

**Sustaining a Reduction of  
Alcohol-Related Harms in  
the Licensed Environment:  
*A Practical Experiment  
to Generate New Evidence***

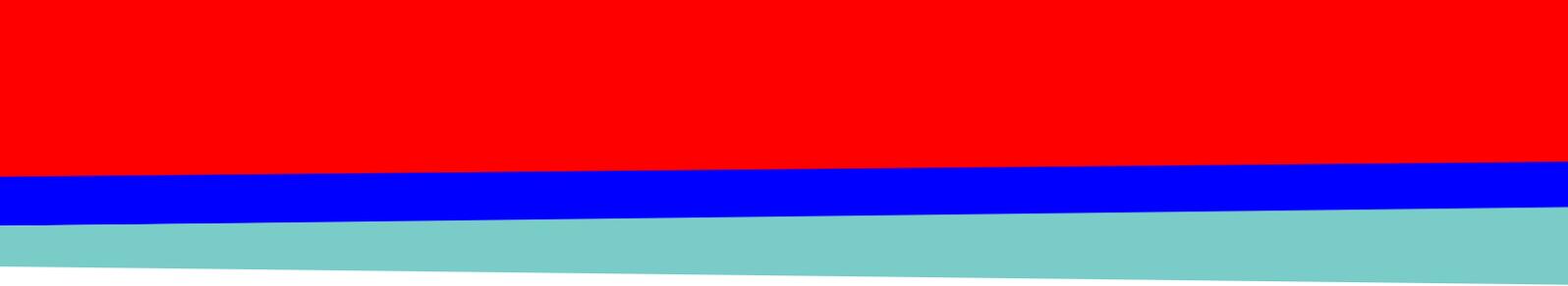
WORKING TITLE

**Sustaining a Reduction of Violence  
in the Licensed Environment**

**Dr. Gillian McIlwain  
Professor Ross Homel**

**Key Centre for Ethics, Law, Justice & Governance,  
Griffith University, Brisbane, Australia**

**March 2009  
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Gillian McIlwain

March 2009



## Executive Summary

Aggression and violence in and around drinking establishments remains a significant problem in most parts of the world, especially as the night-time economy expands. In a new monograph, *Raising the Bar* (2008), Kate Graham and Ross Homel comprehensively reviewed what is known about the causes of aggression in bars, clubs and pubs, drawing to a considerable extent on their own research over the past 20 years. They concluded that while there were some promising approaches there was little scientifically reliable evidence to guide policy. Nor, despite these promising approaches, was there evidence of sustainable reductions of violence in licensed environments. The challenge therefore to the field, appeared to be twofold. First, could a model be developed that was capable of reducing alcohol related violence, and of sustaining those reductions long term? Secondly, could a scientifically defensible research design be developed and operationalised, which could test such a model in a number of different settings, thereby indicating the flexibility of the model while also maintaining experimental and scientific rigour? The Project reported here, intends to meet both these challenges, by developing a rigorous long-term meta-experiment to test a comprehensive prevention model in a variety of licensed environments. The Project proposes to do this over two phases: Phase 1 as a research design period, and Phase 2 as a trial period.

This report contains an account of the Phase 1 of the Project, (conducted between March 2008 and March 2009), which was aimed at achieving two objectives –the development of a comprehensive prevention model capable of reducing alcohol related violence and aggression, and a scientifically defensible research design to test the model in a variety of licensed environments in Australia and New Zealand.

Firstly, drawing on Graham and Homel's work, and working within a responsive regulation framework, a comprehensive prevention model is devised. It integrates targeted police enforcement (TP) and other regulatory action, as well as staff training using the Safer Bars Program (SB) from Canada, and community mobilization (CM). Utilising a responsive regulation framework allowed the model to be adapted to local conditions at sites selected for the planned trial, and to incorporate action at the levels of self-regulation (empowered through staff training), informal regulation through community monitoring and mobilisation, and formal regulation (police and liquor licensing enforcement). The second objective of Phase 1 of the Project involved the construction of a research design capable of testing the model in a long-term meta-experiment over a five to seven year period, at five different sites.

Site selection involved gathering information about the local night-time economies, as well as interviews with key stakeholders, negotiation of data collection systems, and a review of current policies, regulatory practices, legislation, and the quality of community partnerships. The inner CBD of the City of Melbourne, the Chapel street precinct of the City of Stonnington, the St. Kilda area of the City of Port Phillip (all in Victoria, Australia), the CBD of Mackay, Queensland, and the CBD of the City of Wellington, New Zealand, were selected for more or less intensive and comprehensive interventions depending on their openness to experimentation, their capacity for change, and the availability of local resourcing.

A quasi-experimental design has been developed, informed by a theory of change to determine what combination and intensity of the three preventive strategies (TP, CM and SB) would work best in the five different sites. The proposed implementation of the three model components, sequentially different at each site, and where each period interval is six months, is based on a multi parallel methodology, illustrated in the following table:

Site	Shape of the Interventions across time periods			
	Period 2	Period 3	Period 4	Period 5 - 10
1	TP	TP + SB	TP + SB + CM	TP + SB + CM
2	SB	SB + TP	SB + TP + CM	SB + TP + CM
3	SB	SB + CM	SB + CM + TP	SB + CM + TP
4	CM	CM + TP	CM + TP + SB	CM + TP + SB
5	CM	CM + SB	CM + SB + TP	CM + SB + TP

Phase 2 of the Project, in which the model will be tested for its capacity to sustain reductions in alcohol related violence, and for its goodness of fit with local conditions at each of the five sites, will commence in 2010, when funding is fully secured to support the local implementations and data collections as well as the coordination of the whole experiment and the analysis of pooled data at Griffith University.

Phase 1 of the Project has been funded by DrinkWise Australia, which does receive some funds from the liquor industry, but to ensure experimental integrity and to avoid compromise, Phase 2 of the Project, will not depend on industry funding. Fundamental to the entire meta-experiment is the need to maintain scientific rigour and perceived as well as actual independence.

Without a strong evidence base, policy in the area of alcohol-related violence prevention cannot be advanced, and resources, both human and financial, will be squandered in symbolic rather than substantial interventions. In essence, to prevent the same mistakes being made, and to ensure that we learn from the past errors, it is imperative that this meta-experiment not only have the support of the selected sites who have entered a long term partnership with the research team at Griffith University, but also the state and national governments who stand to benefit considerably from improvements in public health and a reduction of aggression and violence in the licensed environment.

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## Introduction

The social problem of aggression and violence in the licensed environment has received surprisingly little research attention over the years, despite the enormous literature on alcohol and alcohol policy (Babor, Caetano, Casswell, Edwards, Giesbrecht, Graham, et al 2003; Babor & Winstanley, 2008), and despite the consistent evidence that intoxication figures frequently as a factor in homicides and assaults (Graham & West, 2001). In their comprehensive review of the nature of the problem and its causes and prevention, Kathryn Graham and Ross Homel (2008) could find only 13 studies of environmental characteristics associated with aggression in drinking establishments, eight of which had been conducted by one or other of them (Graham, LaRocque, Yetman, Ross, & Guistra, 1980; Homel, Carvolth, Hauritz, McIlwain, & Teague, 2004).

The relative paucity of studies of the effects of environmental factors is paralleled by a remarkably thin evidence base in terms of 'what works' in reducing bar aggression and violence. Most popular strategies, including reactive policing, responsible serving programs, and partnerships such as alcohol or licensing accords, either have not been rigorously evaluated or (in some cases) have been shown to be mostly ineffective in reducing aggression and violence (Graham & Homel, 2008; Hawks, Rydon, Stockwell, White, Chikritzhs, & Heale, 1999). This means that at a time when there is an increasing demand in many countries for the authorities to 'do something' about the malign effects of the night-time economy on public health and safety, experts are not in a position to offer any firm advice, at least not advice that is firmly grounded in robust evidence.

Instead, the research neglect reflects and reinforces a policy environment characterised by 'feel good' strategies that have little basis in a scientific understanding of the problem. In most developed countries violence and disorder are blamed on deviant or irresponsible individuals, and patrons who are injured are mostly viewed as having brought their misfortune on themselves, perhaps simply by being in that kind of place at the wrong time. The obvious solution is tough police enforcement in the streets (not so much inside venues), perhaps reinforced by publicity campaigns emphasising patron responsibility (as in the recent Queensland campaign with the slogan, "Enjoy the night, not the fight"). When slightly more sophisticated policies are developed the problem is often constructed solely in terms of alcohol and responsible serving practices, downplaying or ignoring a huge range of non-alcohol situational risk factors related to the physical and social environments of drinking establishments, as well as venue management practices, especially in relation to the hiring and supervision of security staff, (Hobbs, Hadfield, Lister, & Winlow, 2003), not to mention the profound influence of industry culture and structures.

In addition, the enormous impact of the increasingly deregulated licensing environment in countries such as the UK (Kolvin, 2005) may be bemoaned, but regulators feel relatively powerless to counter the effects of these major societal reforms, which aim to revive city or state economies without much thought to criminal justice or public health outcomes.

This report describes the thinking behind, and the results of a research project funded by DrinkWise Australia<sup>1</sup>, aimed at developing a practical and scientifically rigorous research design, tailored to local conditions in selected parts of Australia and New Zealand and which allows the generation of persuasive evidence about the effectiveness in reducing violence. This 12 month project does not itself involve the implementation of any interventions; rather, the aim is to produce a plan describing the approaches that will probably work best in different settings to reduce bar violence. Through careful design and comparison between different areas, using standardised data collection methods to measure outcomes, it is hoped that light will be thrown on the effectiveness (in relation to context) of the different strands of a proposed comprehensive regulatory model that incorporates training, enforcement and community action in some kind of optimal mix.

The first phase of the Project, conducted over 12 months between March 2008 and March 2009, is reported here in this document, and describes the model and the proposed research design. A quasi-experimental design combined with a theory of change was used to determine what combination and intensity of preventive strategies work best in the five different sites. Site selection involved gathering information about the night-time economy, interviews with key stakeholders, negotiation of data collection systems, and a review of current policies, regulatory practices, legislation, and the quality of community partnerships. Sites were selected for more or less intensive and comprehensive interventions depending on their openness to experimentation, their capacity for change, and the availability of local resourcing.

The plan for the second 'testing' phase (the meta-experiment) is also described in this report. Fundamental to the entire meta-experiment is the need to maintain scientific rigour throughout. Without a strong evidence base, policy in the area of alcohol related violence prevention cannot be advanced, and resources, both human and financial will be squandered in continued attempts to ensure public safety and to reduce the social and health harms associated with alcohol related violence in the licensed environment.

This report is divided into five chapters. Chapter 1 scopes the knowledge about violence in the licensed environment and contextualises this Project within the international literature. It concludes with an outline of the aims of the Project, the research questions and the two phases of the Project.

Chapter 2 responds to the contractual requirements of this Project's funding body - DrinkWise Australia, and explains, in sequential order, the activities contained in our original research proposal for Phase 1. It also includes explanations for some of the variations of these activities and the rationale for change. Chapter 3 describes the two most important deliverables in this Project – first the development of the prevention model, its component parts, and second the process of selecting suitable sites for testing the model in a meta-experiment.

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<sup>1</sup> DrinkWise Australia is an evidence based organization focused on promoting change towards a more responsible drinking culture in Australia. DrinkWise Australia aims to contribute to the development of a drinking culture in Australia that reduces alcohol related harm and thereby maximizes the benefits from moderate alcohol consumption.

The third deliverable – the development of a scientifically defensible research design to test the prevention model as a meta-experiment, is described in Chapter 4. The explanation of the research plan includes the two experimental designs, the types of measurement and statistical analysis that will be undertaken, and a list of the materials to be used.

Because of the magnitude of the meta-experiment, the procedures involved in implementing it are described separately in Chapter 5. Drawing on the principles of the theory of change, the implementation of the research plan during Phase 2 is graphically represented as pathways, with explanations of the different stages provided. This chapter concludes with a brief overview of the funding possibilities for Phase 2 of the Project.



## Chapter 1: Scoping the Problem

This chapter reviews the literature around the understanding and prevention of alcohol related violence, and examines the lack of scientific evidence of sustainable reductions of harm, public disorder and violence around licensed environments. Although this review does scope the international and national fields, it draws heavily on the seminal work already done by Graham and Homel (2008), and on whose recommendations for future research, this Project was fundamentally generated and built.

This review begins by placing drinking, alcohol and licensed premises in context, and appraises the risk factors which research has linked to violence and harm in licensed premises. We then review the methodology and outcomes obtained by recent prevention programs aimed at reducing alcohol related harms, highlighting the lack of evidence for sustained success, but identifying where possible, tangible signs of hope. By drawing on approaches which appear to have potential, and through incorporating factors known to contribute to aggression in licensed premises, the review concludes by proposing a model of prevention based on regulatory theory to reduce alcohol related harms in the licensed environment, and to sustain these reductions over time.

### Literature Review

#### What is the issue?

Alcohol abuse and violence in licensed premises have long been recognised as serious social problems in Australia and have attracted burgeoning media attention over the past decade and a half (Graham & Homel, 2008; Hauritz, Homel, McIlwain, Burrow, & Townsley, 1998; Homel & Tomsen, 1993; Makkai, 1997; Mason & Wilson, 1989). More recently, stories highlighting the rates of assault and injury in drinking establishments have appeared in the media on an almost weekly basis (Davis, 2007; Mitchell & Higginbottom, 2008; Roberts & Ife, 2008) as a result of the heightened media attention, a number of prevention programs aimed at reducing the prevalence of violence in and around licensed premises have emerged. This review outlines the current situation of violence in and around licensed premises and discusses what has been done to address this issue in the past. We argue that whilst a number of programs have reduced alcohol related harms, few have sustained these reductions over time.

#### Setting the scene for prevention: Alcohol, harm and the licensed environment

Alcohol is the most commonly consumed and socially acceptable psychoactive drug used throughout the world. Research suggests that people consume alcohol for a plethora of reasons. For example, alcohol is consumed to both 'celebrate and commiserate' (Stonach, 2003 cited in Buning & Avontuur, 2008); it is consumed as part of a good time and in order to have a good time, and it is consumed to both relax and excite. In addition to alcohol being consumed to elicit or suppress emotions, it is frequently used as a form of social currency and way to interact with others (Buning & Avontuur, 2008; Homel & Tomsen, 1993; Makkai, 1997; Taylor & Carroll, 2001). For some, alcohol is the scaffolding of a good night

out, whereby subjective enjoyment and entertainment are measured according to blood alcohol levels, and retrospectively judged according to feelings of ill-health the morning after (Makkai, 1997; Shanahan, Wilkins, & Hurt, 2002; Tomsen, 1997). Despite alcohol being both a pleasurable and sociable activity in most western countries, it is also a known contributing factor to a number of health and social problems.

Research conducted by the Australian Institute of Health and Welfare in 2002 revealed that Australians were twice as likely to experience abuse and/or aggression by an alcohol-affected person, than by a person affected by other substances. During 2001, 27 per cent of Australians aged over 14 years were verbally abused, 5 per cent were physically abused and 14 per cent were caused fear by a person under the influence of alcohol (Australian Institute of Health and Welfare, 2002). Further research revealed that alcohol is the leading cause of road fatalities and second main cause of drug-related deaths and hospital admissions in Australia (Australian Institute of Health and Welfare, 2005). In addition to this, between 1998–1999 it was estimated that alcohol abuse cost the Australian Government approximately \$7.6 billion dollars (Collins & Lapsley, 2002). These costs were based on lost productivity, treatment, death and crime.

An Australian study (Roche, Watt, McClure, Purdie, & Green, 2001), which also examined the relationship between alcohol and injury found that consuming alcohol was associated with high levels of injury. Approximately half of all persons reporting to the emergency department after consuming alcohol in this study were reported to have sustained the injury whilst at a licensed premise. Results of this research complement previous studies and suggest that drinking establishments generate higher rates of alcohol related harms, than other settings.

According to Graham and Homel licensed premises, such as pubs and clubs, are the most popular environments for consuming alcohol, and are habitually favoured over the comfort of consumers' own homes or homes of friends or family. For example, in Australia nearly half of all alcohol sold, and 30 per cent of all alcohol consumed is on licensed premises. Byrne (1978) suggests that people go to licensed premises, not only to drink, but also to escape the monotony of everyday life and have 'time out' (p. 418). Similarly, Graham and Homel (2008) suggest that licensed premises are not just a place to relax, kick-back and consume alcoholic beverages, but they are a domain where patrons expect to be amused, entertained and disengaged from the outside world.

The popularity of licensed premises as venues for both entertainment and consuming alcohol has contributed to the growth of the "night-time" economy in most western countries (Graham & Homel, 2008; Hadfield, 2006). Whilst drinking and partaking in the "night-time" economy through visiting pubs and clubs is both widespread and commonplace, some drinking patterns can result in harm, violence and physical disorder. Licensed premises are renowned for being hotspots for violence and disorder with recent research indicating that alcohol-fuelled assaults have more than doubled in the past decade (Hadfield, 2006; Hauritz et al., 1998; Makkai, 1997, 1998; Mitchell & Higginbottom, 2008).

In addition to alcohol being associated with high rates of injury and hospital admissions, a number of studies have demonstrated the link between alcohol intoxication and aggressive behaviour. Makkai (1997) found that individuals who frequent entertainment venues, particularly pubs and clubs, are at

a higher than average risk of experiencing assault. Therefore, it appears that not only does consuming alcohol and negotiating licensed premises increase the risk of experiencing an injury, but it also puts patrons at an elevated risk of experiencing assault.

Similarly, research on the link between alcohol and violent crime has consistently revealed a relationship between imbibing alcohol and violent behaviour, with some studies indicating that the rate of violence in an area is positively correlated to the number of licensed premises in that area (Boles & Miotto, 2003; Ireland & Thommeny, 1993). An Australian study examining the relationship between licensed premises and rates of violent crime found that over 40 per cent of all assaults occurred either in or around a licensed premise (Ireland & Thommeny, 1993). Further to these results which link violence and licensed premises, the same study found that 60 per cent of all police attended alcohol-related assaults in Sydney, occurred in or around a licensed premises.

International research on the relationship between licensed premises and aggression complements Australian findings. For example, a population survey of residents aged between 18–60 years in Ontario, Canada found that 30 per cent of those surveyed who had experienced physical aggression, had experienced this behaviour whilst in licensed premises (Graham, Wells, & Jelley, 2002). The experiences of physical aggression in licensed premises was particularly high for young males aged between 25–34 years, with 60 per cent of this group who reported experiencing physical aggression reported experiencing this whilst in licensed premises (Graham et al., 2002). Similarly, a New York study of young adults aged between 18–30 years revealed that licensed premises were both the most common location for observing aggression and experiencing physical aggression (Leonard, Quigley, & Collins, 2003).

Research has also suggested that alcohol related harms are not evenly distributed amongst licensed premises. A number of studies have revealed that a minority of licensed premises account for a majority of alcohol related problems (see Nicholas, 2004 for a complete listing of these studies). For example, Briscoe and Donnelly (2001) found that 12 per cent of hotels in inner city Sydney accounted for approximately 60 per cent of all assaults at licensed venues, while 8 per cent of drinking establishments in Newcastle accounted for 80 per cent of assaults that occurred in licensed premises in that area (Nicholas, 2004). Overall, the literature clearly demonstrates that licensed premises are high risk for both observing and experiencing aggression and suggests that alcohol consumption plays an important role in mediating this behaviour.

#### ***What are the risk factors for violence and harm in licensed premises?***

Research suggests that a number of factors contribute to aggression in licensed premises (Graham & Homel, 2008). The current body of research has focused on five main areas, those being the link between intoxication and aggression, the association between the characteristics of individual patrons and aggression, the relationship between the barroom environment and aggression, the role of bar staff and the ecology of licensed premises (Graham & Homel, 2008). The following section briefly reviews each of the five main risk areas and describes how they are linked to aggression in licensed premises.

## **1. Intoxication and aggression**

A meta-analysis of experimental research revealed that at the very least alcohol contributes to aggressive behaviour, and at the very most it directly causes it (Bushman, 1997). Research, however, has noted that intoxication alone is neither a sufficient nor necessary cause of aggressive behaviour; suggesting that other factors are implicated in violent behaviour (Bushman, 1997). Indeed, Graham, Wells and West (1997) suggest that aggression is the result of a combination of factors. Those factors include the pharmacological effects of alcohol, an individual who is prone to aggression when drinking, an environment which is conducive to aggression, and a broader cultural climate and tolerance of alcohol related violence.

Pihl, Peterson and Lau (1993) found that people are more likely to engage in risky behaviour and are less anxious after consuming alcohol. In addition to being more likely to engage in risky behaviour, research has suggested that alcohol decreases a drinker's impulse control (Fillmore & Weafer, 2004) and heightens their emotions and sensitivity (Graham & Wells, 2003). Alcohol, and in particular intoxication, has been found to impair consumers' executive functioning which alters their ability to make nuanced and rational decisions and consequently leads to aggression and violent behaviour. Recent research has noted that this link is more prominent for males than females (Giancola, 2007). However, Bushman (1997) found that people display more aggressive behaviour when they believe they are consuming alcohol, regardless of whether or not the drink actually being consumed contains alcohol.

Overall, there seems to exist a strong argument that alcohol intoxication increases the risk of individuals engaging in aggressive behaviour, however a number of other factors appear to mediate this relationship.

## **2. Patron characteristics and aggression**

Licensed premises are known for attracting a large number of young people from differing socio economic and racial backgrounds. Graham & Homel (2008) suggest that the combination of young males from varying social classes makes licensed premises an environment which is volatile, unpredictable and conducive to aggression. Similarly, they suggest that aggression in licensed premises is reflective of the broader "macho culture" in society (Graham & Homel, 2008, p. 71). Tomsen's (1997) observational research on violent pubs and clubs in Sydney suggests that licensed premises are a domain for males to publicly parade their masculinity. He suggests that aggression in these venues is a form of honour protection, whereby males become aggressive in order to regain their status and proclaim their dominance.

It is also noted that licensed premises are environments for the exchange of sexual overtures, connotations and body contact (Purcell & Graham, 2005). Venues are predominantly frequented by single men and women who are seeking out sexual partners and romance (Graham & Homel, 2008). However, sexual advances made from one patron to another may often be undesired and therefore lead to aggressive displays between patrons. The sexual environment created by licensed premises, perhaps, also explains why these venues are renowned for generating a large number of sexual assaults and rapes (Abbey, McAusland, Zawacki, Clinton, & Buck, 2001).

### 3. Barroom environment and aggression.

A number of factors relating to the atmosphere of licensed premises have been linked to increased levels of aggression. For example, long queues, queue jumping and hostile door staff have all been identified as factors contributing to aggression in and around licensed premises (Graham & Homel, 2008). In addition to these conditions, which largely occur outside of drinking establishments, a number of studies have suggested that physical factors inside the premises contribute to aggressive behaviour.

#### Physical Environment

A number of studies have suggested that drinking establishments with a higher capacity for patrons are associated with higher levels of aggression (Tomsen, 1997). Dilapidated decor, seating in rows and poor lighting have also been identified as factors which increase the risk of physical aggression in licensed premises (Graham & Homel, 2008). Results of the Surfers Paradise Action Project highlighted the relationship between traffic flow of patrons inside licensed premises and aggressive behaviour (McIntyre & Homel, 1997). The study found that venues where patrons 'bump' into each other while negotiating the establishment have higher rates of aggressive behaviour than establishments with well designed floor plans.

The cleanliness of drinking establishments has also been linked to aggression. To date, studies suggest that premises with poor cleanliness and hygiene have higher rates of both physical and non-physical aggression, and that inadequate ventilation and uncomfortable temperatures also contribute to aggression. Poor ventilation and smokiness were identified by Graham and Homel (2008) to be suggestive of uncleanliness, in addition to causing irritation to patrons, which increased the risk of them responding aggressively. Similarly, uncomfortable settings, poorly designed seating and bar access, have been identified as factors contributing to aggressive behaviour in drinking establishments.

#### Social Environment

In addition to the factors related to the physical environment mentioned above, Graham & Homel's (2008) review identified a number of factors in the social environment, which increased the risk of aggression in drinking establishments. These social factors included drink promotions, cheap drinks and intoxicated patrons (Tomsen, 1997). Graham and Homel (2008) suggest that drinking establishments with a permissive atmosphere, which are tolerant of rowdiness, swearing and disorderly behaviour, encourage the perception that aggressive and/or disorderly behaviour is generally acceptable and will not be punished.

Other social factors contributing to aggression in licensed premises include the dress code of employees and the atmosphere created by bar staff. Graham and Homel (2008) suggest that a sexist atmosphere and thus increased risk of sexual aggression, is encouraged and fostered through practices such as bar staff distributing shots of alcohol while wearing scant clothing. Illicit activities such as prostitution, drug dealing and selling are also behaviours associated with increased levels of aggression and violence in drinking establishments (Graham & Homel, 2008).

More subtle social factors were also identified as contributing to aggression (Graham & Homel, 2008). These factors included the equilibrium of the social environment and the calibre of patrons. According to research on licensed premises, violence and aggression in these venues are a result of the subtle interplay between alcohol consumption and boredom (Homel & Tomsen, 1993). It has been suggested that entertained patrons are both less likely to consume copious amounts of alcohol, and are less likely to engage in violence (Homel & Tomsen, 1993; Tomsen, 1997). In addition to this, the activities available in licensed premises have been identified as increasing the risk of violence and aggression. For example, establishments with dance floors and pool playing facilities have been linked to increased rates of aggression and violence. Graham and Homel (2008) suggest that both of these behaviours increase the risk of bumping and invading other patron's personal space which has been linked to aggressive responses (MacIntyre & Homel, 1997). Drawing from these bodies of research it appears that violence is both a form of entertainment, and a consequence of a lack of entertainment in licensed premises (Homel & Tomsen, 1993).

Although research has suggested that food consumption in venues, where it is available, is rare, Graham and Homel (2008) suggest that the access to meals and/or food can reduce levels of violence and aggression. It has been suggested that this reduction is two-fold. First, consuming food slows down the intoxication process, and secondly, the availability of meals at drinking establishment changes the culture of these venues, making their purpose not just the consumption of alcohol (Graham & Homel, 2008).

#### **4. Bar staff and aggression**

In recent years reports of bar staff involvement in violence in licensed premises have appeared on an increasingly regular basis in the Australian and International media (Healy & Doneman, 2008; Roberts & Ife, 2008). Although the majority of this violence appears related to security and door staff, research conducted by Maguire and Nettleton (2003) in Wales revealed that bar staff were involved in over a third (34%) of violent incidents in licensed premises.

In addition, in their review of 13 studies of licensed premises, Graham and Homel (2008) identified a number of factors associated with staff, which contributed to aggression and violence. These factors included staff characteristics and gender of staff – with male staff more likely to be associated with aggression than female staff – a low staff patron ratio, hostility of bouncers, drinking by bar staff, lack of monitoring and ID checks, inability to defuse aggressive situations between patrons, drink promotions, poor responsible service of alcohol and low rates of refusal to underage and/or intoxicated patrons (Graham & Homel, 2008).

#### **5. The areas around licensed premises**

Research to date has suggested that occurrences outside licensed premises can influence the frequency inside and type of aggression outside drinking establishments. Graham and Homel (2008) identify five main factors, which occur outside licensed premises that can influence the amount of aggression and violence. These factors were the cultural clashes between groups gathering outside drinking establishments, the expulsion of aggressive and/or troublemaking patrons, entry practices used by bar staff, the often

aggressive ejection of patrons by bar staff, the movements of patrons between establishments and/or to different parts of the drinking establishment, and crowd behaviour and the congregation of crowds to watch incidents of violence. The problems created by the interplay between these factors demonstrate 'how the internal and external environments can influence each other' (Graham & Homel, 2008, p. 172), and highlights the need for prevention strategies with address both of these domains.

***What has been done in the past to prevent violence in licensed premises?***

According to Graham and Homel (2008), who evaluated the effectiveness of preventive interventions – including staff training, policing, community engagement and liquor accords – most interventions, with the exception of Liquor Accords, have shown some promise at reducing alcohol related violence and aggression, however the effects were often small, and were not sustained over the period of time following the completion of the intervention.

The following section explores the three main components which appear to show the most promise in reducing alcohol related harm and violence – those being targeted policing and universal policing, bar staff training and community mobilisation. It discusses what these interventions involve and suggests why their effects were not sustained over time. Following this discussion, the review suggests how through triangulating these interventions, and using a responsive regulatory perspective and research design based on the theory of a change, a model for the sustained prevention of alcohol related harm could be developed.

**1 Police Enforcement**

Undoubtedly, the police play an important role in responding to and preventing alcohol related aggression and harm in and around licensed premises (Wiggers, Jauncey, Considine, Daly, Kingsland, Purs, Burrows, Nicholas, & Waites, 2004). First it is the task of the police to enforce laws and regulations relating to licensed premises. Secondly, the police play a pivotal role in reducing alcohol related harms because they are responsible for responding to incidents of alcohol related harm that have escalated beyond a level which bar staff can contain (Graham & Homel, 2008).

A study conducted in New South Wales aimed to determine the total amount of time and salary-costs associated with police responding to alcohol-related activities. The study found that in 2005 alone, the total alcohol-related activity salary costs for the time police spent dealing with alcohol-related activities was in the vicinity of \$50million (Donnelly, Scott, Poynton, Weatherburn, Shanahan, & Hansen, 2007). The study also found that individual officers spent approximately 8 per cent of their time per shift responding to alcohol-related activity. This percentage was generally higher during weekends and night periods; with police officers recording that between 17 to 18 per cent of their time worked on Friday and Saturday nights was alcohol-related (Donnelly et al., 2007). Overall, this suggests that not only do police play a pivotal role in controlling and regulating alcohol-related incidents, but they also spend a considerable amount of their time and resources doing so. Bearing this in mind it is not surprising that a number of prevention programmes aimed at reducing alcohol-related harms have used policing strategies and police enforcement.

Perhaps the most renowned, and most replicated, police enforcement intervention was the experiment conducted in the summer of 1978 in Torquay, a popular seaside tourist destination in England (Jefferies & Saunders, 1983). Prior to the 5-month intervention, senior police officers visited local licensees in the Torquay area warning them of the new policy, which involved uniformed police visiting licensed premises which were considered to be hotspots for violence and disorder. During the intervention phase of the experiment, police randomly visited licensed premises (2 or 3 times per week) and observed the number of intoxicated and underage patrons in these premises. In order to ascertain whether the intervention had any effect on crime and public order offences, a control area in the same city was selected. A comparison of crime rates revealed a 20 per cent decline in arrests between 1977 and 1978; however, crime rates regressed back to the baseline figure in the year following the intervention. Graham and Homel (2008) suggested that the initial decrease in crime rates could be attributed to the deterrence effect that the threat of the police had. They also suggest that the effects of this intervention were not sustained over time due to the intervention solely focusing on alcohol serving practices, rather than encompassing the myriad of factors which lead to aggression and violence.

Since the Torquay experiment was conducted, it has been replicated three times. The Brighton replication in 1986–1987 incorporated most of the same practices used in the original study, but added media publicity to the design (Stewart, 1993). Evaluation of the intervention revealed that alcohol-related assaults decreased by 14 per cent during the experimental phase. Qualitative data obtained from licensees suggested that the project had positive effects on the amount of disorder in licensed premises. A major fault with this replication, however, was that it did not use a control area. Therefore, it was not possible to ascertain whether the drop in violent offences was due specifically to the intervention or reflected a wider social trend in decreased rates of violence and disorder in the area (Graham & Homel, 2008).

The Torquay experiment was also replicated in Sydney (Burns & Coumarelos, 1993). The Sydney replication used a matched-pairs design whereby ten police patrol areas were matched in five pairs according to the socioeconomic and demographic characteristics of the area. One area from each pair was randomly assigned to receive enforced policing. All 10 areas chosen were noted as having both relatively high and stable rates of crime. The 3-phase intervention was conducted over a six month period and included a two-month pre-intervention phase, two-months of intervention and two-month post-intervention phase. Evaluation of the project revealed that the number of recorded assault offences was highest during the intervention phase, when compared to pre and post intervention rates. Despite the improved research design used in this replication, the increased number of assaults during the intervention phase could have been attributed to a change in policing styles or practices, rather than an actual increase in the number of offences occurring in each area.

The most recent replication of the Torquay experiment was conducted in Wellington in 2005 (Sim, Morgan, & Batchelor, 2005). The Wellington experiment included two six-week periods of heightened police presence in licensed premises (between 8pm–4am) and three periods of regular policing. Police enforcement included both police teams and specialised liquor policing units. The aim of this enforcement was to identify the amount of underage and intoxicated patrons in these venues. During the first phase of the intervention, 60 bars in Wellington City were frequented by police on 244 occasions. Seventy-six bars

were visited on 233 occasions during the second enforcement phase. In conjunction with the heightened police presence, public health officials and licensing officers visited licensed premises during the day to discuss compliance and regulatory issues with licensees (Sim et al., 2005). Evaluation of the project revealed that the number of intoxicated patrons was highest during the intervention period. But violent offences and alcohol related offences decreased during the periods of increased police enforcement, and although this decrease was not significant, as neither were the ED admission rates, the ambulance data did show a significant reduction in assaults. Qualitative observations indicated that responsible serving practices were generally more prevalent during the intervention phase, as were positive staff patron relations, compliance with best practice guidance, and more friendly styles of policing.

More recently, a NSW program focused on targeting problem licensed premises, identified by data linking the last place of drinking with the alcohol affected person attended to by police. Unlike previous police interventions that were short term, the Alcohol Linking Project developed in NSW was a long-term initiative which aimed to permanently change police practices as they related to licensed premises (Wiggers, 2008; Wiggers & Gillham, 2004; Wiggers et al., 2004). Although data suggests that there is a link between alcohol and harm, information relating to the involvement of alcohol in incidents attended by the police is limited due to the inconsistencies in the way that this data is collected and recorded by the police. The Alcohol Linking Project aimed to address these inconsistencies and enhance public safety through improving data collection and recording methods used by the police.

Prior to the evaluation of the project, the research team worked with the police to develop and implement a data collection procedure, whereby police were required to routinely record information relating to where drinks were last consumed in incidents attended by the police. This information included: whether alcohol was being consumed by the offender prior to the incident, whether the offender was intoxicated, where the offender was consuming alcohol, if the place of last drink was a licensed premises, and the name and address of the premises. This data was then used to determine which premises were generating police call-outs for alcohol related incidents. Using this data, the police mailed a feedback report to licensed premises outlining the number of police-attended alcohol related incidents in their premises in the previous four months. Premises which had at least one alcohol-related incident were visited by the police a week after the report was sent and were subjected to a 30-item audit which measured the responsible service of alcohol and management practices. The results of this audit were made available to licensees. In the month following the audit, licensees were invited to attend a workshop conducted by the police. The workshop allowed police and licensees to discuss the progress and problems licensees experienced in implementing responsible service of alcohol procedures and discuss ways to improve management practices (Wiggers et al., 2004).

Efficacy of the Alcohol Linking Project was measured through a randomised controlled trial, which involved 398 licensed premises in the Hunter and Central Coast regions of New South Wales (Graham & Homel, 2008; Wiggers & Gillham, 2004). Licensees in the control group experienced normal policing, while those in the experimental group received the intelligence-based policing as described above (including mailed report, audit, and workshop). In order to determine whether this intervention was effective, the number of police-attended alcohol related incidents for the three-months pre- and post- intervention

was compared. Results revealed that in the three months following the intervention there was a 36 per cent reduction in alcohol-related incidents for the experimental group, compared to 21 per cent for the control group. There was a 32 per cent reduction in alcohol-related arrests for the experimental group, compared to 25 per cent for the control group. Further to the reductions in alcohol-related incidents attended by the police, a survey of police, licensees and households within the area revealed that the intervention had high levels of acceptability. For example, 92 per cent of licensees agreed that the audit visit was acceptable. Following the positive effects found in the efficacy study, the Alcohol Linking Project was trialled to determine the impact of the program when implemented through routine police practices. The adoption of the program into routine police practices involved establishing leadership and support at senior level, improving data quality and feedback mechanisms, training and education of police officers and distribution of monthly reports to police (Wiggers & Gillham, 2004; Wiggers et al., 2004).

As a result of the relative success of the Alcohol Linking Project, the program has been incorporated in routine police practices state-wide in New South Wales and by 2007 was being adopted by some other states and territories in Australia and New Zealand (Graham & Homel, 2008).

Overall, evaluation of police enforcement designs has shown some positive effect on the reduction of alcohol-related harm and violence. These effects, however, were neither large nor sustained over any great period of time. The Alcohol Linking Project, which engaged licensees and changed routine police practices, appears to be both the most beneficial and sustainable form of police enforcement (Graham & Homel, 2008).

## 2 Staff Training

Bar staff involvement in violence in licensed premises has been a matter of concern in recent years (Healy & Doneman, 2008; Roberts & Ife, 2008). Bar staff have, perhaps, the most important role in licensed premises in that they are the people responsible for serving and restricting alcohol to patrons. In response to this, there has been a plethora of programs aimed at training bar staff in responsible service of alcohol. None of these programs, however, has focused specifically on preventing violence. Instead, these programs have aimed to prevent serving alcohol to minors and intoxicated persons. Training programs focused specifically on preventing violence have tended to target security guards. However, there are no published studies of the efficacy of training security staff in licensed premises (Graham & Homel, 2008).

At present Safer Bars, a program developed by the Centre for Addiction and Mental Health in Ontario Canada, is the only training program that focuses specifically on preventing violence in licensed premises and which has been evaluated and made publicly available. The program was developed based on observations in licensed premises, interviews, and the research literature, and through consultation with stakeholders. The program includes three main components (Graham, 1999, 2004):

- Three-hour **training program** for staff and management aimed at developing strategies to reduce, prevent and manage aggression
- **Risk assessment workbook** comprising 92 questions for managers/owners to identify and address aspects of their premises which facilitate violence and/or aggression (including entry, bar operations, atmosphere and physical layout)

- **Legal pamphlet** which outlines bar staff and managers' legal responsibilities to prevent violence and aggression.

The Safer Bars program aims to engage licensees and bar staff to bring about change, and achieves this through interactive discussions, slides, video clips, role-playing and restricting the group size to a maximum of 25 participants.

Efficacy of the training was evaluated through a randomised controlled trial in high capacity licensed premises in Toronto, Canada from November 2000 to June 2002 (Graham, Bernards, Homel, Osgood, & Purcell, 2004; Graham & Purcell, 2005). One hundred and eighteen licensed establishments were observed for levels of aggression, prior to the intervention. Of these 118, 38 were deemed at high risk of aggression and selected for evaluation. Twenty-six of these establishments were randomly assigned to receive the Safer Bars program while the remaining 12 premises served as the control group. Staff and managers from 18 of the randomly selected establishments (eight establishments refused to participate) underwent the Safer Bars training. Based on observations, there was a small but statistically significant effect on the number of moderate and severe incidents of aggression in establishments which underwent the Safer Bars training; from 18 incidents per 100 nights of observations prior to the intervention to 13 incidents after the intervention. As well as the training reducing the number of incidents of aggression, feedback from participants one year after the training indicated that the training was both successful and beneficial, with 98 per cent of trainees stating that they would recommend the training to others (Graham & Purcell, 2005).

Overall, evaluations of the Safer Bars program suggest that training staff and managers in ways to prevent and manage aggression can significantly reduce the amount of violence and problem behaviour in drinking establishments.

### 3 **Community Mobilisation**

Community mobilisation and engagement of community members in crime prevention programs have been recognised as crucial factors for ensuring the success of programs (Ife, 1995). Ife suggests that there are 22 principles that increase the success of community programs. These principles include empowering community members through knowledge and resources, and instilling a sense of community ownership over a program. Further, Ife suggests that projects are more likely to be sustained when the whole community is involved and when the community feels as though they are partially driving the project. Similarly, the community readiness model suggests that interventions are more likely to be effective when they are targeted to the needs and desires expressed by individual communities (Plested, Edwards, & Jumper-Thurman, 2003).

According to Graham & Homel (2008) only two evaluated community action projects aimed at reducing violence in and around licensed premises have been successful. These two projects were the Queensland Safety Action Projects carried out during the 1990s, and the Stockholm Prevents Alcohol and Drug Problems project (STAD) conducted between 1997 and 2006. These two projects are discussed in some detail below.

Alcohol related disorder in entertainment and tourist precincts was reported to be increasing during the 1990s (Hauritz et al., 1998). This was attributed partially to the inexperience of licensed venues managers in preventing alcohol related disorder, and the poor regulation of licensed establishments by the police and licensing authorities. Following negative publicity about crime and safety in Surfers Paradise, the Gold Coast community expressed a desire and readiness to engage in action to bring about change (Hauritz et al., 1998). According to Graham and Homel (2008), there was a sense that ‘...something had to be done’ (p. 223) amongst the business community, residents and local leaders. Arguably it was this ‘sense of readiness’ amongst the community that was a key factor in implementing the project (Graham & Homel, 2008, p. 223). The community action project centred on four strategies:

1. Development of a community forum to lead task groups and safety audits
2. Development and implementation of risk assessments and a code of practice for place managers
3. Training programs for staff
4. Improved external regulation of licensed premises by police and liquor licensing inspectors.

The efficacy of the project was evaluated through triangulating data obtained from observations, incident reports from security staff and official police reports. Evaluation revealed that following the intervention there was a significant decrease in observed aggression and police recorded crime. This model was replicated in three cities in North Queensland, with similar positive results. Importantly, observed aggression increased in Surfers Paradise at the time the North Queensland programs were being implemented, suggesting that the positive results in the north were due to the program and not to state-wide declines in crime and violence. In addition to this, in all cities, the intervention also appeared to improve environmental risk factors, increased sociability and friendliness of staff, and improved host practices.

Whilst the project appeared to have positive effects in reducing the amount of alcohol related disorder, as noted above, a follow-up of the long term effects of the project in Surfers Paradise in 1996 revealed that rates of violence had increased again. Graham and Homel (2008) suggest that this increase was due partly to the lapse of informal regulation by public committees and partly due to the lack of sustained police enforcement after the completion of the project. The short-lived benefits of the Surfers Paradise Safety Action Project highlighted the need for community action projects that have a long timeframe. A program which has employed a longer timeframe, and has proven to have sustained reductions on alcohol related harm, is the Stockholm Prevents Alcohol and Drug Problems (STAD) project (Wallin, Lindewald, & Andreasson, 2004).

The STAD project was launched in 1995 in response to the lax liquor regulations, ease of access to liquor, and the apparent increase in alcohol consumption in Stockholm (Graham & Homel, 2008). The STAD project consisted of three main components, those being:

1. Local community mobilisation
2. Training in responsible beverage service
3. Enforcement of licensing laws

The intervention was launched in the northern part of Stockholm while the southern sector served as the control group. The first stage of the project involved surveying owners of licensed premises. Results of the survey suggested that contrary to licensing authorities, owners did not view service of alcohol to underage or intoxicated persons as a serious problem. Pseudo-patrons (actors paid to pretend to be intoxicated) revealed low rates of refusal to intoxicated patrons (Wallin, Gripenberg, & Andreasson, 2005). The second part of the project involved identifying key stakeholders and forming an action group. Members of this group included: council officers, liquor licensing authorities, police officers, county administration, officials from the National Institute of Public Health and the union. The goal of this group was to develop a strategy and action plan to prevent serving underage and intoxicated. The strategy included:

- Two-day training course in responsible service of alcohol for security staff, owners and servers in licensed premises
- New forms of enforcement for breaches of licensing regulations – including notification letters and assigning mutual control to both the police and licensing board

In order to ensure the success and longevity of the program, officials signed an agreement in June 2001 committing them to the project.

The efficacy of the project was evaluated through examining official police reports of violence inside and outside licensed premises between the hours of 10pm and 6am, and rates of refusal to pseudo-patrons. Using a time-series analysis, results of the evaluation revealed a 29 per cent reduction in violent crime following the intervention (compared to a slight increase in the control area). Rates of refusal also increased over time from 5 per cent in 1996, to 47 per cent and finally to 70 per cent by 2001. Evaluation of the STAD project revealed that the program not only reduced crime and increased rates of responsible service of alcohol in the short term, but it continued to do so over time (Lindewald, 2007).

Graham and Homel (2008) suggest that a number of factors contributed to the successful and sustained reduction of alcohol-related harm in the STAD project. They argued that media publicity, input and commitment of stakeholders, involvement of the head of the liquor licensing board, cooperative police, a long timeframe, and the balance between formal and informal forms of regulation all contributed to the sustained success of the program.

Results from the STAD project can tell us something about how to reduce alcohol related harm, and more importantly how to sustain these changes over time. The findings from this project, suggest that sustained change comes from a combination of partnerships and community engagement, and needs to be embedded within the local context. Success of the STAD program also suggests that the sustainability of reduction in harm lies somewhere within the delicate combination of community and stakeholder engagement, and formal and informal forms of regulation.

Overall, the above review of the effectiveness of interventions designed to reduce alcohol-related harms has revealed that the sustainability of reductions in alcohol related harms has not been achieved

by most projects. The review revealed that the field has two main problems. The first problem is that the interventions conducted to date have a weak research methodology and design. For example, most projects have not relied on an experimental design and have used short timeframes. Secondly it appears that whilst a number of the interventions have some effect on alcohol-related harm, follow-up evaluations indicate that most of the interventions mentioned are not sustained over time. The finding that most interventions are largely ineffective in the long term highlights the need for future intervention models to incorporate different perspectives and research designs. The need to develop and experiment with different models, which are grounded in theory and incorporate aspects of successful interventions conducted in the past is the primary aim of the current study.

***In sum, what works in preventing alcohol related violence and harm?***

The above review of prevention programs aimed at reducing alcohol related harm in licensed premises highlights that whilst targeted police enforcement, staff training and community mobilisation all reduce the prevalence of violence in and around licensed premises, few projects sustain these effects after the intervention is completed. Three projects which have proven to be successful and have sustained changes for a period of time are the Alcohol Linking Project, Safer Bars and STAD project. All three of these projects involved a combination of partnerships and community engagement, and were adapted to fit the local context and climate.

The above literature suggests that engagement from both the community and key stakeholders is a crucial factor in sustaining the reduction of alcohol-related harms. The importance of engagement was highlighted by Wiggers (2008) in the Alcohol Linking Project where the police were engaged to take action through establishing improved data collection methods and opening up channels of communication with owners of licensed premises. Engagement was also evident in Graham's (2004) 'Safer Bars' program whereby staff and licensees were mobilised through training and encouraged to take action to prevent violence in their premises. The STAD project engaged both licensees and regulators and established action groups to reduce the amount of alcohol related harms occurring (Wallin et al., 2005).

Second, the above literature suggests that the long-term success of programs is enhanced when these programs are designed to fit the local context of a community. This was particularly demonstrated in the STAD project, whereby intervention measures were developed with the community and culture of alcohol consumption, in mind (Wallin et al., 2005). This approach of developing models to fit the local context of an area has parallels with responsive regulatory theory which is discussed in the following section.

***Developing a practical model for prevention: What does the model aim to achieve?***

Clearly, few prevention programs have sustained reductions in alcohol related harms, primarily as a result of two main problems, – weak methodologies and poor sustainability of results. The current project aims to build a model for the prevention of aggression and violence in and around licensed premises, and proposes to integrate the key factors that research suggests are linked to alcohol related harm and which

appear to reduce violence in licensed premises. The model used in the current study draws on other theories to sustain the reductions of alcohol related harm, including Responsive Regulatory Theory and uses a methodology based on the Theory of Change.

Theory of Change espouses a top down and retrospective model of prevention and methodology for research. The theory of change uses “knowledge as a foundation” (Hernandez & Hodges, 2003, p. 23) and it incorporates multi-level domains of information relating to the causes, components and ingredients. It then uses these ingredients of what we know about an issue to develop a pathway for research and a methodology for prevention. In essence, the theory of change framework allows us to provide a specific and measurable description of a social change initiative that forms the basis for strategic planning, ongoing decision-making and evaluation. Like any good planning and evaluation method for social change, it requires us to be clear on long-term goals, identify measurable indicators of success, and formulate actions to achieve goals. It differs from any other method of describing initiatives in a few ways:

- it shows a causal pathway from here to there by specifying what is needed for goals to be achieved
- it requires one to articulate underlying assumptions which can be tested and measured.
- it changes the way of thinking about initiatives from what one is doing to what one wants to achieve and starts there.

The pathway is usually depicted on a map known as a pathway of change and describes the types of interventions (a single program or a comprehensive community initiative) that bring about the outcomes. Each outcome in the pathway of change is tied to an intervention, revealing the often complex web of activity that is required to bring about that change. In other words, the development of interventions works backwards from a set of assumptions about expected outcomes

A Theory of Change would not be complete without an articulation of the assumptions that stakeholders use to explain the change process represented by the change framework. Assumptions explain both the connections between early, intermediate and long term outcomes and the expectations about how and why proposed interventions will bring them about. Often, assumptions are supported by research, strengthening the case to be made about the plausibility of theory and the likelihood that stated goals will be accomplished. Stakeholders value theories of change as part of program planning and evaluation because they create a commonly understood vision of the long-term goals, how they will be reached, and what will be used to measure progress along the way.

As already mentioned in this review a number of known risk factors have been identified as increasing the risk of violence in licensed premises. Specifically these factors relate to the affects of alcohol, individual characteristics of patrons, physical environment of licensed premises, role of bar staff and security in these venues, and the ecology of licensed establishments (Graham & Homel, 2008). The theory of change framework incorporates these known risk factors and evidence of what works, to develop a well-informed and empirically grounded model of prevention. In order to ensure that the model is driven by what we know about violence in licensed premises and what we know about what works, in addition to taking into account the history and culture of a site, this model is also framed by Responsive Regulation Theory.

Responsive regulation theory, developed by Ayres and Braithwaite (1992), argues that the state and formal regulatory bodies cannot alone effectively regulate everyone. Therefore, in order to reduce the pressure on the state and formal regulatory bodies, and increase the levels of compliance by businesses, they suggested a form of self-regulation. This self-regulation relies on individual businesses choosing to comply with formal regulations. Braithwaite suggests self-regulation alone would not be sufficient enough to ensure compliance with regulations, as not all businesses would be responsive to this. He suggests that to increase compliance there needs to be a model of 'enforced self-regulation' (Friedrichs, 2007, p. 319). Enforced-self regulation utilises both formal bodies and informal mechanisms to ensure compliance is met.

Graham and Homel (2008) suggest that responsive regulation provides a model for the prevention of alcohol related violence in licensed premises. Unlike situational and ecological models of prevention which look solely at the environment of licensed premises, responsive regulatory theory considers the history and development of the industry, the '.....culture and structure as well as the many potential players in the regulatory process' (p. 36). It recognises that licensed premises "do not exist in a vacuum" (p. 57) and takes into account the ".....routine practices of businesses and provides a framework for analysing how incentives to comply with laws and principles of good practice may be implemented" (Graham & Homel, 2008, p. 36). This approach not only incorporates formal regulatory bodies, but also draws on the informal pressures that can be applied at the local community level through action groups and licensees. Responsive regulatory theory balances formal laws and regulatory bodies with informal pressures to develop ways of ensuring compliance and responsible service of alcohol.

Overall, this approach suggests that we need to know a great deal about the culture and development of individual communities and drinking establishments in these communities to be able to effectively prevent aggression and violence. This approach provides a framework to integrate evidence-based models and facets of prevention into everyday routine practices, and has some parallels with the community readiness model which suggests that interventions are more likely to be effective when they are targeted to the needs and desires expressed by individual communities (Plested et al., 2003).

In sum, the current project develops a model for prevention using the frameworks provided by responsive regulation theory and the theory of change. This model is '....based on knowledge about core risk factors and interactional processes,' and builds on research evidence of '....strategies that actually reduce aggression and violence' (Graham & Homel, 2008, p. 251). In addition to this, the model has been tailored '....to the specific circumstances of each establishment and community' in order to ensure that the model not only addresses known risk factors, but it also fits the culture of the five sites chosen for experimentation in the current study (Graham & Homel, 2008, p. 251). Finally, consistent with the principles of enhancing regulation, it incorporates forms of self regulation, informal community regulation, and formal regulation (police and liquor licensing).

## The Research Context

With the exception of the Stockholm Prevents Alcohol and Drug Problems (STAD) project (Wallin et al., 2005) (described in the previous section), there appears to be no comprehensive model of prevention that has been operationalised in such a way that it can identify meaningful outcomes for the community in which it is being implemented, measure these outcomes with rigour, and identify and clarify components and processes within the model that may need adjustment, removal or augmentation.

It is quite probable the lack of such a model with inbuilt evaluation mechanisms has contributed to the large number of prevention projects that have been unable to sustain their initial success in decreasing violence and aggression. Although clearly there are other factors involved in sustaining a reduction in violence, without adequate monitoring of process effectiveness, implementers do not have the capacity to iteratively evaluate impacts and adjust their activities accordingly. For example, many projects in this field identify a decrease in alcohol related harms as their desired outcome, and a few include the need for this to be sustained, but the majority do not invest in a comprehensive set of indicators of the mechanisms of change in relation to identified features of local settings.

In some cases, project designers also appear unclear about what they hope to achieve as outcomes. The tendency has been to celebrate the formation of partnerships as ends in themselves, rather than as a means for achieving reductions in specific forms of violence and disorder. Even when there is clarity about objectives, good quality data on outcomes are not available or are expensive to produce. For example, often police data do not consist of unique incidents, or are collected on such a broad basis that it is difficult to identify the precise locations and times of incidents, a critical deficiency when the focus is violence in and around bars. Between jurisdictions, police and health records can differ in terms of their collection techniques and definitions, as well as in terms of their database designs and outputs. These difficulties are often enough to dissuade project workers and managers from data collection and quantitative analysis, and as a result this field tends to rely heavily on qualitative evaluation and analysis – hence the focus on partnership-building outcomes and the celebration of peripheral goals (such as the number of organizations brought together around the table).

A further problem is that the magnitude of the challenge entailed in effecting change in the practices of licensed premises and their patrons, has been greatly under-estimated. Various approaches have included problem-solving partnerships, civil remedies, access control, community action projects, accords developed between multiple agencies and the liquor industry, targeted or universal police enforcement, and enhanced responsible hospitality training and serving practices; yet few programs have managed to bring more than one or two of these approaches together to maximise the effects of the interventions. Emerging understanding over the past twenty years indicates that crime and disorder problems in areas where there are high concentrations of liquor outlets is particularly complex, and often involves multiple risk factors such as poor physical design of public spaces and licensed venues, poor management practices, ineffective control tactics, poor regulation, and a range of socio-economic and environmental issues that are the responsibility of state or local government. Indeed, the complexity of preventing aggression and violence in the licensed environment has meant that although some successful inroads have been made

through, for example, improved enforcement techniques or better management practices, the impact of these changes has either been modest in magnitude or unsustainable, and no one initiative has 'got it all right'. Of particular note is that not one initiative has achieved an optimal balance between the formal, informal, and self-regulation of drinking establishments – a key component of prevention given the deregulated environments in most Western nations (Hauritz et al., 1998).

On a positive note, progress has been made in the field in the past 20 years. In Australia for example, two decades ago when the National Campaign against Drug Abuse (NCADA) started, alcohol and drug research was in a poor state. Epidemiology was just emerging as a discipline looking beyond infectious diseases towards chronic disease and population screening for diabetes, coronary heart disease, hypertension and cancer. Alcohol, tobacco and other drug use was starting to be described as well. There had been rare examples of biomedical research into alcohol and the liver, alcohol and the brain and the health problems of heroin addicts. There were psychological studies of addictive behaviours, much theorising about addiction and anthropological studies of the origins and social mechanisms of addiction. There were no studies of effectiveness – certainly none that could stand modern tests of evidence (Webster, 2005).

Since then, two national research centres in universities have been established, together with a number of centres that combine education and training, treatment and research, including the National Centre for Education and Training on Addiction in South Australia, Turning Point in Melbourne, and the Queensland Alcohol and Drug Research and Education Centre. This Australian picture is reflected around the world, indicating recognition by governments that they need evidence for policy development and for allocating funding. This need for policy, especially in Australia was driven primarily by the social and public health imperatives of burgeoning societal harms. Had research been left to the conventional paradigms and funding agencies, alcohol and other drug research would not have emerged to the point it has today. At least in Canada, the UK, Australia and New Zealand, there is now a multidisciplinary approach to the problem of alcohol-related harm and public disorder, with some evidence for policy impact (e.g., the *Security Providers Act 1993*, Queensland) and improvements in government funded programs.

The current impetus for research arises from the rising public concern about bar violence and other negative effects of the night-time economy in OECD countries (Kyprianou, 2007), particularly in the UK (Room, 2004). Just recently, the designer of the inner city Melbourne entertainment precinct publicly admitted that his call 20 years ago for the area to be developed as a gentrified precinct with more wine bars and restaurants to attract people to the city centre after business trading hours, was probably not sound (*The Age*, February 2008). This same inner city precinct is reporting increased violence in the area, with over 1600 liquor licences now in existence in a 37 sq. km area – 335, which open until 1am and 148 open until 3am. Within the state of Victoria alone (Melbourne is its capital) there has been an increase in restaurant and hotel licences from 683 restaurants in 1987 to over 7,000 in 2008.

It would appear that the Australian experience is no different to that of the UK or Europe, in that the removal of strong state control over alcohol availability, which it was asserted would create civilised drinking environments, has in fact had the opposite effect. For instance, in Finland Tigerstedt and Törrönen

(2007) point out that there was a belief that rational “top-down government-imposed restrictions” (p. 1) were destroying the refined mechanisms maintained locally by the market, families and civil society, which if left to their own devices would achieve spontaneous and ‘natural’ regulation of drinking behavior. Therefore, like many other nations preparing to join the European Union, Finland reduced restrictions around alcohol consumption. But contrary to the ‘forbidden fruit theory’ (Peltonen, 1999), the lessening of alcohol controls did not have a civilizing effect. Instead, there has been an increase in drinking to intoxication, violence, and public disturbances. Experiencing the same effects of de-regulation, Australia responded in the 1990s with the media, politicians and other actors in the alcohol policy field advocating for new kinds of public sector interventions. These interventions were aimed at supporting decentralized partnerships with community and industry groups and local agencies who could together engage in the effective regulation of problems generated by the alcohol industry (Garland, 2001). These collaborative partnerships have grown in popularity, but since their inception in the 1990s there has been no strong evidence for their effectiveness on decreasing violence and public disorder in the licensed environment.

Therefore it would seem that Australia should firstly draw on the empirical work that has achieved some success in reducing alcohol related violence, but add to it a level of rigorous scientific research to adequately evaluate effectiveness. Secondly, we need to ensure that a model is developed which incorporates strategies for sustainability. Otherwise, we stand as a nation, to continue to not learn, and to repeat the same mistakes. Communities in turn suffer cumulative frustration and disenchantment with regulators, and eventually experience consultation fatigue and become more difficult to engage. The challenge therefore, is to ensure that the same mistakes are not repeated and that the design for developing a sustainable model of alcohol related violence prevention, is both practical in its application and scientifically defensible.

## Aim of the Project

To meet these challenges this Project aims to:

- develop an evidence based comprehensive prevention model, based on the recent work of Graham and Homel (2008)
- develop and operationalise an experimental design to test the model’s capacity to adapt to a number of different sites within Australian and New Zealand.
- test the model capacity to sustain the reduction of alcohol related violence in a number of different sites within Australian and New Zealand.

## Research Questions

By submitting the model to rigorous experimentation, we can answer the following research questions:

1. Can the model, not only reduce alcohol related violence in the licensed environment, but also sustain the reduction long term?
2. Can the model adapt to a variety of different ecologies licensed environments?

## Phases of the Project

### Phase 1:

Includes the process of building and operationalising the comprehensive prevention model, in addition to the development of the research design to test the model at a number of selected sites

### Phase 2:

A five to seven year phase during which a meta-experiment will be undertaken designed to evaluate the impact of the comprehensive prevention model .

## Contributions of the Project

Clearly, the primary contributions of this Project lie in the provision of:

- a comprehensive model capable of sustaining the prevention of aggression and violence in the licensed environment, and of being tailored to the specific jurisdictions we select.
- a standard set of outcome measures with data collection methodologies detailed
- a research design for Phase 2, based on our practical assessment of what is possible and desirable in different places.

Each contribution is substantial. Practitioners and communities will be able to implement a comprehensive, evidence-based model, or review and enhance their current initiatives aimed at preventing aggression and violence in and around drinking establishments. Most importantly, the model will enable positive changes to continue over time, by incorporating components designed to sustain the practices, policies and regulatory systems related to the responsible management of drinking establishments and the public spaces surrounding them. Finally, the evaluation methodology (of the model in Phase 2) will act as a template for best practice for communities, the public sector, and industry partners wanting to invest in and monitor initiatives to decrease and/or prevent aggression and violence in the licensed environment.

## Chapter 2: Project Methodology: Phase 1

This chapter describes, in sequential format, the activities undertaken to develop the comprehensive prevention model and a research design to test the model at various sites in Australia and New Zealand. Since it was intended that the process be an iterative one, whereby each step informed the direction and/or development of the next, in some cases, there was good reason to change the chronological order as the Project progressed. To adequately report the evolution of the process we have, in this section, presented the original sequential order of activities, but have included descriptions and rationales for the changes where they occurred. Chapter 3 then describes in more detail the actual elements of the comprehensive prevention model and the elements of the research design and measurements.

### 1 *Assessment of Risks to Credibility of the Project*

Given that the funding for this project came from DrinkWise Australia, a foundation which does receive contributions from the liquor industry, it was imperative that we undertake an assessment of the risks involved to ensure that any anticipated threats to the credibility of the research were minimised. We have therefore stressed throughout this first Phase that we were only engaging communities, and only developing a research design – neither activity requiring analysis of data or interpretations to inform recommendations. No data was collected unless it was already available in the public arena. In this way, no analysis or recommendations were made that could potentially be compromised.

Another risk identified was the potential for key stakeholders, especially Police, to be reluctant to engage. This was seen as a risk, not because Police might have refused to be involved, but because they may have believed that they were already addressing the problem in an adequate way. Police have traditionally responded to alcohol related violence reactively, but more recently they have worked proactively in conjunction with licensing authorities. It was, understandably, quite possible that they might view added operational tactics, such as targeted policing, as drawing too heavily on their already depleted resources. We therefore took time to engage with Police management, and highlighted the importance of the benefits they would gain from involvement in the research. We focussed on the operational resource savings that could be achieved, and the value that would be added to the Police's own data collection techniques and outcomes. Recognising the long-term work and engagement that both Wiggers (2004) and the Swedish STAD program (Wallin, Norstrom & Andreasson, 2003) program achieved with Police, we adopted the view that broad consultation across all ranks, with personal face to face meetings, done gradually over time, was important.

It was equally understood that other key stakeholders such as Health, Licensing and Local Government might have not have recognised a problem in their community worthy of dedicating resources to a long term intervention. If this turned out to be the case, then it was decided that such a site would not meet the selection criteria of political willingness.

Another risk identified was that of contamination by other related work either during the course of Phase 1, or later in Phase 2. Indeed, at the time this Project was being run the federal leadership of Australia strongly and publicly supported a focus on binge drinking and alcohol related violence. In some cases,

communities were taking advantage of this groundswell of political support and were starting their own programs. We intend to review the current programs at each site on a regular basis, and will assess the impact they may have. We have requested that sites, not engage in other substantial programs that might influence this Project, especially during Phase 2. Despite the sites giving this undertaking in a Partnership Agreement, the potential for contamination still remains a risk and will need to be monitored throughout the meta-experiment.

In many research projects, the media can potentially be a risk. However, since it was not the intention of Phase 1 to implement any strategies, it was unlikely that the media would be interested in the early part of the Project. However, as each site commits to the Project and implementation begins, the media will become an integral part of the introduction of the experiment to the broader community. To minimise the risk, there are strategies developed to include the media in the Transition phase between Phases 1 and 2. In addition, there were discussions with the Board of DrinkWise Australia to meet with senior national journalists to approach the issue of pub and club violence in the same manner as they have done with suicide – that is, factual reporting only, and with expert advice sought first. An approach such as this not only ensures that the media do not fuel the issue, but that they also become key stakeholders with an investment in the outcomes of the Project.

## **2.***Scoping the Problem*

Scoping the problem of alcohol related violence was done in several ways. First we reviewed the literature in this field, but drew heavily on the seminal work of Graham and Homel (2008) as their book ‘Raising the Bar’ had adequately covered much of the national and international theory and empirical findings. The literature review has been provided in the Chapter 1. Secondly, we reviewed the Australian context and examined the historical path taken to arrive at the contemporary research field in this country, and where the gaps exist in relation to evidence based learning about alcohol related violence. This section is also reported in Chapter 1. Lastly, we drew on qualitative interviews with significant stakeholders to assist us in identifying:

- Key organizations involved in the contemporary problems of alcohol related violence in Australia and New Zealand
- Current projects in Australia and New Zealand aimed at reducing alcohol related violence
- Key issues and indicators involved in alcohol related violence within various Australian and New Zealand contexts

These interviews also assisted us in identifying where the most likely sites for intervention were within Australia and New Zealand, and the key stakeholders at those sites with whom the researchers could initiate engagement.

## **3.***Identification of key executive stakeholders to form a National Steering Committee (NSC).*

Initially, it was thought that a National Steering Committee would be advantageous to Phase 1 of the Project. Agencies known to be key in the field of preventing aggression and violence in the licensed

environment were approached and interviewed, including health, police, liquor industry, security providers, ambulance and emergency services, in addition to NGO's, local government and the business sector. Because of the importance of this group, the approach was face to face rather than through correspondence or briefing documents. Their response to engagement was extremely positive, with no agency declining involvement. However, the subsequent challenge was to keep this group to a minimum, while at the same time ensuring adequate representation, given that the membership, by design, would need to include key executives who could authorise access to data and who could ratify decisions immediately. It eventually became evident that this group would be too large, and logistically impossible to co-ordinate as one group to meet. Therefore it was mutually decided that the key senior executives most relevant to the research would engage individually, but commit throughout the first and later phases of the Project to:

- Assist in the identification of test sites in Australia and New Zealand that reflect different regulatory environments. This would involve a consideration of the political climate at each site
- Assist in the identification of the relevant contemporary programmes/ projects/ policies at the selected sites in Australia and New Zealand.
- Assist in accessing data about relevant programmes and projects to be reviewed
- Assist in the oversight of the testing of the model in Phase 2.

Adding to this situation was the very positive relationship that currently existed at each site between middle management and senior management, and between the operational levels and middle and senior management, of the key stakeholder organisations. Therefore it did not appear that there was a need, (at this stage in the Project at least) for superiors to make overriding decisions or to coerce reluctant operational stakeholders to engage in the experiment. Another point that precluded the need for a Steering Committee was the level of organisational competency at each site. As sites were selected, it became evident that each had the systems and potential to co-ordinate between themselves and the university, and to undertake peer review of their strategies and direction. The nature of the relationship developed between key people at each site and the university researchers was also positive enough, that it was anticipated progress could be objectively reviewed from time to time. This does not preclude a Steering Committee in the future, but at the present time, the Expert Group, described in the next section, is adequately addressing critical issues that require independent and informed input.

#### **4.** *Establishment of an Expert Group to assist in the evaluation of the Project.*

It was initially planned that this group of experts might be a subgroup of the National Steering Committee. But with the decision to not have a Steering Committee, this group became even more important in that they would offer informed and expert advice on design and methodology, and would eventually support the process evaluation of Phase 2. It was our intention to build a team of independent evaluation experts including members with public health, governance, political, regulatory, statistical and community engagement backgrounds, who could offer expert evaluation advice and direction throughout the two phases of the Project, and be involved in the overall Project evaluation. A member of the DrinkWise,

Australia Board would also be included in this team. Table 1 names the members of the group who were eventually chosen and confirmed their acceptance, and the rationale for their selection.

**Table 1: Membership of the Project Expert Group**

Name	Role	Reason for Selection
Dr. Mike MacAvoy	Retired CEO DrinkWise New Zealand representation	Long term involvement and expertise in the field of alcohol and drug research and prevention
Michael Lockwood	CEO, Council of City Lord Mayors (Australia)	Long term involvement with local governance (Brisbane City Council) and local community prevention programmes (NLGDAAC)^
Paul Dillon	National Communications Manager for the National Cannabis Prevention and Information Centre	Long term involvement with NDARC#, expert in alcohol and drug research, but more recently involved in the media and marketing of drug prevention
Prof Ross Homel	Director, Griffith Institute for Social and Behavioural Research	Distinguished background in prevention of alcohol related violence and experimental design of community intervention programmes
Neil Comrie	DrinkWise Board, Retired Police Commissioner, Victoria	Representing DrinkWise Australia: Long-term background, experience and expertise in Policing in Australia.
Dr. John Wiggers	Director, Population Health, Hunter New England Area Health Service, Newcastle, NSW	Eminent in the field of "Alcohol linking" research and related Policing in Australia. Long term expertise in public health
Prof Paul Mazerolle	KCELJG*	International long-term background in Criminology research, particularly in violence prevention
Dr. Gillian McLwain	KCELJG*	Long-term background in researching alcohol related violence and community engagement.

\*KCELJG: Key Centre for Ethics, Law, Justice and Governance, Griffith University

^NLGDAAC: National Local Government Drug and Alcohol Advisory Committee

# NDARC: National Drug and Alcohol Research Centre

The following points 5, 6, 7 and 8 constitute the most important outcomes of Phase 1 of this Project and are described in greater detail in the following Chapter.

**5. Incorporation of identified components of the best-rated practices and policies into the Comprehensive Regulatory Prevention Model.**

This process was an iterative one, and the model, at the end of Phase 1 incorporated different approaches to the proven components of police enforcement, regulatory action, staff training, and community mobilization, in addition to established practices that were already on the ground at each site. The model components and the application of them to each site are described in greater detail in Chapter 3.

**6.** *Identification of potential test sites.*

This process was based on a number of key indicators:

- The willingness of each site to be involved in Phase 2 of the Project. The stakeholders at each site were briefed about the project and what would be required of them. Negotiations to examine on-site databases and collection practices were also undertaken, and a commitment from key stakeholders reached in which they agree to make information about their current practices and policies available to the Project. Interviews were conducted with key practitioners and policy makers to identify significant issues, relevant developments and/or imminent policy changes at selected sites.
  - The capacity for each site to provide enough data to meet the requirements of the research design
  - The capacity of each site to sustain implementation of the model over the 5 years of Phase 2. Although it is expected that each site will implement the model and its three components utilising their own resources, funding for the meta-experiment, its oversight and the collection, collation and analysis of data will be the responsibility of Griffith University.
- 7.** *The development a rigorous research design to test the model that included:*
- Multi-method research design
  - Research protocols
  - Measurement tools
  - Operationalisation of the model's foundational elements
  - Hypotheses to be tested

A detailed explanation of the research design is provided in Chapter 4.

**8.** *Review of the current practices and policies related to the prevention of aggression and violence in the licensed environment at the test sites in Australia and New Zealand.*

Each review identified current prevention, regulatory, policing, public health, and liquor industry practices at each site. This task also included a review of the role of various sectors at local government and state levels, and identified the regulatory and policing practices surrounding drinking establishments and their immediate environments. A review of the legislative and regulatory literatures within each test jurisdiction was also undertaken. It was important to scope the resources available, both human and financial at each of the sites. Any partnerships established between the community and regulators and/or industry representatives were also noted. Quality of data that could be collected, local established databases, their compatibility with databases at other sites and the level of access to data, were identified. Any differences may well affect the comparison of interventions at each site. It will eventually be essential to standardise data collections, and to negotiate amendments to site protocols to ensure standardisation. This information will act as a baseline measurement against which the outcomes of the model's implementation will be tested in Phase 2.

**9.** *Expert Group to assess and review the developed model and research methodology*

The assessment of the progress of the Project, and of the contemporary issues affecting the research on alcohol related violence in Australia and New Zealand was undertaken in the first meeting of the Expert Group in February 2009 at the PowerHouse Museum, Sydney. This is a group of exceptionally expert people, who, in their discussion, contributed significantly to the understanding of drunkenness, binge drinking, the focus on young people's hazardous drinking, the political climate around funding alcohol related projects, and in particular to the type of experimental design and measurement options for Phase 2. Their appraisals and critical assessments were incorporated into the final design. The Expert Group will also be involved in the Process Evaluation of Phase 1 and Phase 2.

**10.** *Secure commitment in principle from key stakeholders at each site to conduct Phase 2.*

The undertaking of Partnership Agreements by key stakeholders at each site is described in the Site Selection Methodology in the next chapter.

**11.** *Cost methodology for testing the prevention model in Phase 2 and seek funding for implementation*

The proposed funding of Phase 2 is included in the Procedure section described in Chapter 5.

## Chapter 3: The Model and Site Selection

The objective of this Project was to develop and ‘translate’ a comprehensive prevention model into operational terms for several different jurisdictions in Australia and New Zealand with varying licensed environments. During the term of Phase 1 of the Project, rigorous foundations were laid for practical interventions in four licensed environments in Australia and one in a New Zealand.

In the previous section we saw how the first Phase of the Project was conducted over a 12-month period, with brief descriptions of the various stages. This chapter now goes into greater detail with regard to the main objectives of Phase 1 – that is, the development of a comprehensive prevention model, and the selection of suitable jurisdictions in which to implement the model. The development of an experimental design capable of rigorously testing the model’s capacity to sustain the reduction of alcohol related violence is outlined in Chapters 4 and 5.

Past models that have focused on decreasing aggression and violence have suffered from a number of drawbacks: either they have been dominated by one or a few stakeholders or public agencies and have been myopic in their approach, or they have not balanced the relationship between informal, formal, and self-regulation of licensed establishments, and have consequently been unable to sustain their initial positive impacts.

This Project addressed these problems through a thorough analysis of how to operationalise the key components of the comprehensive prevention model to ensure they are focused on sustainability and are applicable in a number of different types of licensed environments. These tailored components combined with operational details constitute the research plan, and include extensive stakeholder engagement to secure commitments to test the model in Phase 2.

### The Model

This section describes the components of the comprehensive prevention model, and for the purpose of contextualisation, overviews their application to the Australian and New Zealand situation.

Building on the work of Graham & Homel (2008), we propose that within a *responsive regulation framework* (Ayres & Braithwaite, 1992) the following strategies be adopted as the core components of a comprehensive approach to reducing violence in and around drinking establishments in a specific area:

1. Understand the local ecology, nighttime economy, industry climate and regulatory systems
2. Develop local partnerships oriented to evidence
3. Incorporate *Safer Bars* training and risk assessments universally
4. Experiment with targeted enforcement using Last Drinks data
5. Build community coalitions/action groups suitable to local conditions
6. Build sustainability mechanisms in from the outset.

Strategies 3, 4 and 5 are the essential ‘active ingredients’ of an effective regulatory model, and now described in greater detail.

## Component 1: Safer Bars Training.

The Ontario *Safer Bars Program* is the outstanding example of a research-based, rigorously evaluated training program (Graham et al., 2004; 2005). It aims to prevent bar violence and injuries, reduce the number and severity of violence incidents and injuries in bars, develop and implement bar staff policies and procedures to prevent and reduce violence and injuries, and increase the capacity of bar staff to intervene early and to manage problem behaviour and violent outbursts. It consists of a three-hour training program, by skilful, experienced trainers, for all staff and management, and focuses not (directly) on the service of alcohol but on reducing and managing problem behaviours and aggression. The training covers: understanding how aggression escalates; assessing the situation; keeping cool (that is, not losing one's temper); understanding and using effective body language (nonverbal techniques); responding to problem situations; and legal issues. Materials include a risk assessment workbook for managers and a legal pamphlet. The risk assessment enables managers to work through a checklist of management practices and policies that may be increasing the likelihood of aggressive or problem behaviors by patrons or staff. It also assists the bar owner in assessing how safe the venue is from a social and physical perspective, and includes a section for planning and monitoring changes in the areas identified as needing improvement. The program has been evaluated through a large scale randomized controlled trial in 26 large capacity bars and twelve similar controls, and has shown moderate short-term reductions in aggression (based on unobtrusive observations) with some indication that with suitable 'boosters' the program might achieve a sustained reduction in aggression. The program has protocols for evaluation and measurement which can be conducted by trained observers on site.

There are two fundamental differences between Safer Bars and the traditional Responsible Service of Alcohol (RSA). Firstly, Safer Bars does not focus on the service of alcohol, and secondly ALL staff are trained under the Safer Bars program, rather than just the serving staff. Safer Bars therefore covers a broader range of factors that contribute to violence in the licensed environment, and enables entire licensed venues staff teams to have a common knowledge and skills base. Staff joining a venue are more likely to receive the same message about management practices and policies, although each new employee must still undergo the Safer Bars training.

Some states in Australia have legislated for licensed venue staff training, while others have not. Nonetheless, most licensed premises undertake some form of training in responsible serving as part of best practice, because of workplace health and safety, the threat of litigation around intoxication, because they are members of an alcohol partnership whose code supports training, or to a lesser extent, because of the emerging focus on corporate social responsibility. Unfortunately there is no standardisation of training or skills required by the trainers across the states of Australia. For example, there are several definitions of "drunkenness" under different state legislation. A few states have begun to address these problems, but it is currently an open market for anyone to develop a training package, and accreditation is reasonably easily obtained. For the purpose of this Project we have had discussions with a highly accredited trainer who has a long established history in the training industry as well as a research background in violence in and around licensed venues. We are currently in negotiations with the Centre for Addiction and Mental Health, Ontario, to adapt the Canadian program to Australian and New Zealand conditions, and to accredit the selected trainer to deliver Safer Bars in Victoria, Queensland and New Zealand.

## Component 2: Police and Regulatory Enforcement

A surprising outcome of the review of evaluations of police enforcement was the small number of successful interventions, and the total absence of evidence for long-term effects. Beyond routine reactive policing, there are essentially two models of enforcement: randomized enforcement of the kind pioneered by Jeffs and Saunders (1983), and targeted enforcement using *Last Drinks* data (Wiggers et al., 2004). In randomized enforcement police in uniform patrol (usually for 10-15 minutes) inside all drinking establishments in an area at times dictated by a randomized schedule. During each visit, police chat in a friendly way with managers and patrons and observe what is going on. Evaluations of this approach show either no effects on assaults or reductions that are restricted to the duration of the project. In the targeted approach, premises are selected not at random but on the basis of police data on assaults and other incidents occurring inside or near those premises. Identified licensees receive a feedback report, educational visits by police, and a follow-up workshop. A randomized design was used to evaluate the best developed of these programs, which is in New South Wales Australia (Wiggers, 2008). This showed a statistically significant reduction of 36% in incidents but a smaller reduction in assaults. Strenuous efforts, with more success recently, were made in this project to disseminate the approach throughout the NSW police service and to make the reductions in incidents permanent (this program is now known as the Alcohol Linking Program). Some recent projects have combined both the targeted and randomized approaches (eg in New Zealand Sim et al., 2005), with some success.

We propose to build on this form of targeted policing by adding rigour to the data upon which police target venues. Currently “alcohol –linking” or “last drinks” data is based solely on the response to the question asked by police of the victim or perpetrator of violence, harm or injury: “Where did you have your last drink?” Often licensees see little value in this data, arguing that recalcitrant patrons may nominate them in retaliation for being evicted or refused service. More seriously, Police data, often does not stand up to the scrutiny of legal examination in tribunals deciding on liquor licence breaches, amendments or cancellations. This is not to say that Police do not collect credible data, but the reality is that under conditions of serious assault, violence and confrontation, it is often difficult to acquire the necessary information linking the alcohol related incident to a venue, place or location. We therefore propose that we collect and examine police data in conjunction with local ambulance data measuring alcohol related attendances and transports, and with local hospital emergency alcohol related presentations and admissions. By collecting from these three sources we can triangulate the data, adding rigour to the results, because each data source provides a check for the other two, and helps to fill in gaps in a single data source. We propose to collate and merge the data to produce a ranked list of locations ranging from those where the greatest incidence of alcohol related violence occurs, to those where little or nothing occurs. Depending on the quality of the data collected, these locations may be as specific as venue locations, or one address in an entertainment precinct, or a ‘hotspot’, which may have several venues involved. Police then will be able to target venues with greater confidence and with stronger levels of evidence of the problems located in specific areas.

Another common criticism of the alcohol linking program is that it only identifies the place of last drinking, and does not take into account that the substantial amount of drinking done by a victim or a perpetrator could be different to the last place of drinking. There is evidence to suggest that often young people drink earlier in the evening in premises where the alcohol is cheaper – this practice is sometimes referred to as “pre-loading”, and is often done quickly and in an environment where little is done to retain the patron for a long period of time. Practices that encourage rapid alcohol consumption and subsequent inebriation are common. Often these licensed venues are located in satellite suburbs surrounding the major entertainment precincts, but because the drinkers eventually end up in another “entertainment precinct”, the problems are recorded as being the responsibility of those bar owners or of that area. To identify where the majority of a patron’s drinking might have occurred, we therefore propose to include a second question in the collection of alcohol-linking data; “Where was the majority of your drinking done?” In addition, we will include a third question about where the first drinking of the evening might have occurred: “Where did you first drink today?”, since evidence suggest that this is often in private premises with alcohol obtained from off-licensed premises.

In sum, we propose to trial a form of enhanced targeted policing whereby the most problematic licensed venues or locations are identified through the triangulation of data from ambulance, hospital and police. This model is drawn from that developed in NSW by Wiggers (2008); however we propose to add two new questions to the data collected, so that our Alcohol linking data will comprise:

- Where the person first drank that day
- Where the person did the majority of drinking
- Where the person had their last drink/s
- An assessment of the person’s level of intoxication based on an assessment of behavioural indicators of intoxication

At each site the local Ambulance Service and the local hospital Emergency Department will also collect and provide their data associated with alcohol-related incidents

An analysis of all three sources of data will be undertaken to create a listing of the most problematic licensed venues, which Police would then target in the following manner:

- Initial high profile visible visits to the licensed venues (with or without other regulatory agencies, depending on the current partnership agreements at each site) to address the management practice of licensees and the conditions of the liquor licences
- Subsequent meetings with licensees and management at each venue to measure and discuss problematic management practices (based on evidence from the “Safer Bars” training package,) within the venue.
- Follow up visit with licensees to review results of changed practices

### Component 3: Community Action

These are partnerships arising from local community action or from a government response to widespread concerns in the larger community about problems in the licensed environment, and involve the mobilisation of as many as possible of the community and business groups affected by disorder and violence, as well as relevant government and non-government agencies. They involve intense engagement with the liquor industry, but are distinguished from licensing accords in their focus on system capacity development in the formal regulatory and community sub-systems, as well as on drinking establishments (Holder, 1998). This holistic approach has been shown to be effective in the short-term in four replications in Queensland (Hauritz et al, 1998; Homel et al., 1997), but there is no strong evidence for sustained effects from the Queensland research. A stronger example of the holistic approach is the Stockholm STAD Project (Wallin et al., 2005). In a survey in the mid-1990s of owners of licensed premises in Stockholm, it was found that owners saw no problems with overserving, despite clear evidence of extensive public intoxication and related problems of violence and disorder. An action group was formed to develop strategies to prevent intoxication and service to minors, which included a two-day training course in RBS for servers, security staff and owners and new forms of enforcement: notification letters and mutual controls (involving police and licensing officials). A critical step, five years after commencement of the project, was the signing of a written agreement by high-ranking officials, which led to the creation of a formal steering committee chaired by the head of liquor licensing. Ten years on there has been a 29 per cent reduction in police-recorded violence in and near licensed premises ('restaurants'), an effect that built gradually as the various components of the intervention were introduced or intensified. Moreover, this project is a model for how reductions in violence can be sustained.

Partnerships between the managers/licensees of drinking establishments, local community groups, and formal regulators are integral to this model. The ideal composition includes formal regulation (police, licensing), informal regulation (community, commerce) and self-regulation (licensees, patrons). Evidence suggests that where there is a balance of all three, more productive and targeted initiatives are developed and implemented, and subsequently, there is an associated decrease in violence. Some evidence does exist to suggest that if local communities are the mobilising force behind the partnership and/or they take a lead in regulating the licensed environment through social, moral or commercial sanctions, licensees are more ready to change practices which affect levels of aggression and violence.

We propose therefore that a Community Monitoring Committee be established at each site to act in concert with the formal regulatory practice of targeted policing and the self regulation of licencees practiced in their Accords and reinforced through Safer Bars training. The membership of the Monitoring Committee would not include any formal regulators such as Police or licensing authorities, but would typically reflect the context and character of each site. For example, some sites may rely heavily on local trader and business representation, whereas others may rely more on tourism. Some sites may include representatives from local NGOs supporting safety of women patrons and staff. Local government would also be represented in this group, as would health providers and public health practitioners. Each of the agencies can bring considerable pressure to bear on licensees who may be engaging in poor management practices, marketing or simply running unsafe venues.

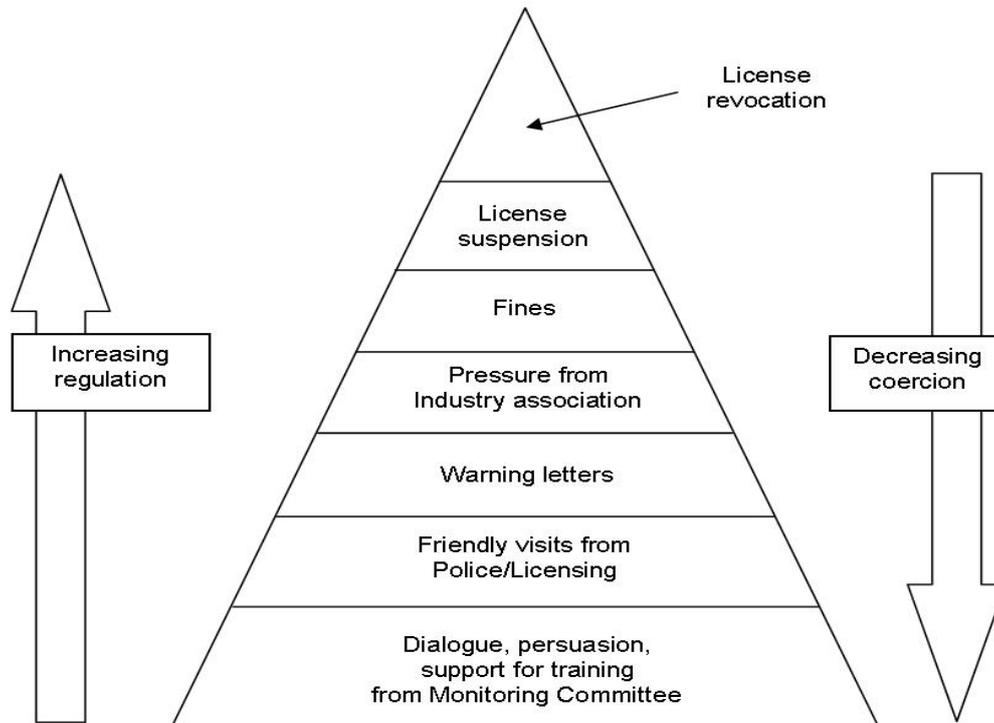
Not to be viewed as a soft option, the Monitoring Committee is the earliest and most informal point of intervention to prevent alcohol related violence in a local community, and can offer extensive support in the form of assistance with staff management practice, as well as incentives such as business organisation membership, tourism ratings and high profile marketing in the local media. We also propose that eventually the Monitoring Committee should work in concert with the formal authority of liquor licensing officers to develop a merit system for liquor licences. Merit points could be awarded to a licensee for responsible community management and practices, as evaluated by the Monitoring Committee. It is proposed that licensed premises could have conditions added or withdrawn from the licence, not only on the basis of the incidence of police and licensing interventions, but also on the recommendations of the Monitoring Committee. For example if a licensee does engage in better management practices, employs security staff of a higher level of training and involves him or herself in supporting community activities, a recommendation could be put to the licensing authority that the premises' licence reflects that practice. This does not take the place of the authority of the formal regulators, but rather enhances it. Indeed, the collective recommendations of local leading business people, tourist authorities and health practitioners cannot be taken lightly, especially when premises are under the transparent scrutiny of the local community.

Community mobilisation tends to occur optimally where there is a problem identified by the community itself. The challenge for the project will be to persuade the formal regulators to take a secondary role in response to community pressure for change. This certainly does not preclude their involvement, but rather relies on informal and formal regulators to act, albeit as individual entities, in collaboration.

We argue that formal regulation through laws and law enforcement cannot be used in isolation, given the differing regulatory and social contexts within which licensed environments exist. Therefore a theoretical framework, which can address a wide range of regulatory problems in a way that takes account of industry history, culture and structure as well as the many potential players in the regulatory process, is required. Braithwaite's theory of responsive regulation provides the framework needed. It addresses failures of industry self regulation (often due to lack of competence to comply, than deliberate non-compliance), and is especially relevant to the alcohol industry where incentives are required for licensees and managers to introduce assessment and training and to engage in evidence based practice to reduce the risks of violence. Importantly, responsive regulation provides a framework in which to balance the relationship between formal, informal and self-regulation.

Within this framework, coercion from regulators can increase with a concomitant decrease in the frequency of use of tactics. Taking staff training as an example, coercive levels could increase from frequent friendly visits from regulators including dialogue, persuasion and support for training, to industry pressure and informal regulation, then to warning letters, on to fines and eventually to licence suspension, or the most infrequently used strategy – licence revocation. Figure 1, drawn from Graham and Homel (2008) illustrates this example well.

Figure 1: Coercion and Regulation of Licensees Management



Source: Adapted from Graham and Homel (2008, p. 254)

Regulatory action in Australia and New Zealand is typically taken by a Liquor Licensing Commissioner, an agent acting independently, but in conjunction with, police and local government. In some states, such as NSW and Victoria, the Commissioner has used the ultimate sanction to withdraw or cancel liquor licences, but in Queensland, this has rarely been done, with the exception of licences voluntarily surrendered in indigenous communities. To best trial the regulatory action component in this Project, we need to have consistent regulatory responses across sites. Therefore the optimal research design in Australia would involve implementing a responsive regulation component at a whole-state level. So although police enforcement, staff training and community involvement may vary across sites, the types of sanctions, the level of coercion and the frequency of their use by formal regulators, would remain constant. By designing a framework based on responsive regulation for the Project's model, we can vary the lower level conditions at various sites, but maintain consistent responses according to state legislation. The challenge will be to ensure that local site authorities implement the sanctions consistently, and within the context of the local Accords which are able to impose informal sanctions.

Although typically Australian Accords (partnerships between police, licensing industry and community) are claimed to be a combination of formal, informal and self-regulation, they are generally dominated by the formal regulators – either police or local liquor licensing authorities. And unlike Queensland, membership of Accords or undertaking staff training is not compulsory for licensees in Victoria and NSW.

Therefore the sites we chose in inner city Melbourne will have voluntary partnerships between industry and regulators.

In sum, by integrating different approaches to police enforcement, staff training, and community mobilization within a responsive regulation framework, it is argued that optimal and sustainable reductions in violence can be achieved. Rigorously testing the model's impact on violence in and around licensed venues would also ensure evaluation of the implementation process, promoting sustainability.

It has been our aim in this project to develop a research design that can test this model, in such a way that it meets the demands of scientific research but at the same time is flexible enough to meet the demands of different jurisdictions with different governance structures, different combinations of regulation and different approaches to providing alcohol within their community. The challenge also is to achieve these aims in a way that is meaningful to the communities interested in bringing about change in their area, that captures and holds the attention of the key change agents, that does not dissipate political will and that most importantly, meets all standards of scientific rigour.

## Site Selection

This section briefly describes the process undertaken to identify potential sites for consideration in Australia and New Zealand to trial our model, the criteria utilised to select the most suitable of these, and why the five sites – four in Australia and one in New Zealand were eventually chosen.

Several key requirements of potential sites were considered in their selection:

- The willingness of each site to be involved in the testing phase of the Project.
- The capacity for each site to provide enough data to meet the requirements of the research design
- The capacity of each site to sustain implementation of the model over the 5 years of Phase 2. Although it is expected that funding for the meta-experiment will be the responsibility of Griffith University, the implementation of the three components will be done by each site, and no doubt will utilise local resources.

To initiate the identification of suitable sites, we began with a number of interviews with experts and key stakeholders in the field of alcohol related violence in Australia and New Zealand. A snowball sampling method was used to identify some of these interviewees, and others were included because of their expert contribution to either literature or practise in the field.

During these interviews and consultation, a number of potential sites emerged, primarily because they were identified as experiencing significant problems with alcohol related violence, or were currently undergoing a re-emergence of alcohol related violence, following attempts to address the problems. A major consideration in site selection was the level of support for the research that could be given by major stakeholders at each site. Interviewees' opinions about this matter were sought, and although it might be argued that their views may have been open to bias, their responses were cross-matched with other interviews.

After two months of key interviews, the sites that appeared most likely to meet the criteria for inclusion were:

- Bendigo, Victoria
- Ballarat, Victoria
- Wellington, New Zealand
- Wollongong, NSW
- Kings Cross, Sydney, NSW
- Chapel Street, Stonnington, Victoria
- St. Kilda, Port Phillip, Victoria
- Mackay, Queensland
- Brisbane CBD, Queensland
- Melbourne CBD, Victoria

In order to arrive at a manageable number of sites, we then undertook to contact key stakeholders and leaders at each of the sites. Initially a personal phone call was made to a key site leader. Often this person had been introduced by the previous interviewees, or emerged from networks known to the researchers. During this conversation, an offer was made by the university to visit the site to meet and discuss the research with stakeholders. If further site consultation was required before a visit was to be made by the researchers, a briefing document was sent and a time made to follow up with another phone call in a week's time.

In the case of the NSW sites, consultation was initially undertaken with the NSW Attorney General's Department, Crime Prevention Division and the NSW Department of Premier and Cabinet. At that time a major plan to tackle alcohol related violence and binge drinking was emerging within the NSW government and the possibility of cross contamination between our proposed research and the NSW projects was strong. Indeed, some of their planned interventions have since been implemented several of which would have compromised both the Griffith University research, and the NSW government projects, namely:

- The Crime Prevention Partnerships (CPPs) now operating in nine locations across NSW, helping police, government agencies and local government work together to tackle crime in areas with a high incidence of violent assault through local policing, transport and licensing strategies
- The establishment of the Alcohol Licensing Enforcement Command (ALEC) to target licensed premises with high rates of assaults and licensing offences and taking effective action to reduce these incidences.

Additionally, at the time of negotiations with these two key government agencies, there was a degree of political upheaval that was impacting on the decision-making of the NSW government to commit to our research. Indeed, the NSW state Premier resigned unexpectedly from his position while we negotiating to undertake our research. Therefore, for this and the other reasons outlined above, the NSW sites were not selected.

Several rural sites in Victoria, namely Bendigo and Ballarat were also considered, but at the time, the Licensing Accords in both these locations were engaged in a substantial number of interventions, including a trial of a 2 am lockout. Again, to prevent the possibility of contamination of results and to avoid community consultation fatigue, these sites were not selected either.

Initial consultation with the Brisbane City Council indicated that there were several projects already in progress in the Brisbane City area, and that they were about to engage in partnership programmes with the National Local Government Drug and Alcohol Advisory Committee (NLGDAAC, which was established by the Council of Capital City Lord Mayors, in partnership with the Australian Local Government Association). Added to this was the fact that several Griffith University PhD students were also undertaking their research in satellite areas of the city. Consequently, a decision was taken not to include Brisbane as a research site.

The remaining five sites:

- Wellington CBD, City of Wellington, New Zealand
- Inner CBD Melbourne, City of Melbourne, Victoria
- St. Kilda, City of Port Phillip, Victoria
- Chapel Street, City of Stonnington, Victoria
- and the CBD of Mackay, Queensland

were finally selected, not as a result of attrition, but rather because they clearly were strong in their initial engagement with the researchers, and willingly showed enough interest to accept a site visit for a broader stakeholder briefing.

Over the course of the site engagement, a minimum of two visits, each a week long, was made to each site, during which numerous consultation interviews were conducted about the level of commitment that each could make to the Project, the amount and quality of data that was available at each site, and the amount of work that would be required for the site to provide necessary information and data to ensure scientific rigour for the meta-experiment (see Appendix 1 for a list of the consultations and interviews undertaken).

At the first visit, face-to-face interviews, briefings and meetings with individual key stakeholders were undertaken. It was essential that police, ambulance, local government, hospital emergency departments, licensees and liquor licensing agencies were personally met either as a group, or individually. At some sites, the meetings were planned ahead of the visit from the researchers, while at others, key meetings on site were used to snowball to other relevant site stakeholders. Each meeting was important and much information and detail about the project, and the requirements of the sites, was made available.

Interviews were also undertaken with key public health practitioners and policy makers to identify the most important local issues, relevant developments and/or imminent policy changes or projects that might impact on the long-term meta-experiment. During these first site visits the researcher also met licensees, either individually or at Accord meetings, and visited the local licensed premises.

Each site was asked at the end of the first visit to consider the commitment they would be making to the Project and to indicate their willingness within a week or so of the visit. All five sites did so, although the negotiations with Victoria Police took longer given that the area command (Region 1) covered three of the potential sites – Stonnington, Port Phillip and the CBD of the City of Melbourne. Their operational issues therefore were more complex and the undertaking potentially greater in terms of resources, than for other sites.

The second visit, several months later, capitalized on the sites' commitment and was focused on the exploration of data and resources that could be utilized for the meta –experiment and on the capacity each site had to introduce alcohol linking data collection from police, ambulance and hospital sources. This data would be essential, since it would be used to inform and drive targeted policing. Negotiations to examine on-site databases and collection practices were undertaken and a commitment from key stakeholders reached in which they agreed to make information about their current practices and policies available to the Project.

At the completion of the second visit it was evident that the five sites had varying capacities for data provision, but there were undertakings to develop these capacities further, or to examine the possibility of common data collection protocols across all the five sites. The sites also made a commitment to utilize the transition time between Phase 1 and 2 to develop the quality of their resources, their data collection and their data sources. Each site was also asked to undertake an informal Partnership Agreement with Griffith University in which they committed to their involvement in Phase 2.

In the Transition to the second Phase of the Project, we have undertaken to remain in contact with each of the sites, providing Progress Reports and continuing engagement, and supporting the development of a networked connection between the site co-ordinators. The first of these networked conference calls between the sites is planned for April 6th 2009.

#### ***What do the Five Sites look Like?***

The final selection of the sites was confirmed when an analysis of the economic, regulatory, demographic, ethnic and political contexts revealed that there were enough differences between each site to ensure testing of the model's capacity to adapt to varying jurisdictions, but also enough proximal similarities, to facilitate comparisons. With their idiosyncratic nature, each site also offered a number of opportunities for the research, namely:

- Wellington, New Zealand offers us the opportunity to explore whether 2 tiers of regulatory government (Local and Federal), as opposed to 3 tiers in Australia (Local, State and Federal), makes a difference to the reduction of alcohol related violence
- Mackay, Queensland has previously been involved with an alcohol related violence reduction project conducted by Griffith University, which was unable to sustain the reductions. This site offers us:
  - the opportunity to explore what needs to be different this time
  - the opportunity to evaluate the impact of changing demographics as has occurred with the impact of mining in the nearby Bowen Basin.

The three Victorian sites sit within close proximity to each other, and although they are different entertainment precincts, they offer us the opportunity to monitor displacement of alcohol-related problems from one site to another. We will do this by collecting incidences of violence and harms and subject them to a time series analysis. Neither Wellington nor Mackay offer this option as there are fewer opportunities for patrons to seek alternate entertainment precincts nearby.

- The Chapel Street precinct of the City of Stonnington has a diversity of entertainment venues but has experienced substantial problems with violence inside and around certain nightclubs in the past. This site offers us the opportunity to adapt our model to a diverse community. It also offers an unusual geographical location – in that it is one long street strip with crowd movement in confined areas.
- The St. Kilda precinct of the City of Port Phillip has a long established history of providing various forms of entertainment and if our model is to be effective, it needs to be able to adapt to the cultural context and to be flexible enough to absorb a multiplicity of entertainment types. Like Mackay, it attracts a substantial number of non-locals and one-time visitors to its entertainment area. There is currently a plan to develop another large entertainment precinct in the St. Kilda area. This would also offer us the opportunity to implement the prevention model at the early stages of a precinct's development i.e without prior contamination.
- The inner CBD area of Melbourne enables us to test the model in a large city environment where there are higher numbers of licensed venues and often a greater variety of public space usages. The mixture of daytime business usage and night-time entertainment usage often clashes in larger night-time economies and Melbourne has not been immune to this.

In contrast to these differences, the proximal similarity between the sites will enable some degree of comparison to be made. There is substantial resemblance between sites for population and age, for gender, and for the balance between unemployed and employed.

Surprisingly the gender breakdowns for each site are very similar, with the exception of Mackay, where the slightly higher (but not significant) male population is most likely due to the recent increase in coal mining in the nearby Bowen Basin area.

With regard to age there are some variations, although again, they appear not to be significant - with the exception of the higher percentage of 20-24 age group and the 30+ year old group in the inner CBD of Melbourne. This distribution seems to be typical of larger inner city areas that have undergone recent gentrification of older business buildings into up-market apartment blocks, attracting upwardly mobile young professionals.

However, it is not solely the residents who are the users of the entertainment precincts in the inner city. Melbourne, like other major cities around the world, has promoted itself as having a lively nighttime economy that attracts locals and visitors to the precinct. Although we have a view of the age and gender breakdowns of these areas, we do not have similar information about the demographics of the visitors to

the nighttime site areas. Such demographic information will have to be collected at the beginning of our research at each site to better understand the type and numbers of users of the licensed environment.

In relation to the level of employment at each site, there is very little difference between the employment situations at each site, although it is possible that with the global economic climate changing as drastically as it is at the moment, this may alter with time.

***What is the current Liquor Licensing Context for each site?***

Across the five sites there are differences both in the type and number of liquor licences. Although these variations could be attributed to population differences, the ratios of liquor licences to population (Mackay - 1: 557.2; Stonnington - 1: 355.5; Port Phillip - 1:321.3; Melbourne - 1: 70.5 and Wellington - 1: 373) suggest that Stonnington, Port Phillip and Wellington are similar whereas Mackay is much higher, and Melbourne, much lower. This is not unexpected given that the inner CBD area of the city of Melbourne is less likely to have a proportionally higher residential population. Nonetheless, it does indicate that Melbourne has a high ratio of licensed venues to the number of people who live there.

In response to the incidence of alcohol related violence in and around the licensed premises in their communities, each of the sites has implemented a number of different strategies. A number of these programs are being evaluated, but not at a particularly rigorous level. In part this is due to lack of resources available at the site to conduct efficacy studies, but also because the planning does not build in mechanisms for evaluation, or because the program is not run long enough. Each site has a Liquor Accord in which there are varying degrees of partnership development between local police and the licensees from the entertainment precincts. In Wellington, for example, the Liquor Liaison group, at the time of writing this report, did not have police representation. Rather the local City of Wellington was the lead agency in developing relationship with the licensees, and in supporting better management practices amongst the venues. Regardless of their difference, the presence of Accord structures at each site assists this Project in that it provides a forum through which approaches to licensees can be made, and Safer Bars introduced. Clearly, some of the differences in prevention between the sites, lies in the size of the areas and the resources available to them. The City of Melbourne for example has a major program addressing the utilization of the city over a 24-hour period, and both Wellington and the City of Melbourne have been auspiced under the WHO Safe Communities Program.

Notwithstanding, the diversity of the five selected sites offers us the opportunity to test our model for its flexibility and adaptability to variations in entertainment and venue type, regulatory practices, geographical locations, historical context, community closeness and demographics – particularly patrons, and of course, different night-time economies. However the level of similarity across demographics also enables us to compare the sites against each other. Despite experiencing considerable problems with alcohol related violence in their entertainment precincts, each site is attempting to address them in a variety of ways, most of which dovetail with the proposed project.

This section has described the selection process of the five sites as experimental sites for the long term Phase 2 study - namely Wellington in New Zealand, the Chapel Street area of the city of Stonnington, the St. Kilda area of the City of Port Phillip and the inner CBD area of the City of Melbourne, all in Victoria as well as Mackay in Queensland. Each site varies in its historical and cultural context, the size of its current night-time entertainment precincts, and the number of liquor licences per head of population. This variety will ensure that we are able to test the capacity of the prevention model to adapt to different jurisdictions and environments. However there are enough similarities across the sites to enable us to also conduct some comparisons.

The engagement of these communities has been a positive experience for both the sites and the researchers, and Partnership Agreements have been entered into, whereby all parties will remain networked throughout the transition from this first Phase of the Project, to the second phase when the three components of the model are implemented.

## Chapter 4: The Research Design

Typically the development of a research plan includes an experimental design of how the variables (in this case the components in our model) can be experimentally tested, how they can be measured and statistically analysed and the types of materials (questionnaires, surveys) that are used to elicit the necessary measurement data. Staying true to this plan, this section firstly explains our proposed experimental design, then turns to an outline of the operationalisation of the model components into measurable units, and the type of statistical analysis they will be subjected to in order to understand their impact on, and their relationship to, the incidence of violence in the licensed environment. A brief list of the necessary materials and survey instruments follows, before we finally turn in the last chapter to describing the procedure of implementing the research design. This final stage constitutes Phase 2 of our Project, and is in effect, the meta-experiment.

In order to test the model for the prevention of violence and aggression in the licensed environment, this Project employs a quasi-experimental research design. Quasi-experimental research designs are used in situations where subjects and/or variables cannot be controlled and where the researcher has ‘...less than ideal control of the study environment’ (Fitzgerald & Cox, 2002, p. 344). Quasi-experimental designs differ from pure experimental designs in that the latter randomly assign subjects to groups. Quasi-experimental designs, on the other hand, assign subjects to groups on the basis of considered factors. In this case, we are ‘fitting’ the model components to each site. Although quasi-experimental designs are often criticised for their methodological limitations and absence of randomly assigned controls, previous studies have suggested that this design is advantageous when trying to reduce alcohol related harms in and around licensed premises. For example, results of the Alcohol Linking Project in NSW suggest that police enforcement is more effective, and reductions in alcohol related harm are sustained for a longer period of time when interventions are focused on problem establishments (Wiggers, 2004). Based on this research, and the fact that the five experimental sites chosen for the current study have had unsuccessful interventions in the past, and continue to be plagued with alcohol related harms, a quasi-experimental design is the most appropriate design to test the model developed in this research.

### The Experimental Design:

This section describes the method we will employ to answer our two research questions.

Recall that the two research questions are:

1. *Can the model not only reduce alcohol related violence in the licensed environment, but also sustain the reduction long term?*
  - *Do different combinations of the three model components produce better reductions of alcohol related violence?*
2. *Can the model adapt to a variety of Licensed Environments?*

We describe two experimental designs – the stepped wedge design and the multi-parallel design –, given that we intend to examine whether the prevention model as a whole, can sustain the reduction of alcohol related violence, in addition to whether there is also a particular “mixture” of the three model components that might be more effective than another. Each design has its advantages and disadvantages.

Controlled trials are generally used to test the efficacy or effectiveness of an intervention, where ‘efficacy’ refers to the success of an intervention under research or trial conditions, whereas ‘effectiveness’ refers to the success of an intervention under usual practice conditions. Although they are most frequently used in a clinical setting (e.g. comparing two forms of treatment) controlled longitudinal studies are also used in community settings. In this case, we are interested in the effectiveness of our model to reduce alcohol related violence at the five selected sites, and believe this can be best achieved through the implementation of a stepped wedge or a multi parallel design. A multi parallel design would enable us to select sites for different combinations of the three components, introducing them in 6 monthly time periods, while the stepped wedge design would introduce the whole model to different sites in sequential time blocks. However, before we examine the strengths and weaknesses of each of these designs, some fundamental design issues need to be considered.

#### ***Broad versus narrow focus***

The larger issue will be whether the model interventions are applied with a broad or narrow focus. For example, there are now many different types of Accords in Australia with variations of leadership and formal oversight. Partnerships are sometimes informal, while others have been incorporated into state or local governing bodies. This variation means that a broad focus may not be sensitive enough to pick up the different effects these factors may have on the outcomes. On the other hand, a narrow focus would preclude the full implementation, at one site at least, of all three prevention components and the full regulatory framework.

#### ***Internal validity***

Equally, the trial is vulnerable to threats to its internal validity since it will be impossible to eliminate extraneous influences of confounding variables on the levels of violence and aggression. This particularly applies to political changes which affect the site’s local context and possibly also the structure of strategic groups, such as Accords or Monitoring Committees. Already, since the inception of the Project, there have been significant policy changes related to the sales tax of certain alcoholic beverages in Australia, and there are further changes forecast around the marketing and advertising of “ready to drink” (RTD) products.

Other possible threats lie particularly with police directives, where instantaneous changes can be made in response to major incidents of threat such as terrorism, or to political mandates. For instance, the Victorian Police Commissioner has recently directed a large regional command of the Victorian Police Service to focus on decreasing the levels of violent alcohol-related incidents in the three inner city sectors of Melbourne, and although this is beneficial to the Project overall in terms of stakeholder willingness,

it confounds the experiment. The inner city precincts become an 'unnatural' focus of a particular enforcement strategy, and most probably will have a set time to run until the goals are achieved and the police resources are required elsewhere. The challenge to this Project will be to encourage police to maintain their enforcement over time and to sustain policing efforts (albeit in an adapted form) even after decreases in violence have been achieved.

#### ***Reliability of delivery of prevention components***

The delivery of the model at each site is susceptible to poor or mistaken implementation. Part of the model development therefore has been to build in briefing documents and Progress Reports and possibly training for some of those people responsible for the implementation of the trial

We turn now to the consideration of the two possible research designs.

#### ***Stepped Wedge Design***

A stepped wedge randomised trial design involves the sequential roll-out of an intervention to participants (individuals or clusters) over a number of time periods. By the end of a particular study, all participants will have received the intervention, although the order in which participants receive the intervention is determined at random. The design is particularly relevant where it is predicted that the intervention will do more good than harm (making a parallel design, in which certain participants do not receive the intervention unethical) and/or where, for logistical, practical or financial reasons, it is impossible to deliver the intervention simultaneously to all participants. Stepped wedge designs offer a number of opportunities for data analysis, particularly for modelling the effect of time on the effectiveness of an intervention (Brown & Lilford, 2006).

The opportunities arising from modelling the effects of time can be illustrated by considering the stepped wedge design as a multiple arm parallel design, in which the research aims not only to assess intervention effects, but also to determine whether time of intervention (at the extremes intervening early as opposed to intervening late) impacts the effectiveness of the intervention. Although a traditional parallel trial design can be used to examine general secular trends it cannot explore the particular relationship between time of intervention and effectiveness (Brown & Lilford, 2006, p2).

The stepped wedge design allows us, in this Project to implement the prevention model at different time intervals across the five sites, holding the time periods at the beginning of the design as controls. Table 3 illustrates how this would occur.

Clearly one of the advantages of this design is the lack of need for control (C) sites. Each site acts as its own control during the periods when there is no intervention, and during each implementation period the non-intervention sites act as controls for the intervention sites. The disadvantage of this model is that Site 5 does not receive any intervention until Period 5, some 2 years after Site 1 implements the model. Arguably, this would be an impractical situation since the level of engagement and commitment at each site is quite high.

**Table 3: The Stepped Wedge design**

Implementation Periods					
Site 5	C	C	C	C	Model
Site 4	C	C	C	Model	Model
Site 3	C	C	Model	Model	Model
Site 2	C	Model	Model	Model	Model
Site 1	Model	Model	Model	Model	Model
	Time Period 1	Time Period 2	Time Period 3	Time Period 4	Periods 5-10
Data Collection Point (6 months apart)					

Although the stepped wedge design is conceptually simpler and has some analytic advantages, it detracts from the rigour of our experiment by not examining the relationship that exists between the model components, and how various combinations of these may produce different treatment effects.

A multi-parallel design, on the other hand, although also constrained by scientific and practical considerations, enables us to examine the influence of each separate model component.

*Multi Parallel Design*

A parallel designed clinical trial compares the results of a treatment on two separate groups of subjects (treatment and control). The sample size calculated for a parallel design can be used for any study where two groups are being compared. In a multi parallel design there is more than one type of treatment administered to the two groups of subjects, one group being the experimental group – in this case our five sites, and the other being the control group. We propose that a control site be allocated to each of the trial sites to allow for assessments of the effects of the five different treatment combinations.

In this multi-parallel design, we have the opportunity to implement five different combinations of targeted policing, safer bars training and community mobilisation (given that five sites are available), and therefore to explore which of the combinations of the components offers the optimal impact (short-term) on alcohol related violence. Long-term, this design enables us to evaluate the best combination of model components that sustains the reductions of alcohol related violence. By taking a base-line measure at the end of Period 4 (when all sites have the full model in place) we can then track the levels of alcohol related violence over time across the five sites. It is possible, for example, that in the short term a

certain combination of components might effect greater reductions, but may not be able to sustain these long term. Equally there might be a combination that takes some time to have an impact on the levels of alcohol related violence at a certain site, but which may be able to sustain these changes, once reached, for a longer period of time.

Table 4 illustrates how the multi-parallel design would introduce the model components to each site, with each introduction point being 6 months apart. However, we propose that the Pre-test period be at least two years, to control adequately through time series methods for seasonal and random effects, and any secular trends. To make this possible, of course, we will rely on retrospective data – we do not intend to wait two years to start the experiment!

**Table 4: The Multi-Parallel design**

Sites	Point of Introduction			
	Period 1 (2 years retro)	Period 2 (6 months)	Period 3 (6 months)	Period 4 (6 months)
1	Pre Test	Targeted Policing	Safer Bars	Community Mobilisation
1C	No intervention – business as usual			
2	Pre Test	Safer Bars	Targeted Policing	Community Mobilisation
2C	No intervention – business as usual			
3	Pre Test	Safer Bars	Community Mobilisation	Targeted Policing
3C	No intervention – business as usual			
4	Pre Test	Community Mobilisation	Targeted Policing	Safer Bars
4C	No intervention – business as usual			
5	Pre Test	Community Mobilisation	Safer Bars	Targeted Policing
5C	No intervention – business as usual			

*Note: Each component continues at each site after it has been introduced – the components are introduced cumulatively.*

In this multi-parallel design, we have the opportunity to implement five different combinations of targeted policing, safer bars training and community mobilisation (given that five sites are available), and therefore to explore which of the combinations of the components offers the optimal impact (short-term) on alcohol related violence. Longer-term, this design enables us to evaluate the best combination of model components that sustains the reductions of alcohol related violence. By taking a base-line measure at the end of Period 4 (when all sites have the full model in place) we can then track the levels of alcohol related violence over time across the five sites. It is possible, for example, that in the short term a certain combination of components might effect greater reductions, but may not be able to sustain these long term. Equally there might be a combination that takes some time to have an impact on the levels of alcohol related violence at a certain site, but which may be able to sustain these changes, once reached, for a longer period of time.

The advantage of this design over the stepped wedge design is that all sites are able to implement a component of the model at the same time and do not have to wait for interventions. Although it is preferable in multi-parallel design, to randomly determine the order in which the different sites would receive the model components, some constraints in this project have prevented that from being the case. For example, one site has, in its eagerness to address the very real problems associated with alcohol related violence in its area, already elected a community monitoring group.

Another advantage of this design is that it allows the time periods in between introduction of the model components to be shorter. The data collected at each intervention point acts both as a post-test for the preceding model component and a pre-test for the component being introduced.

Using Site 5 in Table 4 as an example, measurement would be taken at Period 1 as baseline data (with all other sites having equivalent baselines), then at the beginning of Period 2, data collected would act as the pre-test measurement for the impact of Community Mobilisation. Data subsequently collected at the commencement of Period 3, (with Community Mobilisation already present) would provide not only the pre-test measurement for the impact of Safer Bars, but would also act as one of the Post-test measurements for Community Mobilisation, and so on and so forth.

To illustrate the shape of the five different interventions, Table 5 details the combinations of model components that would be rolled out across the five trial sites.

**Table 5: Shape of the 5 different interventions**

Site	Shape of the Interventions across time periods			
	Period 2	Period 3	Period 4	Period 5 - 10
1	<b>TP</b>	TP + <b>SB</b>	TP + SB + <b>CM</b>	<b>TP + SB + CM</b>
2	<b>SB</b>	SB + <b>TP</b>	SB + TP + <b>CM</b>	<b>SB + TP + CM</b>
3	<b>SB</b>	SB + <b>CM</b>	SB + CM + <b>TP</b>	<b>SB + CM + TP</b>
4	<b>CM</b>	CM + <b>TP</b>	CM + TP + <b>SB</b>	<b>CM + TP + SB</b>
5	<b>CM</b>	CM + <b>SB</b>	CM + SB + <b>TP</b>	<b>CM + SB + TP</b>

There is one other possible combination of the model components and that is TP + MC + SB, but it has been excluded from this design. Realistically, there are no other sites, apart from Site 1, that will have the data provision capacity to commence Targeted Policing early enough in the experiment.

To increase the internal validity of our design we have proposed control sites for each of the experimental sites. Table 6 lists the proposed control sites that would be monitored and measured across the entire Phase 2 with the trial sites.

**Table 6: The five Experimental Sites and matching Control Sites**

Site Name	Control Site
Inner CBD Melbourne, Victoria	Brisbane CBD
Mackay, Queensland	Gladstone, Qld
St. Kilda, City of Port Phillip, Victoria	Fortitude Valley, Qld
Chapel Street , City of Stonnington, Victoria	Brunswick St., Fitzroy
Wellington, New Zealand	Christchurch, NZ

The control sites have been matched as closely as possible to their concomitant test sites, and the same data will be collected in relation to alcohol related injuries, harm, public disorder and violence and aggression.

We recognise that this design detracts from the “gold standard” of randomised control trials (RCTs), but we argue that:

- 2 components of the model – Safer Bars Training and Targeted Policing have already undergone RCT’s in Canada and NSW respectively. The third component, the Monitoring Committee is supported by qualitative and quantitative evaluations conducted on related forms of community mobilisation in Queensland, and in Stockholm.
- The very nature of the problem being addressed, the different levels of community readiness and the number of related interventions already running at each site mean that logistically, practically and financially, it is impossible to deliver the prevention model as an intervention simultaneously to all participant sites
- The contextual, historical and political differences between the sites also preclude us assigning the sites randomly to the various combinations of the three model component

And although, both these designs do pose some practical implementation challenges, such as preventing contamination between those waiting for the intervention, we are able to ensure that those assessing the outcomes are blind to the site’s status as control or intervention, thereby guarding against information bias. It will be reasonably easy for the Griffith University analysts to remain blind to the roll out of the interventions, as they will not be directly involved in any site activities, and will be receiving all data from the sites via a dedicated university website. It will only be the Research Manager, responsible for the direction of the project and for the provision of the periodical reports to each site, who will know of the experimental or control status of each site.

In sum we believe that a quasi-random multi-parallel design incorporating a control group for each of the five sites, together with at least seven years of time series data for a range of outcome measures, adequately address the issue of internal validity.

## Measurement and Analysis

The central purpose of this Project is to evaluate the capacity of the model to prevent violence and disorder in licensed drinking environments and to sustain the reduction over at least a five year period. At a broad level this will entail measuring frequency and seriousness of incidents of aggression, violence, assaults and harm in targeted areas within the selected sites, as well as across the site as a whole, and tracking these at regular intervals to identify variations in impact. Because the model incorporates three components: police enforcement, staff training, and community mobilisation, supported by a variety of regulatory actions, merely measuring alcohol related incidents will not be enough, nor will it meet the criteria of rigorous research. Therefore, to gain some understanding of the impact of the components, both separately and combined, it will be necessary to design individual measures for each of them. In this way, it will be possible to explore the relationship that may exist between each of them and violence and disorder in the licensed environment.

### Measurement

Fundamentally, we require two sets of measurements. The first set of measurements to be collected will answer the larger research question, “Can the model sustain the reduction of alcohol related violence “? and the second set of measurements to be collected will answer the second research question, “Can the model adapt to a variety of different licensed environments?”

Turning to the first set of measures, we need to collect data that will indicate the performance of the prevention model components. Table 7 lists the three model components and the regulatory responses, with the proposed measures to test their effectiveness. Once this data is collected it will then be possible to analyse (see more detailed description in the next section) the nature of the relationship that exists between the prevention components and the incidence of alcohol related violence at each site.

We propose to collect the data related to targeted policing every quarter – that is every three months. At each of these measurement points we will be able to triangulate the data to generate a ranking of the licensed venues, based on levels of aggression, violence, and public disorder and harm being generated either from within the venue or within the nearby environment. The ranked order of problematic venues or areas will be used to then inform the community monitoring committee, the local police and licensing authorities. The feedback will take the form of a report in which recommendations will also be made to the communities about the trends and patterns in the data analysis, and how they might respond to these. The measurements related to Safer Bars training, regulatory responses and community monitoring will be collected at six monthly intervals.

As pointed out in the experimental design, the information to drive and inform targeted policing will come from three data sources: hospital emergency departments (EDs), ambulance and police. Ensuring congruency across these data sources is one of the major challenges of the Project. At present, two sites are working collaboratively on developing a standard protocol for use by ED health practitioners to measure levels of intoxication. At all sites there is provision to collect last drinks data by police, but it is hoped that these can be enhanced with the inclusion of the extra questions about ‘majority’ and ‘first’

drinking. The Victorian sites have the capacity to collect alcohol related data for ambulance attendances and transports, while Queensland and New Zealand are currently in the process of developing their capacity. The three sources of data will be delivered to the university researchers via a secure website, triangulated, analysed, and fed back in user-friendly report form to each site.

**Table 7: Components of the Model and Related Measures**

Components		Measurement
Targeted Police enforcement	<ul style="list-style-type: none"> <li>Targeted venues (based on alcohol linking data)</li> <li>Targeted licensed environments/ precincts (based on crime "hotspotting")</li> </ul>	<ol style="list-style-type: none"> <li>Police incident data:               <ul style="list-style-type: none"> <li>"Alcohol linking" data</li> <li>Incidence of assaults, GBH, serious assaults</li> </ul> </li> <li>Ambulance data:               <ul style="list-style-type: none"> <li>Alcohol related attendances</li> <li>Alcohol linking by location</li> </ul> </li> <li>Hospital ED data:               <ul style="list-style-type: none"> <li>Alcohol linking to location</li> <li>Level of intoxication</li> </ul> </li> <li>Police activity:               <ul style="list-style-type: none"> <li>No of Targeted police operations</li> <li>No of licence attendance</li> <li>No of formal actions taken</li> </ul> </li> </ol>
Regulatory action	Type of regulatory response <ul style="list-style-type: none"> <li>Formal: Police or LLD lead agency</li> <li>Self: industry lead agency</li> <li>Informal: Community/NGO lead agent</li> </ul>	<ol style="list-style-type: none"> <li>Type of leadership:               <ul style="list-style-type: none"> <li>Length of time in leadership</li> <li>Activities as lead agent:                   <ul style="list-style-type: none"> <li>Type (see Table 8) and time</li> </ul> </li> </ul> </li> <li>Level of coercion used (see Table 8)</li> </ol>
Staff training	Safer Bars (All Staff and managers)	<ol style="list-style-type: none"> <li>No of staff trained</li> <li>Venue risk assessments</li> <li>Venue Incident log data</li> <li>Security provider incident data</li> <li>Venue staff satisfaction survey</li> </ol>
Community Monitoring	<ul style="list-style-type: none"> <li>Committees with/without licensees</li> <li>Committees with/without Health</li> <li>Committees with/without community representation</li> <li>Committees with/without business representation</li> </ul>	<ol style="list-style-type: none"> <li>Type and incidence of Partnership activity (meetings, tasks, sanctions)</li> <li>Partnership composition</li> <li>Collaborative satisfaction survey</li> </ol>

Especially important is the measurement of the balance between formal, informal and self-regulation, as it will assist in answering the research question “Can the model be adapted to various different environments?” Therefore we propose a quantification of regulatory responses by weighting the actions taken by each agent. Utilising the example of Graham and Homel’s triangle of graded responses, Table 8 shows how a ranked measure can be assigned to the various activities of the Monitoring Committee, the Police and the Licensing authorities.

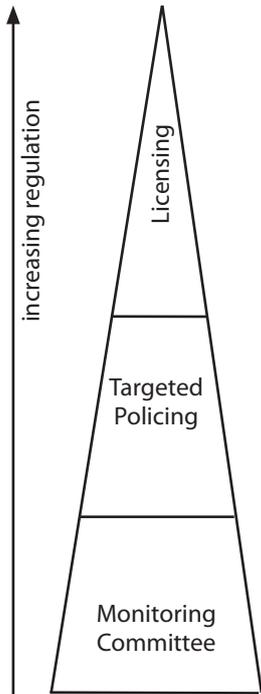
At the bottom of the triangle the regulatory response by the Monitoring Committee would be ranked as a 1, being the most informal. Moving upwards with increased regulatory involvement, Police intervention can be ranked as either 2 or 3, the former relating to the targeted police visits that require no further action once a revisit has occurred. However, should the Police impose formal sanctions, refer to liquor licensing for further intervention, or take legal action against the venue, the ranked intervention would be 3.

At the next level, where Liquor Licensing is required to impose licence conditions, warnings, fines etc., the actions would be ranked at 4. Finally the most serious of interventions, the cancellation or revocation of a licence would be ranked as a 4. Qualitatively we propose that the types of regulatory response also be measured by recording who the lead agent is in the activity, and the reasons for the type of response. Table 8 also outlines these measures.

The measures at the top of Table 8 tell us what the independent variables are doing in the experiment, but in order to understand the influence they may be having on alcohol related violence and regulation of licensed venues, we need to measure several outcomes (dependent variables) at the bottom of the table. In this case, we are interested in two outcome measures - the level of alcohol related violence, which we describe in the next section, and the impact of regulation on the practices of the licensed venues.

In Table 8 we also outline the measures of the licensees’ responses to regulation. You will note that there are three different types of regulatory response; self generated activities where for example, licensees, may, as part of their risk assessment alter or improve certain management practices of their own volition; semi-self regulated changes, where for example a licensee may decide to change certain aspects of their management practices and policies as a result of a collective Accord agreement or condition, and the third – imposed regulation, where licensed premises undergo ‘forced’ or ‘imposed’ changes as a result of pressure brought to bear either by informal regulation of the Monitoring Committee or the more formal regulation of the Police and/or a Liquor Licensing agent.

Table 8: Proposed Quantitative and Qualitative Measures of Independent and Dependent Variables

Independent Variable	Quantitative	Qualitative
	<p><i>Weighted as 5:</i></p> No of licence revocations	Reason for cancellation or revocation
	<p><i>Weighted as 4:</i></p> No of licence conditions imposed by Licensing authority No of Accord conditions imposed No of licensing authority visits No of breaches No of warnings No of fines	Reasons for formal sanctions
	<p><i>Weighted as 2 or 3.</i></p> No of Police targeted visits No of return visits No of formal sanctions No of referrals to Licensing authority No of referrals to MC	Reasons for formal responses
	<p><i>Weighted as 1:</i></p> No of MC interventions No of meetings with licensees No of actions taken to regulate licensees	Type of intervention: Formal meeting Phone call Letter Intervention Leader Source of complaint
Dependent Variables	Quantitative	Qualitative
Regulatory Response by Licensees	No of responses to regulation: 1. No and type of self regulated activities 2. No and type of semi self regulated changes 3. No and type of imposed regulated activities	Type of change made to management practice and/or policies
Incidences of alcohol related violence and harm (see Table 9)	See Table 9	See Table 9

### Outcome Measurement

The broader outcome measures that indicate whether the reductions in alcohol related violence have been sustained, and whether the model has adapted to the different requirements and demands of the five different sites, need to meet the standards of the Campbell Collaboration and the Illich Collaborations Table 9 lists the proposed measurement of these outcomes.

**Table 9: Outcomes and their measurement**

Outcomes	Measures
Evidence of alcohol related harm decreasing? (Illich Collaboration)	<ul style="list-style-type: none"> <li>• Police incident data</li> <li>• Hospital data</li> <li>• Ambulance data</li> <li>• Local government security data</li> <li>• Public amenity data: - complaints data</li> <li>• Licensed Venue Incident logs</li> <li>• Security data</li> </ul>
Evidence of effectiveness of model? ie. Sustained reduction of alcohol related violence (Campbell Collaboration)	<ul style="list-style-type: none"> <li>• Sustained reductions, or continued reductions of alcohol related violence over the collection periods 2 - 10</li> <li>• Expert group assessment and analysis</li> <li>• Process analysis of each site's implementation of the model</li> <li>• Site compliance to the research design</li> <li>• Site adherence to the model component implementation</li> <li>• Need for repeat 'dosage' of model components</li> <li>• Better management of licensed premises – Safer Bars survey</li> <li>• Participant satisfaction (survey)</li> <li>• Institutionalisation of model components at site level by Year 3</li> <li>• Increased relevant data provision from sites</li> </ul>
Evidence of increased public health?	<ul style="list-style-type: none"> <li>• Sustained generation and provision of relevant data provision at site level</li> <li>• Public health practitioner surveys</li> <li>• Cultural change around alcohol                             <ul style="list-style-type: none"> <li>• Local Media reports</li> <li>• Local Advertising</li> </ul> </li> </ul>
Evidence of increased public safety?	<ul style="list-style-type: none"> <li>• Increased use of precinct by non-violent patrons</li> <li>• Improved security responses – Patron/community reports</li> <li>• Increased targeted policing – Patron/Community reports</li> </ul>

### Contextual Measurement

At the broadest level, it is important to contextualise the ecology of any research environment, and we intend to do so at each of the test sites, including an evaluation of the perceptions of those who inhabit the community and for whom the problem of alcohol related violence is most relevant. We have already commenced this process by completing a “Snapshot” report of each of the sites, but these could only draw on information and data within the public arena. To enrich our contextual understanding of the sites and to establish a common contemporary pre-test baseline measure across all the sites, we propose that each site undertake an ethnological assessment of its recreational night-life and the perceptions of those using the licensed environment.

We propose that an evaluation, already employed for rapid assessment of recreational contexts in Europe by the European Institute of Studies on Prevention (IREFREA) and co financed by the European

Commission, be utilized in this Project. This assessment, known as KaREN, will be conducted at the macro level of the city in which the sites are located, at the middle level – that is, within each site’s entertainment precinct, and at the micro level of the venues in the experimental area. Gaining a contextual insight into the quality of night-time entertainment at the site-specific level, the factors that influence it, the existing dangers, and the current preventive measures, will provide valuable qualitative and quantitative information that can be compared across sites. Depending on the progress of harm reduction at each site, the KaREN assessment could be repeated on an annual basis, in addition to being performed at the end of the research Project (Phase 2) as part of the broadest evaluation of change at each site. The use of this assessment is also a key activity to maintain the focus of the community at each site, while preparations for Phase 2 are undertaken.

### Process Evaluation

An important component of assessment is the evaluation of the process undertaken by both the researchers and the participants. We have developed a process evaluation survey, which will be conducted at the end of Phase 1, and following the delivery of the final report. The funding body (DrinkWise Australia), the Expert Group, the key stakeholders and the site participants will be surveyed about their expectations of the Project, their levels of satisfaction with the process to date, and their recommendations for any future changes. Their responses will be analysed by an independent researcher at Griffith University, but will be reported with the qualitative process evaluation conducted by the Project’s researchers regarding the adherence to Phase 2 activities and the compliance to outcomes originally set.

### Statistical Analysis

As mentioned previously in this report, this project will employ a multi-parallel design (or depending on progress at site level, a Stepped Wedge Design), which involves the sequential roll-out of an intervention to participants, or in this case, our five selected sites, over a number of time periods. Using this design enables each trial site to implement the three model components in a sequential order, holding the time periods at the beginning of the design as controls - but rolling out the components over a number of time periods.

In order to assess how effective our prevention model is in reducing alcohol related harms, and which components of the model are most effective, a time-series analysis will be conducted. Below is an explanation of what this analysis involves.

#### *What is a time series analysis?*

Time-series analysis combines methods which attempt to understand time series data, that is, sequences of data or observations which follow a non-random order. Time series data often arise when tracking certain events over time (StatSoft, 2008). For example, the model in this project tracks the amount of alcohol related harms at 3-month intervals throughout Phase 2. Smaller amounts of time such as days, weeks and months (broken into time of day periods) may also be possible for a few measures.

Often the purpose of conducting a time-series analysis is to understand the underlying context of the data or to make predictions based on that data. The usage of time series models is two-fold. Firstly, time-series analysis allows researchers to better understand the nature of a phenomenon as represented by a sequence of observations, and secondly, time series analysis permits researchers to predict future events based on the time series variable.

Both of these aims rest on the requirement that the pattern of observations in time series data can be identified. Once we have observed the pattern, we are then able to interrupt it, and extrapolate it to other data to predict future events and outcomes. Time series analysis takes this into account and suggests that data collected over a period of time may have a common internal structure (such as trend or seasonal variation).

Most time-series patterns can be explained in regards to two components, those being: trend and seasonality. Trend patterns represent a systematic linear or non-linear component, which varies over time and does not repeat a pattern within the time range captured by the data. For example, a period of low crime rates followed by a period of high crime rates. A seasonality pattern is similar to a trend pattern in most aspects; however, it repeats itself over systematic intervals. For example, a period of low crime rates followed by high crime rates followed by low crime rates.

The seasonality of crime rates is particularly relevant to the current study. Analysis of crime trends has shown that alcohol related violence fluctuates throughout the year – with rates of violence peaking during holiday periods such as Schoolies, Christmas and New Years. Following these holiday periods and peaks of violence, rates tend to steady out before increasing again at the next holiday period (AIC, 2007; Sivarajasingam, Shepherd, Matthews & Jones, 2002; Vanstone, 1998). The current study will measure any seasonal variations in crime rates and will take these into account.

#### ***What is an interrupted time series analysis?***

An interrupted time-series analysis is a quasi-experimental design used to examine the impacts of interventions both immediately after being introduced, as well as over time. In interrupted time-series analyses, multiple measurements and observations are taken both before and after an intervention is introduced (Hartman, Gottman, Jones, Gardner, Kazdin & Vaught, 1980). This design is most suited to test the model in this project as the components of our prevention model will be rolled out in a sequential order. Therefore, by using this design the effectiveness of each individual component at each of the five sites, can be tracked, and also compared with the time series in its control site.

One of the advantages of conducting an interrupted time-series analysis is that it allows the assessment of a trend both before and after an intervention. Another advantage is that it allows researchers to determine the role that outside events play and to assess whether they affect the observations made about the experimental intervention (England, 2005).

Using our project as an example, interrupted time-series analysis allows us to assess the effectiveness of our model and determine which components of the model have the most beneficial outcomes in reducing alcohol related harms. The example of Site 5 will be used to demonstrate how this will work.

Following time Period 1 which serves as the control period for each site, the Monitoring Committee will be introduced during period 2 (6 months after phase 1), followed by Safer Bars training during period 3 (6 months after phase 2) and Targeted Policing during period 4 (6 months after phase 3). By period 4, all three components of the model will be in place. Evaluation of the effectiveness of each component will be assessed by measuring the amount of alcohol-related harm, in addition to the other measurements listed in Table 9. The evaluation of targeted policing will occur on a 3-monthly basis, and of Safer Bars and the Monitoring Committee at 6-month intervals, enabling us to gauge how effective each component is for that site.

The sequential roll-out of the model components is different for each of the five sites (i.e. Site 1 receives Monitoring Committee first, Site 2 receives Target Policing first etc). Therefore, by using time-series analysis we will be able to determine not only which individual facets of the model are most effective at each site, but we will be able to assess which combinations of components have the most impact in reducing violence in the licensed environment, in the short term.

Other advantages with interrupted-time series analysis are that they are relatively straight forward and simple to perform, are reliable for small populations, permit the development of a statistical model for intervention and can utilise archive data as a baseline (England, 2005).

Disadvantages with using interrupted-time series analyses include the threat that is posed to internal validity. For example, factors naturally occurring in the local environment may influence the apparent effectiveness of the intervention. England (2005) suggests that this be overcome, or at the very least accounted for, by having a control group. This issue has been addressed in the current study by selecting a control for each of the five experimental sites.

Another disadvantage with time series analysis is seasonal influences, such as time of the year. A way to overcome this limitation is through collecting data over extended periods of time to ensure that seasonal variation is accounted for in the data (England, 2005). The current project takes this into account and has incorporated a long data collection time-frame.

Finally, historical factors and selection of experiment sites/subjects have also been identified as limitations with time series designs (England, 2005). For example, an experimental site may not be representative of larger populations. The current study aims to overcome these issues through recording background details of the site (including demographics, crime rates from the past 5 years etc) and recording any major developments which occur during the intervention.

### *How are outcomes measured using a time-series analysis?*

The interrupted time-series analysis involves taking a number of observations over a set period of time. It has been suggested that between 40 to 50 sets of observations be taken – and that the closer together the measurements and longer periods, the more valid and reliable the data is. For example, our model will assess the levels of alcohol related violence at 3-month intervals (and in some case for shorter periods) to determine whether the intervention has had any effect in reducing alcohol related violence (England, 2005; Hartman et al., 1980). To do this we will obtain outcome measures from two main sources. Firstly, we will incorporate targeted policing data, and secondly we will conduct a meta-analysis of experimental outcomes using data obtained from the police, hospital, liquor licensing agencies and local councils.

There are a number of ways to interpret the results of an interrupted time-series analysis, but the most common is usually in graphical form (England, 2005). Where a step-wise pattern is evident in the graph, the intervention is considered to be effective. For example, using our model, if rates of alcohol related violence decrease following the implementation of the first component, then we can conclude that the component had some positive effect on alcohol related harms. If the implementation of the second component is also effective, we would expect to see a further 'step down' of levels of alcohol related violence, and similarly for the subsequent introduction of the third model component. As well as being easy to interpret, a graph also allows researchers to determine whether or not the outcome was changing prior to the intervention – for example, in our model, whether alcohol related harm was already decreasing prior to the introduction of a component.

In addition to graphical representation a number of statistical techniques can be conducted, including serial correlation - a statistical tool for identifying repeated patterns in data - and time series regression analysis - a statistical technique which allows researchers to gauge the effectiveness of the intervention and take into account serial correlation and underlying trends (England, 2005). It is expected that we will utilise both of these.

In conclusion, the experimental design to test the prevention model in this project lends itself to an interrupted time-series analysis. This analysis allows us to track the effectiveness of each individual component of the model to reduce violence in the licensed environment, at each of the five sites, over time. It also allows us to gauge how effective the entire model is in reducing alcohol related harms, comparing it to the time before the implementation of the each components and cumulatively. Regression analysis would enhance this interpretation by allowing us to explore the relationship between the model's components and violence in the various licensed environments.

## Materials

The materials in this Project will include some that have been utilised in previous research by Griffith University, or by other researchers in the field (Table 10). At this time of writing this report, we were continuing with our negotiations for the licensing and approved usage of some of these materials.

Some surveys, especially satisfaction surveys will be developed during the second phase of the research (outlined in the following chapter).

**Table 10: Measurement Materials**

Project Elements	Materials
Context	<ul style="list-style-type: none"> <li>• KaREN Assessment Kit</li> <li>• Business/Traders Survey</li> <li>• Patrons Survey</li> <li>• Local Resident Survey</li> <li>• "Snapshot" Reports</li> </ul>
Targeted Policing	<ul style="list-style-type: none"> <li>• Alcohol Linking questions incorporated into Police, ambulance and hospital databases</li> <li>• Protocol for measuring levels of intoxication in presentations to EDs</li> </ul>
Safer Bars	<ul style="list-style-type: none"> <li>• Venue Risk Assessment in Safer Bars package</li> <li>• Training Course in Safer Bars package</li> <li>• Training Assessment in Safer Bars Package</li> </ul>
Community Mobilisation	<ul style="list-style-type: none"> <li>• Participant activity form</li> <li>• Participant satisfaction survey</li> </ul>
Expert Group	<ul style="list-style-type: none"> <li>• Participant Satisfaction Survey</li> <li>• Group activity schedule</li> </ul>
Overall Outcomes	<ul style="list-style-type: none"> <li>• Secure password-protected dedicated website based at Griffith University as a repository for all data provided from all sites</li> <li>• Database built and maintained by dedicated Information Technology Griffith University staff.</li> </ul>



## Chapter 5: Procedure to Implement the Research Design: Phase 2

The previous chapter has described the development and operationalisation of a prevention model aimed at sustaining the reduction of alcohol related violence, and has detailed the methodology of how this model will be rolled out at each of the five selected test sites. This chapter now turns to a description of the process of implementing Phase 2 of the Project – the meta-experiment, and illustrates diagrammatically how each of the proposed activities relate to each other and the chronological progress they may take over the proposed 5 – 7 year research term.

Because of the long-term nature of Phase 2 we have segmented it into four sections. The first section, the Transition stage (Figure 2) will link Phase 1 and 2 and is focused on maintaining the momentum of site commitment established during Phase 1, continuing the networking and collaboration between the five sites as a collective group of research participants, and completing funding submissions and approval processes.

The second stage titled the ‘Establishment stage’ (Figure 3) is the most intensive and includes the preparation of key site operational participants, the establishment of the website and database in readiness for the provision of data from each of the five sites, and the sequential roll out of the prevention model components.

The third stage titled “Consolidation” (Figure 4) is the period during which the prevention model will be in place as a whole at each of the five sites, with a focus on strengthening and streamlining the key activities, the data collection, provision and analysis.

The last stage (Figure 5) focuses on institutionalising the activities developed throughout the Phase 2, specifically the model components, at each site, and will entail substantial negotiation with key stakeholders and government bodies to ensure that when the research project finishes, that the strategies do not.

The responsibility for managing and directing Phase 2 of the Project will pass to the Violence Research and Prevention Programme (VRPP) at Griffith University. The VRPP is an interdisciplinary programme of the Institute for Social and Behavioural Research. The VRPP will also take carriage of the staffing of the project and has committed to assisting the funding of the transition phase. The Director, Professor Paul Mazerolle attended the first of the Project’s Expert Group meetings, and will remain a member of the Expert Group throughout the duration of the meta-experiment.

The university has initiated discussions with Associate Professor Sven Andréasson, (Division of Public Health Sciences, Karolinska Institute, Sweden and Head of the Department for Drug Prevention, National Institute of Public Health, Sweden) and Professor Mark Bellis (Director of the Centre for Public Health, Liverpool John Moores University and Director of the WHO Collaborating Centre for Violence Prevention) to partner in this research project. The inclusion of these eminent experts in the field, and their respective institutions, places this research strategically in the international arena, and will enable us to compare

research in the Australian and New Zealand region with Europe and the UK. Many of the issues we are confronting in this Project have international application and the scholarship that will be developed should enhance the potential for even further future research. We also propose to apply for a funding grant to bring Professors Andréasson and Bellis to Australia to run a workshop for site participants on the issues of preventing alcohol related violence.

### ***Transition Stage:***

Figure 2 illustrates the activities undertaken throughout Phase 1 indicating that at some sites we took a top-down form of engagement, while at other sites, we instituted a 'bottom up' approach. These approaches have been documented and will form a part of the process evaluation to be conducted throughout the Project (See Chapter 3, Measurement section).

Each site has identified interim co-ordinators and the university continues to maintain contact with them. A progress Report has also been delivered to each site, and conference calls are being planned to keep the sites effectively networked during the transition period. A Protocol to Progress has been developed with the sites, and is being currently instituted. It entails the sites conducting community forums in which they elect the lead agency for Phase 2, identify the level of commitment from the general community and undertake a media release. Depending on their available resources over the next six months, the sites will also undertake the KaREN assessments during this transition period.

While the communities are undertaking these activities, the researchers will be finalising applications for funding and completing the necessary approval processes with key stakeholders and government departments to access data not in the public domain. It is expected that this process will take several months. We have also commenced a proposal for the development of the data website and the database to be held at Griffith University. To assist in this course of action we will be consulting with site stakeholders about the progress of their data collection techniques and their concomitant resourcing.

### ***Establishment Stage***

Figure 3 illustrates the activities to be undertaken during the Establishment Stage, the most intensive of Phase 2, with the establishment of the data collection and the rolling out of the three model components occurring in parallel.

As discussed earlier in this report, the model components will be implemented in different combinations at each site during this Stage. That is, components 2b, 2c, and 2d (in Figure 3) will be introduced in different sequential order at the five sites. However, this will not preclude the database from being established or the data relevant to the first order components being collected. The green shading in Figures 3, 4, and 5 indicates the measurements and outcomes that will be utilised to evaluate the model, and to inform communities of their progress and to provide police with the necessary information for venue targeted operations.

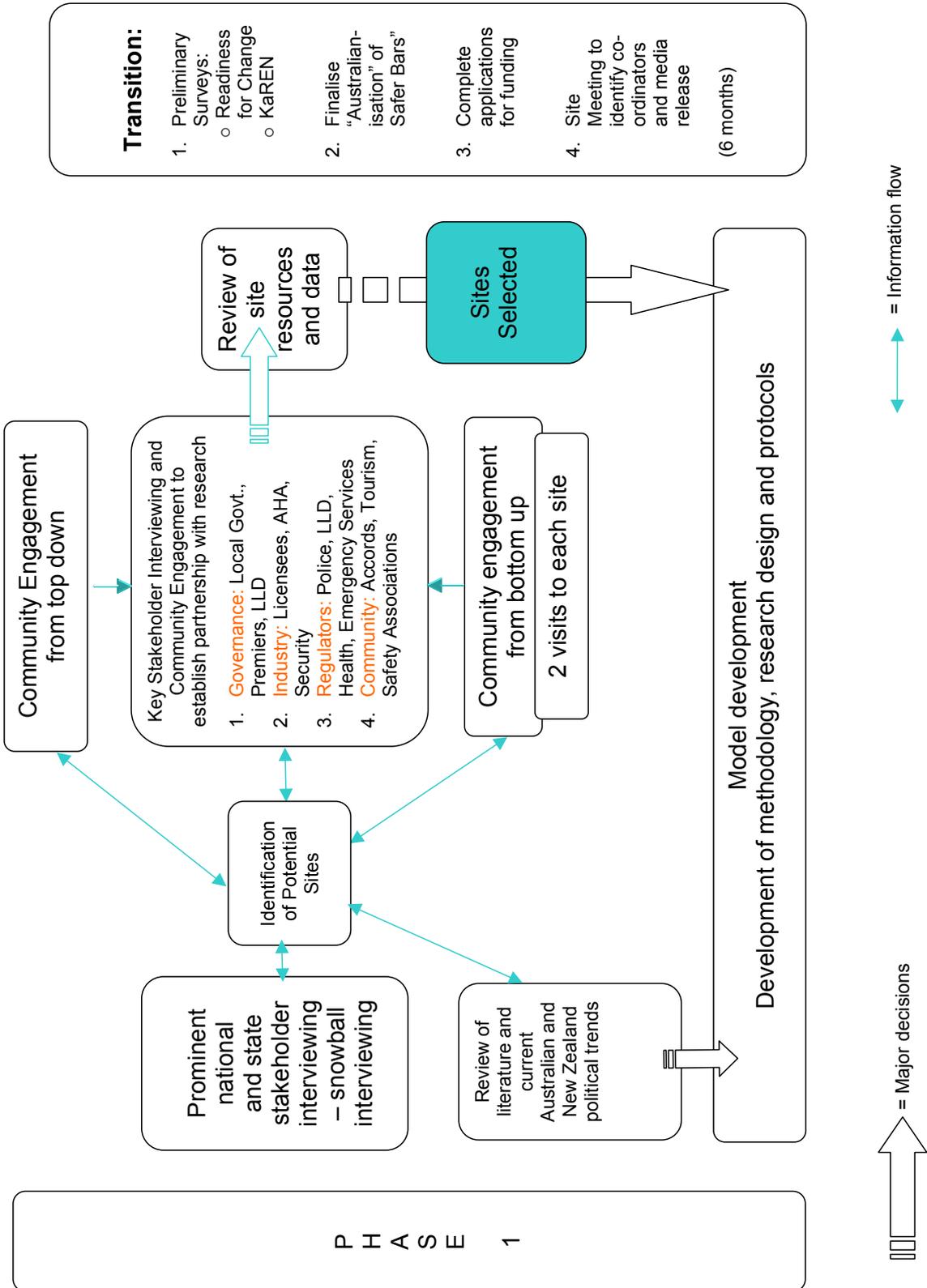


Figure 2: Phase 1 and the Transition Stage of Phase 2

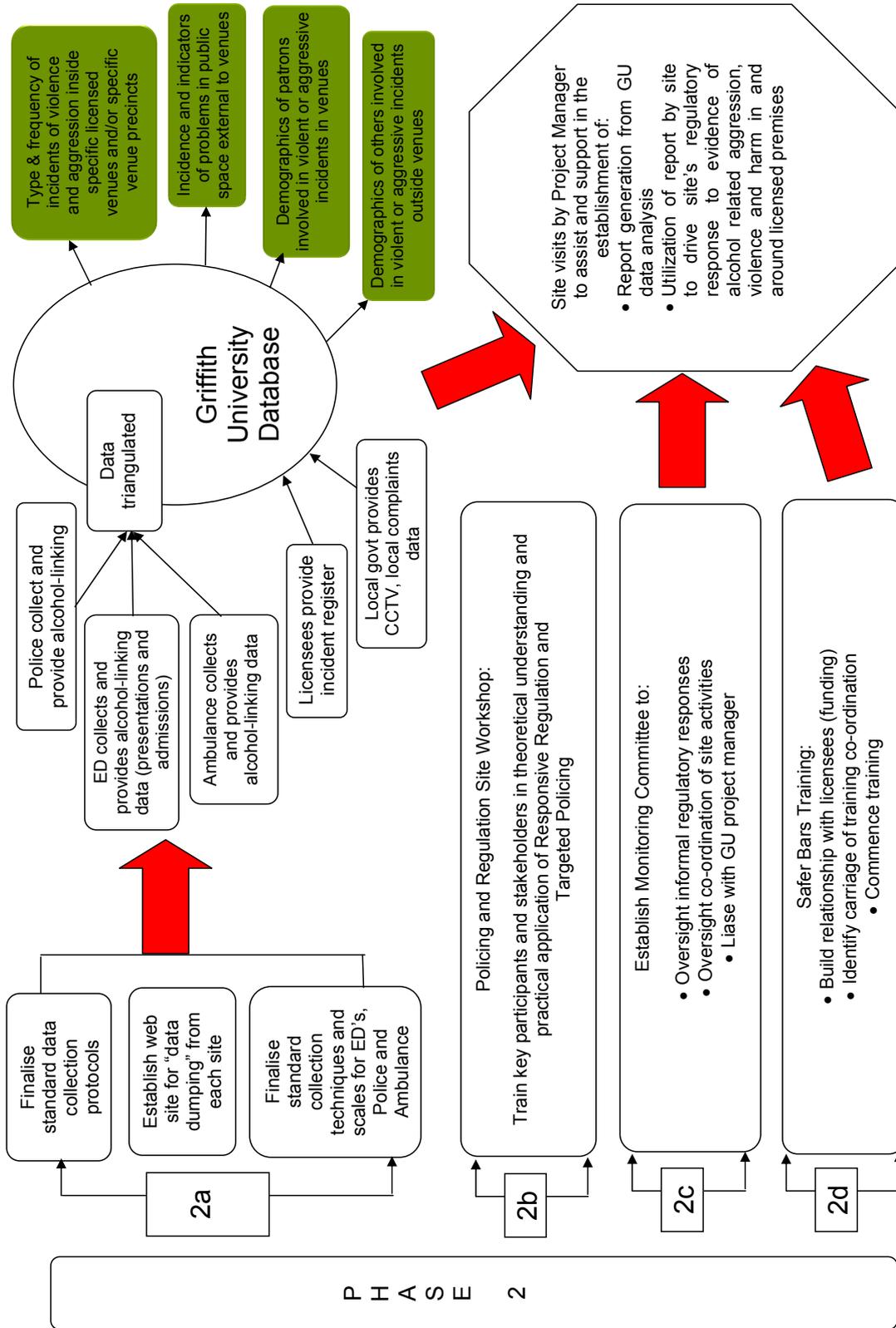


Figure 3: Establishment Stage of Phase 2 (1.5 years)

Site visits from the Project Manager during this stage will be important to ensure the integrity of the model implementation and to 'trouble-shoot' difficulties that may emerge during the collection of data at the site level. It will be the responsibility of the university to provide regular relevant reports to each of the sites, based on the data provided, and some of these reports should be delivered face to face. Equally important will be the supportive contact given to the police as they undertake the new operational procedures related to collecting alcohol linking data and targeting licensed venues. We propose that prior to implementing the model, each site hold a comprehensive workshop with local licensing authorities, police and licensees to clarify the principles and practises of targeted policing. Targeted policing should be a transparent police practice, whereby licensees are informed of the practises and understand the purpose of being targeted, as opposed to being universally policed.

#### ***Consolidation Stage:***

Figure 4 outlines the Consolidation stage during which the entire model is operating at each site. Regular reports based on the results of triangulating police, ambulance and ED data, and analysis on other community data, will be provided to the site. The Monitoring Committee and other key stakeholders then review the report and decide on the most appropriate regulatory response. The triangle lying on its side in Figure 4 is the same as the one referred to in Chapter 3. The level and seriousness of intervention is smaller at the base, than at the tip. However, the degree of coercion is less at the base, (where the Monitoring Committee applies pressure and offers support where designated), than at the tip, where formal licence cancellations are definitive, formal and authoritative. The arrows across the top of the diagram indicate the progress towards medium term goals of reductions in alcohol related violence. The red arrows represent the feedback loop in which the outcomes from data analysis about levels of alcohol related violence, inform the university's site reports and recommendations: these in turn influence the decisions made by the site, which should consequently generate better matched regulatory responses, and ultimately, decrease alcohol related violence even further.

#### ***Institutionalisation and Sustainability Stage:***

The final figure - Figure 5 - represents the process of institutionalisation. The coloured areas denote the model components (purple = Safer Bars, blue = Targeted Policing, gold = Monitoring Committee). The green area again represents the activities related to measurement and evaluation of the model. During this stage we propose to institutionalise the practises of Safer Bars training, Targeted Policing and Community Mobilisation. If this is not achieved, then the sustainability of this model is questionable. Although discussions about the long-term establishment of the model components will be ongoing throughout Phase 2, it will be during this latter stage that we propose to formalise these negotiations, and assist in the designing of enduring practises and processes. For example, it seems likely that dedicated permanent positions will need to be created to collect relevant data and to create a site-specific data repository. The university will assist in preparing proposals for this, and will provide whatever data (related to the Project) is necessary to support its rationale. Another example of institutionalisation would be the accreditation of Safer Bars as a mandatory training program for all licensed venue staff.

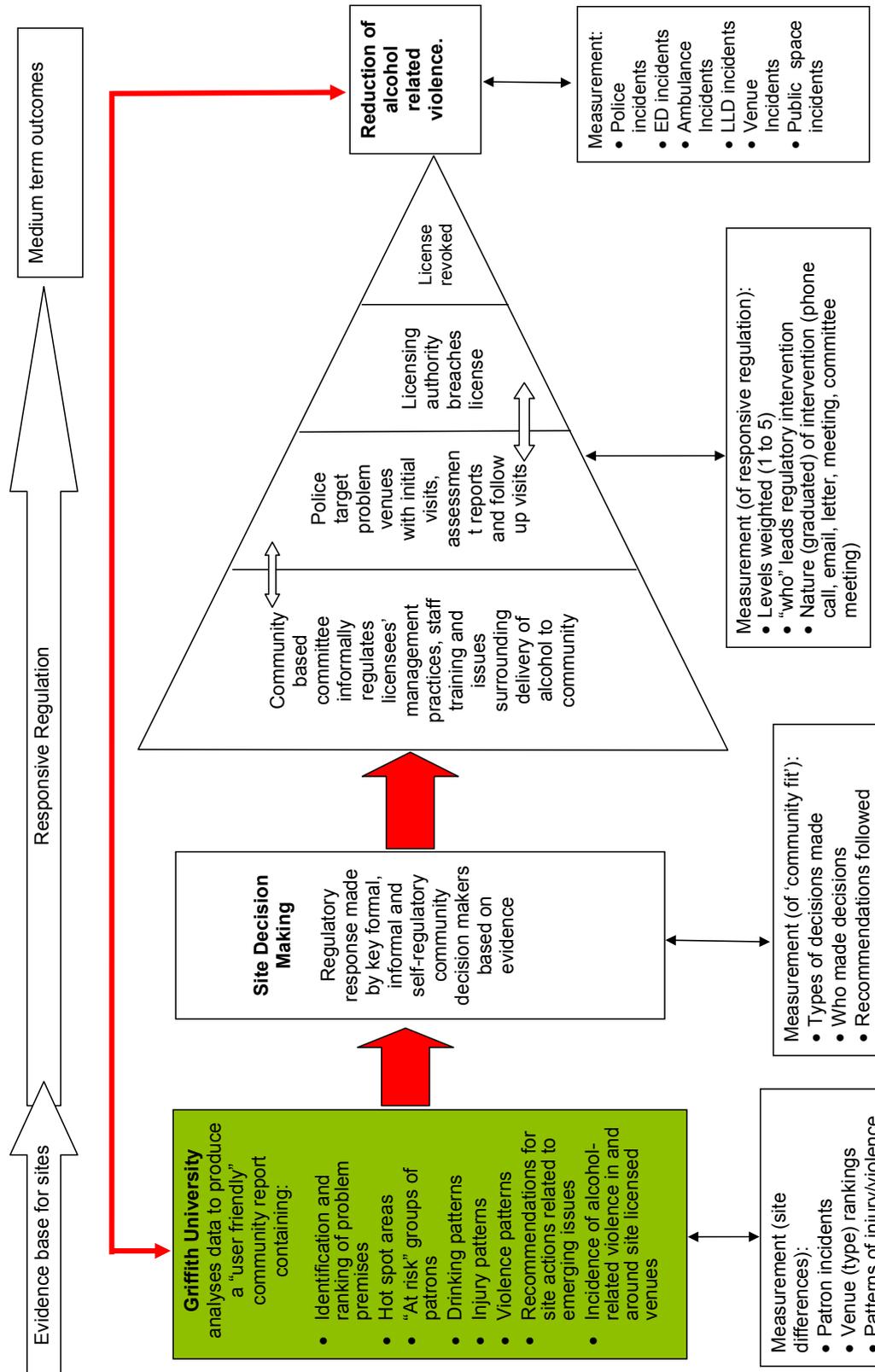


Figure 4: Consolidation Stage of Phase 2 (1.5 years)

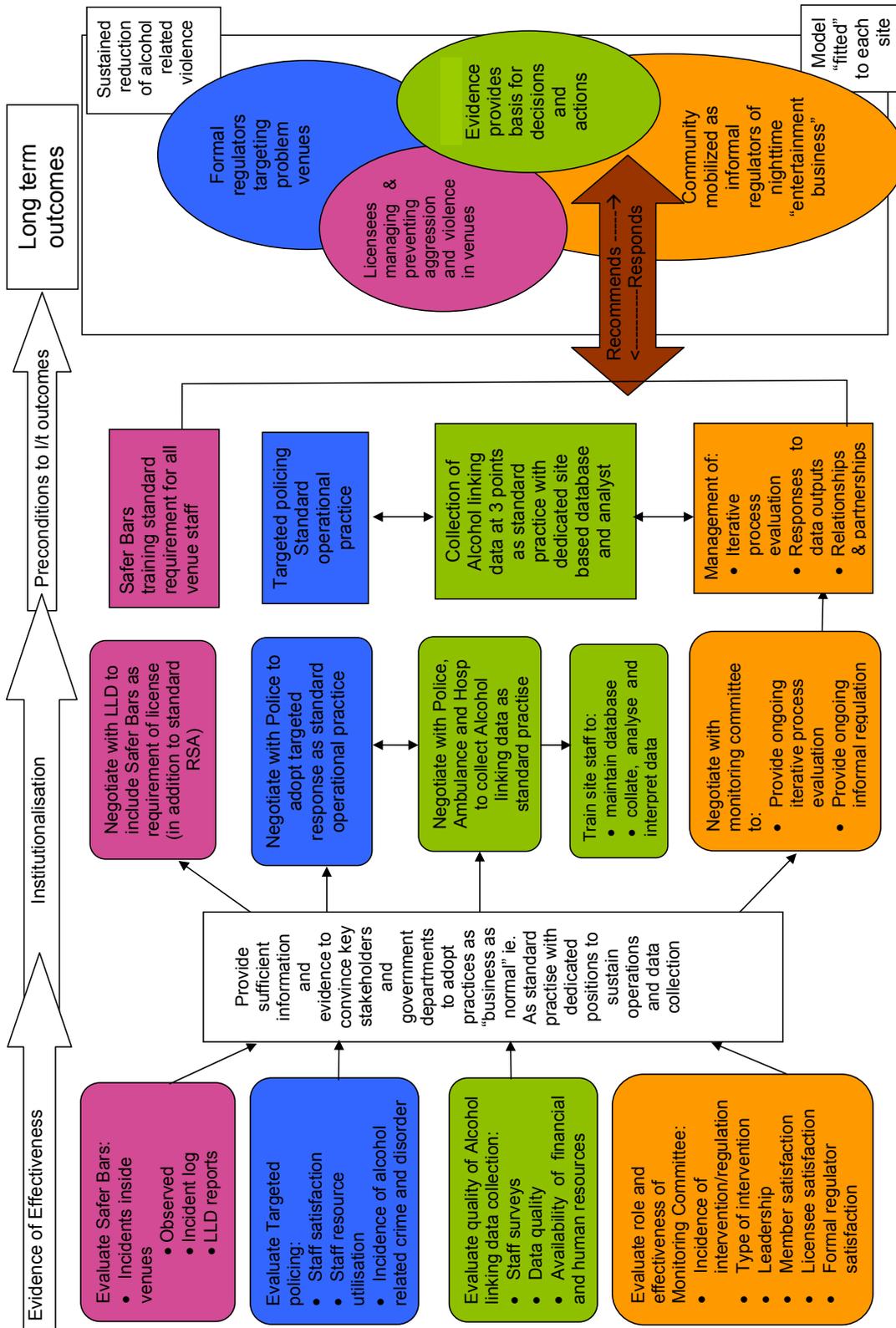


Figure 5: Institutionalisation & Ongoing Sustainability Stages of Phase 2 (2.5 years)

The manner in which the university 'hands over' to each site, will be integral to the success of sustainability and to the institutionalisation of practises. The process will need to be done over a period of at least 12 months, and training of site personnel in certain areas may be required. For example, instead of the university generating the last regular report, the university could provide the data analysis to the site and support them in the interpretation. Subsequent to this, the next collection of data could be done by the university, but analysed by trained site personnel. To a large degree these activities will be dictated by the nature of each site, and again will be evaluated in relation to the capacity of the model overall to sustain changes.

The long-term goal of the project is to leave a set of comprehensive strategies in the community that act in concert with each other, and which are driven and monitored by dedicated stakeholders who demand scientifically defensible evidence to treat the prevention of alcohol related violence, and who regulate the manner in which alcohol is delivered to community members, as normative practise: where alcohol related harm and injury is perceived as a public health issue as well as a crime prevention issue and is no longer treated with isolated silos of crisis intervention programs, but rather as co-ordinated 'business as usual'. In other words, the community's eye is never taken off the ball.

## CONCLUSION

Past models that have focused on decreasing aggression and violence have suffered from a number of drawbacks: either they have been dominated by one or a few stakeholders or public agencies and have been myopic in their approach, or they have not balanced the relationship between informal, formal, and self-regulation of licensed establishments, and have consequently been unable to sustain their initial positive impacts. This Project addresses these problems through a thorough analysis of how to operationalise the key components of a comprehensive prevention model to ensure they are focused on sustainability and are applicable in a number of different types of licensed environments. These tailored components combined with operational details constitute the research plan, and include extensive stakeholder engagement to secure commitments to test the model in a meta experiment conducted over a 5 – 7 year period.

Without a strong evidence base, policy in the area of alcohol-related violence prevention cannot be advanced, and resources, both human and financial, will be squandered in symbolic rather than substantial interventions. In essence, to prevent the same mistakes being made, and to ensure that we learn from the past errors, it is imperative that this meta-experiment not only have the support of the selected sites who have entered a long term partnership with the research team at Griffith University, but also the state and national governments who stand to benefit considerably from improvements in public health and a reduction of aggression and violence in the licensed environment.

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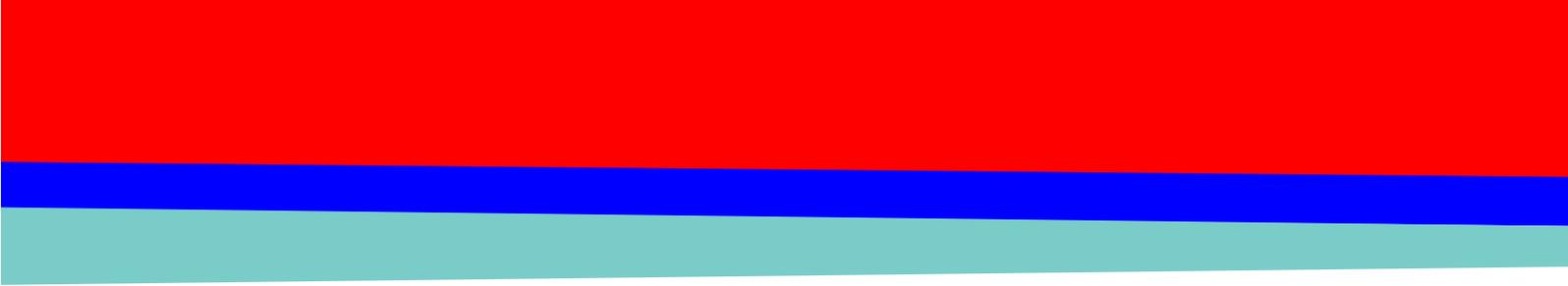
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# **APPENDIX**

People Interviewed or Consulted  
as part of the  
Consultation and Community Engagement of the Project

Name	Location	Organisation/Department
Allmark, Sandra	Wellington City	Capital and Coast District Health Board
Andreasson, Sven	Sweden	Swedish National Institute of Public Health, Stockholm, Sweden
Ansell, Andy	Mackay	Licensee, Pulse Nightclub
Armstrong, Brian	Mackay	Licensee, Doors Niteclub, Gordi's Bar, Zebra Cocktail Bar
Armstrong, Gavin	Wellington City	Snr Research Analyst, Wellington City Council
Association of Liquor Licensees, Melbourne	CBD Melbourne	Association of Liquor Licensees, Melbourne
Baldwin, Simon	CBD Melbourne	Drug & Alcohol Policy, City of Melbourne
Ballek, D	Victoria	Snr Research Officer, Victoria Police
Bell, Ross	Wellington City	NZ Drug Foundation
Bellis, Mark (Prof)	UK	Director, Centre for Public Health, Liverpool John Moores University, UK
Bidgood, James	Mackay	Member for Dawson (Qld) House of Representatives, Parliament of Australia
Bond, Rowan	Mackay	Superintendent, District Officer Mackay Police District, QPS
Bondanna, Ra	Wellington City	Police Intelligence Group, Wellington Police
Box, Alison	Wellington City	Manager, Public Health, Wellington City Council
Bruce, Cathy	Wellington City	Local Government Relations, ALAC
Burt, Joanne	Wellington City	Liquor Licensing Wellington City Council
Canton, Annette	Mackay	Queensland Police Service
Carnochan, John	Scotland	Chief Superintendent, Violence Reduction Unit, Scotland
Chalker, Vernon	CBD Melbourne	Association of Liquor Licenses, Melbourne
Chandler, Howard	UK	Force Drugs Liason Sgt, Crime Reduction Dept., Kent Police
Chang, Thaphei	Victoria	Corporate Statistics, Victoria Police
Choy, Gary	Mackay	Licensee, Doors, ZBar, Gordies
Clarkson, Kerry	Mackay	Queensland Health
Coggan, Carolyn	Wellington City	Director, Safe Communities Foundation, NZ
Coleman, John	Wellington City	Licensee, Hummingbird Bar/Café
Colosimo, Carlo	CBD Melbourne	Licensee, Lounge Bar
Cooke, John	Victoria	Supt., People Development, Victoria Police
Comrie, Neil	Victoria	DrinkWise Board member
Crump, Jamie	Wellington City	NZ Marketing Manager, Positively Wellington Tourism, NZ
Cunington, James	Mackay	Acting Area Director, Operational Supervisor, Qld Ambulance Service, Mackay Whitsunday Service
Currie, Professor Jon	Victoria	Director of Addiction Medicine, St. Vincent's Health Melbourne

Dale, Michael (Dr)	Wellington City	Snr Policy Advisor, Wellington City Council
Dalton, Nigel	Mackay	Sgt., Mackay Crime Prevention Unit, QPS
De Graaf, A	Wellington City	Wellington Combined Taxis
De Villiers Smit, Pieter	Stonnington/CBD Melb., & St. Kilda	Emergency Physician, The Alfred, Melbourne, Victoria
De Silva, Andrew	Queensland	Brisbane City Council - City Policy & Strategy Community Safety
Dickinson, Nola	Mackay	Mackay District Crime Manager, QPS
Dillon, Paul	NSW	National Communications Manager for National Cannabis Prevention and Information Centre, and Manager NDARC
Egan, Mike	Wellington City	Licensee and Restaurant Association, Wellington
Ellard, C	St. Kilda	Community & Health Development Co-ordinator, City of Port Phillip
Elliott, Kerrie	Mackay	Senior Advisor, Passenger Transport, Queensland Transport
Elliott, Marilyn	Wellington City	Branch Manager, ACC
Eoannidis, John	Mackay	Licensee, Platinum Lounge
Feltham, Simon	Wellington City	Snr Sgt., Wellington Police
Fleming, Jenny	Other	Professor, Tasmanian Institute of Law Enforcement Studies, UTAS, Tasmania
Foley, Kristen	Wellington City	Built Environment Co-ordinator, Regional Public Health, Hutt Valley District Health Board
Fordham, Kester	Wellington City	WalkWise Manager, Armourguard, Wellington
Franks, Peter	Mackay	CEO, Mackay Regional Council
Gabites, Laurie	Wellington City	Manager - City Safety, Citizen Engagement Directorate, Wellington City Council
Galloway, Andrew	Wellington City	Programmes, ALAC
Garnons-Williams, Julie Anne	Wellington City	Team Manager, Injury Prevention, ACC
Gibbons, Connie	Stonnington	General Manager, Social Development, City of Stonnington, Victoria
Gillham, Karen	NSW	Service Director Health Promotion, Hunter New England Population Health
Gordon, Lucas	St. Kilda	CEO, Australian Hospitality Institute
Grant, Paul (Judge)	Victoria	President, Children's Court of Victoria
Green, John	NSW	Director, Policing and Regulatory Relations Australian Hotels Associate (NSW)
Gripenberg, Johanna	Sweden	Program Leader, STAD Program, Karolinska Institute, Stockholm
Gunning, Colleen	Mackay	Co-ordinator Health Promotion Service, Tropical Health Services, Mackay
Hadfield, Phil (Dr)	UK	Centre for Criminal Justice Studies, University of Leeds, UK
Hansen, Dale (Dr)	Mackay	Director, Emergency Department, Mackay Base Hospital

Harbets, Hank	Victoria	Chair, Australian Safe Communities Foundation, Victoria
Hardeman, Lisa	Port Phillip	Inspector, Port Phillip, Division 2, Region 1 Victoria Police
Harriss, Linton (Dr)	Victoria	Acting Manager Research and Evaluation, Strategic Planning, Ambulance Victoria
Hesse, A	Mackay	Urban Renewal and Economic Development, Mackay Regional Council
Hetherington, Bob	St. Kilda	Metropolitan Fire and Emergency Services Board, Victoria
Hill, Andrew	Wellington City	Injury Prevention Consultant, ACC
Hirschfield, Alex	UK	Prof of Criminology, University of Huddersfield, UK
Hollemans, K	Europe	Ministry of Health, Welfare and Sport; Nutrition, Health Protection and Prevention Department, The Hague, Netherlands
Hoyle, Sarah	Wellington City	Clinical Manager, Wellington Free Ambulance
Hull, Ashley	Mackay	Crime Prevention Co-Ord, Rockhampton
Hurt, Richard	UK	Sgt, Alcohol Harm Reduction Officer, Best Bar None Co-ordinator, Lancashire Constabulary
Jamieson, Gary	Victoria	Asst. Commissioner, Region 1, Victoria Police
Jones, Julia	Wellington City	National Performance Manager, New Zealand Police
Jouning, Rod	Victoria	Supt., Region 1 Business Development, Victoria Police
Kaushik, Sarah	Victoria	Snr Policy Officer, Responsible Alcohol Victoria, Department of Justice, Victoria
Kearney, Brian	Victoria	CEO, Australian Hotels Association, Victoria
Kilbourne, Jan	Mackay	Manager, Community Development and Library Services, Mackay Regional Council
Knight, Dianne	Mackay	Regional Exec Director, Department of Communities, Mackay Whitsunday Region
Laban, Donna	Wellington City	Snr Sgt., Police Planning, Wellington Police
Lazenby, Colleen	CBD Melbourne	Manager, Community Safety & Wellbeing, City of Melbourne
Lockwood, Michael	Australia	CEO, Council of City Lord Mayors, Australia
Long, Grant	Mackay	Licensee, Aqua Bar, Main Street
Low, Christine	Mackay	Coordinator, ATODS, Qld Health
Lonnqvist, Unda	Sweden	Project Leader, STAD Program, Karolinska Institute, Stockholm
MacAvoy, Mike	Victoria	CEO, DrinkWise Australia
Maclellan Sue	Victoria	Director, Liquor Licensing, Consumer Affairs Victoria
Malloch, Anne	CBD Melbourne	Team Leader City Issues, Community and Culture Division, City of Melbourne
Malone, Clare	Victoria	Manager, Responsible Alcohol Victoria, Department of Justice, Victoria
Masters, Nikki	Mackay	General Manager, Wilkies Hotel/ ShowBar 140
Matruglio, Tania	NSW	Snr Policy and Research Officer, Crime Prevention Division, NSW Attorney General's Department

Martini, Karen	Stonnington	Corporate and Community Planning, City of Stonnington, Victoria
Mason, Bruce	Wellington City	Licensee, Sandwiches Bar
McCall, Brian	Mackay	Licensee, Palace Hotel, Kate O'Reillys
McDonald, Hamish	Wellington City	Team Leader, Central Communications Centre, Wellington Police Service
McGovern, Kerry	Mackay	District CEO, Mackay Health Service
McLauchlan, Julia	Queensland	Secretariat, National Local Government Drug and Alcohol Advisory Committee
McLeod, Brett	Mackay	Snr Compliance Officer, Liquor Licensing
Meikle, Sarah,	Wellington City	General Manager, Positively Wellington Tourism, NZ
Meng, Col	Mackay	Mayor, Mackay Regional Council
Moorhouse, R	Wellington City	Student Services, Victoria University, Wellington
Moriarty, Angela	Wellington City	Communications Manager, Positively Wellington Tourism, NZ
Mulherin, Erin	Mackay	Regional Co-ordinator, Office for Women, Mackay
Munro, Jude	Queensland	Chair, National Local Government Drug and Alcohol Advisory Committee, (CEO, Brisbane City Council)
Mutton, Stephen	Stonnington / CBD Melb., & St. Kilda	Insp., Region 1, "SafeStreets" Victoria Police
Nagel, E	Mackay	Director, Community Services, Mackay Regional Council
Newell, Wayne	Wellington City	National Manager, Tribunals Unit, Ministry of Justice
O'Keeffe, George	Stonnington / CBD Melb., & St. Kilda	Group Manager. Harm Minimisation Education and Training, Liquor Licensing, Department of Justice, Consumer Affairs Victoria
Owen, Victoria	Wellington City	Snr Policy Analyst, Governance, Local Government, NZ
Palmer, Darren (Dr)	Victoria	Snr Lecturer, Criminology, Deakin University
Palmer, Geoffrey (Rt Hon Sir)	Wellington City	President, New Zealand Law Commission
Palmer, Stephen G	Wellington City	Regional Leader, Public Health Services, Regional Public Health, Hutt Valley District Health Board
Peachey, Jenny	Victoria	Director Corporate Strategy and Performance, Victoria Police
Perkins, D	Mackay	Councillor, Mackay Regional Council
Perry, Simon	Wellington City	Insp, Emergency Response Manager, Wellington Central
Pierorazio, Nancy	CBD Melbourne	Snr Policy Officer, City Safety, City of Melbourne
Plakourakis, Maria	CBD Melbourne	Social Planner – City Issues, Community Services, City of Melbourne
Plumb, Tonya	Mackay	Manager, Mackay Mental Health Service, Qld Health
Port Phillip Licensees Accord	Port Phillip	Port Phillip Licensees Accord
Quigley, Paul (Dr)	Wellington City	Director, Emergency Dept., Wellington City Hospital, CCDHB
Riordan, C	Wellington City	Inspector, Wellington Police
Reidy, Johanna	Wellington	Programme Manager, Population Health, Wellington, Capital and Coast District Health Board

Rust, Clive	Stonnington	Inspector, Stonnington, Division 2, Region 1, Victoria Police
Sargison, Peter	Victoria	Liquor Licensing, Consumer Affairs Victoria
Sarquis, Michael	Queensland	Exec Director, Liquor, Gaming and Racing, Queensland Treasury
Saunders, A	Wellington City	Tactical Response Co-ordinator, Wellington Police
Savage, Helen	Wellington City	Team Leader, Public Health, Property Consents & Liquor Licensing, Wellington City Council
Scott, K	Wellington City	Programme Manager, ACC
Scott, Tracy	Wellington City	Southern North Island Regional Manager, Hospitality Association of New Zealand
Seales, Lecretia	Wellington City	Snr Legal & Policy Advisor, New Zealand Law Commission
Sheridan, Paul	Stonnington, St. Kilda	Superintendent, Division 2, Region 1, Division 2, Victoria Police
Sherren, Jonathon	Port Phillip	Port Phillip Licensees Accord
Sides, H	Stonnington	CEO, City of Stonnington, Victoria
Smith, Joanna	Wellington City	Principal Advisor, Policy Group, New Zealand Police
Smith, Pam	Wellington City	Regulatory Officer, Regional Public Health, Hutt Valley District Health Board
Soto, Erika	Port Phillip	Community and Health Development Officer, City of Port Phillip
Spear, Jonathan	Victoria	Exec Advisor, Chief Commissioner's Office, Victoria Police
Spokes, David	Port Phillip	CEO, City of Port Phillip, Victoria
Stiles, Mark	Mackay	Asset Protection Consultant, 'Group'
Stonnell, Darryl	Wellington City	Director, Specialised Guard Services
Streker, Peter	St. Kilda	Community & Health Development Co-ordinator, City of Port Phillip
Swain, A	Wellington City	Medical Director, Wellington Free Ambulance
Turner, Carig	Queensland	Deputy Executive Director, Compliance, Office of Liquor, Gaming and Racing, Qld Treasury
Waters-Marsh, Ron	Mackay	Snr Community Crime Prevention Officer, Mackay Whitsunday Police District, QPS
Watson, K	Stonnington	Manager, Corporate and Community Planning, City of Stonnington, Victoria
Watt, Kerriane (Dr)	Queensland	Clinical Research Co-ordinator, Australian Centre for Prehospital Research
Watters, Chris	Victoria	CEO, DrinkWise Australia
Weaver, Mark	MacKay	Lessee, Ambassador Hotel
Weller, Brad	Mackay	Inspector, Mackay City, QPS
Wiggers, John	NSW	Director, Population Health, Hunter New England Health, NSW
Wiperi, Barbara	Mackay	Licensee, Molloy's Irish Bar

Woo, Linda	Queensland	Deputy Executive Director, Policy and Harm Minimisation
Wood, Jeremy	Wellington City	Director, Crime Prevention Unit, Ministry of Justice
Young, Keith	Victoria	General Manager Operations, Metropolitan Ambulance Service, Victoria
Zalewski, Tony	Victoria	General Manager, Australian Institute of Public Safety: Director, Melbourne Education Group, Victoria
Zielinski, A	Wellington City	Snr Policy Advisor, Crime Prevention Unit, Ministry of Justice, New Zealand