
REGULATION OF THE LICENSED DRINKING ENVIRONMENT: A MAJOR OPPORTUNITY FOR CRIME PREVENTION

by

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Abstract: *Beyond reactive policing of problems as they occur, the traditional response to reduce alcohol-related crime has been to educate individuals to moderate their drinking, and to try and rehabilitate offenders. An overview is provided of a research program that identified the prior drinking locations of offenders and the characteristics of high-risk drinking settings. Licensed premises were found to be at high risk for both drink-driving and violent offences, in particular those permitting or encouraging high levels of intoxication among their customers. An intervention program designed to reduce levels of intoxication on medium- and high-risk premises indicated that substantial reductions in risk and harm can occur when there is full cooperation from a licensed venue. Realising the enormous potential for the prevention of crime and bodily harm will require an adjustment of existing priorities and resources for policing and liquor licensing administration.*

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INTRODUCTION

The starting point for the drinking environment research program initiated by the National Centre for Research into the Prevention of Drug Abuse (NCRPDA) was concern with the seemingly prosaic question: "Where do people drink before they commit alcohol-related offences?" With the assistance of the police and liquor licensing authorities, this program has made it possible to identify how many assaults, drink-driving offences and alcohol-related road crashes occur following consumption on individual premises, as well as how much alcohol the establishments sell each year. This facility has been used to help identify the characteristics of those premises that are high-risk for such problems, and to develop and evaluate new crime prevention strategies. The purpose of this paper is to summarise some of the insights and ideas generated by this research strategy.

It may help set the scene to describe an archetypal Perth high-risk "hotel" (the common name for a pub or bar in Australia). Picture a substantial two-storey building with verandas on the upper and lower levels, a coloured corrugated iron roof, and elegant wrought-iron railings and veranda brackets. It is placed adjacent to a busy four-lane main road, has a drive-in "bottleshop" (liquor store), several large bars and a huge car park. On Friday and Saturday nights it is a venue for live music and dancing that attracts large crowds of people, mainly in their late teens and twenties. On warm summer evenings in particular these crowds spill onto the footpath, even the road. It can be hard to get to the bar, find a bathroom or hear what anyone is saying. The only food available comprises salted snacks. In the course of a good year, some \$3 million is taken from bar alcohol sales, some 40 customers are convicted of drink-driving offences, 5 are involved in road crashes caused at least partly by their drinking at the hotel and the police charge 6 customers for assaults committed on or in close proximity to the premises. Though not recorded in any official statistics, the police are called to many more violent incidents than this and press no charges. Still more such incidents occur that the police are never informed of or involved in. Many of those involved do present to an emergency department for treatment of injuries sustained. Most people who drive away on Friday and Saturday nights have a blood-alcohol level in excess of the legal driving limit of 0.05g/ 100ml.

It will be argued here, with reference to the NCRPDA research program, that these adverse consequences of drinking are not inevitable and that high-risk drinking environments are not immutable. In addition, it will be suggested that there are great opportunities for crime prevention by the application of existing liquor licensing regulations to promote public health, safety and order. These will be effective to the extent to which they (a) reduce conflict and frustration at high risk times and places and (b) modify the "internal environment" of drinking customers, namely, their level of intoxication. Several strands of research from Perth and elsewhere (Homel and Clark, 1994) demonstrate the major contribution to alcohol-related harm of the practise of continuing to serve customers until they are extremely intoxicated. This point is well-illustrated with reference to a recent incident in Western Australia involving the cause and attributions of responsibility for two alcohol-related road fatalities.

TRAGEDY AT THE BINDOON HOTEL

In December 1991, a tragic though not uncommon sequence of events was played out in the vicinity of a small country town in Western Australia. A truck driver staggered into the Bindoon Hotel at 4 p.m. one weekday after drinking at another hotel, and abused other customers on his way to the bar. He was served one drink and then the server attempted to refuse further service. At this point the manager intervened, informing the server that it was his job "to sell drinks, not to moralise." The driver had one more drink, purchased several cans of beer for consumption in the cab and drove away. Some two miles up the road the truck swerved into an oncoming car and trailer, killing two people. The truck driver was unhurt. He was found to have a blood-alcohol level of 0.157 and some 18 months later was sentenced to four years in prison. Some 22 months after the original incident, the licensee of the Bindoon Hotel was fined \$1,200 for permitting service of alcohol to the driver. The maximum permitted fine under Western Australian law for the latter offence was \$5,000.

This case received a great deal of publicity, being one of the very few in Australia in which a licensee was held accountable for the actions of a customer. Prosecutions for serving intoxicated customers are remarkable for their rarity, regardless of whether such a tragic outcome is involved. Western Australia, a state with approximately 1,600 on-premise licenses, had four such prosecu-

tions in 1992 — more than any other Australian State (Craze, 1994). While the Bindoon incident was widely regarded as an important test case, it is salutary to apply the principles of deterrence theory (Homel, 1988) in this case to examine the likely deterrent effect of enforcing liquor laws on the service of alcohol to intoxicated customers. The lengthy legal process and relatively small fine suggests that this style of enforcement will not create a perception in the minds of licensees that punishment is likely to be certain, swift or severe so that serving practices would be significantly deterred in the future.

This case also raises a crucial issue for the prevention of alcohol-related road crashes, namely, could effective deterrence of service to intoxicated customers result in a significant reduction of such crashes? The answer to this question needs to address: (a) whether a slight reduction in the blood-alcohol level of someone who is already well over the legal limit for driving would significantly reduce the risk of a crash, and (b) the proportion of road crashes that involve prior consumption of alcohol on licensed premises, i.e., where the server has an opportunity to intervene. We already know from basic road safety research spanning several decades that the risk of a serious traffic crash rises exponentially with increasing blood alcohol levels (Borkenstein et al., 1974 and McLean et al., 1980). The answer to the first part of this question would seem to be incontrovertible: further service of alcohol to an already intoxicated person who is about to drive will significantly increase his or her risk of an accident. The Bindoon Hotel tragedy may never have occurred had the manager not permitted further service to the truck driver.

Much of the early phase of the NCRPDA research program was directed at addressing the second question above, namely, the extent to which serious road crashes and injuries sustained by physical assaults are preceded by prior consumption of alcohol on licensed premises. Our purpose was to identify the likely public health and safety benefits of effective intervention in this area.

LICENSED VENUES AS THE POINT OF ORIGIN FOR ACUTE ALCOHOL-RELATED HARM

The research outlined below provides evidence that a substantial amount of alcohol-related harm, perhaps a disproportionate amount, is associated with drinking on licensed premises.

(i) Alcohol-Related Road Crashes

Worldwide, the proportion of drink-driving offenders whose last consumption of alcohol was on licensed premises ranges from 33 to 64% (Lang and Stockwell, 1991). These figures are, of course, strongly influenced by the particular kind and level of drink-driving enforcement strategies adopted in various jurisdictions. In Perth, there was an excellent opportunity to analyse this question in a way that enabled an assessment of the bias introduced by such enforcement strategies.

A series was collected of 2,166 cases of persons who failed roadside breath tests over a 6-month period following the introduction of a new procedure whereby police called to the scene of a traffic accident were required to test all drivers involved (Lang and Stockwell, 1991). Drivers testing positive were asked where they had consumed their last drink. Police are required to attend accidents in Western Australia whenever there is serious injury and/or property damage. Their attendance was unlikely, therefore, to be biased by drink-driving enforcement strategies, such as where mobile patrols concentrate their efforts and where Random Breath Testing units are placed.

It was found that 51% of non-accident drink-drivers had had their last drink on licensed premises, compared with 39% of those involved in accidents. The higher level of the former was interpreted as reflecting the targeting of some large hotels by random breath-testing units. The level for the accident cases is less likely to be biased, and still suggests that the contribution of drinking on licensed premises to serious road crashes is substantial.

The great preventive potential of approaches that target licensed drinking venues is also underlined by the results of a study of the blood-alcohol levels and driving behaviour of Perth hotel patrons (Rydon et al., 1993). Pairs of interviewers approached patrons as they exited one of 15 hotels in Perth on Friday and Saturday nights. Following a 10- to 15-minute interview, patrons provided a breath sample, were given feedback on the result and were unobtrusively followed to observe their manner of travelling to their next destination. Of the 414 patrons approached to take part, 307 (74%) consented.

Ratings of visible signs of intoxication in those who refused suggested they had higher levels of intoxication than those who participated. Just over half (53%) of the participating patrons who were observed to drive following the test had a reading greater than the current legal limit in Western Australia of 0.05g/100ml

— presumably an underestimate of the true proportion. These figures compare starkly with the usual levels of positive results from random breath tests in Australia — normally around 2 or 3%. There were comparatively few higher levels of intoxication (above 0.15) among those who drove away from venues, quite probably due to the high refusal rate of the most intoxicated noted above. About 8% of all patrons tested recorded a blood-alcohol level in excess of 0.15 in this study. Subsequent studies have recorded proportions as high as 17% depending on the time of year at which the survey was conducted (Rydon and White, 1993).

(ii) Alcohol-Related Violence

Stockwell et al. (1993) studied the association of a variety of "problems of intoxication" and types of drinking settings by means of a household survey of Perth residents. Respondents were asked to report on recent problems that occurred while under the influence of alcohol, and that may have occurred as a result of their drinking. Involvement in a "violent argument or fight" and/or an injury requiring medical attention comprised the bulk of these.

It was found that 74% of persons reporting one of these problems had been drinking on licensed premises, usually at a hotel or nightclub. As is usually the case, drinkers who were male, who were under 25 years of age and who had consumed 6 or more drinks were the most likely to have been involved in such incidents. Even when the effect of these other variables was controlled using regression analysis, drinking on licensed premises as opposed to private settings was still a strong predictor of harm being experienced, i.e., drinking on licensed premises was significantly "riskier." This finding underlines the importance of situational factors in the genesis of hazardous drinking and alcohol-related harm. In this study, situational factors assumed greater importance than did individual demographic characteristics of the drinkers themselves.

Data from a variety of other sources tend to confirm the high proportion of assaults associated with drinking on licensed premises. A study conducted by the New South Wales Police Service found that 77% of public order incidents (assaults, offensive behaviour and offensive language) were alcohol-related insofar as perpetrators had consumed alcohol within a few hours prior to the offence (Ireland and Thommeny, 1993). In addition, it was reported that 60% of all alcohol-related street offences re-

corded in this study occurred on, or in the vicinity of, licensed premises. As in North American research (Roncek and Maier, 1991), the timing of incidents clustered around the closing times of bars, showing an increase from 10 p.m. to a peak at 2 p.m.

Homel et al. (1992) argue that pub violence is treated less seriously in Australia than it deserves to be, that the extent of the problem is grossly underestimated by official statistics, and that the notion that participants in such violence are usually willing and play by the same set of rules is a myth. Homel and colleagues found that the victims of pub violence tended to be physically smaller, to be drinking in smaller groups, and to be drunk more often than those who were perpetrators. However, the police and hospital emergency services tended to regard them as being less worthy of serious attention than victims of other forms of violence.

Violent incidents in and around licensed premises often go unreported to the police. The Victorian Community Council Against Violence (1990) commissioned a study of this problem that included a survey of 461 patrons aged 16 to 30, who attended late night venues in Melbourne. Fifty percent of respondents reported having ever experienced "fear of violence" while attending these venues, and 30% as having been victims of actual violence. However, only 22% of victims sought formal medical treatment and only 16% reported the incident to the police.

In a survey of 766 patrons leaving late-night venues in Western Australia, 7.4% reported having seen "drunk patrons fighting" inside the premises that evening (Rydon and White, 1993).

HIGH RISK VENUES AND INTOXICATION LEVELS

Several strands of research data support the contention that permitting intoxication on licensed premises increases the risk of both violence in and around the premises, and of crashes as customers drive home.

(i) Variation in "Risk Ratios"

Many of the NCRPDA studies referred to above employed a method of measuring the "risk ratio" of licensed premises — a measure of the amount of "harm" (numbers of assaults identified on or near the premises, citations as "last place of drinking" by drink-drivers) divided by the amount of annual alcohol purchases

as ascertained by the liquor licensing authority. Great variation was found both between types of licensed outlets in terms of average risk status and also within individual license categories. It was also found that nightclubs were by far the highest risk category for both drink-driving and assaults, followed by hotels and taverns. Restaurants and social clubs hardly registered any problems at all (Stockwell et al., 1992). Also, venues that were high-risk for assault were also high risk for drink driving offences and accidents involving their customers (Stockwell et al., 1991). There were one or two exceptions to this trend. For example, "skid-row" type hotels and some small taverns with no car parking could be high-risk for assaults but low or zero-risk for drink-driving.

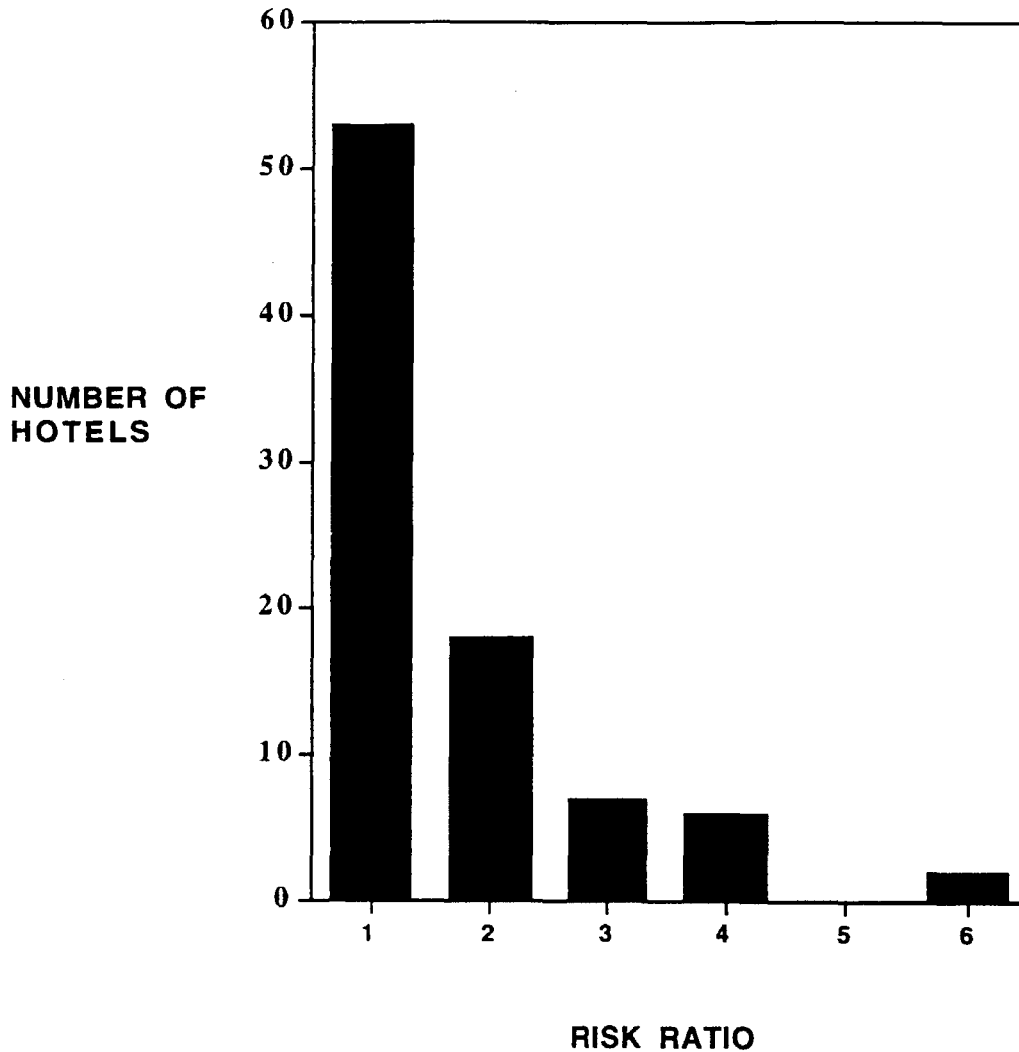
Figure 1 illustrates the variation in risk in relation to drink-driving observed within one licence category — hotels. The precise formula for calculating the risk ratio is less important than the degree of variation found. The formula gives greater weight to traffic accident cases than to non-accident cases and includes an adjustment to distinguish bar from bottleshop sales (Stockwell et al., 1991). As an aid to interpreting the ratios, those shown as T had fewer than one customer apprehended for drink-driving per \$50,000 of alcohol purchases, while those in the highest-risk band (6) had one or more customer apprehended for drink-driving for every \$5,000 worth of alcohol purchased. The point is that the highest-risk group are small in number, and the bulk of premises can be categorised as low-risk.

Sudden changes within individual venues following a change of management were sometimes observed. The introduction of extended "happy hours" and promotions of cheap, high-strength drinks resulted in one Perth venue moving from the very lowest risk status to the highest in town over the space of six months (unpublished data).

(ii) High- Versus Low-Risk Drinking Settings

A number of research strategies were employed to ascertain what features were characteristic of drinking settings that were at high risk for problems.

Figure 1: Distribution of Risk Ratios for 84 Perth Hotels



One of the "exit-surveys" studies was designed with this research question in mind. A variety of patron and venue characteristics were assessed at a selection of low- and high-risk hotels. The most striking difference found was with regard to the proportions of patrons with blood-alcohol levels above 0.15. This proportion was three times greater at the high-risk venues, which were associated with an average of 32 drink-driving charges and three serious road crashes each per year (Stockwell et al., 1992). There were also significant differences between patrons from high- and low-risk premises with regard to occupation (e.g., more stu-

dents attended low-risk venues, more blue collar workers attended high-risk) though not age or sex.

High- and low-risk licensed premises were also contrasted by means of a representative household survey of 1,272 Perth residents (Stockwell et al., 1993). A particular focus of the survey was on the characteristics of the settings in which people drank. Analyses were conducted to identify the settings frequented by respondents who experienced acute alcohol-related harm in the past three months, and where reported consumption exceeded levels designated as "harmful" by Australian health authorities. As shown in Figure 2, sociodemographic characteristics of the respondents, level of alcohol consumption, and serving practices all predicted the occurrence of harm. A regression analysis identified level of intake on one occasion and the practice of serving "obviously intoxicated" customers as the most powerful predictors of harm and harmful levels of drinking. This finding confirms the importance of potentially modifiable situational factors in the drinking environment over and above individual drinker characteristics in the genesis of acute alcohol-related harm.

(iii) Observational and Qualitative Studies of Violence on Licensed Premises

A number of qualitative and observational studies identify violence in and around licensed premises as (a) contributing to a significant proportion of all assaults, and (b) being strongly related to situational factors and the intoxication levels of all involved (Stockwell, 1994a). As part of a national review of liquor licensing laws conducted by the NCRPDA, a series of individual and group interviews were conducted with key informants across four Australian States and one Territory (Stockwell, 1994b). Those key informants whose occupations brought them into frequent contact with people drinking on licensed premises were virtually unanimous in their opinion of the causal nature of the relationship between alcohol and violence. The views of two community police officers were typical, indicating as they do the importance of other situational factors and the probabilistic rather than absolute nature of the relationship. The officers commented that *"the longer the night wears on, the longer a person drinks, the more likely they are to be involved in some sort of dispute,"* and *"...if you jam X number of people into a specific area and, you know, if*

they've consumed alcohol some confrontation is going to occur." Even a representative of a peak alcohol industry body expressed the belief that most violence occurring at nightclubs was linked to: *"...excessive consumption and aggressive bouncers."*

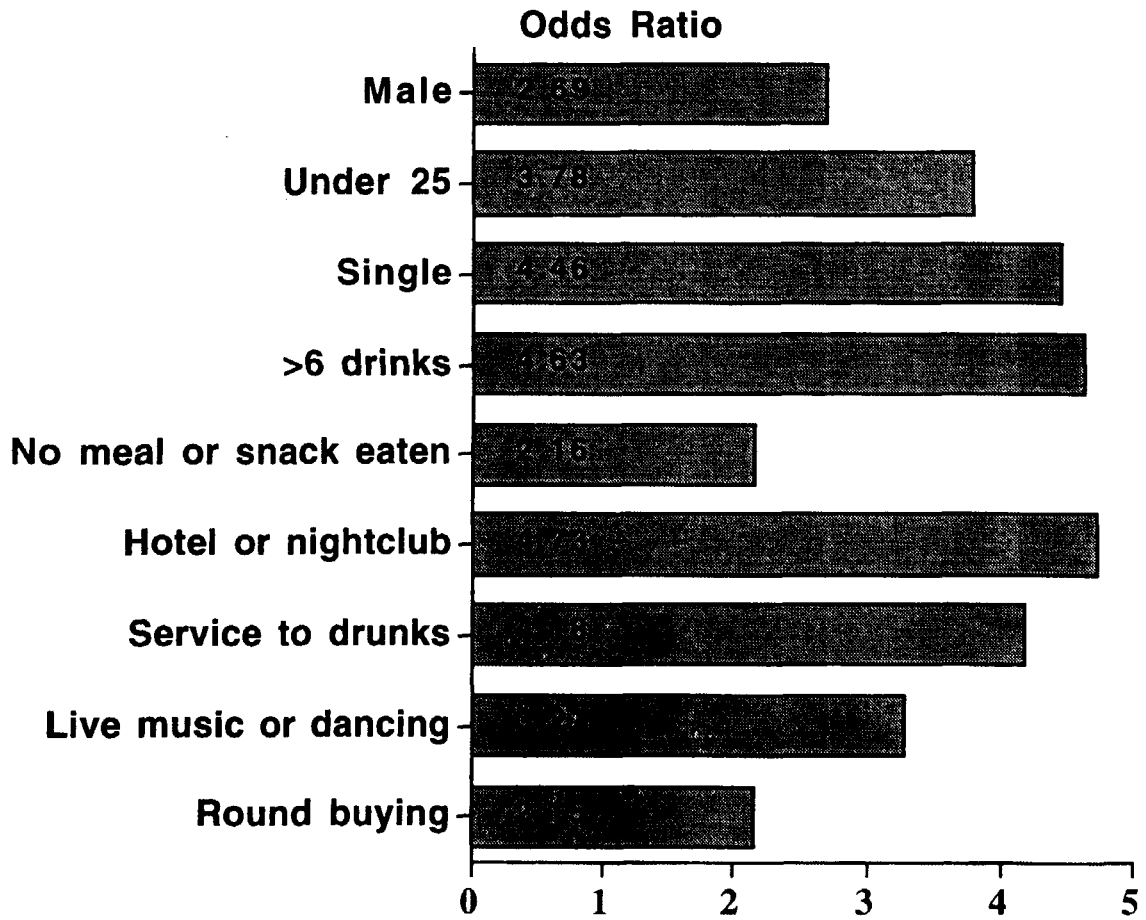
Evidence for a causal basis underlying the observed relationship between intoxication and violence also comes from more in-depth qualitative studies involving interviews with drinkers and observations of violent incidents. Three such studies have been conducted which, despite having different methodologies and being conducted on different continents, come to similar conclusions about the importance of intoxication as a risk factor for violent behaviour in combination with other situational factors.

In a now-classic observational study of the situational determinants of drinking behaviour and problems in Canada (Graham et al., 1980), researchers spent over 700 hours observing 185 bars in Vancouver and paying particular attention to levels of intoxication, aggressive behaviour, and "potentially controllable bar-room variables" (decor, seating arrangements, size, entertainment, noise, crowding, staff behaviour). Associations were found between levels of intoxication and aggression on the one hand and each of these environmental variables on the other.

Homel and colleagues (1992) spent 300 hours making direct observations of social behaviours, serving practices and the general ambiance of venues in Sydney, AUS, during which they witnessed 32 violent incidents. They were able to make comparisons between violent and non-violent premises and between violent and non-violent evenings at the same premises. A combination of crowding, a predominantly young male crowd, boring entertainment, aggressive bouncers, cheap drinks and high levels of intoxication were found to be potent predictors of violence. In a quantitative observational study, Homel and Clark (1994) confirmed many of the findings of the earlier qualitative research, and also highlighted the role of staff intervention with intoxicated patrons.

Another study, conducted in the U.K. involved over 3,000 interviews with young drivers and "expert informants," and some 200 hours of direct observations of venues (Marsh and Kibby, 1992). However, having put the problem within a situational perspective, the authors proceeded to identify intoxication as increas-

Figure 2: Risk Factors for Harm on Licensed Premises



From: Lang et al., (in press).

ing the probability of violent responses to conflict and frustration.

REDUCING INTOXICATION ON LICENSED PREMISES: THE NEED FOR REGULATION

The research outlined above points to the conclusion that drinking on licensed premises contributes to a significant amount of preventable death and injury. It also identifies the level of intoxication permitted as a factor that increases the likelihood of public health, safety and order problems. The question that must then be asked is: can levels of intoxication be reduced in these drinking environments? A methodology for identifying high-risk environments has been described. Is it possible to intervene in an effective way to reduce intoxication and minimise harm associated with these environments?

The good news is that liquor licensing laws in most English-speaking jurisdictions prohibit the service of alcohol to intoxicated customers. Further good news is that a growing number of studies have demonstrated significant reductions in alcohol-related assaults (Jeffs and Saunders, 1983; Sussex Police, 1987), drink-driving offences involving drinkers from licensed premises (McKnight and Streff, 1992) and alcohol-related injuries from all causes (Putnam et al., 1993) when liquor licensing laws prohibiting service to intoxicated patrons have been enforced systematically. The bad news is that outside of these demonstration projects such laws are widely disregarded.

The apparent reluctance of police departments to enforce liquor laws is not just an Australian phenomenon. For example when describing the situation in Scotland, Jeffs and Saunders (1983) state that in one year "there were some 32,000 arrests for breach of the peace and 12,600 arrests for drunkenness, yet prosecution of licensed premise operators for selling alcohol to intoxicated people was extremely rare" (p.75). McKnight (1991), when commenting on the situation in the U.S., concluded that "while the law within almost every jurisdiction prohibits service of alcohol to visibly intoxicated patrons, there is almost no enforcement of the law" (p. 396).

Curiously, the reluctance to enforce this legislation does not apply to other offences involving intoxication from alcohol. Until public drunkenness in Western Australia was decriminalised in 1990, some 13,000 people were charged with being drunk in a

public place each year while only one or two charges were laid for serving alcohol to drunk customers. The exit surveys of hotel customers described above do not suggest that all people who drink at hotels and nightclubs leave in a sober state. The lack of enforcement of this law is also illustrated by responses to one of the questions in the Perth household survey mentioned earlier. Only about a third of respondents knew that it was illegal for drunk customers to be served more alcohol. Respondents who had at some time worked in the hospitality industry were even less likely to indicate knowledge of this law (Hawks et al., 1993).

It is evident that in most of the English-speaking world there is little to deter practices that either permit extreme intoxication on licensed premises or actually encourage it — despite evidence of a great public health and safety benefit.

AN INTERVENTION TO MODIFY HIGH RISK DRINKING SETTINGS: THE "FREO RESPECTS YOU" RESPONSIBLE ALCOHOL SERVICE PROJECT

The NCRPDA licensed drinking environment research team experienced firsthand the practical and political difficulties in persuading the relevant authorities to enforce these laws in the context of an intervention study targeting medium- and high-risk premises in Fremantle, Western Australia. Rather than develop a program to enforce these laws more effectively, it was only possible in the intervention study to persuade the police to contribute to a training program for bar staff and their managers on the responsible service of alcohol. This training program became known as the "Freo Respects You" project (Stockwell et al., 1993).

Fremantle is a small port town that periodically experiences public outcries against problems associated with the patrons of licensed premises. It is a popular tourist destination and boasts a modest nighttime entertainment area with several large late-night venues. In 1992 and 1993, a collaborative project was instigated involving the hospitality industry, police, and liquor licensing and health authorities. The project was designed to increase levels of responsible service of alcohol in participating premises. "Responsible alcohol service" was defined as providing positive incentives for drinkers to avoid excessive intake (e.g. offering competitively priced, reduced-alcohol drinks and good food; avoiding incentives for intoxication (e.g., very cheap, high-strength drinks); instituting policies to minimise the harm of be-

ing intoxicated (e.g., transport schemes); and establishing policies to minimise intoxication by slowing then refusing service to intoxicated customers. A House Policy Checklist that measured 11 such dimensions of responsible service and management was developed and administered at each venue. Feedback from the checklist and suggestions for improvement were provided to managers in confidence.

The other major component of the intervention was a series of workshops for licensees, managers and bar staff conducted by the training officers of the Hotels' Association and Police Liquor Squad. The curriculum covered: liquor licensing laws, signs of approaching and actual drunkenness, strategies for dealing with drunk customers, general facts about alcohol, and the development of responsible house policies.

Although over 50 premises were invited to participate, only 10 eventually took up the offer over a seven-month period. The intervention focused on seven of these premises and seven matched controls selected from a neighbouring entertainment area in the city of Perth. Three additional premises received training but were labelled low risk for drink-driving offences, traffic accidents, and assaults involving customers and were not included in the formal evaluation. Data collection occurred immediately prior to training, immediately afterwards and at three months follow up.

Despite the apparent support of the peak industry bodies, there were other problems with program implementation, including: shorter training periods than the three-hour sessions originally planned, inconveniently timed or located training sessions, occasional failure of approved managers to attend, and inadequate coverage of key topics such as the development of House Policies and strategies for dealing with drunkenness. The education session by the Liquor Squad officer regarding key aspects of the W.A. Liquor Licensing Act (1988) was delivered in every case, as planned. This was intended to increase the perceived likelihood of relevant laws being enforced.

The results of the outcome evaluation suggested the following conclusions:

- There was a significant increase in awareness of the obligations of bar staff under the Liquor Act and of maximum fines for various offences, particularly the serving of obviously drunk customers. Some bar staff developed a more positive attitude about the ideal of serving alcohol responsibly. Refusal of service to obviously drunk customers was

rated as more important after the training than before. Many still had reservations, such as a fear of provoking violence in customers, a perceived lack of management support and a desire for more practical training in how to handle refusal of service to drunk patrons.

- There were some small improvements in the extent to which responsible house policies were adopted by participating premises compared with controls, e.g., providing free non-alcoholic drinks for drivers if requested, increasing checks for underage drinkers, not serving doubles in the last half-hour before closing and offering lower-priced reduced-alcohol beers. However, discounting of full-strength drinks continued, and no formal written procedures for dealing with drunk customers were developed.
- There was an increase in the rate at which bar staff at participating premises checked the age and ID of the youthful-looking 18 year olds hired for the study. However, adequate ID in the form of a photograph was rarely requested at any time during the project.
- Bar staff still reported serving obviously drunk customers and did not report refusing service to them more frequently at follow-up. A consistent proportion of patrons interviewed as they exited study premises (30-40%) reported having seen drunk persons served inside both before and after the intervention. Furthermore, actors trained to enter premises and simulate drunkenness were refused only eight times out of a total of 78 visits to experimental and control premises (involving 240-plus drink orders), with slightly more of the eight refusals occurring after training than before. To validate the actors' performances, a sample was videotaped and shown to Liquor Squad officers for confirmation that service of alcohol to people exhibiting such behaviours would constitute a breach of Western Australian law (Rydon, 1993).
- Compared with control sites, there was a statistically significant drop in the number of patrons exiting intervention sites on Friday and Saturday nights with blood-alcohol levels in excess of 0.08 12 weeks after training. There was also a drop in the number of patrons exiting with blood-

alcohol levels as high as 0.15 from intervention sites, though this failed to reach statistical significance.

- One of the large hotels supported the program wholeheartedly and introduced a number of new house policies. This was one of the few premises at which "drunk" pseudo patrons found it hard to get a drink after staff had been trained. The research team learned informally that the staff was initially so keen that the manager intervened to tone down their enthusiasm for fear of losing too many customers! At the same time, substantial reductions were observed in the number of highly intoxicated persons leaving this establishment. The number of drink-driving offenders who had been drinking at this premise also fell to zero in the six months following the intervention.

Lessons from the "Freo Respects You" Project

The overall impact of the project with this group of medium- to high-risk nightclubs and hotels appeared to be quite modest. That the most cooperative hotel appeared to have a dramatic improvement on all outcome measures suggests that the major problem is one of motivating owners and managers to comply with the existing liquor licensing laws.

An important outcome of the research exercise was acceptance by the project Steering Committee that the state liquor laws regarding serving underage and intoxicated customers required stricter enforcement. Means to achieve this are currently being explored at both state and federal levels. In particular, the use of unobtrusive videotaping of intoxicated customers being served is being examined. This has been developed in New South Wales, resulting in a dramatic increase in prosecutions (Kain and McKenzie, 1995).

A number of other recommendations were made in the evaluation report with the full authority of the Steering Committee that were submitted to a formal government review of Western Australia's liquor licensing laws (Stockwell et al., 1993). These included the recommendation that training of licensees and bar managers be made compulsory. This recommendation and that regarding the need for additional law enforcement were accepted by the government committee reviewing the Western Australia Liquor Act (Mattingly, 1994).

It has been suggested that the Fremantle project suffered from at least two additional weaknesses: (a) there was insufficient local "ownership" of the program by the licensed operators, and (b) only medium- to high-risk premises participated. Another model is that presented by the apparently highly successful Surfers Paradise Safety Action Project (Homel and colleagues, this volume) on the Gold Coast of Queensland. A key element of this program was to have licensees, police, councillors and researchers meet in a regular forum to discuss and agree on collaborative approaches. For example, the licensees agreed to stop heavily discounting their drinks (which, interestingly, may have amounted to a breach of federal Trade Practices legislation).

There can be little doubt that if a sustained ban on price discounting is to be achieved, then a regular forum involving all licensed operators in the area must be created and a binding pact agreed to. It often only takes one "rogue" operator to break the cartel for others to feel forced to follow suit. The Fremantle project would certainly have been strengthened by such a forum of licensees. It is also highly probable that in the Surfers Paradise project public concern (partly whipped up by the local media) the monitoring of the team from Griffith University, and peer pressure from rival operators may have all combined to induce more responsible practices from licensees and their staff. It is an important empirical question as to whether such time-consuming and expensive local action will always be required to achieve such ends or whether brief and cost-effective enforcement of existing liquor laws will be sufficient (e.g., McKnight and Streff, 1992). Another important empirical question concerns the precise balance to be achieved between a focus on the few very high-risk premises as opposed to the bulk of lower-risk premises in order to achieve the optimal level of deterrence of irresponsible serving practices. Homel and Clark (1994) have argued persuasively for the need to include all licensed premises in interventions designed to deter irresponsible serving. This is a relatively new area for preventative policing, and it is hoped that continuing practice and evaluation will settle such questions in the future.

ACCEPTABILITY OF LICENSING REGULATIONS TO THE PUBLIC AND TO KEY STAKEHOLDERS

It is one thing for there to be evidence of the effectiveness of a preventive measure and another for it to be a politically accept-

able and viable policy. For this reason the NCRPDA licensed drinking environment research program has sought to ascertain the acceptability of proposed measures to the general public, policy advisors and key stakeholders.

Resistance to the enforcement of ancient licensing regulations that have been quietly ignored for decades sometimes centres on the notion that such a practice would be out of step with modern public opinion. A growing number of studies have documented public support for various prevention strategies. Collectively, these studies indicate that such fears are groundless. Public opinion in the U.S. (Room et al., 1992), Canada (Room et al., 1992), Australia (Hawks et al., 1993; Elliot and Shanahan Research, 1993) and New Zealand (Wyllie, 1993) has been shown to be supportive of the need to refuse service to drunk customers, for the police to enforce the law against such service, and for licensees and their staff to be required to undertake training in how to abide by their legal responsibilities in this area. The relevant studies are summarised in Table 1.

The acceptability of these various measures should be contrasted with the lower levels of public support for the concept of server liability in Australia (Lang et al., 1993) and in the U.S. (Wagenaar and Streff, 1990). A similar pattern of support has been demonstrated in an effort to document the acceptability of reforms to a number of key informants in Australia. Almost universal support was expressed for mandatory training of licensees and their staff and for community policing strategies. Little enthusiasm was evident for a clarification of the legal liability of licensees for the actions of their drunk customers. Lack of public support for the concept of licensee liability has not, however, prevented a burgeoning of such cases in the U.S. (Wagenaar and Holder, 1991).

A SYSTEMS APPROACH TO REDUCING ALCOHOL-RELATED CRIME IN AND AROUND LICENSED VENUES

Thus far the NCRPDA research program and studies elsewhere suggest that there are great, though largely unrealised, opportunities for the prevention of alcohol-related harm through the use of existing liquor licensing regulations. Drinking on licensed premises is associated with considerable harm, in relation to both

Table 1: Public Support for Measures to Reduce Drunkenness on Licensed Premises

Measure	Authors	Country	% Public Support
Service to be refused to drunk customers	Hawks et al., 1993	Australia	84%
	Elliot & Shanahan Research, 1993	Australia	75%
	Room et al., 1992	USA	81-85%
	Room et al., 1992	Canada	81-86%
Law against serving drunk customers strictly enforced	Hawks et al., 1993	Australia	78%
	Wyllie, 1993	New Zealand	87%
Mandatory training of: - licenses - bar staff - security staff	Hawks et al., 1993	Australia	95%
			92%
			90%

drink-driving and violence. Licensed venues are complex environments, and a number of factors have been identified that are linked with an increased risk of harm. Sociodemographic characteristics of the clientele are certainly important with young, single males being involved in a disproportionate number of harm episodes. Category of licensed venue, setting characteristics and management policies are at least as important and may be modified by appropriate intervention strategies. In addition, degree of intoxication permitted has repeatedly been found to be associated with the risk status of licensed premises. A number of examples of strategies that have reduced levels of risk and, in some instances, actual levels of harm have been described from various English-speaking countries. It is likely that these strategies will be increasingly adopted as surveys of public and stakeholder opinion show that they enjoy considerable support.

Despite this array of evidence for the effectiveness and acceptability of liquor licensing strategies to reduce alcohol-related harm, there are many political and practical impediments to their implementation. Not least is organisational inertia and the lack of dedicated resources and trained personnel to administer liquor laws effectively. There are also shortcomings in liquor licensing laws themselves that some believe weaken the administrative and police powers they bestow (Stockwell, 1994b). Since licensed environments are complex, well-drafted and comprehensive laws are required to take account of the many influences that impinge upon serving practices and management policies.

Powerful commercial imperatives drive those industry practices identified above as contributing to alcohol related harm (e.g. see Rydon, 1994). It seems likely, therefore, that a systems approach (Wallack and Holder, 1987) will be needed to influence licensed environments in a positive direction for public health, safety and order. A systems approach in this context allows that there are a multiplicity of interacting factors determining the frequency and consequences of such social behaviours as drinking alcohol. These factors will not always be immediately apparent in any one drinking environment, and will often apply across many such environments simultaneously (e.g., the effects of advertising and of price wars). There may be competing influences from different subsystems that influence drinking behaviour in opposite directions (e.g., public health and safety campaigns versus alcohol advertising; price discounting wars versus tax increases).

Many such wider systemic effects on the drinking behaviour of communities have been identified in the research literature (e.g., Stockwell, 1994b). Figure 3 attempts to summarise these and show their relationship with the more immediate situational factors of management and serving practices. Contrary effects from any of the domains in the outer ring of Figure 3 might negate, or at least reduce, the effectiveness of gains from the other elements. An example of competing systemic effects would be the provision of excellent training schemes without any legal requirement for staff to attend them and no perceived threat of relevant laws being enforced. Another example would be the provision of both training for bar staff and of diligent law enforcement, but with any benefits of these wiped out by a substantial increase in consumer demand for high-strength drinks stimulated by a reduction in alcohol taxes.

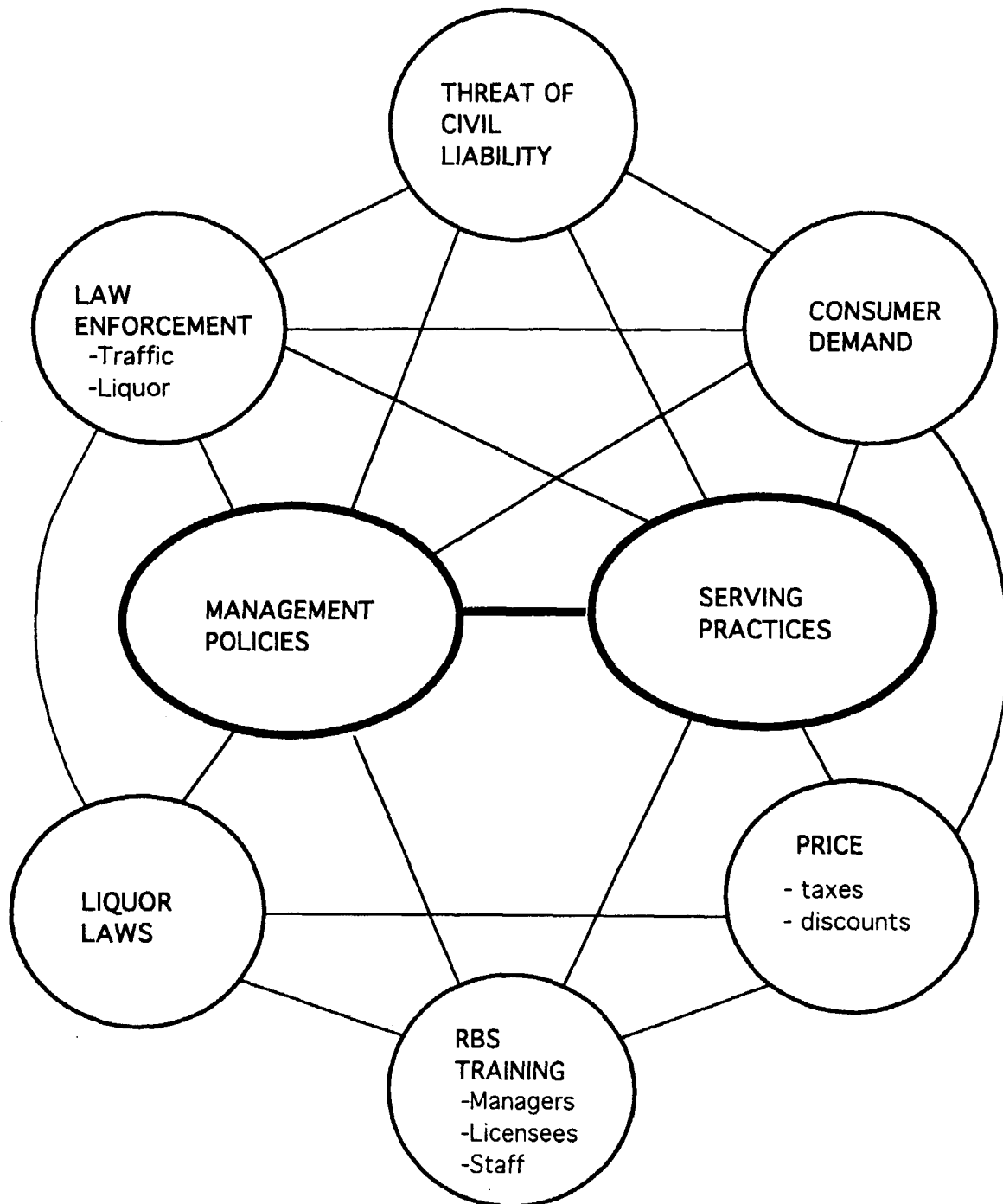
An optimal situation might involve: (a) motivating managers of licensed premises develop and apply responsible serving practices and policies through a combination of effectively enforced liquor laws and the threat of civil liability suits (Wagenaar and Holder, 1991); (b) requiring managers and bar staff to attend responsible service training courses (Holder and Wagenaar, 1994) in order to contribute to public health and safety, and to develop the social and business skills to run a profitable and socially responsible licensed venue; (c) supporting bar staff and managers to comply with liquor laws through public education campaigns that inform consumers regarding the legal obligations of servers; and (d) maintaining prices of alcoholic drinks at a level that reduces consumer demand for binge drinking, by a combination of taxes linked to the cost of living and the alcohol content of drinks (Stockwell, 1994c) and guidelines to reduce price discounting.

A recurring theme throughout this paper has been the substantial benefits for public health, safety and order that should flow from strategies that limit the numbers of obviously intoxicated people on, or leaving, licensed premises. There are also a number of other modifiable situational variables, such as level of crowding, that may impact on levels of violence (MacIntyre and Homel, this volume; Stockwell, 1994b). A systems approach suggests that the greatest benefits will be realised if a coordinated set of legal, economic, educational, regulatory and policing strategies are adopted to reduce these risk factors in a consistent manner. As is often the case, it will be insufficient for the research evidence favouring this preventive strategy to merely accumulate. Lobbying and advocacy will be required to generate the political will for the potential reduction of needless death and injury associated with excessive alcohol consumption.



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Figure 3: A Systems Model of the Licensed Drinking Environment



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