6	7	8	9	10	88
Better road design and construction	1	2	3	4	5	6	7	8	9	10	88
Safer vehicle design such as air bags	1	2	3	4	5	6	7	8	9	10	88
Server liability	1	2	3	4	5	6	7	8	9	10	88
Use of alcohol excise to fund health promotions	1	2	3	4	5	6	7	8	9	10	88
Bio-medical genetic research	1	2	3	4	5	6	7	8	9	10	88
Development of specialized road accident/trauma hospital units	1	2	3	4	5	6	7	8	9	10	88
Renewal of licence subject to assessment for alcohol dependency	1	2	3	4	5	6	7	8	9	10	88
Tailoring drink driver rehabilitation programs to a variety of needs	1	2	3	4	5	6	7	8	9	10	88
Increasing public awareness that drug/alcohol issues are not separate from their health/welfare	1	2	3	4	5	6	7	8	9	10	88
Overexposure to anti drink driving campaigns	1	2	3	4	5	6	7	8	9	10	88
The possible change in housing density leading to less reliance on motor vehicles	1	2	3	4	5	6	7	8	9	10	88

COMMENTS:

THANK YOU FOR YOUR HELP WITH THIS STUDY

PLEASE RETURN IN THE ENVELOPE PROVIDED

DRINK DRIVING QUESTIONNAIRE

THE MEDICAL SCHOOL, HERSTON QLD 4006

. In which state do you currently live and work?
(circle one number only)

	Freq	%		Freq	%
TAS	21	5.0	NSW	95	22.8
WA	43	10.3	QLD	71	17.0
SA	50	12.0	ACT	34	8.2
VIC	82	19.7	NT	20	4.8
			Missing	1	0.2

. Your age?
(circle one number only)

	Freq	%
Less than 30 years	24	5.8
30 years less than 50 years	272	65.2
50 years or older	115	27.6
Missing	6	1.4

. In which of the following areas are you involved in alcohol issues?

(circle one number for each)	Freq	%	Freq	%
1) Research	166	39.8	60	14.4
2) Education/prevention	249	59.7	78	18.7
3) Treatment/rehabilitation	133	31.9	59	14.1
4) Policy	159	38.1	39	9.4
5) Legislation	100	24.0	9	2.2
6) Law enforcement	85	20.4	53	12.7
7) Alcohol Industry	24	5.8	10	2.4
8) Community Lobby Group (eg. PADD)	27	6.5	11	2.6
9) Formal Associations (eg. Royal College of Surgeons, Parliamentary C'tee)	61	14.6	12	2.9
10) Mass Media	60	14.4	32	7.7
11) Other (please specify)	57	13.7	40	9.6
12) Missing			14	3.4

. Of those circled above, which is your one MAIN area of involvement?
(write number in the box)

. If your involvement in alcohol issues is associated with your employment, what is your area of employment?
(circle one number only)

	Freq	%
Local Government Department or Agency	3	0.7
State Government Department or Agency	204	48.9
Federal Government Department or Agency	24	5.8
Tertiary Education Institution	40	9.6
Research Institution (not part of any of the above)	6	1.4
Church Organization15	15	3.6
Politics	13	3.1
Mass Media	29	7.0
Private Industry	21	5.0
Other (please specify)	36	8.6
Not applicable (voluntary involvement only)	17	4.1
Missing	9	2.2

THE PRESENT SITUATION

1. Do you think the following statements accurately describe drink driving at present?
(circle one number for each)

	Yes		No		Don't Know		Missing	
	Freq	%	Freq	%	Freq	%	Freq	%
Overall, drink driving has decreased in Australia	337	80.8	38	9.1	34	8.2	8	1.9
People are drinking more frequently at home now	267	64.0	44	10.6	89	21.3	17	4.1
There has been an increase in driving under the influence of other recreational drugs (eg marijuana)	140	33.6	77	18.5	190	45.6	10	2.4

2. To what extent do you agree or disagree with the following statements about drink driving (DD)?
(circle one number for each)

	Mean	SD
Drink driving is still a serious problem for some special sub groups	8.70	1.52
In my state DD is socially unacceptable	6.89	2.34
In Australia DD is socially unacceptable	6.62	2.21
Safe drinking levels for driving are now being confused with safe drinking levels for health	5.86	2.77
People drink more if they know they're not going to drive	7.92	1.92
The community wants more information about safe drink driving levels	7.27	2.16
More people are now using strategies to avoid driving after drinking	7.84	1.63

3. Which TWO of the following sub-groups do you think have the greatest need for research and intervention?
(write numbers in the boxes)

	Top Priority		2nd Priority	
	Freq	%	Freq	%
1) Drink drivers with high BAC's	96	23.0	83	19.9
2) Young men	148	35.5	79	18.9
3) Young Women	21	5.0	67	16.1
4) Aborigines	34	8.2	46	11.0
5) Recidivist drink drivers	100	24.0	94	22.5
6) Remote area residents	10	2.4	39	9.4
7) Other (please specify)	7	1.7	1	0.2
8) Missing	1	0.2	8	1.9

INFLUENCES

4. How important do you think the following are in encouraging drink driving?
(circle one number for each)

	Mean	S.D.
Lack of uniform national BAC levels	4.63	2.86
Association of alcohol and sport/sporting success	6.93	2.55
Advertising campaigns by the alcohol industry	6.74	2.54
Hotel promotions such as "happy hours", "free drinks for women"	7.92	2.16
Less restrictive licencing laws (eg drinking age, trading hours)	6.50	2.60
Low perceived chance of being caught by RBT	7.59	2.29
The image of the Australian male as a "good drinker"	7.39	2.16
The tradition of celebrating with alcohol	7.73	2.03
The association of mateship and drinking	7.84	1.92

5. How important have the following been in discouraging drink driving?
(circle one number for each)

	Mean	S.D.
Specially targeted media campaigns	7.62	1.62
Other publicity and debate on the issue	6.92	1.72
Increased community interest in health and fitness	6.66	1.94
The introduction of RBT	8.87	1.32
The high visibility of RBT	8.88	1.45
Drink driver education programs in the schools	6.88	2.10
Legal penalties for drink driving offences	7.69	1.88
Zero BAC for young drivers	7.54	2.25
Low alcohol beer	7.70	1.86
Coin operated breathalysers	4.88	2.49
Campaigns by formal associations such as the Royal College of Surgeons and Road Safety committees	6.23	2.18
Pressures by community lobby groups such as PADD, MADD, CARS	5.34	2.37
Campaigns by Government Departments such as Transport and Health	7.02	1.94
Reduced disposable income due to the recession	4.97	2.53

6. (a) Do you think the following cultural traditions influence drink driving more now than they used to?
(circle one number for each)

	Stronger Influence Now		No Change		Weaker Influence Now		Don't Know		Missing	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
The image of the Australian male as a "good drinker"	16	3.8	129	30.9	260	62.4	11	2.6	1	0.2
The tradition of celebrating with alcohol	32	7.7	251	60.2	124	29.7	8	1.9	2	0.5
The association of mateship and drinking	23	5.5	232	55.6	147	35.3	12	2.9	3	0.7

6. (b) What can be done to reduce the influence of these factors?

See page 6 for coding of this question.

7. How useful do you think the following strategies would be in reducing drink driving?
(circle one number for each)

	Mean	S.D.
Alcohol education programs extended to tertiary institutions and the wider community	7.08	2.24
Maintaining and reinforcing the message that drink driving is not socially acceptable	8.55	1.49
Tightening licencing laws (eg. ban "happy hours")	6.85	2.63
Better enforcement of existing licencing laws	7.41	2.38
Promotion of Server Training	7.33	2.15
Pricing structure to promote low alcohol beer	8.03	2.08
Labelling of alcoholic drinks with information on standard drinks	7.14	2.38
Provision of alternatives such a taxi home schemes, better public transport etc	7.89	1.85
Introduction of ignition interlocks	6.91	2.51
Development of affordable personal breathalysers	6.45	2.53
Increasing restrictions on high risk drink driving groups (eg curfews, speed delimiters, engine size limits)	5.66	2.88
Increasing penalties for drink drivers	6.53	2.64

8. RBT seems to be a very important issue in the campaign to reduce DD. To what extent do you agree or disagree with the following?
(circle one number for each)

	Mean	S.D.
RBT has passed its peak effectiveness	2.74	1.63
RBT would work better if there was more systematic implementation by police	5.12	1.65
Licenced premises should be targeted for detection of drink drivers	5.13	1.80
RBT works only if there is a high perceived risk of being caught	5.93	1.55

FUTURE ISSUES

9. How important do you think the following issues will be in the future?
(circle one number for each)

	Mean	S.D.
Lack of uniform national BAC levels	5.76	2.81
Increasing support for police working with RBT	7.89	1.84
Alcohol in the workplace	7.35	2.27
Alcohol and women	7.55	2.09
Speeding as a major cause of motor vehicle accidents	7.66	1.92
Better road design and construction	7.68	2.04
Safer vehicle design such as air bags	7.81	2.08
Server liability	6.97	2.30
Use of alcohol excise to fund health promotions	7.46	2.37
Bio-medical genetic research	5.36	2.65
Development of specialized road accident/trauma hospital units	6.25	2.29
Renewal of licence subject to assessment for alcohol dependency	6.90	2.59
Tailoring drink driver rehabilitation programs to a variety of needs	7.77	2.04
Increasing public awareness that drug/alcohol issues are not separate from their health/welfare	8.21	1.86
Overexposure to anti drink driving campaigns	5.56	2.55
The possible change in housing density leading to less reliance on motor vehicles	5.34	2.58

10. What can be done to reduce the influence of these factors?

This question was coded into two variables - first suggestion and second suggestion made by respondent, coded as V57, V90.

	V57		V90		Total
	F	%	F	%	
Education	90	21.6	9	2.2	23.8
Promote health/fitness	4	1.0	3	0.7	1.7
Promote responsible drinking	22	5.3	13	3.1	8.4
Alter price structure	3	0.7	3	0.7	1.4
Promote no alcohol needed to celebrate	8	1.9	7	1.7	3.6
Promote more positive norms	37	8.9	20	4.8	13.7
Restrict advertising	15	3.6	11	2.6	6.2
Promote -ve health issues of alcohol	6	1.4	4	1.0	2.4
Promote other -ve issues of alcohol	8	1.9	8	1.9	3.8
Increase penalties for DD	3	0.7	7	1.7	2.4
Nothing can be done	5	1.2	0	0.0	1.2
Media promotions (not specified)	27	6.5	10	2.4	8.9
Other	39	9.4	45	10.8	20.2
Missing	150 (417)	36.0	277 (417)	66.4	

APPENDIX 4

a) **Factor Solution For RBT Items**

b) **Factor Solution For Indirect and Informal Influences**

c) **Factor Solution For Future Trends**

TABLE 4A: Factor loadings, percent of variance for principal factors extraction and variable rotation for RBT items (PCA)

Items	Loading		
	F 1	F 2	F 3
Introduction of RBT	.8993		
High visibility	.8982		
Passed peak effect			.7209
Needs high perceived risk			.5958
Needs more systematic implementation		.7522	
Licences premises targeted		.6872	
More support for Police *		.54143	-.59469
% of variance	29.6	20.9	15 4

* The item concerned with the need for "more support for the police" loaded on both factor 2 (ways to improve) and factor 3 (problems). For ease of interpretation it has been classified and discussed in the section of improvement.

TABLE 4B: Factor loadings and proportions of variance for Principal Factors extraction and rotation for indirect and informal influence items (PCA)

Items	Loading		
	F1	F 2	F 3
Australian male as "a good drinker"	.7868		
Tradition of celebration	.8016		
Mateship and drinking	.8692		
Alcohol and sports issues	.7783		
Hotel promotions	.6772		
Publicity and debate on drink driving		.8284	
Community interest in health & fitness		.6480	
Low alcohol beer		.6217	
Reduced disposable income			.94568
% of variance	34.8	17.6	10.7

TABLE 4C: Factor loadings and proportions of variance for Principal Factors extraction and oblimin rotation for future trends items (PCA)

Items	Loading		
	F1	F 2	F 3
Alcohol in workplace		82132	
Alcohol and women		.87405	
Better road design and construction			89694
Safer vehicle design eg airbags			.91106
Alcohol excise for health promotion biomedical genetic research	.84429		
Specialised road trauma hospital units	.83217		
Public awareness both alcohol and health related	.50652	.55862	
Changes in housing district less use of MVs	.45686		37259
% of variance	32.9	18.9	11.5

Factor Correlations: 1 x 2 = .2409
1 x 3 = .34237
2 x 3 = .06717

APPENDIX 5

Analyses of Variance by State and Main Interest

Analyses of Variance - by State - Chapter 3

Variable number and name		df	S.S	M.S	F	p
V28	More people are using strategies to avoid driving after drinking	7 396	15 46 1057 72	2 21 2 67	.83	.57
V23	In my State drink driving is socially unacceptable	7 399	68.95 2163.85	9.85 5 42	1.82	.08
V24	In Australia drink driving is socially unacceptable	7 381	30.16 1859.53	4.31 4.88	.88	.52
V22	Drink driving is still a serious problem for some special sub groups	7 399	12.28 933.55	1.75 2.34	.75	.63
V26	People drink more if they're not driving	7 392	47.98 1428.92	6.85 3.65	1.88	.07
V27	Community wants more information about safe drink driving levels	7 385	33.74 1806.12	4.82 4.69	1.02	.41
V25	Safe drink driving levels for driving confused with safe drink driving levels for health	7 361	109.88 2706 62	15.70 7.50	2.09	.04
V64	Labelling of alcoholic drinks with information on standard drinks	7 400	43.87 2263.17	6.27 5.66	1.11	36

Analyses of Variance - by Main Interest- Chapter 3

Variable number and name		df	S.S	M.S.	F	p
V28	More people are using strategies to avoid driving after drinking	6 314	11.80 816.82	1.97 2.60	.76	.60
V23	In my State drink driving is socially unacceptable	6 317	35.28 1659.02	5.88 5.23	1.12	.35
V24	In Australia drink driving is socially unacceptable	6 300	20.48 1367.27	3.41 4.56	.75	.61
V22	Drink driving is still a serious problem for some special sub groups	6 316	25.42 695.62	4.24 2.20	1.92	.08
V26	People drink more if they're not driving	6 312	31.19 1185.28	5.20 3.80	1.37	.23
V27	Community wants more information about safe drink driving levels	6 305	27.63 1322.87	4.60 4.34	1.06	.39
V25	Safe drink driving levels for driving confused with safe drink driving levels for health	6 285	143.04 1983.27	23.84 6.96	3.43	.00
V64	Labelling of alcoholic drinks with information on standard drinks	6 318	197.05 1572.18	32.84 4.94	6.64	.00

Analyses of Variance - by State - Chapter 4

Variable number and name		df	S.S	M.S	F	p
V31	Lack of uniform national BAC levels	7 390	120.59 3130 11	17.23 8.03	2.15	.04
V47	Zero BAC for young drivers	7 375	97.93 1835.10	14.00 4.89	2.86	.00
V46	Legal penalties for drink driving offences	7 400	19.24 1423.46	2.75 3.56	.77	.61
V69	Increasing penalties for drink drivers	7 401	128 90 2730.97	18 41 6.81	2.70	.01
V85	Renewal of licence subject to assessment for alcohol dependency	7 393	39 70 2651.07	5 68 6.75	84	.55
V68	Increasing restrictions on high risk drink driving groups	7 383	28.06 3204.02	4.01 8.37	.48	.85
V66	Introduction of ignition locks	7 348	9.09 2226.04	1.30 6.40	.20	.99
V40	Specially targeted media campaigns	7 394	19 46 1039.31	2 78 2 64	1 05	.39
V52	Campaigns by Government Departments	7 388	21 30 1468 54	3 04 3 78	80	.58
V88	Overexposure to anti drink driving campaigns	7 377	77.40 2429 16	11 06 6 44	1.71	.10
V45	Drink driving education programs in schools	7 334	73.58 1431.74	10.51 4.29	2.45	.02
V58	Alcohol education programs extended	7 398	72.50 1959.48	10.36 4.92	2.10	.04

Analyses of Variance - by Main Interest - Chapter 4

Variable number and name		df	S.S	M.S.	F	p
V31	Lack of uniform national BAC levels	6 310	140.07 2354.48	23.35 7.60	3.07	.01
V47	Zero BAC for young drivers	6 298	44.02 1382.13	7.34 4.64	1.58	.15
V46	Legal penalties for drink driving offences	6 317	25.35 1103.68	4.22 3.48	1.21	.30
V69	Increasing penalties for drink drivers	6 318	68.39 2041.56	11.40 6.42	1.78	.10
V85	Renewal of licence subject to assessment for alcohol dependency	6 313	106.61 1918.58	17.77 6.13	2.90	.01
V68	Increasing restrictions on high risk drink driving groups	6 304	37.03 2499.44	6.17 8.22	.75	.61
V66	Introduction of ignition locks	6 272	89.31 1702.67	14.89 6.26	2.38	.03
V40	Specially targeted media campaigns	6 314	75.75 654.56	12.62 2.08	6.06	.00
V52	Campaigns by Government Departments	6 308	26.42 1073.26	4.40 3.48	1.26	.27
V88	Overexposure to anti drink driving campaigns	6 297	40.75 1863.23	6.79 6.27	1.08	.37
V45	Drink driving education programs in schools	6 266	108.95 1010.97	18.16 3.80	4.78	.00
V58	Alcohol education programs extended	6 317	206.88 1411.00	34.48 4.45	7.75	.00

Analyses of Variance - by State - Chapter 5

Variable number and name		df	S.S	M.S	F	p
V44	High visibility of RBT	7 406	11.97 858 75	1.71 2.12	81	.58
V43	Introduction of RBT	7 408	20 49 705 97	2 93 1.73	1.70	.11
V73	RBT works if high perceived risk of being caught	7 399	26.54 2155 48	3.79 5 40	.70	.67
V70	RBT has passed peak effectiveness	7 383	103.15 2230.98	14.74 5.83	2.53	.01
V75	Increasing support for police working with RBT	7 401	22.57 1356.26	3.22 3.38	.95	47
V71	RBT works better if more systematic implementation by police	7 373	15 64 2314.66	2 23 6.21	36	.93
V72	Licenced premises should be targeted for detection of drink drivers	7 394	58.66 2854.03	8.38 7.24	1.16	.33
V86	Tailoring drink driving rehab programs to a variety of needs	7 392	68.08 1585.68	9.73 4.05	2.40	.02

Analyses of Variance - by Main Interest - Chapter 5

Variable number and name		df	S.S	M.S	F	p
V44	High visibility of RBT	6 323	18.78 618.08	3.13 1.91	1.64	.14
V43	Introduction of RBT	6 324	25.89 486.78	4.31 1.50	2.87	.01
V73	RBT works if high perceived risk of being caught	6 315	51.98 1681.20	8.66 5.34	1.62	.14
V70	RBT has passed peak effectiveness	6 304	18.71 1760.28	3.12 5.79	.54	.78
V75	Increasing support for police working with RBT	6 321	22.49 983.56	3.75 3.06	1.22	.29
V71	RBT works better if more systematic implementation by police	6 294	85.02 1713.18	14.17 5.83	2.43	.03
V72	Licenced premises should be targeted for detection of drink drivers	6 312	137.12 2120.70	22.85 6.80	3.36	.00
V86	Tailoring drink driving rehab programs to a variety of needs	6 311	129.76 1182.41	21.63 3.80	5.69	.00

Analyses of Variance - by State - Chapter 6

Variable number and name		df	S.S	M.S	F	p
V35	Less restrictive licencing laws	7 399	102.95 2646.75	14.71 6.63	2.21	.03
V61	Better enforcement of existing licencing laws	7 398	60.96 2238.79	8.71 5.63	1.55	.15
V60	Tightening licencing laws	7 404	22.93 2820 50	3.28 6.98	.47	.86
V63	Pricing structure to promote low alcohol beer	7 406	31.76 1749.04	4.54 4.31	1.05	.39

Analyses of Variance - by Main Interest - Chapter 6

Variable number and name		df	S.S	M.S.	F	p
V35	Less restrictive licencing laws	6 319	134.80 2032.94	22.47 6.37	3.53	.00
V61	Better enforcement of existing licencing laws	6 316	93.70 1659.75	15.62 5.25	2.97	.08
V60	Tightening licencing laws	6 321	169.74 1950.70	28.29 6.08	4.66	.00
V63	Pricing structure to promote low alcohol beer	6 323	24.37 1309.54	4.06 4.05	1.00	.42

Analyses of Variance - by State - Chapter 7

Variable number and name		df	S.S	M.S	F	p
V51	Pressures by community lobby groups	7 346	38.5587 1947.39	5.50 5.62	9787	.44
V50	Campaigns by formal associations	7 371	53 58 1747 98	7 65 4.71	1.62	.13
V33	Advertising campaigns by alcohol industry	7 400	51.76 2573.24	7 39 6.43	1.15	.33
V59	Maintaining & reinforcing message that drink driving isn't socially acceptable	7 405	21.38 890.53	3.05 2.20	1.39	.21
V65	Provisions of alternative transport	7 402	21 18 1380.10	3.03 3.43	.88	.52
V67	Development of affordable personal breathalysers	7 380	58.52 2425 73	8.36 6 38	1 39	.24
V49	Coin operated breathalysers	7 336	72.92 2061.19	10.42 6.13	1.70	.11
V81	Server liability	7 359	41 59 1894.95	5.94 5.28	1.13	35
V62	Promotion of server training	7 339	22 35 1569 14	3 19 4.63	.69	68

Analyses of Variance - by Main Interest - Chapter 7

Variable number and name		df	S.S	M.S.	F	p
V51	Pressures by community lobby groups	6 274	95.39 1402.37	15.90 5.12	3.11	.01
V50	Campaigns by formal associations	6 294	54.75 1312.45	9.13 4.46	2.04	.06
V33	Advertising campaigns by alcohol industry	6 319	456.25 1606.30	76.04 5.04	15.10	.00
V59	Maintaining & reinforcing message that drink driving isn't socially acceptable	6 324	19.55 705.19	3.26 2.18	1.50	.18
V65	Provisions of alternative transport	6 321	38.06 1070.33	6.34 3.33	1.90	.08
V67	Development of affordable personal breathalysers	6 303	37.98 1993.16	6.33 6.58	.96	.45
V49	Coin operated breathalysers	6 270	92.01 1547.60	15.34 5.73	2.68	.02
V81	Server liability	6 283	143.91 1433.21	23.98 5.06	4.74	.00
V62	Promotion of server training	6 272	171.14 1136.76	28.52 4.18	6.83	.00

Analyses of Variance - by State - Chapter 8

Variable number and name		df	S.S.	M.S.	F	p
V32	Influences of association of alcohol & sport/sporting success	7 398	59.61 2578.46	8.52 6.48	1.31	.24
V34	Influence of hotel promotions	7 400	35.46 1860.87	5.07 4 65	1.09	.37
V37	Influence of image of Australian male as a "good drinker"	7 401	31 15 1865.11	4.45 4.65	96	.46
V38	Influence of tradition of celebrating with alcohol	7 406	24.99 1681.62	3.57 4.14	.86	.54
V39	Influence of assocation of mateship and drinking	7 406	23.59 1493.91	3.37 3 68	.92	.49
V78	Speeding as a major cause of motor vehicle accidents	7 392	34.67 1438.77	4.95 3.67	1.35	.23
V41	Other publicity and debate on the issue	7 398	17.87 1181.91	2.55 2.97	.86	.54
V48	Low alcohol beer	7 400	29.08 1380.03	4.15 3.45	1.20	.30
V42	Increasing community interest in health and fitness	7 404	14.18 1535.92	2.03 3.80	53	.81
V53	Reduced disposable income due to the recession	7 376	73 18 2388.45	10.45 6.35	1.65	.12

Analyses of Variance - by Main Interest - Chapter 8

Variable number and name		df	S.S.	M.S.	F	p
V32	Influences of association of alcohol & sport/sporting sucess	6 317	411.19 1586.18	68.53 5.00	13.70	.00
V34	Influence of hotel promotions	6 320	211.22 1290.45	35.20 4.03	8.73	.00
V37	Influence of image of Australian male as a "good drinker"	6 318	234.14 1253.09	39.02 3.94	9.90	.00
V38	Influence of tradition of celebrating with alcohol	6 323	180.17 1126.31	30.03 3.49	8.61	.00
V39	Influence of assocation of mateship and drinking	6 323	238.67 980.19	39.78 3.03	13.11	.00
V78	Speeding as a major cause of motor vehicle accidents	6 311	74.51 1087.47	12.42 3.50	3.55	.00
V41	Other publicity and debate on the issue	6 317	32.75 935.28	5.46 2.95	1.85	.09
V48	Low alcohol beer	6 316	37.44 1094.83	6.24 3.46	1.80	.10
V42	Increasing community interest in health and fitness	6 321	84.25 1092.11	14.04 3.40	4.13	.00
V53	Reduced disposable income due to the recession	6 294	117.73 1678.15	19.62 5.71	3.44	.00

Analyses of Variance - by State - Chapter 9

Variable number and name		df	S.S.	M.S.	F	p
V83	Bio - medical genetic research	7 345	162.63 2313.23	23.23 6.71	3.47	.00
V87	Increasing public awareness that drug/alcohol issues are not separate from health/welfare	7 401	26 66 1384.41	3.81 3.45	1.10	36
V80	Safer vehicle design such as air bags	7 400	54.21 1706 24	7.75 4.27	1 82	.08
V77	Alcohol and women	7 389	105 62 1628.68	15.09 4 19	3.60	.00
V76	Alcohol in the workplace	7 394	113.72 1954 12	16.25 4.96	3.28	.00
V89	Possible change in housing density leading to less reliance on motor vehicles	3 379	54.02 2518.96	7.72 6.65	1.16	.32
V84	Development of specialized road accident/trauma hospital units	7 365	95.48 1848.83	13.64 5.07	2.69	.01
V79	Better road design and construction	7 399	87.32 1603.52	12.47 4.02	3.10	.00
V82	Use of alcohol excise to fund health promotions	7 394	56.23 2193.64	8.03 5.57	1.44	.19

Analyses of Variance - by Main Interest - Chapter 9

Variable number and name		df	S.S.	M.S.	F	p
V83	Bio - medical genetic research	6 279	84.46 1864.85	14.08 6.68	2.11	.05
V87	Increasing public awareness that drug/alcohol issues are not separate from health/welfare	6 318	108.35 984.56	18.06 3.10	5.83	.00
V80	Safer vehicle design such as air bags	6 316	45.55 1392.25	7.59 4.41	1.72	.12
V77	Alcohol and women	6 309	198.53 1091.33	33.09 3.53	9.37	.00
V76	Alcohol in the workplace	6 313	169.25 1445.64	28.21 4.62	6.11	.00
V89	Possible change in housing density leading to less reliance on motor vehicles	6 296	83.85 1901.30	13.98 6.42	2.18	.05
V84	Development of specialized road accident/trauma hospital units	6 286	101.76 1330.05	16.96 4.65	3.65	.00
V79	Better road design and construction	6 317	68.04 1220.17	11.34 3.85	2.95	.01
V82	Use of alcohol excise to fund health promotions	6 312	120.65 1640.14	20.11 5.26	3.83	.00