An Evaluation of the Local Government Safety Action Projects in Cairns, Townsville and Mackay

A Report to the Queensland Department of Health, the Queensland Police Service and the Criminology Research Council

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Abstract

The aims of this report are to sketch the theoretical basis of a series of safety action projects in three diverse North Queensland cities (Cairns, Townsville and Mackay), and to report some results. These projects, which aimed to improve the safety of licensed environments in the central city entertainment areas, are replications of the safety action model developed in Surfers Paradise.

Key features of the approach include creating a steering committee and community forum; forming task groups to address safety of public spaces, management of venues, and security and policing; encouraging venue managers to introduce a Code of Practice; and regulating managers through informal community processes as well as formal enforcement. The model is based on: prior experience with community interventions; the theory of situational crime prevention; and regulatory theory.

The results are based on police data and 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. From the observational data, there was a decline of 56.5% in all aggressive and violent incidents, and a decline of at least 75% in physical assaults, although conclusions concerning direct causality cannot be drawn. These declines, which did not differ significantly between cities, coincided with reductions in the levels of perceived "permissiveness" in venues, increases in sociability, cheerfulness and friendliness, and a range of significant improvements in host responsibility practices and a marked decline in levels of male drunkenness. Patronage (and crowding) increased and prices stayed the same, suggesting no decline in levels of profitability.

Police data for Cairns and Townsville, but not Mackay, showed reductions in many types of street offences corresponding to the periods when the project officer was active or the Code of Practice was implemented, but there are difficulties in interpreting the police data (especially in Townsville). There are also good reasons for not expecting a close correlation between police data on street offences and observations of behaviours within venues, since many incidents within venues are not reported or recorded. Overall, the police data for Cairns and Townsville, but not Mackay, are consistent with the reductions in aggression observed within venues.

Assuming some causal impact of the interventions, identification of "critical" components is problematic, one conclusion being that there are many paths to the same destination. However, whatever intervention techniques are employed, a reduction in male drunkenness seems important to reduce physical violence.

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Towards Safer Licensed Environments

Introduction

The aims of this report are to sketch the theoretical basis of a series of "community safety action projects" in three North Queensland cities (Cairns, Townsville and Mackay), and to report the main results of the evaluation. Some details of the implementation and content of the projects are provided - enough to understand what is being evaluated - but for detailed accounts of the implementation processes (as well as extensive local data, project officers' findings and their recommendations) the reader is referred to Rostron (1995; 1996) (Townsville), Randall (1996) (Mackay), and Fox (1996) (Cairns).

The 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 south east Queensland tourist resort of Surfers Paradise (Homel and Clark, 1994; Homel, Hauritz, Wortley, McIlwain and Carvolth, 1997; Homel, Hauritz, McIlwain, Wortley and Carvolth, 1997; 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 police data and 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. 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. In addition, in contrast to the Surfers Paradise project, in the present study venue risk assessment outcomes and data from security companies were not available at a reasonable cost and at a sufficiently high level of quality to make their use viable (Homel et al., 1997).

Trends in Violence

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 twentieth century (Indermaur, 1996; Bordeaux & Harrison, 1998), but there are signs that are interpreted by many people as indicating that this situation is changing. In the 1980s and 1990s Australia experienced some of the worst public massacres in its history, the most recent of which in April 1996 in Port Arthur, Tasmania, resulted in the deaths of 35 people. Although massacres might plausibly be

dismissed as random, aberrant events that indicate nothing about underlying trends, recent police and crime victims data for New South Wales (NSW Bureau of Crime Statistics and Research, 1997) and Queensland (Homel and Mirrlees-Black, 1997) do provide some support for the view that Australian society generally may be becoming more violent. In both states, 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.

One feature of assault victimisation found in all crime victim surveys, including those analysed by Homel and Mirrlees-Black (1997) in Queensland, is the extremely high rates of victimisation of teenagers and young adults. Nearly 18% of boys and 8% of girls aged 15 to 19 years reported in the 1991 Queensland Crime Victims Survey being physically assaulted in the previous year, with rates for the 20-24 age group being the next highest (13% and 7% respectively). This means that if overall violence is increasing, young people in particular must be being victimised more often.

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), both highlight the importance of environmental or situational factors as risk factors 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) which provide leisure or entertainment. Many of these places, especially for those aged 18 years or over, are licensed venues.

The inference that licensed venues and other drinking environments provide the setting for many assaults involving young people is supported by recent research by Makkai (1997). In an analysis of the 1993 and 1995 National Drug Strategy National Household Surveys, she demonstrates that physical abuse by someone affected by alcohol is experienced most commonly by people (especially males) aged 14-19 years. The victimisation rates are especially high for respondents classified as binge drinkers.

It follows that one important strategy for reversing the trend towards higher rates of violence is to increase the safety of leisure and entertainment venues, including hotels and nightclubs, especially for young patrons.

The Safety of Licensed Venues

Not much appears to be known about the precise risk factors for aggression and violence in and around entertainment venues frequented by younger teenagers (such as fast food outlets, video game arcades, and cinema complexes), although given the literatures on adolescent health (Windle et al., 1996), on inner-city crime problems (Wikström, 1995), and on alcohol-related harm (Makkai, 1997; Stevenson, 1996) it is likely that alcohol is implicated as a factor both directly (through illegal consumption by under-age teenagers) and indirectly (as a result of the proximity of teenage leisure facilities to licensed premises). A little more is known about what makes licensed venues safe, although as Graham and Homel (1997) note, given the large role of situational factors in alcohol-related aggression it is surprising how little research has been conducted on this topic.

On the basis of existing research, including the naturalistic studies conducted by Graham et al. (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 to limit the harm caused by aggressive incidents. These features include:

- Attractive, nicely furnished, well-maintained bars. Well-kept premises may send a signal to patrons concerning acceptable behaviour.
- Comfortable surroundings that promote enjoyment and do not irritate or frustrate people. Lack of seating, smoky air, inconvenient bar access, and crowding (especially bar crowding) are some of the factors that correlate with aggression. Conversely, availability of good food and good quality music seem to reduce risks. Crowding is a bit more complex than it seems. Macintyre and Homel (1997), in a study of a small sample of Queensland nightclubs, distinguished density (people per square meter) from crowding (a subjective experience of sensory overload), and found that for a given density, high aggression clubs had higher levels of crowding than low aggression clubs. Crowding was related to intersecting traffic flows created by inappropriate design, especially poor location of bars, toilets, and entrances and exits.
- A social atmosphere with clear limits. Aggression is more common in permissive environments in which rules and limits are unclear, especially around dancing and pool playing (Gibbs, 1986). Rule setting or rule clarification, where actions and procedures that are acceptable and not acceptable are spelled out in detail, is a generic form of situational crime prevention (Clarke and Homel, 1997).
- Practices that discourage drinking to intoxication and foster a positive social atmosphere. There is considerable evidence that the likelihood and severity of aggression are directly linked with higher blood alcohol levels, particularly in males. Drinks promotions that encourage mass intoxication are especially dangerous, since large numbers of people become drunk simultaneously. By contrast, positive, friendly environments in which rates of drinking are controlled are generally less violent.
- Employing trained, peace-loving barworkers. Bouncers often provoke violence or cause incidents to escalate, so training security staff in negotiation techniques and methods of non-violent conflict resolution is important in creating safer environments.

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. (1997) 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 minimise alcohol-related harm in licensed premises is through responsible beverage service programs. These programs, which have as objectives both the prevention of intoxication and non-violent refusal of service to already intoxicated patrons, are very common in North

America, partly because of licensing requirements in some jurisdictions, but more importantly because of licensees' desire to reduce their exposure to multi-million dollar law suits arising from vicarious liability over the actions of patrons served to intoxication on their premises (Stockwell, Norberry & Solomon, 1994). They are therefore, in the main, a response to legal pressures.

There is some evidence that positive effects on levels of intoxication and on alcohol-related problems can be achieved through responsible serving programs (Carvolth, 1991; Saltz, 1987; Stockwell, 1997), especially when they are combined with police training and enforcement, publicity campaigns, and community activities (Putnam, Rockett and Campbell, 1993). However, a consensus seems to be emerging from the experiences of those involved in community programs that while responsible serving practices are of central importance, community regulation of alcohol-related disorder and violence must utilise other strategies as well, including the introduction of procedures that empower residents and other stakeholders to resolve problems with licensed establishments (Alcohol Advisory Council of Western Australia, 1989; Braun & Graham, 1997; Eastern Sydney Area Health Serice et al., 1995; Gilling, 1993; Lakeland & Durham, 1991; Lang, Keenan & Brooke, 1998; Marsden & James, 1992; Parkdale Focus Community, 1995; Shane & Cherry, 1985). These additional strategies are of particular importance in Australia, partly because civil law suits 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. One of the earliest community-based projects, the Melbourne Westend Forum (Melbourne City Council Westend Forum Project, 1991), arose from a recommendation of a government funded group, the Victorian Community Council Against Violence (1990), and was funded through the Ministry for Police. A high level of community involvement was achieved through public meetings, safety audits, and five task groups focused on town planning and urban design; traffic and by laws; venue management and cultural attitudes; policing; and transport. The main aim of the project was to reduce violence in and around the West End, an area with a concentration of nightclubs and other licensed venues. No quantitative evaluation was carried out, so it is not possible to determine the impact of the project, although qualitative evidence suggests a short-term effect.

Another Victorian initiative, the "Geelong Local Industry Accord," was a cooperative effort beginning in 1991, 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 et al., 1997; Kelly, 1993; Rumbold et al., 1998). Essentially the Accord is a Code of Practice that facilitates self-regulation by licensees throughout the region. "Best Practice" provisions included specified types of photo identification, minimum \$5 cover charges after 11.00 pm, no passouts from venues with an entry charge, no underage patrons, and responsible service of alcohol (including elimination of gimmicks that promote rapid and excessive consumption of alcohol). A key strategy of the Accord was to stop "pub hopping" by means of entry and exit controls.

The most thorough evaluation of the Geelong Accord has been conducted by Rumbold et al. (1998). Like most evaluations of community interventions, the study was hampered by limited resources and by a less than optimum research design. In particular, no before-after measures of alcohol and drug related harm were available. However, police records suggest that reported assault and property damage rates reduced after the Accord was implemented. Moreover, in comparison with two other regional centres, practices in Geelong venues were significantly better in terms of responsible drinking promotions, amenities, and responsible serving practices, although no differences were found with respect to crowding or overall levels of intoxication.

The authors emphasise that in comparison with other community-based initiatives, the Geelong Accord seems to have maintained a positive impact over a period of several years. They attribute this "longevity" to several factors, particularly the fact that the Accord was developed and resourced entirely within the local community, and the levels of stability in the local liquor industry and amongst police, local government and liquor licensing personnel. (Although in a private communication, one of the authors notes that this stability, and the positive impact of the intervention, may be "in the process of falling apart" [Lang, 1998]. As in other projects of this type, ongoing monitoring and evaluation is essential.)

Other community projects that have emerged recently in Australia include the Eastside Sydney Project (Lander, 1995) and several in South Australia (Fisher, 1993; Walsh, 1993). Specialists are also emerging in the staging of major events such as New Year's Eve, so that they are promoted as positive celebrations rather than as dysfunctional events characterised by high levels of disorder and violence (The Magnificent Events Company, 1996).

On the basis of the Australian literature, features that seem to characterise successful community interventions include: strong directive leadership during the establishment period; the mobilisation of community groups concerned about violence and disorder; the acceptance of responsibility by local groups for the minimisation of alcohol-related harm; the implementation of a multi-agency approach involving licensees, local government, police and liquor licensing authorities, health, and other groups; the use of Codes of Practice in some form as a basis for self-regulation; a focus on the way licensed venues are managed (particularly those that cater to large numbers of young people); and attention to situational factors, including serving and management practices, that promote intoxication and violent confrontations.

A particularly useful guide to community action is the recent report by Lang et al. (1998) published by the Turning Point Drug and Alcohol Centre in Victoria. This document is a clearly written resource for local groups that incorporates advice on evaluation as well as case studies of local community action on alcohol and drug issues and an annotated bibliography. Many Australian and overseas projects not referred to in this report are described in the case studies or bibliography.

The most wide-ranging and well-resourced attempt to date to reduce alcoholrelated 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 mobilisation; 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 behaviour.

The community mobilisation 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 channelling existing community resources, skills and interests rather than only introducing them from the outside. As Treno and Holder (1997, p. S 176) 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 of most relevance 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 the replication projects that are the subject of this report, are very similar to the American project, although they were planned and implemented independently of each other.

Full details of the implementation and impact of the project are reported in Homel et al. (1997). Key features of the implementation included channelling 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 the regulation of 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 onsite 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 (eg., clean toilets and accessible bars), and security practices (eg., 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 preproject increases in assaults, indecent acts, stealing, and drunk and disorderly incidents, stabilisation in the initial stages of the project, and sharp declines in the period post-Code of Practice (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 nightclubs 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 levels 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. (This is also consistent with the conclusions from the evaluation of the Geelong Accord reported by Rumbold et al., 1998.)

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 behaviour change techniques at the individual level. This model is not a detailed recipe for intervention at the local level, which 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 1.1 on the next page).

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 above. We constructed the columns of Table 1.1 from this literature and from our own experience in Surfers Paradise. The three rows of the table reflect both Australian political structures and regulatory theory, and represent interacting domains of action.

Table 1.1. Improving Safety in and Around Licensed Venues Through Responsive Regulation: A Community Action Model

Level of Regulation	Antecedent Conditions	Problem Behaviours	Intervention Strategies	Outcomes of Intervention	Reinforcers of Positive Change	Mechanisms to Safeguard Change
STATE Formal Regulation and Law Enforcement	* 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	* 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	* Persuade police & liquor licensing to enforce liquor law in venues (especially serving intoxicated persons) * Promote interagency cooperation as best strategy for police & liquor licensing (NOT	* Legislative reform to promote the minimisation of alcohol-related harm * Preventive, problem-oriented policing and liquor licensing regulation	* 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	* Liquor licensing authorities accept responsibility for harm minimisation * Liquor laws give due weight to harm minimisation principles * Administrative and appeals mechanisms support decisions to
LOCAL COMMUNITY Informal Controls and Persuasion	deserve their fate * Negative media portrayal of the area * Community and local government concern about safety * No coherent community safety plan * Concern about business profitability and tourism	**Residue to the community agencies **Community reliance on law enforcement and security patrols **Conflict with licensees, particularly over 5 am closing **Fragmented response by government and community agencies	* Mobilise community through public forum, steering committee, problemoriented task groups * Appoint project officer accountable to community * Promote interagency cooperation * Safety audits	* More use of public space and greater sense of safety * Licensees recognised as a legitimate business group	* 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	* Trained steering committee advocates for law reform and preventive enforcement, and manages transitions between project stages
VENUES Self-Regulation by Licensees	* Socially marginalised licensees * Commercial pressures dominant over host responsibility * No faith by licensees in	* Price discounting * Irresponsible drinks promotions * Prurient entertainment * Aggressive bouncers	* Risk assessments * Code of Practice * Resolve conficts and form a licensed venues association * Train managers,	* Less injury, crime & disorder * More profess- ional management * More soph- isticated patron	* Profitable venues * Increased respect for licensees: greater self-esteem * Managers perceive consistent regulation	* Community monit- oring committee over- sees self-regulation by licencees * Venue managers association lobbies for

liquor licensing regulation	* Unclear rules/limits * Uncomfortable	bar & security staff	expectations	by authorities	consistent regulation
	venues				

We assume that certain *antecedent conditions*, such as a political environment emphasising deregulation of liquor licensing, lead to *problem behaviours*, such as cutthroat competition between venues and irresponsible drinks promotions. These conditions and problems create a climate conducive to community mobilisation 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 organisations 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 institutionalised through legislation or community-based monitoring systems. We refer to this process of institutionalisation as *mechanisms to safeguard change*.

Although a temporal sequence is implied in Table 1.1, 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 and led to the modification in "mid-stream" of the intervention strategies and even our conceptualisation of what constituted problem behaviours. In general there are complex interactions between the "stages" of community change, with problem behaviours, 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 which 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 mangement, design or manipulation of the immediate environment in as systematic and permanent 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 offences 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 recognise that alcohol serving practices are *only one aspect* of unsafe environments (Homel, Tomsen & Thommeny, 1992); other aspects include such things as physical design (Macintyre and Homel, 1997), selection and training of security staff, the "permissiveness" of the social climate in venues (Homel et al., 1997), and the hidden "deals" between managers and regulators (Homel & Tomsen, 1991; Homel, 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 Homel's (1997) recent extension of situational methods to include techniques for removing excuses, or

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 which incorporate, as key ideas, "tit-for-tat" strategies that combine 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 they 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

The Project Sites

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 Mt Isa.

One of the main reasons these cities were selected was their willingness 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. (For reasons explained below, Mt Isa subsequently dropped out of the project. It has since commenced a safety action project that is being evaluated separately).

Cairns is a city 1800 kms by road from the state capital Brisbane, situated in the far north of Queensland on the coast of tropical Cape York Peninsular (see the map on the next page). 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, reflecting the fact that Cairns and the World Heritage listed surrounding region is the second largest tourist destination in Queensland, the Gold Coast being the largest. Since 1994 there has been a 12% increase in the number of young backpackers, who spend more than two million dollars per year on accommodation, food, and entertainment in the area. Within the Cairns Business District in 1995, five venues operated with 5 am licenses, while the Reef Hotel & Casino operated on a 24 hour license, and another seven venues had more limited hours.

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 defence base with 1100 army and 400 air force personnel, as well as James Cook University with an enrolment of more than 8000 students. The majority (76.4%) of the Townsville population is less than 40 years of age. Backpacker visitors, mostly under 30 years of age, account for 18% of all the backpackers who visit Queensland. Within the Central Business District, six of the nine licensed venues were in 1995 located within the same block, and had 5 am licenses. As in Cairns (and Geelong: Felson et al., 1997), patrons frequently move in groups from one venue to another, sometimes just for the sake of "being seen."

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. Confined to a small CBD area, young patrons could in 1995 choose live entertainment in about 13 licensed hotels, sporting clubs, and nightclubs.

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 amongst 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. Mt Isa is quite unlike the other three cities, revolving as it does around the mining industry and having a large indigenous population. It is also smaller (population 26,000) and is of course located a long way from the coast, about 800 kms inland from Townsville.

Project Goals and Overview of Implementation

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 centres 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 assist them to form Safety Action Project Steering Committees. Training of steering committees was undertaken in September 1994. The Centre then assisted these committees to 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 to conduct 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 Mt 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 officer 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 summarised in Table 2.1, 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. More detailed descriptions of activities at each of the three sites are provided later in this section. The reader is also reminded that the project officers working in each city also prepared a number of reports describing their work. These reports include the analyses of the community and business surveys, as well as other local data and details of project implementation, findings and recommendations. (See Rostron (1995; 1996) (Townsville), Randall (1996) (Mackay), and Fox (1996) (Cairns)).

From Table 2.1 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 (like 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 city-wide 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., 1997).

Table 2.1. Overview of Projects in Cairns, Townsville and Mackay

Component (from Surfers Project)	Cairns	Townsville	Mackay
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 - Novembe 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

All sites also formed three core task groups. These were constructed along the lines of the Surfers Paradise project (Homel et al., 1997), although naturally there were some variations in practice from city to city. The purpose of the *Safety Of Public Spaces Task Group* was to examine the physical environment within public spaces, and examine the role each environmental factor played either individually or interactively in preventing the central part of the city from being a safe recreational area for a broad cross section of people. This examination was undertaken through the safety audit of the CBD area.

The Security and Policing Task Group was concerned with the "around licensed premises" aspect of the problem of violence and disorder. This task group, whose members were generally drawn from the police, security firms, and managers of nearby shopping and office complexes, aimed to provide a forum for exchange of ideas and information between police, the commercial sector, security personnel, representatives of public transport bodies, and other interested parties.

The aims of *the Venue Management Task Group* were to develop ways of delivering alcohol in a responsible manner, and to establish positive working relationships between the licensees, police, and the Queensland Liquor Licensing Division. A further aim was to encourage the involvement of licensees in decision-making which affected the regulation of their liquor licenses. Central to effecting a reduction in alcohol-related violence was the hypothesis, supported by the literature, that if licensees were to adopt more responsible hospitality practices, both within and around their premises, then a decrease in drunkenness and unsafe drinking environments would follow.

Some idea of the *intensity* of the interventions in each city can be gained from inspection of Tables 2.2 and 2.3. 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 2.2) and coordinated the activities of all the groups. This had the effect of keeping all stakeholders informed and involved. The training components summarised in Table 2.3 were not particularly resource intensive, but were all that could be managed within a limited budget. Most training was one-off; only in Cairns was there provision for continuing training of venue personnel.

Table 2.2. Intensity of Interventions: Steering Committees and Task Groups

Committee /Task Group	Cairns	Townville	Mackay
Steering Committee	10 organisations 14 members Monthly meetings 13 yenues	8 organisations 9 members Monthly meetings 9 yenues	19 organisations 27 members Monthly meetings
Management Task Group	23 members Fortnightly meetings from 17.8.95 and monthly from 5.8.96	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 Young People in Public Spaces Task Group	4-6 members: conducted Safety Audit	15 members: conducted Safety Audit	9 members: conducted Safety Audit 6 organisations Monthly meetings

Table 2.3 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 day 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 (PatronCare)	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

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 minimising 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 placed in the 1992 Act and subordinate legislation enacted to prohibit the use of irresponsible practices and 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.

Overview of the Individual Projects

Cairns

Following the establishment and training of the Steering Committee in August-September 1994, a project officer, Ms Gaye Rostron, was appointed in April 1995, working 30 hours per week until June 1996. In May 1995 the Safety Action Project was incorporated as a subcommittee of the pre-existing Cairns Safety Consultative Committee. This meant that the project become part of a larger community safety strategy that included a community safety officer, neighbourhood watch and think tank, youth/education and youth panels, media liaison, planning & development, a safety strategy working group, and a state government lobbying committee.

In late May 1995 the Center for Crime Policy and Public Safety at Griffith University provided a one week intensive training course for the three project officers, after which theMs Rostron commenced regular and frequent meetings with licensees. By June 21, project taskforces were established, these being a Safety in Public Places Task Group, a Security and Policing Task Group, and a Licensed Venue Management Task Group.

On August 17, 1995, the *Local Liquor Industry Accord: Code of Ethics for Licensed Venues* was released (see Appendix B). This document, negotiated by Cairns licensees, sought to ensure proper and ethical conduct within all licensed premises; to promote the responsible service of alcohol within the Cairns region; and to establish a framework for licensee participation in the development of policy on liquor-related issues. The document cites objectives aimed at reducing alcohol-related violence in city streets and surrounds; ensuring proper management, and training in compliance with regulations; and evaluating external issues that might affect promotions and practices. Further objectives addressed the establishment of a monitoring committee, greater involvement in the community, and the provision of safe environments in and around licensed premises. Responsible practices were defined to provide clear understanding and expectations as to what constituted best practice.

Arising out of this process, in October 1995 the Cairns Venue Managers Association was formed at a meeting of some 40 licensees. By December, 1995, the Cairns association had met with the Venue Managers Association on the Gold Coast to discuss common issues and initiatives.

From the earliest days the Queensland Police Service in Cairns took an extremely positive and proactive role in the Community Safety Project, as part of their role in the larger Community Safety Consultative Committee. In August 1995, the police commenced street operations; they met, together with the Community Safety Officer, with shopping centre managers to discuss the safety of the retail environment; they provided summary statistics for meetings; supported the "Rage-Safe Campaign;" formed a six person taskforce as part of "Operation Rat Trap;" and in November 1995, established a Police Beat Shopfront, a function of which was to walk the beat.

In August 1996, consideration was given to the drafting and monitoring of a Code of Conduct for security companies. Unfortunately this was not achieved, but venue managers agreed to a formal community-based monitoring committee to operate for a three month trial. Although membership of this committee was defined, in practice the project officer dealt directly with any licensees who did not comply with the Accord, and any non-compliance detected was reported to the Community Consultative Safety Committee. In August 1996, a formal motion was moved that the Community Safety Consultative Committee be the monitoring committee for the Venue Managers Association. At this meeting, a commitment to maintaining the project was also given by 17 licensees and venue managers.

Townsville

A public forum was held on September 8, 1994, followed by an initial meeting of the Safety Action Project on September 26, 1994. In February 1995 a public meeting was held at which volunteers were called for the taskforces about to be established. These were the same task groups as in Cairns. A safety audit of the Townsville business district was undertaken in February-March, 1995 and in March, funding for the position of project officer was received. The officer, Mr John Fox, commenced on a full-time basis for six months in early May 1995, but the position was subsequently extended to August 1996 (including a period as a "City Safe" officer for the Council toward the end of this period).

By May 24, 1995, the Venue Management Taskforce had commenced. This group, composed of licensees and managers of nine licensed venues as well as police and liquor licensing investigators, met fortnightly. The group functions effectively as a self-regulating industry body. A Code of Practice developed by licensees was launched on September 20, 1995 (Appendix B). All 5 am license holders signed this document as evidence of their commitment to the project. In February 1996 invitations to about 30 suburban licensees resulted in 26 new signatories to the Code of Practice. This meant that by July 1996, 86.6% of all Townsville licensees had signed.

Unlike Cairns, Townsville Police were not able to allocate "beat" police to the Townsville entertainment area because of staff shortages. However, police were actively involved in the Steering Committee as well as in the task groups.

Mackay

Because of the concern of local people about alcohol-related crime, the Center commenced work with Mackay in March 1994, earlier than the other cities. That month a public meeting was held, and by May 1994 Mackay City Council had entered into a formal collaborative arrangement to establish a Safety Action Project. Community and business surveys were conducted by Council in October 1994.

A project officer, Randina Randall, was appointed in April 1995 for 30 hours per week, initially for one year. Unlike other project officers, Ms Randall used accommodation provided by Queensland Health, although she was employed by the Mackay City Council and liaised extensively with Council. (The project officers in Cairns and Townsville were employed by the Councils and liaised with Queensland Health as required.) In August 1994 the Steering Committee was trained in the goals, responsibilities and tasks critical to the project.

The work in Mackay was boosted by the appointment for the first time in the city of a full-time investigator of the Liquor Licensing Division. This officer worked with licensees as part of the trial of the program *Liquor Industry 2000* from mid-1995 to October 1996. This trial sought to have all licensees adopt responsible practices in the management of alcohol, and was seen by venue managers as complementing the Code of Practice they themselves developed.

Because of the City Council's concern about young people in the streets late at night and in the early hours of the morning, all 5 am venue licenses were revoked in favour of 3 am closing. This created hostility among venue managers which, combined with the part-time status of the project officer, made implementation of the Code of Practice difficult. Police concern about Christmas-New Year drinking and possible road fatalities enabled an "In Principle" Code of Practice to be introduced before Christmas. This Code was fully implemented in March, 1996.

The first meeting of a Security and Policing Task Group was held in January 1996, and a safety audit was undertaken in March 1996. As with other sites, three task groups operated: a Venue Management Task Group, a Safety in Public Spaces Task Group, and a Security and Policing Task Group. A monitoring committee was established with representatives from Council, Qld Health, the security industry police, the Liquor Licensing Division, and the taxi industry. Importantly, the position of project officer was not funded after November, 1996 and the project ceased. However, Ms Randall gained appointment as a Liquor Licensing Investigator and still contributes significantly in Mackay.

Evaluation Design: Venue Observations

The aim of the observation study 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. Police data were also collected and the results of the analyses are reported at the end of this chapter. As noted in Chapter 1, unlike the Surfers Paradise project, other evaluative data, such as risk assessment outcomes and data from security companies, were not available at a sufficiently high level of quality in the present study to make their use viable (Homel et al., 1997).

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 of about two hours duration and were unobtrusive. Table 2.4 shows the distribution of venues across cities and years.

Table 2.4. Numbers of Venues Selected and Visits Conducted in the Three Cities in 1994 and 1996

1994		1996		
City	No. of Venues	No. of Visits	No. of Venues	No. of Visits
Mackay	8	22	13	25
Cairns	9	26	22	56
Townsville	11	35	12	35
TOTAL	28	83	47	116
		(164 hours)		(230 hours)

In 1994, 83 visits were made to 28 venues, while 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 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 less 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 is 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 (Appendix A). 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 very similar to the instrument developed in Sydney by Homel and his students (Homel and Clark, 1994) and used in Surfers Paradise (Homel et al., 1997), so it is important to describe briefly how the original instrument was developed.

A draft of the original observation schedule was prepared, based on the qualitative open coding scheme devised for the 1989 study (Homel et al., 1992) and on the study by Graham et al. (1980). This was then tested and refined in a series of pilot visits. Where variables were observed in the pilot visits to vary over the period of a visit (for example, the intensity of lighting), separate ratings were made for "early", "middle", and "late" periods (based roughly on 40 minute intervals). A few additional codes were devised at the end of the study to accommodate aspects of visits which were not included in the precodes (e.g., types of entertainment such as dart games not observed during the development of the schedule).

Items were grouped under seven broad headings in addition to factual items dealing with such things as closing time and number of bars on the premises: physical environment (e.g., lighting, seating); bouncers/security/doormen (e.g., sex of bouncers, presence of security firm); social environment (e.g., crowding, sexual activities of patrons such as "chatting up", "necking" or fondling); patrons (e.g., age groups, type of dress); bar staff (e.g., ratio of bar staff to patrons, staff acceptance of deviant behaviour); alcohol/drug consumption and costs (e.g., levels of male drunkenness, cost of drinks); responsible serving practices (e.g., publicity to clientele concerning under age drinking, staff intervention with highly intoxicated patrons); and conflict/violence.

The section on conflict/violence was subdivided into verbal aggression (one way abuse), arguments, challenges/threats, friendly fights ("lion cub fights"), rough ejections, accidents leading to injury, and physical aggression/assaults (deliberate unfriendly bump, grabbing, pushing, actual physical violence - punching, kicking etc.). For most types of physical and non-physical aggression, detailed data were recorded, including: types of weapons used (if any), whether the incident was victim precipitated, the number of male and female assailants or aggressors, number of male and female victims or recipients, whether the incident occurred early or late in the visit, the severity of the incident (high, medium or low), whether there was intervention by patrons or staff, whether staff were involved in the incident, the perpetrator (bouncer, patron or other staff), bouncer treatment of the situation (inflaming, diffusing, controlling or ignoring), the location of the incident (inside, outside, or at the entrance), and the degree of drunkenness of the participants (high, medium or low).

The observation schedule used in this study is reproduced in full in Appendix A. One simplification from the Sydney version is that the distinction between early, middle and late periods of the visit was dropped, on the grounds that previous data sets had not shown a great deal of variability across these categories.

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 training in 1996 to avoid setting up an expectancy that violence levels would be lower than in 1994. Almost none of the observers in 1996 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 emphasised 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, and then at a subsequent meeting, inconsistencies between observers were checked and agreement established.

Graham and her colleagues (1980) especially noted that the decision whether a particular incident should be deemed aggression is one of the major problems of data collection. In their study, to obtain some consistency operational guidelines were adopted which stipulated that an incident would be classified as aggression if it involved "personal violation (verbal insult, unwanted physical contact), behavior that was offensive according to the norms of the place, or a dispute in which the participants had personal investment" (p. 281). The same guidelines were adopted for the present study (and in our previous research), which means that as in the Vancouver research there was some variation from establishment to establishment in the precise operationalisation of what was physical or non-physical aggression.

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., 1997, for a discussion). We compensated by using multiple data sets (venue observations, police data, security data, and risk assessments) and by carefully analysing 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: Mt Isa and Surfers Paradise.

Mt 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 a very different community to the coastal cities, being an inland mining centre 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 Mt 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 Mt Isa that it is a coastal entertainment and tourist centre 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 endeavours 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., 1997).

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 state-wide 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).

Evaluation Design: Police Data

Direct observation has a number of advantages as a data collection method: it is a direct measure of the immediate dependent variable that is the focus of the intervention, there are no other measures available that capture more than a fraction of incidents within venues, and provided the observations are carried out carefully and systematically they provide a reasonably reliable and unbiased measure. Observation has the disadvantage that it is expensive - long periods are required to accumulate a sufficient number of incidents for analysis - and it also does not capture much of what might be going on *outside* the venues.

Police statistics are an obvious alternative way to measure incidents occurring both inside and outside venues. They have the advantage that they are more comprehensive than observations of aggression, in that they include offences like stealing or street disturbances, and they are also collected routinely on an ongoing basis, making a special data collection exercise unnecessary. However, the comprehensiveness of police statistics is also a disadvantage, since statistics for the areas surrounding licensed venues are influenced by many factors, especially police enforcement practices such as "crack downs" on certain types of public disorder.

In addition, police statistics suffer from the major disadvantage that incidents occurring within venues are grossly under-reported or under-recorded (Campbell & Green, 1997; Homel & Tomsen, 1991). Indeed, on the basis of our research we estimate that perhaps 90% of incidents of physical violence occurring within venues are never reported to or recorded by police. This means that the correlation between police and observational data may actually be much lower than one might expect or hope. Nevertheless, it is clearly important to utilise the major available alternative source of data.

To this end, police in each of the three cities suppied data in electronic form for their whole city or for the specified entertainment area. We checked address data to ensure that incidents occurred in the appropriate streets or locations, and selected offence categories that reflected the kind of street offences or disturbances that could reasonably be expected to be influenced by the safety action project. Thus we excluded offences such as break and enter, fraud, motor vehicle theft, and shoplifting, but included other kinds of stealing. The offences selected for analysis were:

- Assault (police codes 102, 103: serious assault and assault(other))
- Stealing (122, 123: stealing with violence and stealing)
- •Disturbance/dispute (313)
- •Drunkenness (314)
- •Street disturbances (315)

The criteria that distinguish a "disturbance/dispute" and a "street disturbance" are not absolutely clear. However, our inference on the basis of discussions with police is that "disturbances/disputes," when they occur in the street and not a private dwelling, would include altercations short of assault but more serious than being offensive in public, minor vandalism, grafitti, swearing and so on, which would most likely be recorded under "street disturbances." It seems that the street disturbance category is used less frequently than drunkenness or disturbance / dispute, which suggests that "street disturbance" may to some extent be a "residual" category. Our judgement is that it is probably less reliable than the other categories.

Police incident data are available on a daily basis, and could in principle be analysed using time series techniques of the kind developed by Henstridge, Homel and Mackay (1997) for road accidents. While this kind of analysis is theoretically the most appropriate way of estimating the impact of interventions such as the implementation of a Code of Practice, there are major methodological and analytic difficulties with police data that make the application of such techniques problematic. One problem is that the time series are relatively short, since computerised records through the CRISP system only began in Queensland in 1994. Another problem is that without appropriate statistical controls for factors that influence police enforcement practices, the time series residuals may exhibit autocorrelation. Nevertheless, in future analyses of these data it will be important to pursue this line of inquiry.

A simpler method of analysis involves dividing up the period during which each project operated into three "stages": *a pre-project stage* that includes some of the "tooling up" period before the appointment of the project officer and allows an assessment of pre-project trends; *a project officer stage* that covers the period of the officer's appointment up till the implementation of the Code of Practice in venues; and *a Code of Practice stage* that includes at least some months of the operation of the Code of Practice. These three project stages can be compared with the same periods in the previous year to assess changes and to control for seasonal factors. This was the method used for the evaluation of the Surfers Paradise project (Homel et al., 1997).

In Cairns, the application of this technique was straightforward since the three project stages could be fitted into the 1995 calendar year (see Table 2.1). The project officer commenced work (for purposes of analysis) on May 1, 1995, and the Code of Practice was introduced on August 17. CRISP data were available from January 1, 1994 for Cairns, so the same three periods could be defined for 1994 to provide the "baseline" data. The three periods in each year are defined in Table 2.5.

Table 2.5. Definitions of Project and Baseline Stages for Cairns, Townsville and Mackay

Project Stage		Cairns	Townsville	Mackay
Stage 1 (pre-project)	Pre Post	1/1/94-30/4/94 1/1/95-30/4/95	1/1/94-4/5/94 1/1/95-4/5/95	
	1030	1/1/ <i>)</i> 3-30/ 4 / <i>)</i> 3	1/1//J- 1 /J//J	
Stage 2	Pre	1/5/94-17/8/94	5/5/94-19/9/94	1/7/94-31/3/95
(project officer)	Post	1/5/95-17/8/95	5/5/95-19/9/95	1/7/95-31/3/96
Stage 3	Pre	18/8/94-31/12/94	20/9/94-4/5/95	1/4/95-30/6/95
(Code of Practice)	Post	18/8/95-31/12/95	20/9/95-4/5/96	1/4/96-30/6/96

In Townsville, there were a few complications. One problem is that data for the first few months of 1994 are low, suggesting that there may have been some problems with CRISP coming "on line." A further problem is that the Code of Practice was not introduced until September 20, 1995 (Table 2.1), making Stage 3 for 1995 rather short. For this reason, we extended Stage 3 to May 4, 1996, with the baseline period being September 20, 1994 to May 4, 1995 (the day before the project officer was appointed). This means that the pre-project period in 1995 is also included in the baseline period for Stage 3 (see Table 2.5). However, since the three stages are analysed independently, this is not a problem.

The biggest problem with the Townsville data was that there was a great increase in recorded incidents beginning in about September 1994, extending until April 1995. In December 1994 and January 1995 total incidents recorded were 363 and 355 respectively, compared with only 14 for January 14, 1994 (the first month of CRISP) and 67 and 35 for December 1995 and January 1996. It seems that during the six months around Christmas 1994 police engaged in extensive crackdowns on street and other offences in the central city area.

The problem that this poses for the analysis is that the baseline for Stage 3 may be artificially high, making it appear that the Code of Practice had more impact than it did. In addition, it has already been noted that at least January 1994 may have been artificially low, making the baseline for Stage 1 lower than it should have been. However, this is not as serious a problem as the Stage 3 baseline, which is more crucial for assessing the impact of the project.

The data problems were most acute in Mackay. CRISP data were not available until July 1994, shortening the baseline data period. In addition, the Code of Practice was not introduced until Christmas 1995, and then only "in principle;" it was not formally implemented until April 1, 1996 (Table 2.1). After preliminary analyses and consideration of the Mackay situation, we opted to make the formal implementation

date of April 1, 1996 the date we would use for analysis purposes. However, further analyses on the Mackay date are being carried out to assess the possible impact of the Chistmas "in principle" implementation.

Given the limitations of the Mackay data and the awkward project dates, it was only possible to define Stages 2 and 3 in the manner described in Table 2.5. A longer period for Stage 3, which would have been highly desirable for statistical purposes (since data were available till December 31, 1996), was not possible without "contaminating" the baseline period for Stage 3 by including a substantial period during which the project officer was active. As it is, it has been necessary to include the first three months of project officer activity as baseline for Stage 3, which could mean that the impact of the Code of Practice is substantially underestimated. Alternative analytic methods are really required for Mackay, but the simple tables presented in this report at least provide the opportunity for a preliminary assessment of impact.

Results

In this chapter we report the main outcomes of the safety action projects in Cairns, Townsville and Mackay, utilising both police data and the extensive data from the observation schedules that were completed in the licensed venues in the entertainment areas of each city before and after implementation.

Given the amount of data from the observations, we concentrate on the outcomes for the three cities combined, with a brief commentary on patterns in each city individually (although we give more details of individual city changes for aggression and violence). Fortunately the changes observed in each city were generally very similar in type and magnitude, which makes the combined analysis a reliable summary of the individual city results.

We begin by documenting the very substantial reductions in aggressive and violent incidents observed within venues. This is followed by detailed analyses of other changes that occurred within venues, as a basis for interpreting the findings on aggression and violence. Because the data are very extensive, results have been analysed separately under the headings used in the observation schedule (Appendix A): the physical environment, venue security, the social environment, patron characteristics, bar staff, alcohol/drug consumption, and responsible serving practices. Despite breaking the data into these domains, most tables are very large, extending over several pages. Readers who do not wish to absorb all the details may wish to concentrate on the commentaries, and read the overview at the end of this chapter. Results from the analysis of police data are also reported toward the end of the chapter.

Our main conclusion is that observed violent and aggressive incidents declined markedly in the immediate aftermath of the projects, and that the declines were similar in the three cities. The police data for Cairns and Townsville show a downward trend in Cairns and Townsville, corresponding to the period after the project officers were employed and the Codes of Practice were implemented, but no significant declines were observed in Mackay.

The improvements inside venues occurred despite evidence of increased crowding. They coincide with many improvements in the physical and social environment of venues, particularly increased "decorum expectations" by management that appear to have resulted in venues that were less permissive but more enjoyable to be in. Of particular importance is the evidence for more responsible serving practices, resulting in much lower levels of male drunkenness. This appears to have been a critical factor in the decline in physical aggression, although for the reasons explained in Chapter 2, it is not possible to conclude that the interventions definitely caused the observed changes.

Observed Changes Inside Venues, 1994-1996

Aggression and Violence

Table 3.1 summarises 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 (56.5%), with physical violence recording the greatest reduction, regardless of whether all incidents are included (75.1%) or only those for which full details could be recorded (81.2%). Of the non-physical indicators, verbal abuse showed the greatest decline (60.4%). By contrast with the intervention sites, Surfers Paradise recorded marked increases in all forms of violence, with physical assaults almost doubling (79.4% increase).

Table 3.1. Indicators of Aggression and Violence in Mackay, Cairns, Townsville, and Surfers Paradise, 1994 and 1996

	Rate/100 hrs	Rate/100 hrs	% Red'n/	<i>p</i> -
Indicator	1994	1996	Increase	value ¹
	Mackay, Cairns, a	and Townsville		
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	40.9	17.8	-56.5	.019
aggression/violence ³				
	Surfers Pa	aradise		
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 chisquare test, whichever is appropriate.

There were changes in each city on overall physical and non-physical aggression, and on all observed incidents of aggression and violence (Table 3.2). 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).

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.

Table 3.2. Changes in Aggression and Violence, by City (1994-96)

		Rate/10	00 hours		v		h One or l ggression ence	
Indicator	1994	1996	% Red'n / Incr.	p^{I}	1994	1996	% Red'n/ Incr.	p^2
	M	ackay (n		1994 and	l 25 in 1996	<u> </u>		
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
	C	airns (n	= 26 in 1	994 and	56 in 1996)		
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
	Тои	nsville (n = 35 in	1994 ar	ıd 35 in 199	96)		
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).

The p-values reflect small sample sizes in each city, as well as the fact that aggressive incidents are relatively rare events. 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, but as explained in Chapter 2 it was not possible to boost the number of observation sessions to the desired levels and simultaneously provide support to the projects in each city. An alternative analysis strategy, based on within-venue changes, is being explored, although the rapid changes in the industry mean that often venues did not exist in both 1994 and 1996.

² Chi-square test

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 utilised in Table 3.2: the rate per 100 hours observation (for comparison with Table 3.1) and the percentage of visits in which at least one incident was observed (to avoid the problem of skewness). As would be expected, the measure based on incidents, not visits, generally yielded the greatest reductions.

The Physical Environment

Apart from a general increase in the total number of venues in the central city areas, especially in Cairns, the basic physical infrastructure of venues did not change much between 1994 and 1996. Thus features like seating design, degree of renovation, general appearance and upkeep, and "theme" did not change. However, many specific elements of the physical environment, especially those most influenced by day-to-day management practices, did change, sometimes markedly, and mostly in the "right" direction. Lighting improved, as did the spacing and comfort of tables and chairs, ventilation, the cleanliness of female toilets, and the availability of taxis and public transport.

Significantly, these improvements occurred over a period when total patronage and crowding clearly increased, with corresponding declines in aspects of convenience and comfort. Venue seating capacities tended to increase, seating comfort declined, there was an increased incidence of "standing room only," and access to the bar got more difficult. These indicators are consistent with ratings of the social environment discussed below, which suggest that overall crowding increased, and bar crowding more so.

Features of the physical environment rated by observers in both years are summarised in Table 3.3. This table shows all variables, whether or not there was any statistically significant change, with data reported in percentages (for dichotomous or ordinal variables) or means (for numerical variables). The p-value for the variable is also reported (based on a chi-squared or Mann-Whitney test, as appropriate), together with the effect size (gamma for dichotomous or ordinal variables or the difference between means measured in standard deviation units for numerical variables).

The biggest changes, as measured by gamma, were to do with seating style, arrangements and comfort (improvements in style and spacing but reductions in comfort), increases in crowding, cleaner female toilets, and better availability of taxis and public transport.

Table 3.3. The Physical Environment of Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Lighting			.16	.28
Dark	13.7	11.2		
Dim	61.6	62.9		
Medium bright	24.7	19.8		
Bright	0.0	6.0		
Seating Capacity			.11	.06
<50	35.1	45.6		
50-99	45.9	29.8		
100-149	16.2	17.5		
150-199	2.7	7.0		
Seating Comfort			.04	.31
Adequate	67.6	52.2		
Too few	32.4	47.8		
Seating Design		<u></u>	.68	.06
Designed mainly for standing	60.0	63.1	.00	
Not designed mainly for	00.0	00.1		
standing	40.0	36.9		
Rows of tables			.30	.19
Yes	68.6	59.7		
No	31.4	40.3		
Rows, partitions (cafe)			.86	.04
Yes	24	25	.00	
No	76	74		
Spaced comfortable tables and	, 0	,	.02	.50
chairs			.02	.50
Yes	50.0	91.5		
No	21.9	8.5		
Highbacked chairs	21.9	0.0	.97	.01
Yes	53.3	53.6	.,,	.01
No	46.7	46.4		
Chairs with arm rests	10.7	10.1	.04	.35
Yes	37.5	55.3	.07	.55
No	62.5	44.7		
Bar stool	02.3	1 T. /	.78	.10
Yes	94.3	95.2	.70	.10
No	5.7	4.8		

Table 3.3 (continued). The Physical Environment of Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Standing room only			.001	.58
Yes	33.3	56.2		
No	66.7	34.8		
Bar access (not crowding)			.08	.28
Convenient	77.0	65.2		
Inconvenient	23.0	34.8		
Renovated			.96	.001
Yes	56.1	56.2		
No	43.9	43.8		
Appearance			.40	.06
Attractive	41.1	41.0		
Neutral	46.6	52.4		
Not attractive	12.3	6.7		
Decor			.19	.20
Shabby	8.2	3.5		
Ordinary	53.4	50.4		
Nice	38.4	42.5		
Posh	0.0	3.5		
Theme			.30	.16
Yes	47.9	40.2		
No	52.1	59.8		
Ventilation			.09	.004
Stuffy	25.7	32.5	.07	
Warm	21.6	8.8		
Comfortable	39.2	45.6		
Fresh	13.5	13.2		
Smoke Level			.98	0.03
High	28.4	29.6	.,,	0.05
Medium	33.8	33.9		
Low	37.8	36.5		
Cleanliness of Premises	27.0	2 3.2	.19	.23
Spotless	1.4	5.3	•••	.25
Clean	62.2	66.7		
Dirty	23.0	21.9		
Filthy	13.5	6.1		

Table 3.3 (continued). The Physical Environment of Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Upkeep of Premises			.40	.17
Well cared for	28.8	39.5		
OK	49.3	42.1		
Slightly run down	16.4	15.8		
Run down	5.5	2.6		
Male Toilets			.78	.05
Clean	55.0	52.7		
Dirty	45.0	47.3		
Female Toilets			.03	.32
Clean	50.7	66.7		
Dirty	49.3	33.3		
Availability of taxis			.001	.44
Available	48.6	71.2		
Limited	17.6	16.2		
None	33.8	12.6		
Availability of public transport			.0001	.85
Available	1.4	21.7		
Limited	7.2	34.0		
None	91.3	44.3		
Transport provided by venue			.28	.03
Available	7.2	10.8		
Limited	4.3	1.0		
None	88.4	88.2		

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means shown at various points in the tables.

Because of the smaller sample sizes, there were relatively few statistically significant changes in individual cities. Those changes identified as statistically significant are set out in Tables C1, C2 and C3 in Appendix C. Taxis and public transport availability improved markedly in Cairns and Townsville, while crowding increased most in Mackay and Townsville. The increase in the number of licensed venues in Cairns may help explain why more visits in that city did not result in a rating of "standing room only" in 1996.

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

Venue Security

Security arrangements in the venues, as rated by the observation teams, are summarised in Table 3.4. It seems that the total number of security personnel did not increase, whether they were "in house" crowd controllers (bouncers) or employees of security firms contracted to patrol the entrance area or the carparks. Nor was there any visible presence of police in either year in any of the cities; indeed, police were most conspicuous by their absence, at least in uniform. This is consistent with the observations of Homel, Tomsen and Thommeny (1992) in their research in Sydney hotels, clubs and discos.

The main changes were to do with bouncer interactions with patrons and the nature of their patrolling. Generally there was more friendly interaction, and a trend toward a more cheerful, relaxed and pleasant demeanour (p = .003; gamma = .12). This trend would have been more pronounced if there had not also been a more frequent rating of bouncers in 1996 as "distant, unfriendly or rude." The two ratings may not be incompatible; as part of their move toward a more professional approach in response to the Codes of Practice, some bouncers may have become more overtly friendly, while others may have become more formal and "distant".

These changes in patterns of interaction should be seen in the context of a trend toward younger bouncers (under 30) and also toward smaller female bouncers, who presumably rely more on a friendly demeanour and a firm style than on physical intimidation. It is noteworthy that there was no perceived change in the size of male bouncers, suggesting that one way some venues responded to the pressure for a more responsive, less coercive security system might have been through the employment of more female bouncers with skills in communication and negotiation.

Perhaps the most important change in security arrangements was a trend away from aimless roaming within venues to a more "problem focused" approach that directed staff resources to possible points of friction, such as aisles and bars. There was also more stationary patrolling, reducing the risks of unnecessary confrontations with patrons while affording the opportunity to keep most of the establishment under surveillance. In keeping with the Codes of Practice, these strategies were combined with more rigorous ID checks at the door.

Increased bounder friendliness was most significant in Cairns and Mackay, while ID checks increased most in Townsville (Appendix C). The more focused patrol methods were most evident in Cairns and Townsville.

Table 3.4. Security Arrangements of Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Number of security personnel	mean = 0.35	mean = 0.28	.31	2100
Number of bouncers	2.83	2.98	.55	
Presence of police officer in			.23	1.0
uniform inside venue				
Yes	1.4	0		
No	98.6	100.0		
Size of Male Bouncers			.37	.12
Small	8.3	3.2		
Medium	50.0	51.1		
Large/heavy	41.7	45.7		
Size of female bouncers			.04	.52
Small	22.2	71.4	•	-
Medium	77.8	14.3		
Large/heavy	0.0	14.3		
Age of bouncers			.04	.34
Young (<30)	60.0	75.5		
Older (>30)	40.0	24.5		
Ethnicity of bouncers			.52	.14
Anglo-Australian	85.0	81.1		
Middle Eastern	0.0	0.0		
Pacific Islands	11.7	14.7		
Aboriginal	0.0	1.1		
Asian	0.0	0.0		
Southern European	3.3	1.1		
Bouncer Interaction		·	.22	.26
Hostile and rude	1.7	2.1		
No interaction with patrons	16.7	11.6		
Reserved	38.3	28.4		
Friendly	43.3	52.6		
Sitting with Patrons	0.0	5.3		
Friendliness of Bouncers			.003	.12
Cheerful/Pleasant/Relaxed	48.3	62.1		.
Non-Committal	43.3	18.9		
Distant/ Unfriendly/ Rude/	8.3	18.9		
Security firm on door			.35	.20
Yes	31.7	41.3		
No	68.3	58.7		

Table 3.4 (continued). Security Arrangements of Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Security firm in car park			.47	.41
Yes	2.7	6.3		
No	97.3	93.8		
No security firm present			.44	.15
Yes	46.0	38.8		
No	54.0	61.2		
ID Requested at Door			.01	.42
Rigorous	2.9	9.2		
Haphazard	5.8	7.3		
Selective	23.2	40.4		
No check	68.1	43.1		
Bouncers/security control of			.78	.05
entrances				
Yes	75.9	74.1		
No	24.1	25.9		
Bouncer/security patrol of			.002	-
aisles and bar crowding				
Yes	13.6	31.9		
No	86.7	68.1		
Patrol style as general			.84	.04
patrolling by bouncer/security				
Yes	14.5	15.5		
No	85.5	84.5		
Patrol style as stationary			.09	.30
Yes	25.3	15.5		
No	74.7	84.5		
Combination of general			.0003	.50
patrolling and stationary				-
Yes	29.3	55.2		
No	70.7	44.8		

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means shown at various points in the tables.

The Social Environment

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

Comfort and crowding. As noted previously, the venues were rated as generally more crowded in 1996 than in 1994, especially in Mackay and Townsville, with a statistically significant increase in bar crowding (see Table 3.5). Comfort levels moved toward a "medium" rating, with fewer visits being rated at the extremes of "very comfortable" or "uncomfortable". A possible explanation for this trend is that venue managers responded to the project by improving facilities, but these measures were to some extent overwhelmed by the increase in patronage. Despite the greater numbers, there appeared to be more "wandering about" and "table hopping" by patrons, but without any increase in bumping or shoving.

Music and entertainment. Entertainment and recreational activities are virtually universal features of the licensed venues we observed in all three cities, with relatively few changes in the forms that these activities took in the two years. The most common features were music videos, TV, live bands, jukeboxes, dancing, pool, and poker machines. Live bands and jukeboxes became more popular, as did pool, poker machines, card machines, and (regrettably) table-top dancing (although this occurred in only 4.3% of visits in 1996, up from 1.2% in 1994). Voice noise levels reduced, while the loudness of music stayed at about the same (usually loud or painful) levels. Music styles changed, with lots more thrash and heavy metal and a bit more jazz and blues (which might reflect a slightly younger clientele).

Food. Full meals became a bit more common (22.4% of visits), while free nibbles and food brought in from outside gave way to snacks (small, hot, or salty). Generally food was more available - an important change in the context of a move to responsible serving practices - but it was still only visible in two thirds (67.2%) of visits in 1996.

Patron interactions and sexual activities. Sociability levels were relatively high in both years, with men (and to a slightly lesser extent women) interacting with (apparent) strangers in about a third of visits. Most patrons appeared to be "regulars" or were "out for a big night," and there was an increase in these categories in 1996 (to an estimated mean of 37.8% of all patrons for regulars and 44.9% for a "big night out"). Individual "cheerfulness" and "friendliness" were also rated as mostly medium or high in both years for men and women, although it is noteworthy that the percentage of visits for which the cheerfulness or friendliness of women was rated as "high" increased markedly (to 48.2% for cheerfulness and 40.2% for friendliness). It seems women especially were enjoying themselves more.

Table 3.5. The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Overall Comfort			.009	.03
High (very comfortable)	25.7	14.8		
Medium (moderate comfort)	51.4	69.6		
Low (little comfort)	14.9	14.8		
None (uncomfortable)	8.1	.9		
Crowding			.09	.10
Overfull	4.1	5.2		
High (full capacity)	17.6	18.1		
Medium (2/3 full)	33.4	44.0		
Low (1/3 full)	39.2	21.6		
None	5.4	11.2		
Bar Crowding			.01	.09
High	21.6	21.7		
Medium	28.4	42.6		
Low	40.5	20.0		
None	9.5	15.7		
Very little movement			.36	.14
Yes	34.9	41.4		
No	65.1	58.6		
Wandering about			.05	.28
Yes	44.6	58.6		
No	55.4	41.4		
Table-hopping			.04	.34
Yes	20.7	34.5		
No	79.3	65.5		
Bumping, shoving			.97	.007
Yes	25.6	25.9		
No	74.4	74.1		
Music Noise Level			.53	.02
Very quiet	1.4	5.2		
Medium quiet	6.8	8.6		
Medium loud	49.3	40.5		
Loud	32.9	37.9		
Painful	9.6	7.8		
Any Entertainment/Recreation			.24	1.0
No	1.2	0.0		2.0
Yes	98.8	100.0		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Music videos as			.59	.08
entertainment/recreation				
Yes	47.0	50.9		
No	53.0	49.1		
TV as entertainment/recreation			.42	.12
Yes	34.9	40.5		
No	65.1	59.5		
SKY channel as			.81	.09
entertainment/recreation				
Yes	3.6	4.3		
No	96.4	95.7		
Single entertainer as			.09	1.0
entertainment/recreation	0.0	2.4		
Yes	0.0	3.4		
No	100.0	96.6	0.1	20
Band as			.01	.38
entertainment/recreation	24.1	41.4		
Yes	24.1	41.4		
No	75.9	58.6		
Jukebox or disco as			.01	.36
entertainment/recreation	24.0	50.4		
Yes	34.9	53.4		
No	65.1	46.6		
Stripper as			.67	.18
entertainment/recreation	• .	2.4		
Yes	2.4	3.4		
No	97.6	96.6		
Dancing as			.33	.15
entertainment/recreation				
Yes	34.9	28.4		
No	65.1	71.6		
Pool as			.05	.28
entertainment/recreation				
Yes	47.0	61.2		
No	53.0	38.8		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Poker machines as			.35	.24
entertainment/recreation				
Yes	7.2	11.2		
No	92.8	88.8		
Card machines as			.06	1.0
entertainment/recreation				
Yes	0.0	4.3		
No	100.0	95.7		
Table-top dancing as			.21	.57
entertainment/recreation				
Yes	1.2	4.3		
No	98.8	95.7		
Other games as			.55	.09
entertainment/recreation				
Yes	31.3	35.3		
No	68.7	64.7		
Voice Noise Level			.10	.08
Very quiet	4.2	6.1		
Medium quiet	12.5	15.7		
Medium loud	55.6	50.4		
Loud	22.2	27.8		
Painful	5.6	-		
Thrash music present			.02	.79
Yes	1.2	9.5		
No	98.8	90.5		
Heavy metal music present			.004	.64
Yes	4.8	19.0		
No	95.2	81.0		
House/acid music present			.86	.03
Yes	20.5	21.6		
No	79.5	78.4		
Top 40 music present			.53	.09
Yes	60.2	64.7		
No	39.8	35.3		
Jazz/blues music present			.15	.34
Yes	7.2	13.8	.10	
No	92.8	86.2		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Rock classics music present			.79	.05
Yes	21.7	23.3		
No	78.3	76.7		
50's music present			.28	.29
Yes	6.0	10.3		
No	94.0	89.7		
60's music present			.93	.02
Yes	16.9	16.4		
No	83.1	83.6		
70's music present			.54	.10
Yes	22.9	26.7		
No	77.1	73.3		
Food - full meals			.24	.22
Yes	15.7	22.4		
No	84.3	77.6		
Food - free nibbles			.10	.57
Yes	6.0	1.7		
No	94.0	98.3		
Food - small snacks			.00009	.54
Yes	24.1	51.7		
No	75.9	48.3		
Food - hot snacks			.04	.48
Yes	6.0	15.5		
No	94.0	84.5		
Food - hot dogs inside			.49	.37
Yes	1.2	2.6		
No	98.8	97.4		
Food - hot dogs outside			.79	.05
Yes	20.5	19.0		
No	79.5	81.0		
Food - Other food brought in			.21	.49
from outside				-
Yes	4.8	1.7		
No	97.6	98.3		
Salty food			.23	.44
Yes	2.4	6.0		
No	97.6	94.0		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable 	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Patron interaction - Men			.93	.03
Frequently with strangers	45.1	44.1		
(sociable)				
Little interaction with	33.8	32.4		
strangers (clique)				
Frequently with other	21.1	23.4		
regulars				
Patron interaction - Women			.15	.03
Frequently with strangers	26.0	31.5		
(sociable)				
Little interaction with	54.8	40.5		
strangers (clique)				
Frequently with other	19.2	27.9		
regulars				
Decorum expectations of			.0000	.53
management			4	
High	6.8	17.4		
Moderate	35.6	56.5		
Permissive	38.4	22.6		
Very permissive	19.2	3.5		
No sexual activity by males	<u></u>		.02	.45
Yes	10.8	24.1	.02	. 1.5
No	89.2	75.9		
Checking out behaviour by			.009	.38
males			.007	.50
Yes	55.4	73.3		
No	44.6	26.7		
Chatting up behaviour by	11.0	20.7	.10	.24
males			.10	.21
Yes	49.4	61.2		
No	50.6	38.8		
Discreet necking by males	20.0	20.0	.02	.34
Yes	48.8	31.9	.02	.54
No	51.2	68.1		
TNU	J1.4	00.1		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Heavy necking, touching by			.004	.44
males				
Yes	36.1	18.1		
No	63.9	81.9		
Flagrant fondling by males			.05	.41
Yes	16.9	7.8		
No	83.1	92.2		
No sexual activity by females			.0005	.56
Yes	13.3	35.3		
No	86.7	64.7		
Checking out behaviour by females			.30	.15
Yes	53.0	60.3		
No	47.0	39.7		
Chatting up behaviour by	47.0	37.1	.99	.002
females			.77	.002
Yes	45.8	45.7		
No	54.2	54.3		
Discreet necking by females	JT.2	J 1 .J	.009	.37
Yes	47.6	29.3	.007	.57
No	52.4	70.7		
Heavy necking, touching by	<i>32.</i> T	70.7	.0008	.52
females			.0000	.52
Yes	34.9	14.7		
No	65.1	85.3		
Flagrant fondling by females	03.1	03.3	.003	.60
Yes	18.1	5.2	.003	.00
No	81.9	94.8		
Sexual competition males	01.7	71.0	.04	.30
High	35.1	18.1	.01	.50
Medium	23.0	23.3		
Low	27.0	32.8		
None	14.9	25.9		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Sexual competition females			.02	.34
High	24.3	13.2		
Medium	35.1	22.8		
Low	23.0	32.5		
None	17.6	31.6		
Patrons Purpose of Visit				
% Regulars	mean = 25.0	mean = 37.8	.004	.40
% After work	2.2	4.7	.09	.27
% Social club gathering	9.6	5.8	.25	
% One or two drinks	14.3	10.1	.10	.20
% Out for a big night	63.1	44.9	.001	.50
Individual "cheerfulness" of			.22	.10
males				
High	39.2	45.7		
Medium	51.4	44.8		
Low	6.8	9.5		
None	2.7	-		
Individual "cheerfulness" of			.03	.36
females				
High	28.4	48.2		
Medium	55.4	43.0		
Low	14.9	7.0		
None	1.4	1.8		
Social "friendliness" of males			.57	1.56
High	32.4	42.2		
Medium	56.8	47.4		
Low	9.5	9.5		
None	1.4	0.9		
Social "friendliness" of			.007	.39
females				
High	16.2	40.2		
Medium	62.2	44.7		
Low	18.9	13.2		
None	2.7	1.8		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Roughness and bumping by			.22	.19
males				
High	18.9	10.3		
Medium	14.9	17.2		
Low	31.1	25.9		
None	35.1	46.6		
Roughness and bumping by			.54	.17
females				
High	14.9	9.6		
Medium	13.5	10.5		
Low	25.7	24.6		
None	45.7	55.3		
Hostility by males			.58	.14
High	0.0	0.9		
Medium	10.8	7.8		
Low	33.8	28.4		
None	55.4	62.9		
Hostility by females			.37	.21
High	1.4	0.0		
Medium	4.1	3.5		
Low	31.1	23.5		
None	63.5	73.0		
Group territoriality			.09	.24
High	9.5	2.6		
Medium	14.9	14.7		
Low	33.8	26.7		
None	41.9	56.0		
Rowdiness Males			.006	.38
High	29.7	15.5	.000	
Medium	29.7	19.0		
Low	23.0	30.2		
None	17.6	35.3		
Swearing Males	11.0		.008	.35
High	17.6	5.3	.000	.55
Medium	27.0	17.5		
Low	27.0	34.2		
None	28.4	43.0		

Table 3.5 (continued). The Social Environment in Venues in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Rowdiness Females			.002	.38
High	13.5	7.0		
Medium	25.7	18.3		
Low	39.2	26.1		
None	21.6	48.7		
Swearing Females			.02	.38
High	12.2	3.5		
Medium	16.2	8.8		
Low	29.7	28.9		
None	41.9	58.8		

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means shown at various points in the tables.

The "decorum expectations of management" increased markedly, with a big decline in visits for which expectations were rated as "permissive" or "very permissive." These two categories declined from 38.4% and 19.2% of visits in 1994 (a total of 57.6%) to 22.6% and 3.5% of visits in 1996 (a total of 26.1%). These changes in management expectations no doubt flowed from the Codes of Practice, and seem to have been linked to marked improvements in patron behaviours. These improvements were particularly apparent in sexual activities and in negative interchanges between patrons.

The most overt sexual behaviours (such as "heavy necking" and "flagrant fondling") became much less common, but the more flirtatious "checking out" or "chatting up" activities by men (and to a lesser extent women) increased in frequency. This is consistent with the observed trends toward greater sociability, friendliness and cheerfulness. Consistent also are the observed declines in sexual competition amongst both men and women, reducing the intensity of one possible factor in aggressive and violent incidents (Graham et al, 1996; Graham & Homel, 1997).

Perhaps an even more important outcome of a less permissive environment was the (non-significant) trend toward less roughness, bumping and hostility, and the more pronounced trend to lower levels of rowdiness, swearing and "group territoriality." Group territoriality is an obvious risk factor for aggression and

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

violence (Homel et al., 1994), so it is important to note that it was rated as high in only 2.6% of visits in 1996, down from 9.5% in 1994. Rowdy behaviour by males dropped from being high or medium in nearly 60% of visits in 1994 to 34.5% of visits in 1996. Similarly, visits in which swearing by males was rated as high or medium halved, from 44.6% to 22.8%. Similar trends were observed for female rowdiness and swearing.

As is apparent from Appendix C, many of the changes in the social environment described in this section were of such magnitude that they reached statistical significance in the three cities individually. For example, the changes in sexual behaviour were very similar in each city, although the precise indicators of the changes varied. Similarly, the decline in male rowdiness was significant in all three cities, although gamma was highest in Mackay (.51, compared with .26 in Townsville and .33 in Cairns). Decorum expectations increased significantly in Townsville and Mackay; in Cairns they were already at a relatively high level, making the improvements in 1996 non-significant.

Patrons Characteristics

Patron characteristics are of obvious importance: some people drink more than others, for example, and people are affected in different ways by alcohol, depending on the circumstances (Graham et al., 1996). Some individuals, and perhaps certain social groups, seem more prone to aggressive acts than others (Homel et al., 1992; Homel & Clark, 1994; Graham et al., 1996).

Changes in patron characteristics can tell us a great deal about the impact of an intervention. If, for example, all the young, heavy drinking males move elsewhere, the problem of aggression and violence may not have been solved, merely displaced. There is some evidence that this may have occurred in the Surfers Paradise project (Homel et al., 1997). On the other hand, if patron characteristics remained much the same, while drinking rates and violence declined, the implication would be that environmental changes may have eliminated some risk factors with little displacement.

Table 3.6. Patron Characteristics in the Three Cities Combined, 1994 and 1996.

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Type of Patrons				· · · · · · · · · · · · · · · · · · ·
% High school Students	mean = 4.0	mean = 0.7	.06	.31
% College/Uni Students	11.5	11.6	.39	
% Patrons from the Military	13.7	16.5	.35	
% Male Patrons	65.5	65.8	.71	
Number of patrons			.01	.22
<50	23.3	17.2		
50-99	21.9	24.1		
100-199	20.5	32.8		
200-499	28.6	24.1		
500-999	5.5	1.7		
Minimum Number of Patrons	mean = 104	mean = 88	.60	
at Any One Time				
Maximum Number of Patrons	176	171	.53	
at Any One Time				
Ages of Patrons (Males)				
% <18	2.3	0.3	.001	.50
% 18-21	18.2	15.3	.35	
% 22-25	30.3	37.8	.03	.04
% 26-35	32.0	32.5	.46	
% >35	15.2	12.1	.76	
Ages of Patrons (Females)				
% <18	2.8	0.5	.0002	.54
% 18-21	21.6	20.3	.84	
% 22-25	32.2	38.3	.06	.28
% 26-35	28.8	29.4	.53	
% >35	11.6	9.1	.73	
Types of Groups of Patrons		*		
% Single males	18.9	27.0	.01	.36
% Single females	7.9	17.6	.0001	.65
% Couples	19.2	15.8	.32	
% Medium 3-4	40.8	27.0	.0001	.55
% Large >5	14.7	11.8	.22	.50
% Mixed female/male	50.5	48.4	.59	
% All females	17.3	18.9	.66	
% All males	31.6	31.8	.48	

Table 3.6 (continued). Patron Characteristics in the Three Cities Combined, 1994 and 1996.

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Patron Familiarity				
% Patrons as strangers	42.6	38.1	.20	
% Patrons known to each	57.4	61.1	.29	
other				
Patron Ethnicity				
% Anglo Australian	80.1	81.8	.53	
% Middle Eastern	0.7	1.0	.26	
% Pacific Island	4.3	1.9	.0001	.47
% Aboriginal	2.8	4.3	.44	
% Asian	3.6	4.2	.43	
% Southern European	3.2	6.3	.67	
% Other	5.1	2.0	.44	
Tourists (Local and			.88	.02
International)				
High	11.0	8.7		
Medium	6.8	7.0		
Low	46.6	52.2		
None	35.6	32.2		
Overall Dress (Males)			.46	.15
Unkempt	16.2	14.8		
Tidy	73.0	67.8		
Well-groomed	10.8	17.4		
Overall Dress (Females)			.99	.02
Unkempt	4.1	4.4		
Tidy	74.3	74.3		
Well-groomed	21.6	21.2		
Dress Type (Males)				
% Work gear- manual	mean = 0.7	mean = 1.8	.68	
% Business suit	2.6	1.2	.007	.37
% Dress-Up Casual	72.6	70.8	.52	
% Dress-Up	19.9	12.6	.29	
% Grunge	11.7	6.0	.0008	.37
% Cult-Dressing	3.5	2.3	.0005	.09
% Other	18.3	5.1	.004	.58

Table 3.6 (continued). Patron Characteristics in the Three Cities Combined, 1994 and 1996.

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Dress Type (Females)				
% Work gear- manual	0	0	-	
% Business suit	0	0.1	.49	
% Dress-Up Casual	72.2	66.4	.13	
% Dress-Up	24.5	22.7	.64	
% Grunge	8.6	5.0	.007	.28
% Cult-Dressing	3.8	2.4	.004	.10
% Other	13.6	3.6	.02	.52
Number of Patrons Within Full	107	89	.74	
View of Observers During				
Observation Period				
Number of Patrons whose	5	10	.17	
Conversations were able to be				
Overheard During the				
Observation Period				

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means shown at various points in the tables.

From Table 3.6, it appears that the changes in the composition of the patron population were relatively slight, despite the indicators of increased crowding and the number of new venues. The more rigorous policing of the under-age law clearly reduced the number of patrons of high school age, and there was a corresponding increase in the numbers in the 22 to 25 years age range. There were more crowds of between 50 and 200 patrons in total, with some decline in very small (less than 50) and very large (more than 200) crowds, but perhaps more important there appeared to be fewer *groups* of patrons, especially small groups of 3 or 4, and an increase in men and women on their own. Since groups, particularly all-male groups, can be a risk factor for violence (Homel et al., 1992), these changes may have contributed to the reductions in violence documented earlier. The levels of patron familiarity with each other did not appear to change.

Ethnic composition also did not change, apart from a reduction in the already small percentage of Pacific Islanders, and nor did the gender ratios for individuals or

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

groups, the proportion of tourists, or overall dress standards. The data on specific forms of clothing are a little hard to interpret, since the 1994 categories add to more than one hundred percent, but it seems that men were a little less likely to wear a suit (not that many ever did) and that "grunge" and "cult" dressing by both men and women became less common. Casual gear or "dress-up" was pretty much the norm in 1996.

All these trends are reflected in the data for the individual cities (Appendix C). The increase in the percentage of patrons on their own was significant in all three locations, while the decline in the numbers of under-age patrons was significant for Townsville and Mackay. As with other aspects documented from the observation schedules, the three cities were remarkably similar in terms of the changes taking place in venues, although there were a few pre-existing differences in the social and physical characteristics.

Bar Staff

The changes that were observed in the appearance and behaviour of bar staff mirror to some extent the changes for crowd controllers. Table 3.7 shows that bar staff became much friendlier, were better matched with patrons in terms of gender ratios, and were more likely to be dressed in the house uniform. Identification with explicit house policies and the Code of Practice, symbolised by the use of uniforms, may have assisted in the move to less permissive practices with respect to deviant patron behaviour, although the need to deal with such behaviour apparently reduced in 1996. However, the need to deal with aggressive behaviour apparently did not change, being observed in about 19% of visits in both years, and nor did the rated abilities of bar staff in this respect. There was little change in the ages or ethnicity of bar staff, but there was a trend toward improved staff to patron ratios.

The move to uniformed staff was particularly pronounced in Mackay and Townsville, while the need to deal with deviant behaviour declined sharply in Townsville (Appendix C). The friendliness of staff increased markedly in Mackay (from 38.1% of visits to 92.0%), and also increased significantly in Cairns.

Table 3.7. Characteristics of Bar Staff in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^{b}	Gamma or Effect Size ^c
Sex of Bar Staff			.27	.01
100% male	8.1	7.8		
75% male/ 25% female	5.4	13.0		
50% male/ 50% female	17.6	13.9		
25% male/ 75% female	44.6	33.9		
100% female	24.3	31.3		
Age of Bar Staff			.16	.29
Young	73.0	57.5		
Mixed Ages	23.0	41.6		
Old	4.1	0.9		
Presentation of Staff			.0009	.34
All uniformed	43.2	61.9		
Some uniformed/ some not	16.2	21.2		
Formal	8.1	0.0		
Informal	32.4	17.7		
Ethnicity of Bar Staff				
% Anglo Australian	mean = 96.2	mean = 95.0	.36	
% Middle Eastern	0.1	0.1	.78	
% Pacific Island	0.9	1.4	.92	
% Aboriginal	0.1	0.4	.35	
% Asian	0.5	2.4	.07	.21
% Southern European	0.5	0.6	.40	
% Other	1.4	0	.08	.22
Staff Gender Compared to			.002	.47
Patrons				
Matched	25.0	48.2		
Unmatched	75.0	51.8		
Availability of Staff			.21	16
Plenty	27.4	30.4		
Adequate	50.7	57.4		
Few	21.9	12.2		
Staff Acceptance of Deviant			.0003	.26
Behaviour				
Not permissive	4.1	9.5		
Slightly permissive	16.4	10.5		
Not applicable	42.5	61.0		
Permissive	19.2	18.1		
Very permissive	17.8	.9		

Table 3.7 (continued). Characteristics of Bar Staff in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Staff Ability to Defuse			.53	.03
Aggression				
Very good	2.7	8.2		
Good	9.6	6.4		
Poor	5.5	3.6		
Very Poor	1.4	.9		
No aggression to defuse	80.8	80.9		
Ratio of Bar Staff to Patrons			.19	.19
1 to 10	12.2	15.7		
1 to 20	29.7	33.0		
1 to 40	21.6	30.4		
1 to 50	27.0	16.5		
less than 1 to 50	9.5	4.3		
Staff Interaction with Patrons			.0003	.51
hostile and rude	6.8	.9		
no interaction with patrons	16.2	2.6		
reserved	31.1	25.0		
friendly	44.6	67.2		
sitting with patrons	1.4	4.3		

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means are shown at various points in the tables.

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

Alcohol and Drug Consumption

An apparent paradox in Table 3.8 is that neither male nor female drinking rates appeared to decline, and nor did female drunkenness decline significantly, but the incidence of male drunkenness - particularly at "high" levels - reduced sharply.

Drinking rates were measured in terms of the estimated number of "standard drinks" consumed per hour, based on observation of small groups of patrons. A standard drink was defined as a "pot" or "middie" (285 ml) of normal strength beer, and a "high" rate of consumption as more than four standard drinks per hour by the majority of observed patrons (for more details see the observation schedule in Appendix A). Rates of drunkenness were assessed in a more intuitive manner, based on the proportion of patrons assessed during a visit to be showing signs of intoxication.

Drinking rates remained steady, at high levels in about one third of visits in both years for men, but using the four point scale for drunkenness 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. Because of this intervention, high drinking rates were less likely to lead to visible intoxication.

This inference is strongly supported by the data on serving practices, set out in Table 3.9. 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. These results are described in more detail below.

Although drinking rates did not decline, other aspects of drinking practices changed. There was less "shouting", with visits in which none was observed nearly doubling, from 33.8% to 60.6%. However, using the 4-point scale the reduction was not statistically significant. There was a trend away from full strength beer to low alcohol beer, soft drinks and water (and also wine for women), but normal beer and mixed spirits remained by far the preferred beverages for both sexes. Pots or schooners appeared to become more popular, although it is not clear exactly what containers were used in 1994 (with high percentages in the "other" category).

Neither cover charges nor the cost of drinks appeared to change. Given the evidence for moderate increases in patronage between 1994 and 1996, this suggests that the introduction of the Code of Practices did not make the establishments any less profitable.

Table 3.8. Alcohol and Drug Consumption in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Drinking Rates (in terms of			.61	.02
standard drinks) - Male				
high	33.7	35.3		
medium	48.2	43.1		
low	18.1	19.8		
very low	0.0	1.7		
Drinking Rates (in terms of			.20	.003
standard drinks) - Females				
high	16.9	22.8		
medium	49.4	40.4		
low	33.7	33.3		
very low	0.0	3.5		
Drunkenness - Males			.0004	.38
high	40.2	13.8		
medium	32.9	44.0		
low	18.3	31.0		
none	8.5	11.2		
Drunkenness - Females			.13	.16
high	22.9	15.8		
medium	32.5	35.1		
low	37.3	31.6		
none	7.2	17.5		
Round "Shouting"			.31	.09
high	9.5	7.9		
medium	13.5	24.6		
low	43.2	35.1		
none	33.8	60.6		
Types of Drinks Consumed -				
Males				
% Beer	mean = 54.9	mean = 47.4	.05	.30
% Light Beer	1.0	4.8	.0007	.54
% Straight Spirits	3.9	6.3	.49	
% Mixed Spirits	37.9	34.3	.57	
% Cocktails	0.3	0.2	.59	
% Wine	1.1	0.9	.66	
% Soft Drinks	0.5	3.0	.0009	.46
% Water	0.4	2.9	.0008	.39

Table 3.8 (continued). Alcohol and Drug Consumption in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Types of Drinks Consumed -				
Females				
% Beer	33.6	20.9	.003	.53
% Light Beer	0.2	3.3	.0003	.52
% Straight Spirits	4.0	7.6	.38	
% Mixed Spirits	52.5	48.7	.27	
% Cocktails	1.6	3.1	.17	
% Wine	3.9	7.7	.007	.36
% Soft Drinks	1.9	3.2	.03	.26
% Water	1.6	5.5	.01	.32
Types of Drinking Containers				
- Males	21.6	27.2	2.4	
% Bottles	31.6	37.3	.24	
% Cans	3.8	3.6	.60	
% Pots/Middies	9.6	18.1	.004	.33
% Schooners	0.4	3.4	.002	.33
% Plastic cups	6.7	3.8	.85	
% Other	47.8	33.4	.002	.45
Types of Drinking Containers - Females				
% Bottles	16.9	19.9	.24	
% Cans	2.1	1.5	.88	
% Pots/Middies	7.6	20.1	.001	.45
% Schooners	0.3	2.4	.02	.27
% Plastic cups	7.3	9.0	.61	
% Other	65.8	47.2	.003	.49
Cover Charge			.72	.04
High (>\$5)	31.9	27.6		
Low (<\$5)	16.7	20.7		
None/free	51.4	51.7		
Cost of Drinks			.18	.25
Cheap (<\$2)	9.6	11.2		
Average (\$2-\$2.50)	13.7	24.1		
Expensive (>\$2.50)	76.7	64.7		

Table 3.8 (continued). Alcohol and Drug Consumption in the Three Cities Combined, 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c
Drug Consumption - Males				
None apparent	73.5	75.9	.70	.06
Marijuana				
Yes	10.8	6.9	.33	.24
No	89.2	93.1		
Heroin				
Yes	0	0	-	-
No	100	100		
Speed				
Yes	6.0	2.6	.22	.41
No	94.0	97.4		
Cocaine				
Yes	1.2	0.0	.24	1.0
No	98.8	100.0		
MDA/ Ecstacy				
Yes	3.6	0.9	.17	.62
No	96.4	99.1		
Amil				
Yes	0.0	1.7	.23	1.0
No	100.0	98.3		
Others				
Yes	1.2	.9	.81	.17
No	98.8	99.1		
Drug Dealing on Premises			.20	.50
A great deal	0	0		
Some	5.5	1.9		
None apparent	94.5	98.1		

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means shown at various points in the tables.

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

The observation teams reported that in about a quarter of all visits some kind of drug consumption was apparent, but the specific categories of drugs checked add to less than 25%. (Consumption by men is used as an indicator, since female usage was lower than male.) As expected, marijuana was the most common drug, with a small incidence of the stimulants and designer drugs. The discrepancy between the estimated overall rate and numbers in the specific categories arises from the fact that the observers suspected from observed behaviour or from people's conversations that drugs were being consumed, but could not be sure which particular varieties - a reasonable outcome given that drugs are illegal and it is unlikely that patrons would in most venues openly advertise their use. Not surprisingly, dealing was observed in only a very small number of visits.

There were no significant changes in observed drug use over the two years, although the trend was downwards.

The decline in male drunkenness was particularly marked in Cairns and Townsville, but was not statistically significant in Mackay (Appendix C). The changes in types of drinks and drinking containers were evident in all three cities. The numbers of drug users were too low to analyse reliably at the individual city level.

Host Responsibility

As noted above, the decline in male drunkenness was probably related to changes in hospitality practices, including much more effective intervention with highly intoxicated patrons. These changes were evident from a number of indicators (Table 3.9). 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, perhaps because the Code of Practice adopted by most licensees superseded it, and for some reason this was not displayed. (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.

Interventions with intoxicated patrons included refusal of service and asking for age identification (both up from 1.8% to 20.0% of relevant incidents), but several other possible strategies, such as offering non-alcoholic drinks, food, or alternative transport were not used at all in either year, suggesting that there is still considerable room for improvement. A second checklist that explored both positive and negative responses to intoxicated and ordering patrons shows that pressure to drink actually increased in 1996 (especially in Townsville), although "appropriate service," delaying service, offering an alternative, denying service or calling management all increased in frequency.

Table 3.9. Host Responsibility in the Three Cities Combined in 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^{b}	Gamma or Effect Size ^c	
Publicity to Clientele			.001	.45	
Under Age Drinking Warning					
Yes	28.9	51.7			
No	71.1	48.3			
Publicity to Clientele			.02	.37	
House Policy Notice					
Yes	32.5	18.1			
No	67.5	81.9			
Publicity to Clientele			.15	.50	
Request to leave premises					
quietly					
Yes	2.4	6.9			
No	97.6	93.1			
Publicity to Clientele			.05	.34	
Patron Care Sign					
Yes	15.7	27.6			
No	84.3	72.4			
Publicity to Clientele			.01	.70	
Other					
Yes	2.4	12.1			
No	97.6	87.9			
Any Publicity to Clientele?			.0000	.85	
No	43.4	6.0			
Yes	56.6	94.0			
Availability of Self-Testing			.36	.23	
Breathalyzers					
Obvious	9.6	5.2			
Not obvious	13.3	10.3			
None available	77.1	84.5			
Promotion of Consumption			.003	1.0	
Top up/ replace or fill empty					
glasses					
Yes	7.2	0			
No	92.8	100			
Promotion of Consumption			.06	.33	
Happy Hour					
Yes	26.5	15.5			
No	73.5	84.5			

Table 3.9 (continued). Host Responsibility in the Three Cities Combined in 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c	
Promotion of Consumption			.10	.24	
Drinks Promotions					
Yes	37.3	25.9			
No	61.4	74.1			
Sometimes	1.2	0			
Promotion of Consumption Gimmicks			.02	.38	
Yes	27.7	14.7			
No	72.3	85.3			
Promotion of Consumption			.59	.17	
Sports related	6.0	4.2			
Yes	6.0	4.3			
No	94.0	95.7	0000	00	
Promotion of consumption	24.0	2.4	.0000	.88	
Some	34.9	3.4			
None	65.1	96.6	0001	27	
Staff Intervention With Highly Intoxicated Patrons			.0001	.27	
In every case	1.2	5.6			
Sometimes	19.3	16.7			
No intervention	47.0	19.4			
No highly intoxicated patrons	32.5	58.3			
Nature of Intervention			.002	.86	
Refusal of service					
Yes	1.8(1)	20.0(9)			
No	98.2	80.0			
Nature of Intervention			-	-	
Offer non-alcoholic drink					
Yes	0	0			
No	100	100			
Nature of Intervention			-	_	
Offer of food					
Yes	0	0			
No	100	100			

Table 3.9 (continued). Host Responsibility in the Three Cities Combined in 1994 and 1996

Variable	1994 (n=83) % or mean ^a	1996 (n=116) % or mean ^a	p^b	Gamma or Effect Size ^c	
Nature of Intervention			-	-	
Suggest alternative transport					
Yes	0	0			
No	100	100			
Nature of Intervention			.002	.86	
Ask for ID					
Yes	1.8(1)	20.0(9)			
No	98.2	80.0			
Nature of Intervention			.86	.04	
Other					
Yes	33.9	35.6			
No	66.1	64.4			
Nature of Intervention			.003	.41	
No intoxicated patrons					
Yes	33.7	55.2			
No	66.3	44.8			
Response to Intoxicated and					
Ordering Patrons					
Unsolicited Service			.94	.02	
Yes	10.3	9.0			
Sometimes	6.4	7.5			
No	83.3	83.6			
Pressure to Drink			.009	.45	
Yes	7.9	9.0			
Sometimes	1.3	14.9			
No	90.8	76.1			
Appropriate Service			.01	.43	
Yes	47.4	72.1			
Sometimes	17.1	8.8			
No	35.5	19.1			
Ignore Patron			.21	.42	
Yes	2.7	6.1			
Sometimes	5.4	12.1			
No	91.9	81.8			
Service Delay			.0001	.71	
Yes	5.6	16.7			
Sometimes	2.8	22.7			

No	91.7	60.6		
Offer of an alternative			.02	1.0
Yes	0.0	6.7		
Sometimes	0.0	3.3		
No	100.0	90.0		
Service Denied			.0002	.90
Yes	1.4	7.5		
Sometimes	0.0	16.4		
No	98.6	76.1		
Management called			.04	.65
Yes	2.7	4.8		
Sometimes	0.0	7.9		
No	97.3	87.3		

For some variables, missing values reduce the sample size. Percentages are reported for ordinal variables, and mean values (usually mean percentages) are presented for numerical variables. The transitions from percentages to means shown at various points in the tables.

With the exceptions noted, it can be concluded that service and promotion practices improved considerably in 1994 in all three cities. Most of the noteworthy changes, both positive and negative, occurred in Townsville: house policy notices became less evident (although this also occurred in Mackay) but some kind of publicity became universal; promotion of consumption apparently reduced to zero; there was a bit more pressure in some cases for intoxicated people to drink more, but also more refusal of service, asking for ID, and "appropriate" service such as ignoring requests and delaying service (Appendix C). Cairns also improved in terms of publicity, promotion of consumption, and appropriate service, while Mackay improved mainly in terms of publicity (unspecified) and a big reduction in promotion of consumption.

The test of statistical significance is Pearson's chi-square for ordinal data, and Mann-Whitney test for numerical data.

Gamma is presented for ordinal variables, and the effect size (difference between means divided by the pooled standard deviation) for numerical variables. Both statistics measure the magnitude of the change in the variable.

Police Data

Cairns

As noted in Chapter 2, it was possible for the Cairns analysis to neatly divide both calendar years 1994 and 1995 into three periods, corresponding to a "preproject" period (Stage 1), a period when the project officer was active but the Code of Practice had not been implemented (Stage 2), and a period during which the Code of Practice was operating (Stage 3). By comparing these periods in 1995 with the same periods in 1994 (before the project began), it is possible to assess the possible impact of the project on police recorded offences, controlling for seasonal factors. In this respect, the method of analysis is very similar to that employed for Surfers Paradise (Homel et al., 1997).

Table 3.10 contains these data for the five offence types discussed in Chapter 2. The percentage reduction for each offence within each stage is shown, together with the p-value if the change is significant at the 5% level. An increase rather than a reduction is highlighted with a plus sign.

Table 3.10. Police Data for Cairns Entertainment Area

	Stage 1 Pre-Project				Stage 2 Project Officer			Stage 3 Code of Practice				
Offence	94	95	% red'n	p	94	95	% red'n	p	94	95	% red'n	p
Assault	31	32	+3.2		33	22	33.3		28	23	17.9	
Stealing	15	10	33.3		18	13	27.8		15	7	53.3	
Disturbance/ Dispute	115	167	+45.2	.00	186	115	38.2	.00	177	109	44.1	.00
Drunkenness	52	105	+101.9	.00	68	66	2.9		72	59	18.1	
Street disturbances	13	4	69.2		8	2	75.0		2	23	+1050.0	
ALL OFFENCES	228	329	+44.3	.00	317	224	29.3	.00	297	224	24.6	.00

It can be seen that in the pre-project period, most offences increased; only stealing and street disturbances declined, and neither change was statistically significant. By contrast, with one exception, all offences declined in Stages 2 and 3, compared with the same period in 1994. The exception was street disturbances in Stage 3, but the numbers are so small and the reliability of this category so suspect that probably not a great deal of weight should be placed upon this result. Only the declines in disturbances / disputes were statistically significant, reflecting the large

numbers. It is noteworthy that assaults and drunkenness reduced in both periods, but the small numbers mean the declines were not significant.

Townsville

It was pointed out in Chapter 2 that there are some difficulties with the police data for Townsville that make interpretation difficult. Use of CRISP as a data recording system in the first few months of 1994 appeared to be rather limited, which means that the baseline data for Stage 1 are probably artificially low to some extent. On the other hand, for some months before and after Christmas 1995 police seemed to engage in a "crack down" in the central city area which generated greatly increased incident statistics. Since this period corresponds roughly to the baseline for Stage 3, any changes observed for that period may also be somewhat artificial, but in the other direction (a reduction). The data are shown in Table 3.11.

Table 3.11. Police Data for Townsville Entertainment Area

	Stage 1 Pre-Project				Stage 2 Project Officer				Stage 3 Code of Practice			
Offence	94	95	% red'n	p	94	95	% red'n	p	94- 95	95- 96	% red'n	p
Assault	17	41	+141.2	.00	13	17	+30.8		88	16	81.8	.00
Stealing	20	42	+110.0	.00	41	23	43.9	.02	110	12	89.1	.00
Disturbance/ Dispute	35	212	+505.7	.00	101	51	49.5	.00	418	89	78.7	.00
Drunkenness	22	70	+218.2	.00	23	24	+4.3		127	23	81.9	.00
Street disturbances	12	15	+25.0		16	15	6.3		22	1	95.5	.00
ALL OFFENCES	106	380	+258.5	.00	194	130	33.0	.00	765	141	81.6	.00

Perhaps because of the data problems, the results for Townsville are much stronger than for Cairns. All offences appeared to increase in the pre-project period, and most categories declined significantly during Stage 2 and Stage 3. Assaults and drunkenness were exceptions to this, since they increased (but not significantly) during Stage 2, although they declined sharply in Stage 3.

On the face of it, the police data strongly confirm the results of the observational study. Unfortunately it is very difficult to know to what extent the observed patterns reflect project impact as opposed to recording or enforcement artefacts.

Mackay

The main problem with the Mackay analysis appears not to be the quality of police data but the difficulty of capturing the project effects through simple before-and-after comparisons. As explained in Chapter 2, the late introduction of CRISP, the timing of the project officer's appointment, and the phased introduction of the Code of Practice make the selection of meaningful time periods problematic. Using the two stages previously proposed, results are set out in Table 3.12.

Table 3.12. Police Data for the Mackay Entertainment Area.

	1		ge 2 Officer		Stage 3 Code of Practice				
Offence	94- 95		% red'n	p	95	96	% red'n	p	
Assault	62	59	4.8		14	21	+50.0		
Stealing	77	87	+13.0		27	16	40.7		
Disturbance/ Dispute	250	272	+8.8		76	102	+34.2		
Drunkenness	156	215	+37.8	.00	85	74	12.9		
Street disturbances	12	76	+533.3	.00	2	37	+1750.0	.00	
ALL OFFENCES	557	709	+27.3	.00	204	250	+22.5	.03	

It can be seen that most offence categories increased during Stage 2 and 3, although the relatively unreliable "street disturbances" category showed two of the only three statistically significant increases. Assaults declined slightly in Stage 2 but increased (non-significantly) in Stage 3.

On the face of it, the police data for Mackay do not support the venue observation data, although as noted in Chapter 2 there is a need for more sophisticated analysis of the data to tease out more adequately possible project effects.

Overview

All forms of aggression and violence observed within venues declined, especially physical violence. Trends were similar (but generally not statistically significant) in each city, with the biggest decline in physical violence in Cairns (where, paradoxically, verbal aggression appeared to decline the *least*).

The police data for Cairns and Townsville showed significant declines for most types of street offences in the periods corresponding to the appointment of the project officer and the operation of the Code of Practice, while the Mackay data did not show any declines. These results could be interpreted to mean that the Cairns and Townsville projects were more successful in reducing street offences than the Mackay project, but the low rate of reporting and recording of assaults and other offences inside and near licensed venues, together with some anomalies in the Townsville data, make it difficult to draw strong conclusions. The most that can be said is that the Cairns and Townsville data provide modest support for the hypothesis that the project had a positive impact, while the Mackay data provide little evidence for any change in either direction.

The observational data can be used to describe the physical and social contexts within which aggressive behaviour declined - assuming that it really did. As would be expected, physical infrastructure (seating design, degree of renovation) did not change much, but lighting improved, as did the spacing and comfort of tables and chairs, ventilation, the cleanliness of female toilets, and the availability of taxis and public transport.

Significantly, the declines in violence coincided with increases in total patronage and in crowding (including bar crowding), with a corresponding deterioration in aspects of comfort and convenience. It seems that these changes that would normally have negative implications for safety were offset by improvements in other aspects of the environment.

A further feature of the patron population that is of great importance is that it changed relatively little in terms of social composition between 1994 and 1996. This observation is important because it relates to the issue of *displacement*: if, for example, dress standards were to improve markedly, one might argue that the reductions in aggressive behaviour reflected a basic change in the types of patrons frequenting the observed licensed venues, with problem patrons being moved elsewhere. However, unlike Surfers Paradise (Homel et al., 1997), no such changes were observed in the present study. The most significant change was that patron groups got smaller with an increase in singles, which on its own hardly constitutes strong evidence for the displacement of aggressive patrons.

The data on staff and patrons behaviours is consistent with the argument that the overall licensed environment improved in ways that reduced or eliminated some of the risk factors for violence. The changes included friendlier bar staff and security staff with a better focus on controlling risky features of the environment, such as movement through aisles and around bars, and drunken patrons. Neither male nor female drinking rates appeared to change, but there was less round shouting and a

marked decline in the incidence of high levels of male intoxication. This suggests that staff intervened more effectively to prevent or control intoxication, an inference supported by observed improvements in publicity to patrons and in methods for handling drunk but ordering patrons, and also by reductions in the use of gimmicks or promotions that encourage rapid consumption.

Again it is important to note the context within which these changes in serving and drinking practices occurred. The overall level of sociability, cheerfulness and friendliness was rated as much higher in 1996 than in 1994 (especially for women); decorum expectations of management increased, so that venues became much less "permissive", especially in terms of overt sexual activity (but not "chatting up", which increased); more food was available; and there was a drop in rowdiness, swearing, and "group territoriality." Moreover, venues probably did not become less profitable overall, since patronage increased but there was no change in cover charges or the cost of drinks.

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 the social environment and 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 modelling 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.

Conclusion

The analysis of venue observation data 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 reductions in the levels of perceived "permissiveness" in venues, increases in sociability, cheerfulness and friendliness, and a range of significant improvements in host responsibility practices and a marked decline in levels of male drunkenness. Significantly, patronage (and crowding) increased and prices stayed the same, suggesting no decline in levels of profitability.

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.

The analysis of police data on assaults and street incidents provided limited support for the venue observation findings. Cairns and Townsville recorded reductions in many offence categories after the employment of the project officer or implementation of the Code of Practice, although only a few changes were statistically significant. Mackay recorded mostly increases in street offences, although generally not significant. Given the difficulties with the interpretation of the police data discussed in previous chapters, as well as the problems involved in defining meaningful project periods for before-and-after analyses in Mackay (and to some extent Townsville), the most that can be concluded is that in Cairns and Townsville the police data are generally consistent with the venue observations, while in Mackay the data suggest that few changes occurred in the streets.

As discussed in Chapter 2, the relatively low correlation between venue observations and police street offence data is not particularly surprising. Police statistics are influenced by many factors, especially police enforcement and recording practices. In addition, police statistics suffer from the major disadvantage that incidents occurring *within* venues are grossly under-reported or under-recorded (Campbell and Green, 1997; Homel and Tomsen, 1991), so that what happens in venues may be very difficult to discern in the official statistics.

Assuming that the observed improvements in venues were real, despite the limited support from the police data on street offences, 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 state-wide 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.

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)? and (3) what can be learned about the ingredients that are necessary or unnecessary for a successful intervention?

Although the analysis of displacement is now recognised in the crime prevention literature as an exceedingly complex problem (Clarke, 1997), considerable progress has been made both at the theoretical and 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 one hundred percent in the remaining studies. Moreover, there is growing evidence that often interventions result in "diffusion of benefits," which means that 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, for example through a decline in stealing offences in the street, even though property crimes were not the target (Homel et al., 1997).

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. Nevertheless, the short-term effects reported in this paper require some explanation.

One important point is methodological: our observational data were collected between 7 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 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 2.1, 2.2 and 2.3), project resources were relatively modest, the main cost being project officer salaries for one year or a little longer (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 1.1, which are more complex and multi-faceted 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-terms effects have been difficult to achieve in some locales (Homel et al., 1997). This is related to the general problem of the weak formal regulatory structures in the liquor licensing area in Australia (Homel, 1996; Stockwell, 1994).

Putting the forgoing 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 mobilisation, and a sophisticated, dynamic, multi-pronged regulatory system responsive to the needs and aspirations of each community that has most potential to bring about short-term and long-term change.

With respect to the question of what specific ingedients 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 difference 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 of the steering committee and involvement in some task groups. This suggests that heavy police involvement through community policing strategies is *not* an essential ingredient for success, at least in the short-term, although other considerations might dictate utilising 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 assist 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 ingredients must be included amongst those strategies that all projects had in common. On the basis of our present analyses, these are: the formation of a steering committee; the conduct 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 conduct 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 neighbourhood) must be manipulated simultaneously in order to bring about change, and that it is often not possible 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, namely: 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.

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