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A MODEL FOR TRIALING ALCOHOL IGNITION INTERLOCKS IN QUEENSLAND

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ABSTRACT

This paper describes the development of a model for the trialing of alcohol ignition interlocks with drink driving offenders in Queensland. A range of information sources were used to develop the model, including: an extensive review of the international literature relating to interlocks; an analysis of data relating to the operation of the *Under the Limit* rehabilitation program in Queensland; and extensive consultation with key government and non-government stakeholders. These investigations revealed support for a judicially imposed model similar to that used for *Under the Limit*. It is proposed that Magistrates in selected courts will offer drink driving offenders the option of driving an interlock-fitted vehicle for a period of time, most likely in return for receiving the minimum period of licence disqualification. In addition to the interlock requirement (the experimental condition), the offenders in the trial will also complete *Under the Limit* during their disqualification. A comparison group of offenders will complete *Under the Limit*, but not be offered the interlock option.

INTRODUCTION

Over the last two decades, Australia has experienced a major reduction in the involvement of alcohol in road crashes. While a range of factors has contributed to this reduction, studies have indicated that the implementation of Random Breath Testing (RBT) throughout Australia has proven highly effective in reducing alcohol-related crashes (1,2). Similar reductions have been achieved in many other motorised countries (3). Despite these successes, offence and crash data indicate that drink driving recidivism remains a serious problem in many countries (4). For example, Queensland data indicates that recidivist drink drivers represent approximately 30% of all drink driving offenders in the state (5). Of international concern, are the 'hard core' drivers who repeatedly drive after drinking, usually with very high blood alcohol concentrations (BACs), and often while disqualified (4,6).

As a consequence, road safety agencies have increasingly focused their efforts on the development of more effective approaches to modify the behaviour of drink driving offenders. The available evidence indicates that licence disqualification is very effective in reducing the overall offence and crash rates of offenders, but is far from perfect since many offenders continue to drive. In contrast, rehabilitation programs appear more effective in reducing alcohol-specific offences and, possibly, crashes. On balance, the best road safety outcomes appear to be achieved through the combined use of these approaches (7).

More recently, promising results have emerged from the use of alcohol ignition interlocks, particularly in North America. Since the late 1980s, a number of jurisdictions in the USA and Canada have implemented alcohol ignition interlock programs for drink driving offenders. The interlocks are administered either judicially (by courts) or administratively (by licensing authorities or administrative bodies). In effect, these devices will not allow a vehicle to be started until a breath test has been passed at pre-set BAC level (7).

Early evaluations were promising, suggesting that interlocks could reduce recidivism over and above more traditional approaches, at least while the interlock was fitted to an offender's vehicle (8,9,10). Although the evidence indicates that it is possible for offenders to circumvent or tamper with alcohol ignition interlocks, this practice does not appear widespread (9), and current interlocks have increasingly become robust to

circumvention (7). However, a range of problems limited the generalisations that could be made from these early studies, including small sample sizes, short follow-up periods and, most importantly, biases introduced by the self-selection or court-selection of program participants (7,11).

More recent studies have confirmed that interlocks reduce recidivism while they are fitted (11, 12). The most recent of these has involved a large-scale evaluation of the Alberta interlock program (13). This study indicated that recidivism among an interlock group was substantially reduced while the device was fitted, compared with offenders who were suspended. However, once the interlock was removed and licences reinstated, there was no difference between the two groups. Moreover, the relatively low take-up rate of the devices (only 8.9% of eligible offenders) limited the overall impact of the interlock program on recidivism.

The Alberta findings are consistent with those of other studies (9, 14) and suggest that interlocks (similar to licence actions) are primarily an exposure-control measure and only delay recidivism (7). As a consequence, Alberta has been trailing the use of a “*harm-reducing, motivational intervention*” to complement their interlock program (15, p.1862). This intervention involves motivational interviewing and pragmatic counselling delivered by case-managers, and is designed to move offenders along a change-readiness dimension and prepare them for when the interlock is removed. A preliminary evaluation suggests that offenders exposed to the intervention are less likely than a control group to record failed BAC attempts to start their car (15).

In Australia, alcohol ignition interlocks were initially viewed with considerable enthusiasm and national standards were established for both the device and the model for implementation (16). A proposed Victorian trial of interlocks for repeat, high range BAC offenders experienced a variety of difficulties and was never implemented (7). More recently, small-scale voluntary trials have been conducted in South Australia with non-offenders and in New South Wales with offenders (16). However, there are a number of obstacles that appear to have contributed to delays in the more widespread implementation of interlock programs for offenders in Australia, including:

- concerns about the legal outcomes of non-compliance and possible vulnerability of interlocks to tampering;
- cost of the devices to participants;
- difficulties involved in providing installation and calibration services, particularly in rural areas;
- reluctance to modify licence disqualification provisions;
- perceived methodological weaknesses with international studies;
- a lack of community and importantly, magistrate awareness of interlocks and their potential for reducing serious recidivist drink driving offences; and
- issues related to the perceived fairness for family members who may be dependent on the vehicle (16).

In Queensland, a unique opportunity exists to trial the use of alcohol ignition interlocks as an adjunct to licence disqualification and rehabilitation. Since 1993, CARRS-Q has been operating a rehabilitation program for drink drivers, known as *Under the Limit* (UTL). This program is offered by magistrates to drink drivers as an alternative to receiving a fine. It features a “user pays” model and to date more than 3000 drink driving offenders have participated in the 11 week program delivered through the Technical and Further Education (TAFE) system. An evaluation of the program, undertaken in cooperation with police and transport departments, compared the traffic records of offenders who had undertaken the program with a matched comparison group who appeared in the same court, on the same day (17). The evaluation indicated that completion of the program reduced the risk of reoffence by 30% among repeat offenders. However, there was a group of offenders with exceptionally high recidivism rates who were less likely to complete the program. It is possible that an interlock program may be a more appropriate approach to deal with these offenders.

More recently, CARRS-Q received funding from the Australian Transport Safety Bureau to undertake a feasibility study into the use of interlocks in Queensland. Guided by the North American experience, it was decided to focus attention on how interlocks could be used as an adjunct to rehabilitation. This paper describes the findings of the feasibility study (16).

METHOD

A range of information sources were used to identify the most appropriate model for trialing interlocks in Queensland. Firstly, an extensive review of the international literature was undertaken to identify key implementation and evaluation issues relating to the devices. Particular attention was given to the issues raised in the AUSTROADS’ *National Guidelines for Evaluation of Alcohol Ignition Interlock Programs* (18). For

example, a primary aim of the project was to maximise the ecological validity of the trial by devising a model that could be implemented on a permanent basis if the trial proved successful.

Secondly, data relating to the operation of the *Under the Limit* rehabilitation program in Queensland was analysed to determine the characteristics of likely participants in the trial and to identify current court sentencing processes and parameters.

Finally, extensive consultation was undertaken with key government and non-government stakeholders to assess the feasibility of various implementation options. Among the groups involved in this consultation were: Queensland Transport, Queensland Police Service, Queensland Community Corrections, RACQ, the Chief Stipendiary Magistrate, individual magistrates and representatives of the key civil liberties group.

RESULTS

Trial objectives

Based on the review of the international literature and consultation with key stakeholders, the following objectives were identified to guide the development of the trial model:

- to maximise the likelihood of behaviour change among the target group by achieving the best synergy between licence disqualification, rehabilitation and the use of interlocks;
- to maximise the likely take-up rate of the interlocks, in order to achieve the broadest influence on recidivism (13);
- to implement the trial with minimal legislative changes, in order to expedite its commencement and to improve the likelihood of sustainability; and
- to identify legislative and administrative changes that would facilitate the widespread expansion of the program if the trial proved successful.

Overview of proposed model

A broad overview of the proposed model for trialing alcohol ignition interlocks in Queensland is shown in Figure 1. It is proposed that the devices be implemented through the court system as an extension of the existing *Under the Limit* rehabilitation program. (Accordingly, the interlock program is referred to as *Under the Limit 2*.)

Day of Court Attendance

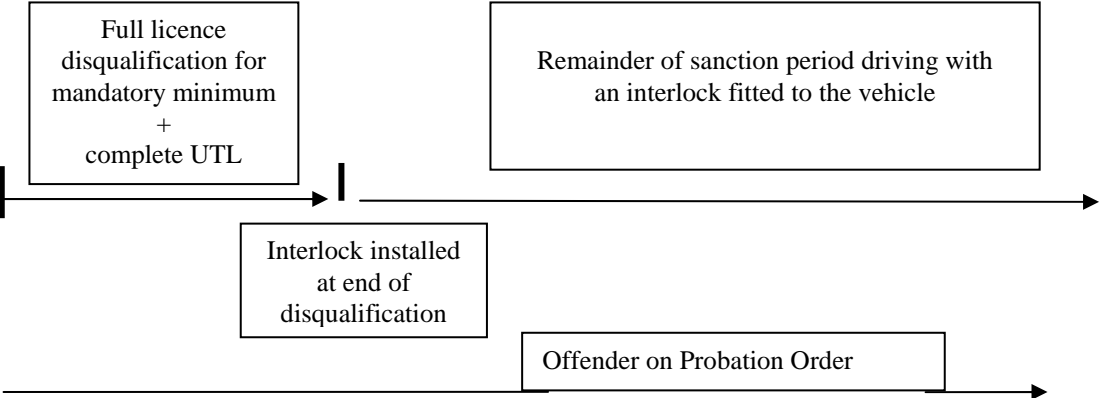


Figure 1: Overview of model for the trial of ‘Under the Limit 2’

The legislative basis for the program is the *Penalties and Sentences Act* (1992), which provides Magistrates in Queensland with the power to require drink driving offenders to undertake educational or remedial programs as part of Probation Order. With this legislative backing, the proposed court-based processes in the trial would involve:

- Magistrates offering offenders the opportunity to undertake the *Under the Limit 2* program, most likely in return for receiving the minimum period of licence disqualification;
- offenders agreeing to participate in the program (ie. participation will be voluntary);
- participating offenders being required as a condition of their Probation to complete the existing *Under the Limit* rehabilitation program (during their period of licence disqualification) and (upon relicensing) to only drive a vehicle equipped with an interlock for a specified period of time;
- in lieu of a court-imposed fine, participants being required to meet the costs of the *Under the Limit* training program (currently \$500) along with the costs associated with the installation and maintenance of the interlock device (approximately \$450 for one year); and
- monitoring of offender compliance with the conditions of the Probation Order by Community Corrections Officers (CCOs).

It is proposed that the trial will be limited to the Brisbane metropolitan area, in order to meet the service requirements of the devices. Selected courts will be randomly assigned to either the interlock or control conditions. (The offenders in the control condition will only be offered the opportunity to undertake the *Under the Limit* rehabilitation program.) It is planned to recruit 300 offenders to participate in the trial.

It is proposed to support the trial with certain (administrative) driver management processes. Upon relicensing, the interlock participants will be issued a Probationary licence that entails a zero BAC limit (even though the interlock will be preset at zero). In addition, the requirement to drive an interlock-equipped vehicle will be recorded on the licence via an "I" code. This will assist the Police to detect breaches of the condition.

At regular intervals, the offenders will be required to return their vehicle to the interlock provider for service checks. At this time, the interlock data logger (which records all attempts to start the vehicle and the corresponding BAC level) will be downloaded and sent to the Department of Community Corrections (via CARRS-Q). This data will be used by Community Corrections to monitor compliance with the interlock condition and to take appropriate corrective action. Data downloads are planned to occur every month for the first 3 months, and subject to satisfactory performance, will be scheduled at 3 monthly intervals thereafter.

Figure 2 outlines the processes that have been developed in cooperation with Community Corrections for assessing compliance and enforcing the conditions of the Probation Order. As can be seen, the response by the Community Corrections Officer (CCOs) to non-compliance will be based on the type of violation committed by the offender. For example, an unsuccessful attempt to start the car due to a positive BAC will be classed as a minor failure. These types of failures, particularly in the early months, will most likely result in a censure letter. It is likely that offenders will take some time to adjust to the constraints of the device and it is important to maintain and manage offenders within the program. In contrast, major failures represent more overt acts of non-compliance, such as failure to pass a rolling retest or evidence of tampering with the interlock. These failures will result in the offender returning to court to have their Probation Order reconsidered by the Magistrate.

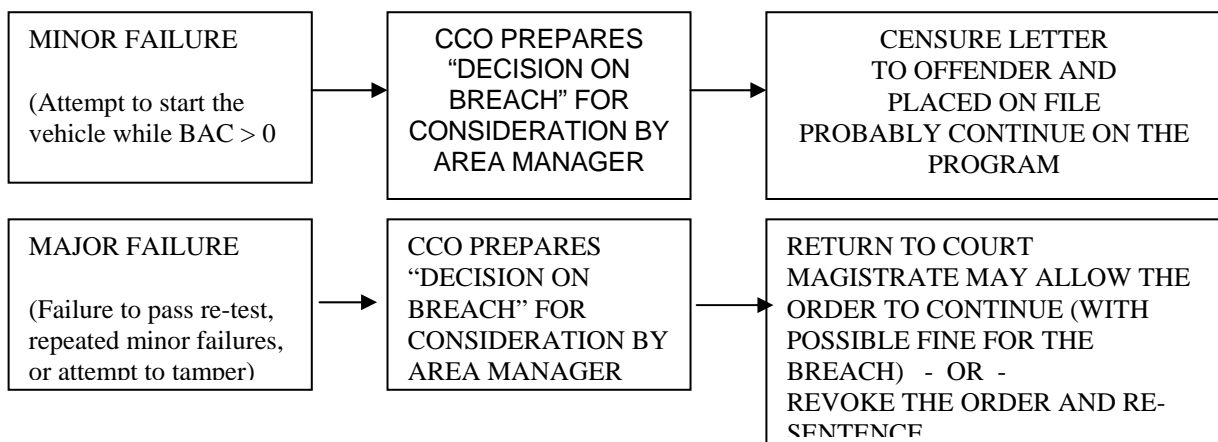


Figure 2: Proposed enforcement responses to non-compliance

Key issues considered during the development of the model

Judicial vs administrative models

The decision to adopt a primarily judicial (court-based) model was based on the prevailing legislative options available within Queensland. As noted earlier, the *Under the Limit* program is implemented through the court system in Queensland, using provisions within the *Penalties and Sentences Act, 1992*. Advice from the Chief Stipendiary Magistrate indicated that these existing provisions could be used to implement the interlock trial. In contrast, there was no existing legislation that would facilitate the administrative implementation of interlocks. Although Queensland Transport does have the power to place conditions on the reissuing of licences, the traffic legislation does not cover the court-imposed penalties such as fines, disqualification and Probationary orders. Therefore, the judicial model offered the most direct and expedient option for implementing interlocks in a way that complemented other drink driving sanctions (in order to achieve some synergy between the sanctions). In addition, the implementation of the interlocks through a court-imposed Probationary Order provides additional monitoring and enforcement resources through Community Corrections. In this regard, Voas *et al* (13) note from the US experience that there “*is anecdotal evidence that higher participation rates can be obtained by making it (interlocks) a condition of probation*” (p.1850). Notwithstanding these considerations, some important administrative driver management processes have been incorporated into the model. In particular, the inclusion of the “I” code on the licence is essential to facilitate Police enforcement.

Length of disqualification period

Unfortunately, little scope exists to offer financial incentives for offenders to participate in the trial. The fine normally imposed by Magistrates for drink driving is already waived for those offenders who opt to undertake *Under the Limit* (in lieu of paying the course cost of \$500). Consequently, it was initially proposed that Magistrates would offer a significant reduction in the length of an offender’s licence disqualification, to act as an incentive for taking up the offer of the interlock. This is a common practice in overseas jurisdictions and is justified by the lower recidivism rates observed among offenders on interlocks compared with those who remain suspended (13). (Another advantage of a reduced disqualification period would be to reduce the delay between the completion of *Under the Limit* and relicensing. Too long a delay could erode some of the behavioural intentions motivated by the program.) To offset potential concerns about the reduced period of full licence disqualification, it was envisaged that the total sanction period (disqualification plus interlock) would be approximately 50% longer than would otherwise be the case.

However, consultation with Magistrates indicated that there were some problems with this option. While Magistrates in Queensland are allowed to prescribe longer periods of licence disqualification than specified in the traffic legislation, they cannot reduce the minimum period. Nonetheless, the Magistrates have indicated that many will probably offer offenders the minimum specified disqualification period, in return for participating in the trial. In some of these cases, the Magistrates may increase the overall length of the sanction period to offset the earlier licensing. However, some Magistrates have indicated that they believe the imposition of an interlock is sufficiently punitive to not warrant any increase in the sanction period. In the end, these decisions will be made at the discretion of individual Magistrates.

Restrictions during the interlock period

Initially, consideration was given to splitting the interlock period into two stages. The first stage would have involved the offenders being restricted to driving an interlock-equipped vehicle at times and/or places prescribed by the Magistrate. The second stage would have involved the relaxation of these restrictions, other than the requirement to drive an interlock-equipped vehicle. This approach was intended to reinforce the desired behaviour change by gradually relaxing the controls placed on drivers. However, although the Queensland traffic legislation includes provisions for restricted licences, they could not be utilised in this context without legislative change. This is an option that may need consideration in the future, based on the results of the trial.

Evaluation strategy

To facilitate the outcome evaluation, reoffence rates of offenders will be monitored for at least two years from the time that they join the trial. The rates of reoffending (survival times) will be compared between offenders in the intervention group (*Under the Limit* plus ignition interlock) and the control group (*Under the Limit* only) to determine the relative effectiveness of interlocks during both the time they are fitted and after they are removed.

The results from the post-period will be particularly important to determine whether any reductions in recidivism are maintained after the devices are removed. At the process level, data will be collected relating to offender perceptions toward the program and evidence concerning circumvention, tampering and any specific problems related to the reliability or use of the device in the real world setting (ie. warming up the device in the morning, problems with cars after removal *etc*).

CURRENT STATUS

The general model described in this paper has been endorsed by the Queensland Chief Stipendiary Magistrate and a selection of Magistrates consulted to date. CARRS-Q and Community Corrections are currently finalising the proposed offender management and enforcement regime, in consultation with other stakeholders. It is envisaged that the first participants in the trial will be recruited in late November 2000.

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REFERENCES

1. Cavallo A. and Cameron M. (1992). *Evaluation of a Random Breath testing Initiative in Victoria 1991 & 1992*, Report No. 39. Melbourne: Monash University Accident Research Centre.
2. Henstridge J., Homel R. and Mackay P. (1997). *The Long-Term Effects of Random Breath Testing in Four Australian States: A Time Series Analysis*, CR 162. Canberra: Federal Office of Road Safety.
3. Sweedler B.M. (1997). 'The worldwide decline in drinking and driving – where are we now', C.Mercier-Guyon (Ed.), *14th International Conference on Alcohol, Drugs and Traffic Safety - T'97*, Vol.2. Annecy, France: Centre d'Etudes et de Recherches en Medecine du Trafic.
4. Hedlund J. and Fell J. (1997). 'Repeat Offenders and Persistent Drinking Drivers in the U.S.', C.N. Kloeden and A.J. McLean (Eds.), *13th International Conference on Alcohol, Drugs and Traffic Safety - T'95*, Vol.2. Adelaide: NHMRC Road Accident Research Unit, The University of Adelaide.
5. Ferguson M., Sheehan S., Schonfeld C. and Davey J. (1998). *A Community Based Prevention/Rehabilitation Programme for Drink Drivers in a Rural Region: 'Under the Limit'*, CR 156. Canberra: Federal Office of Road Safety.
6. Mayhew D.R., Simpson H.M. and Beirness D.J. (1997). 'The Hard Core Drinking Driver Revisited', C.Mercier-Guyon (Ed.), *14th International Conference on Alcohol, Drugs and Traffic Safety - T'97*, Vol.2. Annecy, France: Centre d'Etudes et de Recherches en Medecine du Trafic.
7. Watson B. (1998). 'The effectiveness of drink driving licence actions, remedial programs and vehicle-based sanctions'. *Proceedings of the 19th ARRB Research Conference*. Melbourne: Australian Road Research Board.
8. Baker E.A. and Beck K.H. (1991). 'Ignition Interlocks for DWI Offenders - A Useful Tool?', *Alcohol, Drugs and Driving*, Vol. 7, No 2, 107-115.
9. Morse B.J. and Elliott D.S. (1992). 'Effects of Ignition Interlock Devices on DUI Recidivism: Findings From a Longitudinal Study in Hamilton County, Ohio', *Crime & Delinquency*, Vol.38, No.2, 131-157.
10. Popkin C., Stewart J.R., Beckmeyer J. and Martell C. (1993). 'An Evaluation of the Effectiveness of Interlock Systems in Preventing DWI Recidivism among Second-time DWI Offenders', Utselmann, Berghaus and Kroj (Eds.), *Alcohol, Drugs and Traffic Safety - T'92*, Verlag TUV Rheinland GmbH, Koln.
11. Weinrath M. (1997). 'The Ignition Interlock Program for Drunk Drivers: A Multivariate Test', *Crime & Delinquency*, Vol.43, No.1, 42-59.

12. Beck K.H., Rauch W.J. and Baker E.A. (1997). 'The Effects of Alcohol Interlock License Restrictions on Multiple Alcohol Offenders: A Randomised Trial in Maryland', C.Mercier-Guyon (Ed.), *14th International Conference on Alcohol, Drugs and Traffic Safety - T'97*, Vol.1, Annecy, France: Centre d'Etudes et de Recherches en Medecine du Trafic.
13. Voas R.B., Marques P.R., Tippetts A.S., and Beirness D.J. (1999). 'The Alberta Interlock Program: the evaluation of a province-wide program on DUI recidivism', *Addiction*, 94, 1849-1859.
14. Tippetts A.S. and Voas R.B. (1997). 'The Effectiveness of the West Virginia Interlock Program om Second Drunk-Driving Offenders', C.Mercier-Guyon (Ed.), *14th International Conference on Alcohol, Drugs and Traffic Safety - T'97*, Vol.1, Annecy, France: Centre d'Etudes et de Recherches en Medecine du Trafic.
15. Marques P.R., Voas R. B., Tippetts A. S., & Beirness D.J. (1999). 'Behavioral monitoring of DUI offenders with the alcohol ignition interlock recorder', *Addiction*, 94, 1861-1870.
16. Sheehan M., King M., Siskind V., Schonfeld C., Watson B. and Musumeci A. (2000). Developing a model for a randomised trial of alcohol ignition interlocks in Queensland: An Interim Report. Brisbane: Centre for Accident Research and Road Safety – Queensland (CARRS-Q).
17. Sheehan M., Siskind V., Schonfeld C., Ferguson M., & Davey J. (1999). 'Outcome evaluation of a drink driving rehabilitation program', Paper presented at the *Third National Conference on Injury Prevention and Control*, Brisbane, Australia, 9-12 May 1999.
18. AUSTRROADS (1998). National Guidelines for the Evaluation of Alcohol Ignition Interlock Programs, AP-132. Sydney: AUSTRROADS.