Reducing violence in licensed venues through community safety action projects: the Queensland experience

BY MARG HAURITZ, ROSS HOMEL, GILLIAN McILWAIN,
TAMARA BURROWS, AND MICHAEL TOWNSLEY

Community-based safety action projects, replications of the model developed in Surfers Paradise designed to reduce violence and disorder in licensed environments in city entertainment areas, were implemented in three diverse North Queensland cities (Cairns, Townsville and Mackay). The change model is based on prior experience with community interventions, the theory of situational crime prevention, and the theory of responsive

AUTHORS' NOTE: All correspondence should be directed to Professor Ross Homel, School of Justice Administration, Griffith University, Queensland, 4111, Australia (R.Homel@hum.gu.edu.au). The research reported in this paper was supported by the Queensland Department of Health: National Campaign Against Drug Abuse Law Enforcement Fund and by the Criminology Research Council. We acknowledge gratefully the assistance of the Queensland Police Service, the councils in each of the regions studied, and the many students who collected the venue data. Special thanks to John Fox, Gaye Rostron and Randina Randall, the three project officers, who were central to the change process; to Cathy Boorman, Cairns City Council Community Safety Officer, for invaluable support in Cairns; and to Russell Carvolth of the Queensland Department of Health for his constant encouragement and support. Homel is indebted to John Braithwaite for sharing his thoughts on responsive regulation and to the Australian National University for making the discussions possible through his appointments as visiting fellow in the Reshaping Australian Institutions Project and as research affiliate in the Research School of Social Sciences. Finally, we are very grateful to Norman Giesbrecht and Robin Room for helpful comments on earlier versions of this paper.

regulation. The interventions took place in each city during 1995 and early 1996. The results are based on unobtrusive direct observations by patron-observers of aggression, drinking, and management practices in licensed venues in September 1994 and October 1996. There was a decline of 56% in all aggressive and violent incidents, and a decline of at least 75% in physical assaults, but conclusions concerning direct causality cannot be drawn. These declines, which did not differ significantly between cities, coincided with marked improvements in host responsibility practices and a decline in male drunkenness.

The level of violence in the community is a cause of serious concern in most Western countries. Australia appears to have had stable levels of criminal violence for most of the 20th century (Indermaur, 1996), but there are signs that this situation is changing (Homel and Mirrlees-Black, 1997; NSW Bureau of Crime Statistics and Research, 1997). In both New South Wales and Queensland, increases in assault rates have been at least 10% over the past three years, even if the most conservative interpretation of the data is adopted.

The crime victim survey data (Homel and Mirrlees-Black, 1997), as well as recent data on homicide, the most extreme form of violence (Carcach, 1997), highlight the importance of environmental or situational factors as risk factors, especially for young people. In general, those who go out for entertainment at night, particularly to hotels and clubs, have a higher than average risk of assault. The same pattern applies to teenagers: about half of male and female teenage victims are assaulted in places they go to regularly (away from a home environment) that provide leisure facilities or entertainment. Many of these places, especially for those age 18 or over, are licensed venues. It follows that one important strategy for reversing the trend toward higher rates of violence is to increase the safety of leisure and entertainment venues, including hotels and nightclubs, especially for young patrons.

This article sketches the theoretical basis of a series of "community safety action projects" in three North Queensland cities and reports some preliminary results. These projects, which had as their major objective improvements in the safety of the environments in and around licensed venues in the central city entertainment areas, were designed explicitly as replications of the safety action intervention model developed in 1992 and 1993 in the southeast Queensland tourist resort of Surfers Paradise (Homel and Clark, 1994; Homel, Hauritz, Wortley, McIlwain and Carvolth, 1997a; Homel, Hauritz, McIlwain, Wortley and Carvolth, 1997b; Graham and Homel, 1997). The reasons for undertaking replications of the Surfers intervention were to determine how robust the model is when applied in diverse communities, to improve understanding of the change process, and to strengthen the scientific evidence for a causal impact of the intervention on crime and violence (since it was not possible to use a formal control area when evaluating the Surfers project).

The results reported in this paper are based on unobtrusive direct observations by patron-observers of aggression, drinking, and serving practices in licensed venues in the three cities in September 1994 and October 1996. The interventions took place in each city during 1995 and early 1996. Further analyses based on the observational and police data will be reported in a later paper. Unfortunately hospital emergency room data on assault-related injuries are not collected on a routine basis in Queensland, and funding was not available to carry out such data collection for this project.

The safety of licensed venues

On the basis of existing research, including the naturalistic studies conducted by Graham, LaRocque, Yetman, Ross and Guistra (1980) and Homel, Tomsen and Thommeny (1992), Graham and Homel (1997) identify a range of features of the physical and social environments of bars that may help

to reduce rates of aggression or limit the harm caused by aggressive incidents. These features include attractive, nicely furnished, well-maintained bars; comfortable, uncrowded surroundings that promote enjoyment and do not irritate or frustrate people; a social atmosphere with clear rules and limits; practices that discourage drinking to intoxication and foster a positive social atmosphere; and the employment of trained, peace-loving barworkers and security staff.

Any intervention designed to reduce aggression, crime and disorder in and around licensed venues should clearly aim to manipulate simultaneously as many of these kinds of situational and environmental factors as possible. However, as Homel et al. (1997a) note, the real question is how to carry out these manipulations in a community setting where people are intent on drinking and making merry and where licensees want to make as much money as possible.

One of the most common ways of attempting to minimize alcohol-related harm in licensed premises is through responsible beverage service programs. However, recent research suggests that although such programs are of importance, especially if they are combined with external enforcement (Carvolth, 1991; Putnam, Rockett and Campbell, 1993; Saltz, 1987; Stockwell, 1997), regulation of alcohol-related disorder and violence must utilize other strategies as well, including the introduction of procedures that empower stakeholders to resolve problems with licensed establishments (Alcohol Advisory Council of Western Australia, 1989; Gilling, 1993; Lakeland and Durham, 1993; Parkdale Focus Community, 1995). These additional strategies are of particular importance in Australia, partly because civil lawsuits are very seldom used against licensees, thus removing one of the major incentives for licensees to introduce server training programs, and partly because liquor licensing laws are not very effectively enforced on a routine basis (Homel and Tomsen, 1991; Stockwell, 1994).

Perhaps as a response to the vacuum created by an inadequate regime of legal regulation, community action projects targeting licensed premises have proliferated in recent years in Australia (Fisher, 1993; Lander, 1995; Melbourne City Council, 1991; Walsh, 1993). One of the best-known of these is the "Geelong Local Industry Accord," a cooperative effort involving police, the Liquor Licensing Commission, hotel and nightclub licensees, and local government, although in practice police appear to have taken on the main leadership role (Felson, Berends, Richardson and Veno, 1997; Victoria Police, 1995). Essentially the accord is a code of practice that facilitates self-regulation by licensees throughout the region and prohibits "pub hopping" by means of entry and exit controls. Police statistics suggest that serious assault rates have been reduced both in the city area and more widely.

The most wide-ranging and well-resourced attempt to date to reduce alcohol-related accidental injuries and deaths through community-based methods has been the work of Harold Holder and his colleagues in the United States (Holder, 1997). This five-year project, carried out in three experimental communities, consisted of five mutually reinforcing components: community mobilization; promotion of responsible beverage service for bar staff and managers/licensees of on-premise alcohol outlets; deterrence of drinking and driving through local enforcement; reduction in retail availability of alcohol to minors; and reductions in the number and density of alcohol outlets to limit general access to alcohol. The project did not target particular groups, but was based on the assumption that changes in the social and structural contexts of alcohol use can alter individual behavior.

The community mobilization process involved working as much as possible with existing community coalitions, tailoring program materials for each site, generating as far as possible resources from within the communities, and channeling existing community resources, skills and interests rather than only introducing them from the outside. As Treno and

Holder (1997, p. S176) observe, "the Community Trials Project was composed of three independent replications of a generic prevention design . . . in which implementation approaches were designed within each community. . . ."

The project brought about a 10% reduction in alcohol-involved traffic crashes, a significant reduction in underage sales of alcohol, and increased adoption of local ordinances and regulations to reduce concentrations of alcohol outlets. The specific aspect of the project most relevant to the present paper was the responsible beverage service (RBS) component.

The general operating principle of this component was to create a combination of incentives and disincentives that would strongly encourage on-premise licensees to provide server training in responsible beverage serving practices and to strengthen their policies related to preventing intoxication and keeping intoxicated patrons from driving. (Holder et al., 1997, p. S162)

Saltz and Stanghetta (1997) conclude that this component achieved modest success, as measured by the number of businesses trained, by the introduction of limited law enforcement around service to intoxicated patrons where none had existed previously, and by increases in levels of community debate about RBS policies. However, these program elements did not produce significant changes in serving practices. Saltz and Stanghetta argue that to achieve any impact it is essential to involve the hospitality industry; to avoid voluntary RBS training; and to reinforce mandatory training with enforcement of the law around service to intoxicated patrons.

The Surfers Paradise Safety Action Project

The Surfers Paradise Safety Action Project, the initial phase of which was implemented in 1993, was a community-based initiative designed to reduce violence in and around licensed venues in the central business district of the main tourist area on Queensland's Gold Coast. Many features of this project, and of the replication projects described later, are very similar to those of the American project, although they were planned and implemented independently of each other.

Full details of the implementation and impact of the Surfers project are reported in Homel et al. (1997a). Key features of the implementation included channeling funding through local government; creating a representative steering committee and community forum; forming task groups to address safety of public spaces, management of venues, and security and policing; encouraging nightclub managers to introduce a code of practice regulating serving and security staff, advertising, alcohol use, and entertainment; and regulating managers through "risk assessments" and through a community-based monitoring committee. More subtle but equally important aspects of the implementation included rehabilitating the image of nightclub managers and integrating them into the local business community; using managers committed to the reform process from another city to encourage and bring pressure to bear on local licensees; employing a project officer who was female and who had considerable interpersonal skills; and balancing the conflicting political agendas of participating agencies.

The evaluation showed a marked initial impact of the project. The Risk Assessment Policy Checklist, based on interviews with eight licensees conducted on site before and after the introduction of the Code of Practice in August 1993, showed marked reductions in practices that promote the irresponsible use of alcohol (such as binge-drinking incentives) and improvements in security practices, entertainment, handling of patrons, and transport policies. Activities in 18 nightclubs were observed by teams of students using a structured observation schedule in the summers of 1993 (before the project) and 1994 (after the major features of the project had been implemented). Verbal abuse declined by 81.6%, from 12.5 to 2.3 incidents per 100 hours of observation; arguments by 67.6%, from 7.1 to 2.3; and physical assaults by 52.0%, from 9.8 to 4.7. Male and female drinking rates and drunkenness declined markedly, but there was no change in prices for drinks or admission. There were dramatic improvements in publicity to patrons about house policies, and associated

improvements in server practices, the physical environment (e.g., clean toilets, accessible bars), and security practices (e.g., ID checks at door).

Street incidents observed by security personnel in the area showed a general decline from 1993 to 1994, but the trend was most marked in the August–December period (post-Code of Practice) with a decline of 64.5%, compared with a decline of 46.5% in the initial stages of the project (April–July) and 18.3% before the project (January–March). Police data for Surfers Paradise for 1993 and 1994 showed pre-project increases in assaults, indecent acts, stealing, and drunk and disorderly incidents, stabilization in the initial stages of the project, and sharp declines in the post-Code of Practice period (including a 34% decline in assaults).

In the absence of a control community, the increase in violence, coinciding with increases in drunkenness and declines in responsible hospitality practices, together with the internal consistency of the data, strengthen confidence that the initial decline in violence was caused by the project and not by exogenous factors. However, there are indications that night-clubs became more “up market,” suggesting that displacement of problem patrons may have been at least partly responsible for the impact of the project. In addition, observational data collected over summer 1996 indicated that violence and drunkenness had returned to pre-project levels, and that compliance with the Code of Practice had almost ceased. This suggests an important performance indicator for safety action projects: ensuring that at the end of the implementation phase key players are dependent on a robust process rather than on a charismatic project officer, and that an effective regulatory model is constructed that can be maintained on a routine basis.

Improving
safety through
responsive
regulation:
a community
action model

On the basis of the Surfers project and related research, we have developed a model of the community-change process that roughly parallels behavior-change techniques at the individual level. The model is not a detailed recipe for intervention at the local level; this would be impossible to provide, since every community is unique and evolves its own style and priorities regardless of what external "experts" might consider desirable. Rather, the model incorporates general elements that seem essential in the community-change process (Table 1).

The model is influenced by three separate streams of research: the literature on safety action projects; the theory and practice of situational crime prevention; and regulatory theory. The most obvious of these is the literature on safety action projects of the kind we described earlier in this paper. We constructed the columns of Table 1 from this literature and from our own experience in Surfers Paradise. The three sections of the table reflect both Australian political structures and regulatory theory, and represent interacting domains of action.

We assume that certain *antecedent conditions*, such as a political environment emphasizing deregulation of liquor licensing, lead to *problem behaviors*, such as cutthroat competition between venues and irresponsible drinks promotions. These conditions and problems create a climate conducive to community mobilization and to the development, in collaboration with the community, of a range of *intervention strategies* at each of the three levels of regulation. These interventions produce certain positive *outcomes*, such as reduced violence, which can be *reinforced* if key players and organizations are rewarded through career enhancement or positive publicity. The reinforcers of positive change are more likely to have a continuing effect if key reforms are institutionalized through legislation or community-based monitoring systems. We refer to this process of institutionalization as *mechanisms to safeguard change*.

TABLE 1 Improving safety in and around licensed venues through responsive regulation: a community action model

Level of Regulation	Antecedent Conditions	Problem Behaviours
<p>STATE</p> <p>↑</p> <p>Formal Regulation and Law Enforcement</p>	<ul style="list-style-type: none"> * Political environment rejecting "paternalistic" regulation and promoting "free enterprise" * Liquor legislation focused on standards of service, licensing fees, fire and safety, opening hours etc. * Reactive enforcement based on the assumption that victims of violence deserve their fate 	<ul style="list-style-type: none"> * Liquor licensing regulation that largely ignores harm minimisation * Failure by licensing process to deal with "cowboy operators" * Police focus on drunk and disorderly persons in the street, not irresponsible venue managers
<p>LOCAL COMMUNITY</p> <p>↓</p> <p>Informal Controls and Persuasion</p>	<ul style="list-style-type: none"> * Negative media portrayal of the area * Community and local government concern about safety * No coherent community safety plan * Concern about business profitability and tourism 	<ul style="list-style-type: none"> * Community reliance on law enforcement and security patrols * Conflict with licensees, particularly over 5 am closing * Fragmented response by government and community agencies
<p>VENUES</p> <p>↓</p> <p>Self-Regulation by Licensees</p>	<ul style="list-style-type: none"> * Socially marginalised licensees * Commercial pressures dominant over host responsibility * No faith by licensees in liquor licensing regulation 	<ul style="list-style-type: none"> * Price discounting * Irresponsible drinks promotions * Prurient entertainment * Aggressive bouncers * Unclear rules/limits * Uncomfortable venues

TABLE 1 continued

Level of Regulation	Intervention Strategies	Outcomes of Intervention
<p>STATE</p> <p>↑</p> <p>Formal Regulation and Law Enforcement</p>	<p>* Persuade police & liquor licensing to enforce liquor law in venues (especially serving intoxicated persons)</p> <p>* Promote inter-agency cooperation as best strategy for police & liquor licensing (NOT police domination)</p>	<p>* Legislative reform to promote the minimisation of alcohol-related harm</p> <p>* Preventive, problem-oriented policing and liquor licensing regulation</p>
<p>LOCAL COMMUNITY</p> <p>↓</p> <p>Informal Controls and Persuasion</p>	<p>* Mobilise community through public forum, steering committee, problem-oriented task groups</p> <p>* Appoint project officer accountable to community</p> <p>* Promote inter-agency cooperation</p> <p>* Safety audits</p>	<p>* More use of public space and greater sense of safety</p> <p>* Licensees recognised as a legitimate business group</p>
<p>VENUES</p> <p>↓</p> <p>Self-Regulation by Licensees</p>	<p>* Risk assessments</p> <p>* Code of Practice</p> <p>* Resolve conflicts and form a licensed venues association</p> <p>* Train managers, bar & security staff</p>	<p>* Less injury, crime & disorder</p> <p>* More professional management</p> <p>* More sophisticated patron expectations</p>

TABLE 1 continues

TABLE 1 continued

Level of Regulation	Reinforcers of Positive Change	Mechanisms to Safeguard Change
<div>STATE</div> <div>↑</div> <div>Formal Regulation and Law Enforcement</div>	<div>↑</div> <ul style="list-style-type: none">* Police and liquor licensing receive media praise for preventive strategies* Police trained in liquor act* Local police receive awards* Career enhancement for key officers* Politicians look good	<div>↑</div> <ul style="list-style-type: none">* Liquor licensing authorities accept responsibility for harm minimisation* Liquor laws give due weight to harm minimisation principles* Administrative and appeals mechanisms support decisions to minimise harm
<div>LOCAL COMMUNITY</div> <div>↓</div> <div>Informal Controls and Persuasion</div>	<div>↓</div> <ul style="list-style-type: none">* Community sense of control and acceptance of responsibility for public safety* Pride in local area* Local government develops better capacity to enhance public safety* Local & overseas marketing of program	<div>↓</div> <ul style="list-style-type: none">* Trained steering committee advocates for law reform and preventive enforcement, and manages transitions between project stages
<div>↓</div> <div>VENUES</div> <div>Self-Regulation by Licensees</div>	<div>↓</div> <ul style="list-style-type: none">* Profitable venues* Increased respect for licensees: greater self-esteem* Managers perceive consistent regulation by authorities	<div>↓</div> <ul style="list-style-type: none">* Community monitoring committee oversees self-regulation by licensees* Venue managers association lobbies for consistent regulation

Although a temporal sequence is implied in Table 1, in practice the change process is far more "chaotic" and iterative than linear. For example, some outcomes depicted in the table, such as the need for recognition by the community of licensees/managers as a legitimate business group, only emerged during implementation of the Surfers project, leading in "mid-stream" to the modification of the intervention strategies and even our conceptualization of what constituted problem behaviors. In general there are complex interactions between the "stages" of community change, with problem behaviors, interventions, and outcomes in particular being related in a dialectical fashion. This dialectic also produces plenty of negative outcomes, such as conflicts between stakeholders, which have the potential to undermine the positive changes. The management of negative outcomes requires theoretical elaboration that is beyond the scope of this paper.

The entries in each cell of the table are illustrative rather than definitive. They are based on our experience in a number of communities, but it is an open question—one we sought to address in the replication projects—as to which elements are essential for positive change. A crucial guiding philosophy, however, was the need to be *situationally specific* in the analysis of problems and the development of interventions, particularly at the level of venues. The theoretical basis is "situational crime prevention," which in the words of Clarke (1997, p. 4) "comprises opportunity-reducing measures that (1) are directed at highly specific forms of crime, (2) involve the management, design or manipulation of the immediate environment in as systematic and permanent a way as possible, (3) make crime more difficult and risky, or less rewarding and excusable as judged by a wide range of offenders." Situational prevention involves a shift from thinking in terms of offenders and their motivations to offenses and their settings, which in the case of licensed premises implies a focus on management practices that give rise to unsafe environments.

It is critically important to recognize that alcohol serving practices are *only one aspect* of unsafe environments (Hemel, Tomsen & Thommeny, 1992); other aspects include such things as physical design (Macintyre and Hemel, 1997), selection and training of security staff, the "permissiveness" of the social climate in venues (Hemel et al., 1997a), and the hidden "deals" between managers and regulators (Hemel & Tomsen, 1991; Hemel, 1996). The relevance of situational theory to these kinds of issues can be illustrated not only by the traditional typology that was focused on the physical environment (Clarke, 1997), but by Clarke and Hemel's (1997) recent extension of situational methods to include techniques for removing excuses or for inducing guilt or shame. These include *rule setting* (e.g., through codes of practice), *stimulating conscience* (e.g., by encouraging managers to regard themselves as responsible businessmen), *controlling disinhibitors* (e.g., by controlling alcohol through server intervention), and *facilitating compliance* (e.g., by creating a regulatory environment in which it is financially worthwhile for licensees to adhere to the code of practice).

A focus on venue management leads not only "inward" to specific contexts and person-to-person interaction, but "outward" to the local community and to the larger arena in which laws and regulations are created and enforced (or not). A fundamental influence on our thinking in this respect has been the work on systems of regulation by John Braithwaite and his colleagues, particularly the concept of "responsive regulation" (Ayres and Braithwaite, 1992). Ayres and Braithwaite propose regulatory approaches that are responsive to industry context and structure, regulatory culture, and history, and that incorporate, as key ideas, "tit-for-tat" strategies combining punishment and persuasion in an optimum mix; "tripartism" (empowering citizen associations) as a way of solving the dilemma of regulatory capture and corruption; and "enforced self-regulation," in which private sets of rules written by business (such as codes of practice) are publicly ratified and,

when there is a failure of private regulation, are publicly enforced.

Central to their model is an "enforcement pyramid" of penalties, from the frequently used techniques of persuasion and warning letters through to the infrequently used techniques of license suspension and revocation ("capital punishment" of alcohol outlets). The ideological basis of their ideas is "a replacement of the liberal conception of the atomized free individual with a republican conception of community empowerment" (p. 17). Tripartism fosters the participation of community associations by giving them full access to all the information available to the regulator; by giving them a seat at the negotiating table; and by giving them the same standing to sue or prosecute as the regulator. Thus Ayres and Braithwaite propose a model in which no one element, whether it be self-regulation, formal enforcement, or citizen involvement, can operate effectively without the others.

Indeed, one fruitful way of thinking about community interventions is as part of the "praxis" of responsive regulation, with an emphasis on tripartism and enforced self-regulation. For this reason the three levels of regulation, and their ongoing interactions, are fundamental to our model of community change.

The replication projects

In the latter stages of the Surfers Paradise Safety Action Project (late 1993 and early 1994), many communities were seeking information on how they might address alcohol-related violence and disorder. After considerable negotiation, the Centre for Crime Policy and Public Safety received funding in June 1994 from the Queensland Department of Health to replicate the Surfers model in four cities in north Queensland: Cairns, Townsville, Mackay, and Mount Isa. One of the main reasons why these cities were selected was their willing-

ness to provide resources to support the project. They have the additional design advantage that they are socially and economically disparate, with both similarities to and differences from Surfers Paradise, and so comprise the kind of diverse collection of communities most suitable for a replication project.

Cairns is 1800 kms by road from the state capital, Brisbane, situated in the far north of Queensland on the coast of tropical Cape York Peninsula (see Figure 1). It has a permanent population of 114,000 people, with an additional 30,000 tourists on any given night. Approximately 11% of the workforce are employed in the hospitality industry. Townsville is a coastal city of approximately 125,000 residents, located 1400 kms north of Brisbane. Unlike Cairns, Townsville does not have a large number of tourists, but it does have a major defense base, with 1,100 Army and 400 Air Force personnel, as well as James Cook University with an enrollment of more than 8,000 students. Gateway to the Whitsunday Islands National Park on the Great Barrier Reef, Mackay is a city of 72,000 residents 1000 kms north of Brisbane. The primary industries are sugar-cane farming and tourism. Mount Isa is a mining city with a population of 26,000, located about 800 kms inland from Townsville, in central north Queensland.

To help readers appreciate the vast distances between these centers, it may be useful to note that the distance from Brisbane to Cairns is greater than the distance from Brisbane to Melbourne, capital of the southern state of Victoria. When residents of north Queensland speak of "southerners," they often mean people from the heavily populated southeast corner of Queensland, not residents of southern states. The vastness of Queensland, and the fact that, alone among Australian states, more people live outside the capital city than within it, mean that rural cities have developed with strong local identities and with specific social and economic priorities and problems.

FIGURE 1

Map of Queensland showing the Safety Action Project sites and the capital (Brisbane)

Cairns is in many respects the most similar demographically and socially to Surfers Paradise, with its emphasis on tourism, its mix of business and recreation in the central business district, and the presence of Asians in the workforce and among tourists. Cairns, like Surfers Paradise, also experienced an amalgamation of adjacent local government areas in recent years. Townsville, on the other hand, could be argued to be the antithesis of Cairns and Surfers Paradise. It is socially and culturally conservative, with a stable population (including itinerant workers from "the outback") and large blue-collar industries, including an iron ore port and the armed forces bases. It has the longest serving mayor in Australia, and police and other occupational groups tend to settle down and stay for long periods. As a result, Townsville has a strong sense of identity and history. Mackay is different again, being smaller, more rural, and less cosmopolitan, the hub for an old farming community located a little away from the coast. Mount Isa is quite unlike all the coastal cities, revolving as it does around the mining industry and having a large indigenous population.

Despite their diversity, one thing the communities had in common in mid-1994 was a high degree of concern about alcohol-related crime and disorder in and around licensed venues in the central city areas. Consequently the major objectives of the replication projects were:

1. To determine the extent to which the intervention model developed in Surfers Paradise is capable of achieving reductions in problems in and around licensed venues in urban centers that differ greatly in economic and social characteristics and in the manner in which community-based interventions are implemented.
2. To strengthen the evidence for or against the causal impact of the intervention model on violence, crime, and disorder.
3. To determine which elements of the model are essential to bring about reductions in violence, crime, and disorder by comparing modes of implementation and outcomes in each community.
4. To develop a supportive base for safety action projects by training communities to network and liaise with peak bodies and individuals in the hospitality industry, government agencies, and other key groups.

Strategies employed in all communities included: implementation support by way of a schedule, an introductory workshop, formal training of the steering committee on location, a one-week intensive training course conducted at Griffith University for the project officers, analysis of survey data, on-site visits, and on-call support.

During August 1994, meetings were held with leaders in each community to explain the project and help them form Safety Action Project Steering Committees. Training of steering committees was undertaken in September 1994. The Centre

then helped these committees locate salaries for the project officers, with funding being obtained by late December 1994.

The Centre commenced pre-intervention venue observations in each of the sites in late September 1994 and assisted Townsville and Mackay in conducting community and business safety surveys. Cairns chose not to undertake these surveys, having just completed a similar survey as part of other work. A major industrial dispute crippled Mount Isa in May 1995 and for months afterwards, so the Council decided to withdraw temporarily from the project, while acknowledging that alcohol-related violence remained a great problem. Further meetings were held with each of the remaining steering committees in May 1995, prior to the training of project officers later that month. Three combined project officers meetings were held during 1996 (February, Townsville; June, Mackay; and August, Cairns). Post-intervention venue observations were undertaken in late October 1996 in each city.

The main features of each project are summarized in Table 2, which uses the major features of the Surfers project as a "template." The table facilitates an overview of the common and distinctive features of the interventions in each location.

From Table 2 it can be seen that many of the features of the Surfers Paradise project were incorporated in the replication interventions, but not all features were present at all sites, while others that seemed important in Surfers (such as a community monitoring committee) were introduced quite late in some of the projects. In addition, Mackay had the benefit of additional resources provided for a period by a full-time officer of the Liquor Licensing Division (as well as a Young People in Public Spaces Task Group), while Cairns had the benefit of beat policing and also a citywide community safety strategy that incorporated the Safety Action Project as a sub-project. All sites carried out a safety audit, which is a systematic identification and assessment of features of the physical

environment of city entertainment areas that may be "risky" in terms of crime and safety (Homel et al., 1997a).

TABLE 2

Overview of projects in Cairns, Townsville and Mackay

<i>Component (from Surfers Project)</i>	<i>Cairns</i>	<i>Townsville</i>	<i>Mackay</i>
Steering Committee	Establishment and training in Aug-Sept 1994	Establishment and training in Aug-Sept 1994	Establishment and training in Aug-Sept 1994
Community Forum	April 1994	September 1994	March 1994
Project Officer	April 1995 - June 1996; 20 then 30 hours/week. Employed by Council. Supported by Council Community Safety Officer	May 1995 - August 1996; full-time. Employed by Council; was a "City Safe" officer for the latter part of 1996	April 1995 - November 1996; 30 hours per week. Employed by Council; accommodated by Qld Health Department
Safety of Public Spaces Task Group	June 1995	March 1995	June 1995
Security and Policing Task Group	June 1995	March 1995	First met January 1996
Venue Management Task Group	June 1995	Started May 1995; met fortnightly during project	July 1995
Young People in Public Spaces Task Group			6 organisations involved from mid-1995
Community Monitoring Committee	Initially done by project officer; then the Community Consultative Safety Committee	Role performed initially by Steering Committee; gradually dropped	Role performed by Steering Committee
Safety Audit	1993, followed by September 1995	February-March 1995	March 1996
Risk Assessments	Not done	Oct-Dec 1995	Oct 1995-Mar 1996
Code of Practice	August 17, 1995	September 20, 1995	In Principle agreement Xmas 1995; Fully agreed March 1996
Training of managers, bar and security staff	Patron Care, Security Providers Act, Liquor Act	Patron Care, Security Providers Act, Liquor Act	Patron Care, Security Providers Act, Liquor Act
Training of police	Course on enforcement of licensing laws run by police	Course on enforcement of licensing laws run by police	Course on enforcement of licensing laws run by police
Responses of Licensees	Venue Managers Association formed October 1995	Venue Managers Association formed	Association not formed. Negative reaction to 3 am closing
Responses of Police	Taskforce/beat policing; strong support	Steering Committee and task group support. Military police involvement	Strong support and community policing; focus on licensees' compliance
Extension of Safety Action Project	Council appointment to address community safety	Council appointment to address community safety	Project not extended

Some idea of the *intensity* of the interventions in each city can be gained from inspection of Tables 3 and 4. Overall the level of input from the project was about the same at each site, with the possible exception of Cairns, which had the benefit of the community and Council resources already noted. The project officers in each city attended similar kinds

and numbers of meetings (Table 3) and coordinated the activities of all the groups. This had the effect of keeping all stakeholders informed and involved. The training components, summarized in Table 4, were not particularly resource intensive, but they were all that could be managed within a limited budget. Most training was offered only once; only in Cairns was there provision for continuing training of venue personnel.

TABLE 3

Intensity of interventions: steering committees and task groups

Committee /Task Group	Cairns	Townsville	Mackay
Steering Committee	10 organisations 14 members Monthly meetings	8 organisations 9 members Monthly meetings	19 organisations 27 members Monthly meetings
Venue Management Task Group	13 venues 23 members Fortnightly meetings from 17.8.95 and monthly from 5.8.96	9 venues 16 members Monthly meetings	8 organisations 26 members Monthly meetings
Security and Policing Task Group	Under the auspices of the Community Consultative Committee	Functioned from June to Oct. 1995	9 organisations 24 members Monthly meetings then fortnightly after introduction of 5 a.m. licenses
Safety of Public Spaces Task Group	4-6 members: conducted Safety Audit	15 members: conducted Safety Audit	9 members: conducted Safety Audit
Young People in Public Spaces Task Group			6 organisations Monthly meetings

All the project strategies should be viewed in the general context of a gradual improvement in state government regulation of licensed premises that commenced in July 1992 with the proclamation of a new liquor act that replaced the previous act of 1912. For the first time an Australian act set as one of its objectives the regulation of the liquor industry in a manner compatible with minimizing the harm arising from the misuse of liquor and with the National Health Policy on Alcohol (Carvolth, 1998; Stockwell, 1994). Partly as a result of the Surfers Paradise project, in July 1995 a head of power was

TABLE 4

Intensity of interventions: training

Training Recipients	Purpose of Training	Approximate Length
Steering Committee	To describe the structure, content, process and accountability of the project and the major responsibilities of the Committee	Half day: All sites.
Project Officers	Within a situational crime prevention and harm minimisation framework, to describe the structure, content, process, accountability and expected stages of the project relative to the responsibilities of the position	4 days on-site at Griffith University; one day on-site at Surfers Paradise.
Police and Project Officers	To provide training in all aspects related to liquor licensing investigations	7 days: Queensland Police Service
Venue management and barstaff	To train all venue personnel in responsible alcohol management within venues (Patron Care)	Half day. Twice yearly training written into Cairns Code of Conduct.
Security Personnel	To train staff in security and crowd management in relation to security legislation and best practice	2-day course by Queensland Hotels Association

placed in the 1992 act, and subordinate legislation was enacted to prohibit the use of irresponsible practices and to encourage the creation of safe environments for patrons. These legislative amendments were supported by the introduction in November 1995 of the *Queensland Liquor Industry 2000 Plan*, which was designed to involve the community in the dialogue between government and industry on how to strengthen the industry in ways consistent with social responsibility.

Evaluation design: venue observations

The aim of the evaluation was to determine whether observed aggression and violence within venues declined after the interventions, and whether factors known to be associated with violence (such as male drunkenness) also declined.

Procedures Activities in all the nightclubs and hotels in the central entertainment areas of Cairns, Townsville and Mackay were observed by teams of students during September 1994 (before

the interventions) and October 1996 (after the interventions). Cafeterias and restaurants were excluded. All observation sessions were about two hours long and were unobtrusive. In 1994, 83 visits were made to 28 venues; in 1996, 116 visits were made to 47 venues. More venues were visited in 1996 than in 1994, especially in Cairns, because many new venues had been established in that period, and it was considered important to include all operating premises in the area. Of course other premises had closed down, while many had changed their name and style (especially in Mackay). The original aim was to visit each establishment three times: once early in the evening (commencing between 10 pm and midnight), once in the mid-period (commencing between midnight and 2 am), and once late (commencing after 2 am). This was almost achieved in 1994, but the greater number of venues in 1996 meant that the mean number of visits per venue was only 2.5. Premises visited fewer than three times were mostly those that closed early (before 3 am, often earlier).

Since aggression and violence tend to occur more frequently toward closing time, it was important that the distribution of visits across time periods be equivalent in 1994 and 1996. This was achieved: in 1994 the distribution was 44.6% early, 34.9% mid-period, and 20.5% late, while in 1996 the figures were, respectively, 45.7%, 34.0%, and 20.3% ($X^2(2) = 0.08$). Nearly all visits in both years took place on Thursday, Friday and Saturday nights, with almost identical distributions in each year.

A structured, systematic observation technique was employed, based on an observation schedule of some 20 pages consisting of hundreds of items. These items covered details of the physical and social environments, patron characteristics, barstaff and security staff, drinking patterns, serving practices, and aggression and violence. The schedule was almost identical to the instrument developed in Sydney by Homel

and his students (Homel and Clark, 1994) and used in Surfers Paradise (Homel et al., 1997a).

Students recruited from local universities and colleges observed in mixed-sex groups of three or four to ensure their safety when leaving in the early hours of the morning. Those recruited tended to be "street smart" and had a general familiarity with licensed venues. At least three students of aboriginal or islander descent were employed in each city, and these students were used in venues where whites would have felt particularly out of place. Students were told in a general way about the aims of the research, but care was taken in 1996 training to avoid setting up an expectancy that violence levels would be lower than in 1994. Almost none of the 1996 observers had done the 1994 observations, and in any case it would have been very difficult for observers to have remembered what levels of violence obtained in 1994.

Several training sessions were conducted to ensure that students were thoroughly familiar with the observation schedule. It was emphasized during training that observers were there for scientific purposes, and that although they should act as normal patrons, their job was not to have a good time but to observe as comprehensively and as accurately as possible, and especially to record details of all incidents of aggression or physical violence that they became aware of. A limit of one alcoholic drink per hour was imposed for each observer. Observers' responses to items in the observation schedule were calibrated for consistency within and across groups. Each observer completed the survey form in isolation as soon as possible after the visit. At a subsequent meeting, inconsistencies between observers were checked and agreement was established.

Research design

A key issue in the Surfers Paradise project was our inability—mainly because of funding restrictions—to select and collect data in control areas (see Homel et al., 1997a, for a discussion). We compensated by using multiple data sets

(venue observations, police data, security data, and risk assessments) and by carefully analyzing links between factors (such as management practices, levels of drunkenness, and violence) that could reasonably be argued to form a causal chain. In the replication studies there are two possible control areas for which data are available: Mount Isa and Surfers Paradise.

Mount Isa is a possible control because it was originally going to be part of the project but dropped out because of a major strike in 1995. It is also many hundreds of kilometres inland, ruling out patron displacement as a problem. However, several factors militate against its use as a control. The main problem is that it is very different from the coastal cities, being an inland mining center not comparable in terms of many demographic, economic, and physical features. There is the additional methodological problem that observational data were collected in 1995 and 1996, not 1994 and 1996 as in the other cities.

Surfers Paradise is possibly a more attractive control, for several reasons. Like Mount Isa it is many thousands of kilometres removed from the intervention sites, ruling out patron displacement as a problem; but it has the major advantage over Mount Isa that it is a coastal entertainment and tourist center comparable in many aspects of demography and life style to the other cities, especially Cairns and Mackay. Venue observations were also conducted in 1994 and 1996, although in late summer rather than spring. In addition, we know from our research in Surfers that despite the best endeavors of local workers, the 1993 intervention quickly decayed during the so-called "maintenance period" (1994–1996), meaning that no effective intervention was taking place during this time (Homel et al., 1997a).

However, there is the obvious problem that the initial success of the Surfers intervention in 1993, reflected in the low rates of aggression and violence in the 1994 wave of observations,

means that the community was starting (in 1994) from an abnormally low base, and that some return to pre-intervention baseline levels might have been inevitable. On balance, because of the prior intervention we consider that it is not appropriate to use Surfers as a control, although it is still useful to help assess the effects of exogenous statewide influences on licensed venues and on levels of violence. For example, if the intensified work of the Liquor Licensing Division through legislative change and through the *Liquor Industry 2000* plan had had any impact throughout the state, one would expect to see that impact in Surfers Paradise, which was the object of a great deal of official interest in the wake of the 1993 project.

Probably a more serious threat to internal validity than the lack of a formal control group is the problem of displacement of patrons within cities. This was a potential problem in Surfers, given its proximity to some other entertainment areas (although much smaller) within the region. However, the problem is less acute in the northern cities because there are many fewer alternative sites for displacement (with the possible exception of Townsville). In addition, unlike the situation in Surfers (with Brisbane being only an hour up the road), there are no large cities near the northern intervention sites that could receive disaffected and troublesome patrons. Nevertheless, care is required in data analysis to identify possible displacement effects (for example, from changes in patron characteristics).

Results

Table 5 summarizes the changes in observed incidents of aggression and violence within venues in the three cities between 1994 and 1996. The table also includes some comparative figures for Surfers Paradise. It is apparent that all forms of aggression and violence declined, with physical violence recording the greatest reduction, regardless of

whether all incidents are included or only those for which full details could be recorded. Of the non-physical indicators, verbal abuse showed the greatest decline. By contrast with the intervention sites, Surfers Paradise recorded marked increases in all forms of violence.

TABLE 5

Indicators of aggression and violence in Mackay, Cairns, Townsville, and Surfers Paradise, 1994 and 1996

<i>Indicator</i>	<i>Rate/100 hrs 1994</i>	<i>Rate/100 hrs 1996</i>	<i>% Red'n/ Increase</i>	<i>p- value¹</i>
<i>Mackay, Cairns, and Townsville</i>				
number of visits/hours	83/164	116/230		
verbal abuse	16.5	6.5	-60.4	.034
arguments	8.5	6.1	-28.2	.440
challenges/threats	3.7	2.2	-40.5	.520
physical assaults (1) ²	4.0	0.9	-81.2	.000
physical assaults (2) ²	12.2	3.0	-75.1	.018
total verbal aggression	28.9	14.8	-48.8	.069
total aggression/violence ³	40.9	17.8	-56.5	.019
<i>Surfers Paradise</i>				
number of visits/hours	56/112	43/86		
verbal abuse	2.33	8.34	+257.9	.068
arguments	2.33	13.54	+481.1	.033
challenges/threats	0.00	9.38	--	.003
physical assaults (1) ²	4.65	8.34	+79.4	.440

¹ Based on a two-sample t-test (not assuming equal variances) or a chi-square test, whichever is appropriate.

² Physical assaults (1) is an indicator based on assault incidents for which details were recorded, such as number of aggressors and victims, severity of incident, and whether staff intervened. Physical assaults (2) is a more global measure that includes all incidents that were known to occur, regardless of whether details could be recorded.

³ This excludes ejections, refusals to admit people, and accidental injuries.

There were changes in each city on overall physical and non-physical aggression, and on all observed incidents of aggression and violence (Table 6). The reduction in physical violence was most marked in Cairns (88.3%), and in fact this was the only change that was statistically significant ($p = .017$), despite consistent declines on all indicators in all cities (except verbal aggression in Cairns). The p-values

reflect small sample sizes in each city, as well as the fact that aggressive incidents are relatively rare events.* This limited statistical power, and the skewed nature of the distribution of aggression, mean that it is difficult to determine whether effect sizes differ significantly between cities. To clarify the outcomes, two measures of aggression were therefore utilized in Table 6: the rate per 100 hours of observation (for comparison with Table 5) and the percentage of visits in which at least one incident was observed (to avoid the problem of skewness).

TABLE 6

**Changes in aggression and violence, by city
(1994–1996)**

Indicator	Rate/100 hours				% of Visits With One or More Incidents of Aggression or Violence			
	1994	1996	%	p ¹	1994	1996	%	p ²
			Red'n/ Incr.				Red'n/ Incr.	
<i>Mackay (n = 22 in 1994 and 25 in 1996)</i>								
Physical assaults (2)	15.9	4.0	-74.8	.330	13.6	8.0	-41.2	.532
Total verbal aggression	38.7	20.0	-48.3	.340	31.8	16.0	-49.7	.201
All aggression/violence	54.6	24.0	-56.0	.260	31.8	16.0	-49.7	.201
<i>Cairns (n = 26 in 1994 and 56 in 1996)</i>								
Physical assaults (2)	7.7	0.9	-88.3	.078	15.4	1.8	-88.3	.017
Total verbal aggression	11.6	10.7	-7.4	.930	11.5	12.5	+8.7	.900
All aggression/violence	19.3	11.6	-39.7	.500	13.1	12.5	-4.6	.222
<i>Townsville (n = 35 in 1994 and 35 in 1996)</i>								
Physical assaults (2)	12.9	5.7	-55.6	.130	25.7	11.4	-55.6	.125
Total verbal aggression	34.3	17.2	-50.0	.140	37.1	31.4	-15.4	.624
All aggression/violence	47.2	22.9	-51.5	.081	42.9	34.3	-20.0	.471

¹ Two-sample t-test (not assuming equal variances).

² Chi-square test.

Combining the three intervention sites, there were marked improvements on most indicators of host responsibility practices. Publicity to patrons improved, with an increase in the use of underage drinking warnings, Patron Care signs, and other forms of publicity. Surprisingly, the display of House Policy notices declined. (This was a particular problem in Townsville, for reasons that are not immediately apparent.) Promotion of consumption also declined: topping up or filling empty glasses was not observed at all in 1996, compared with 7.2% of visits in 1994; happy hours nearly halved in frequency; promotion of specific drinks declined by 50%; and the use of gimmicks halved.

Presumably as a result of these initiatives, some drinking measures showed marked changes. Male and female drinking rates were judged not to have changed significantly, nor did the estimated levels of female drunkenness, but male drunkenness appeared to decline sharply ($X^2(3) = 18.4$; $p = .000$). Using a four-point rating scale, the percentage of visits with high levels of male drunkenness declined from 40.2% to 13.8%, while the percentage with low or no male drunkenness increased from 26.8% to 42.2%. These results imply that staff intervened in a firm way when serving men in order to prevent intoxication.

This inference is strongly supported by the observational data. Methods for dealing with intoxicated persons improved, with intervention by staff in at least some cases rising from 30.4% to 53.3% ($X^2(1) = 5.5$; $p = .02$). Techniques that showed statistically significant changes included delaying service, offering alternatives, denying service, and calling management.

It is important to note that in contrast to the northern cities, in Surfers Paradise between 1994 and 1996 many (although not all) of the measures of host responsibility and drinking levels moved in the wrong direction, consistent with the observed increases in aggression and violence. Further analysis of

these data, combined with a more comprehensive analysis of the data from the north, should help to identify factors that are critical in achieving *and* maintaining low levels of aggression and violence.

In this vein, preliminary regression analyses were conducted on the data from Cairns, Townsville and Mackay to test whether interaction effects between year and location could be detected, and whether levels of male drunkenness could account for the observed changes in aggression and violence. These analyses are not definitive, since very skewed discrete distributions pose particular problems for least squares modeling techniques, even with transformations, and also only one variable (male drunkenness) was included as a covariate. Nevertheless, the results were of interest: there was no evidence for any interaction effect for any measure of aggression, suggesting that the declines were roughly of the same magnitude in the three cities; and male drunkenness was able to explain the declines in physical violence, but not in non-physical aggression. This last result, which is in line with the earlier research, suggests that control of male alcohol consumption is critical to reducing violence, but that the reduction of more general forms of aggression requires the manipulation of other factors as well.

Discussion

The preliminary analysis of venue-observation data reported in this paper demonstrates that there was a marked reduction in aggressive and violent incidents between 1994 and 1996 in Cairns, Townsville and Mackay. The reduction in physical violence was particularly pronounced, with a decline of between 75% and 81%. These declines coincided with a range of significant improvements in host responsibility practices and with a marked decline in levels of male drunkenness. Although the three cities varied in their pre- and post-intervention levels of aggression and violence, the

reductions observed in each city were not significantly different from each other. The reductions in physical violence across all sites appear to be explicable largely in terms of the decline in levels of male drunkenness.

A critical question is whether the interventions *caused* the reductions in violence, or whether they were part of a general trend unrelated to the project. The recent increase in assaults statewide, reported by Homel and Mirrlees-Black (1997) on the basis of trends in police, hospital and survey data, suggests that if anything we could have expected an increase in assaults in the three cities, particularly assaults involving young people. On the other hand, initiatives of the Liquor Licensing Division across the state might have been expected to have caused some decrease in problems in and around licensed venues.

Certainly no decline was observed in Surfers Paradise over the two-year period, although the special status of Surfers as an area that had previously benefited from an intensive intervention is acknowledged. Nevertheless, it is interesting to note that the 1994 level of physical violence in Surfers (using the more restrictive measure) was very similar to the 1994 levels in Mackay, Cairns and Townsville (4.65 and 4.0 per hundred hours respectively). This suggests that Surfers may be an area that in the normal course of events is more violent than the northern cities (in aggregate), and that an outcome of the project was to make it more "normal." In any case, the increase in aggression in Surfers tends to support the view that the declines in the north were not due entirely to statewide trends. More critically, the internal consistency of the data (as in the case of Surfers itself), with improvements in hospitality practices correlating with a decline in male drunkenness and a decline in aggression and violence, supports the argument for a causal impact.

It should be stressed, however, that a wider range of data is required before firm conclusions can be drawn. Venue obser-

vations suffer from a number of reliability and validity problems, so it is desirable to examine other data series, such as police statistics. Police statistics have the advantage of being more comprehensive than venue observations in that they include assault and other crime incidents occurring outside venues and outside the target districts. This comprehensiveness is, however, also a disadvantage, since statistics for the areas surrounding licensed venues are influenced by many factors, especially police enforcement practices. In addition, police statistics suffer from the major disadvantage that incidents occurring *within* venues are grossly underreported or underrecorded (Campbell and Green, 1997; Homel and Tomsen, 1991).

Assuming some net causal impact of the interventions, three key questions arise: (1) How much of the problem was displaced elsewhere? (2) Why are the sizes of the effects so much greater than reported elsewhere (e.g., by Holder, 1997)? (3) What can be learned about the components that are necessary or unnecessary for a successful intervention?

Although the analysis of displacement is now recognized in the crime prevention literature as an exceedingly complex problem (Clarke, 1997), considerable progress has been made at both the theoretical and the empirical levels. A review of 55 studies of displacement by Hesseling (1994) led to the conclusion that displacement did not occur at all in 22 studies and was never 100% in the remaining studies. Moreover, there is growing evidence that often interventions result in "diffusion of benefits," which means there are benefits "beyond the places which are directly targeted, the individuals who are the subject of control, the crimes which are the focus of intervention or the time periods in which an intervention is brought" (Clarke and Weisburd, 1994, p. 169). Diffusion of benefits was observed in Surfers Paradise through, for example, a decline in stealing offenses in the street, even though property crimes were not the target (Homel et al., 1997a).

Study of possible geographical displacement effects in the Surfers and replication projects must await detailed analysis of police data—a difficult undertaking, given the degree of disaggregation required. However, another way to address the problem is through analysis of patron characteristics. If, for example, patrons were much more dressed up after the interventions, it could be argued that troublesome and poorly dressed patrons were replaced by a more up-market and peaceful crowd. While there was some evidence for this in the Surfers project, the observational data from the northern cities show very few changes in patron characteristics. There was a reduction in the already small proportion of underage patrons, a trend to smaller groups, and a drift to more “smart casual” dress (as opposed to “grunge”). There is therefore no evidence for a qualitative change in the type of patron attracted by venues. Given that drinking rates also did not change, it is reasonable to conclude that there is little evidence for displacement from the observational data.

The question of effect sizes is as difficult to address as displacement. It is important to remember that only in Surfers Paradise do we have reliable data on the longer-term effects of the safety action project model, and that analysis of other data (especially police data) may alter some conclusions about how much was achieved even in the short term in north Queensland. Nevertheless the short-term effects reported in this paper require some explanation.

One important point is methodological: our observational data were collected between seven and 14 months after the codes of practice were fully implemented, which is a relatively short period, although quite long enough to ensure that results did not reflect purely ephemeral changes. Moreover, as noted earlier, observational data produce a more direct and valid sample of violence within venues than do police (or hospital) data, despite some inevitable measurement errors. Part of the explanation for our strong results may therefore be attributed to timing, with the post-intervention observations

being undertaken within a year or so of the introduction of the codes of practice (at a time when the direct influence of the project officers was also still being felt). It may also be attributed to the use of measures that are very sensitive to internal changes in venues.

We also suspect that part of the explanation for the results lies with the strong situational focus of the interventions, with the emphasis on changing management practices in order to effect changes in the total environment of venues, not just serving practices. It is clear from analyses of the observational data (not reported in this paper) that there were major improvements in the social climate and sociability of venues and a big reduction in overall "permissiveness," despite an increase in patron numbers and crowding. All of these improvements could be expected to contribute to a reduction in aggression. Nevertheless it is also clear that responsible beverage service practices were strongly implemented, resulting in a marked reduction in levels of male intoxication. This appears to have been a key factor in the reduction in physical violence.

These large management and environmental changes were certainly not the result of the allocation of massive resources. As indicated earlier (Tables 2, 3 and 4), project resources were relatively modest, the main cost being project officer salaries for less than one year (full-time equivalent). The training components and the terms of appointment of project officers were the minimum considered necessary to make the projects viable.

Nor were the changes the result in most cases of direct law enforcement using police or liquor licensing officials (through such means as prosecutions of licensees or closure of non-complying establishments), although these agencies actively supported the projects in a number of ways. For example, in Cairns the police provided strong support through community policing strategies directed at safety on the streets, and in

Mackay they also encouraged licensees to comply with the liquor act. Generally, however, pressure was brought to bear on licensees through the processes depicted in Table 1, which are more complex and multifaceted than direct enforcement. Our experience is that it is essential to manipulate many levers simultaneously to bring about change in licensed venues, and that pressure from the local community is critical.

For example, some kind of mechanism seems essential for informally calling licensees to account for violations of the code of practice. Much can be accomplished by a body that takes complaints and monitors compliance, especially if influential members of the local community are involved. On the other hand, the realistic threat of formal enforcement is necessary for these informal processes to work effectively. Indeed, we suspect that in terms of the "punish or persuade" balance, the safety action model is if anything too reliant on the element of persuasion, and that this may be one reason why long-term effects have been difficult to achieve in some locales (Hemel et al., 1997a). This is related to the general problem of the weak formal regulatory structures in the liquor licensing area in Australia (Hemel, 1996; Stockwell, 1994).

Putting the foregoing discussion in more theoretical terms, we suspect that only when those interested in effecting change think in terms of more complex regulatory systems incorporating elements like tripartism and enforced self-regulation will success be achieved. It is the combination of situational prevention strategies, community mobilization, and a sophisticated, dynamic, multipronged regulatory system responsive to the needs and aspirations of each community that has the most potential to bring about short-term and long-term change.

With respect to the question of what specific ingredients are necessary or unnecessary for change, our main conclusion at present is that *there are many paths to the same destination*,

with perhaps some common steps. Our ability to discriminate between regions is restricted by the statistical outcomes, which were not significantly different, despite marked differences in pre- and post-intervention levels of aggression and violence. This, however, can be turned to analytical advantage to identify non-critical components.

For example, as noted there was strong police support through community policing initiatives in Cairns and Mackay, but in Townsville police involvement was restricted to membership in the steering committee and involvement in some task groups. This suggests that heavy police involvement through community policing strategies is *not* an essential component for success, at least in the short term, although other considerations might dictate utilizing such methods anyway. Similarly, risk assessments within venues were done in Townsville and Mackay, but not in Cairns, suggesting that codes of practice can be developed without this preliminary process. Again, a strategy we considered essential in Surfers Paradise was the creation of a community monitoring committee to help licensees to self-regulate, but in Townsville this role was initially performed by the steering committee and then it was dropped. A cautious conclusion would be that a stand-alone monitoring committee is not essential, but that some person or group needs to perform this role.

The essential components must be included among those strategies that all projects had in common. On the basis of our present analyses, these are: the formation of a steering committee; the conducting of a community forum; the employment of a project officer; the formation of task groups (although these differed in function from city to city); the conducting of a safety audit; and the development of a code of practice. Further data analysis should isolate management and situational factors that stayed constant in one or more of the intervention sites while aggression increased or decreased, thus eliminating them as likely causal factors and facilitating a better understanding of what other factors should

be manipulated in a community-based intervention. However, a word of caution is necessary: it is the experience generally in community-based crime prevention that multiple "risk and protective" factors at multiple levels (such as the individual, the family, the school and the neighborhood) must be manipulated simultaneously in order to bring about change, and that it is often impossible to isolate the "critical" components (Developmental Crime Prevention Consortium, in press; Farrington, 1997; Pawson & Tilley, 1994). Indeed, if our conclusion is correct, that there are many paths to the same destination, such a task may not even be particularly meaningful in the present case.

In any case, we know enough now to answer one of the major questions we set ourselves when devising the replication projects: How robust is the safety action model as a technique for reducing alcohol-related crime and violence in diverse communities? Our answer, on the basis of the data currently available, is that the model is indeed robust, although not all the specific techniques used in Surfers Paradise appear to be essential. The tasks remaining include refining the model through more detailed research on the situational factors that cause violence, through a better analysis of the community processes that make for successful implementation, and, above all, through an improved understanding of what "responsive regulation" means for the retail alcohol industry.

- Note * Naturally it would have been desirable to have had sample sizes before and after the interventions that were sufficiently large to pronounce all the observed reductions in aggression as statistically significant. The problem of low statistical power, given that aggressive and violent incidents are relatively rare events, was well understood from the outset. However, it was not possible to attract sufficient funding for the evaluation component of the project to achieve the desired sample sizes. An alternative analysis strategy, based on within-venue changes, is being explored, although the rapid changes in the industry meant that often venues did not exist in both 1994 and 1996.

References

- Alcohol Advisory Council of Western Australia. *Licensed Premises: Your Right to Object*. Perth, WA: Author, 1989.
- Ayres, I. and Braithwaite, J. *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press, 1992.
- Campbell, D. and Green, D. Assault injuries in the Gold Coast region. *Emergency Medicine*, 9:97-99, 1997.
- Carcach, C. *Youth as Victims and Offenders of Homicide. Trends and Issues in Crime and Justice*, No. 73. Canberra, ACT: Australian Institute of Criminology, 1997.
- Carvolth, R. Does responsible hospitality work? A synopsis of research findings. In: Stockwell, T., Lang, E. and Rydon, P. (eds.), *The Licensed Drinking Environment: Current Research in Australia and New Zealand*. Perth, WA: National Centre for Research into the Prevention of Drug Abuse, 134-141, 1991.
- Carvolth, R. *Partnerships to Reduce Intoxication, Violence and Injury in the Licensed Environment: A Guide for the Health Sector*. Brisbane, Qld: Alcohol, Tobacco and Other Drug Services, Qld Health Department, 1998.
- Clarke, R. *Situational Crime Prevention: Successful Case Studies* (second edition). Guilderland, NY: Harrow and Heston, 1997.
- Clarke, R. and Homel, R. A revised classification of situational crime prevention techniques. In: Lab, S.P. (ed.), *Crime Prevention at a Crossroads*. Cincinnati, OH: Anderson Publishing Co. and Academy of Criminal Justice Sciences, 17-30, 1997.
- Clarke, R. and Weisburd, D. Diffusion of crime control benefits: Observations on the reverse of displacement. In: Clarke, R. (ed.), *Crime Prevention Studies*, 2. Monsey, NY: Criminal Justice Press, 1994.
- Developmental Crime Prevention Consortium. *Pathways to Prevention: Developmental and Early Intervention Approaches to Crime in Australia*. Canberra, ACT: National Campaign Against Violence and Crime, in press.
- Farrington, D. Evaluating a community crime prevention program. *Evaluation*, 3:157-173, 1997.
- Felson, M., Berends, R., Richardson, B. and Veno, A. Reducing pub hopping and related crime. In: Homel, R. (ed.), *Policing for Prevention: Reducing Crime, Public Intoxication, and Injury*. *Crime Prevention Studies*, 7. Monsey, NY: Criminal Justice Press 115-132, 1997.

- Fisher, J. *Partnership for personal safety: Preventing violent crime in and around licensed premises*. Presented at the National Conference on Crime Prevention, Griffith University, Brisbane, 1993.
- Gilling, D. *The multi-agency approach to crime prevention: The British experience*. Presented at the National Conference on Crime Prevention, Griffith University, Brisbane, 1993.
- Graham, K., LaRocque, L., Yetman, R., Ross, T.J. and Guistra, E. Aggression and barroom environments. *Journal of Studies on Alcohol*, 41: 277-292, 1980.
- Graham, K. and Homel, R. Creating safer bars. In Plant, M., Single, E. and Stockwell, T. (eds.) *Alcohol: Minimising the Harm*. London, UK: Free Association Press, 171-192, 1997.
- Hesseling, R. Displacement: A review of the empirical literature. In: Clarke, R. (ed.), *Crime Prevention Studies*, 3. Monsey, NY: Criminal Justice Press, 1994.
- Holder, H. (ed.). A community prevention trial to reduce alcohol-involved trauma. *Addiction*, 92: Supplement 2, 1997.
- Holder, H., Saltz, R., Grube, J., Voas, R., Gruenewald, P. and Treno, A. A community prevention trial to reduce alcohol-involved accidental injury and death: Overview. *Addiction*, 92: Supplement 2, S155-S171, 1997.
- Homel, R. Review of T. Stockwell (ed.), An examination of the appropriateness and efficacy of liquor-licensing laws across Australia. Canberra: AGPS. *Addiction*, 91: 1231-1233, 1996.
- Homel, R. and Clark, J. The prediction and prevention of violence in pubs and clubs. In: Clarke, R. (ed.), *Crime Prevention Studies*, 3. Monsey, NY: Criminal Justice Press, 1-46, 1994.
- Homel, R., Hauritz, M., Wortley, R., McIlwain, G. and Carvolth, R. Preventing alcohol-related crime through community action: The Surfers Paradise Safety Action Project. In: Homel, R. (ed.), *Policing for Prevention: Reducing Crime, Public Intoxication, and Injury*. *Crime Prevention Studies*, 7. Monsey, NY: Criminal Justice Press, 35-90, 1997a.
- Homel, R., Hauritz, M., McIlwain, G., Wortley, R. and Carvolth, R. Preventing drunkenness and violence around nightclubs in a tourist resort. In: Clarke, R. (ed.), *Situational Crime Prevention: Successful Case Studies* (second edition). Guilderland, NY: Harrow and Heston, 263-282, 1997b.
- Homel, R. and Mirrlees-Black, C. *Assault in Queensland*. Brisbane, Qld: Queensland Criminal Justice Commission, 1997.

- Homel, R. and Tomsen, S. Pubs and violence: Violence, public drinking, and public policy. *Current Affairs Bulletin*, 20-27, December 1991.
- Homel, R., Tomsen, S. and Thommeny, J. Public drinking and violence: Not just an alcohol problem. *The Journal of Drug Issues*, 22: 679-697, 1992.
- Indermaur, D. *Violent Crime in Australia: Interpreting the Trends*. Canberra, ACT: Australian Institute of Criminology, 1996.
- Lakeland, G. and Durham, G. *AHB and community organisation: Building a coalition in preventing alcohol problems*. Presented at the Perspectives for Change conference, Rotorua, New Zealand, 1993.
- Lander, A. *Preventing Alcohol-Related Violence: A Community Action Manual*. Darlinghurst, NSW: Eastern Sydney Area Health Service and St. Vincent's Alcohol and Drug Service, 1995.
- Macintyre, S. & Homel, R. Danger on the dance floor. A study of interior design, crowding and aggression in nightclubs. In: Homel, R. (ed.), *Policing for Prevention: Reducing Crime, Public Intoxication and Injury. Crime Prevention Studies*, 7. Monsey, NY: Criminal Justice Press, 91-114, 1997.
- Melbourne City Council. *Westend Forum Project—1990/91. Final Report*. Melbourne, Victoria: Author, 1991.
- New South Wales Bureau of Crime Statistics and Research. *New South Wales Recorded Crime Statistics 1996*. Sydney, NSW: Author, 1997.
- Parkdale Focus Community. *Liquor Licensing and the Community: Resolving Problems With Licensed Establishments*. Toronto, Canada: Author, 1995.
- Pawson, R. & Tilley, N. What works in evaluation research? *British Journal of Criminology*, 34:291-306, 1994.
- Putnam, S.L., Rockett, I.R. and Campbell, M.K. Methodological issues in community-based alcohol-related injury prevention projects: Attribution of program effects. In: Greenfield, T.K. and Zimmerman, R. (eds.) *Center for Substance Abuse Prevention Monograph 14*. Rockville, MD: U.S. Department of Health and Human Services, 1993.
- Saltz, R. The roles of bars and restaurants in preventing alcohol-impaired driving: An evaluation of server education. *Evaluation in Health Professions*, 10:5-27, 1987.
- Saltz, R. and Stanghetta, P. A community-wide Responsible Beverage Service program in three communities: Early findings. *Addiction*, 92: Supplement 2, S237-S249, 1997.

- Stockwell, T. *Alcohol Misuse and Violence: An Examination of the Appropriateness and Efficacy of Liquor Licensing Laws Across Australia*. Report no. 5, presented at the National Symposium on Alcohol Misuse and Violence. Prepared for the Commonwealth Department of Health, Housing, Local Government and Community Services. Canberra: Australian Government Publishing Service, 1994.
- Stockwell, T. Regulation of the licensed drinking environment: A major opportunity for crime prevention. In: Homel, R. (ed.), *Policing for Prevention: Reducing Crime, Public Intoxication, and Injury*. *Crime Prevention Studies*, 7. Monsey, NY: Criminal Justice Press, 7-34, 1997.
- Treno, A. and Holder, H. Community mobilization: Evaluation of an environmental approach to local action. *Addiction*, 92: *Supplement 2*, S173-S187, 1997.
- Victoria Police. *Geelong "Local Industry Accord": A Partnership in Crime Prevention*. Melbourne, Vic: Author, 1995.
- Walsh, B. *Communities working together side by side to create safe sea-side suburbs*. Presented at Australian Institute of Criminology conference, Melbourne, 1993.