



# NDLERF

## An empirical basis for the ratio of crowd controllers to patrons

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**Australian Government**

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This report was prepared in accordance with the project purpose outlined in the Research Agreement dated February 2012. The methodology adopted and sources of information used by the authors are outlined in this report. While all care and diligence have been exercised in the preparation of this report, the authors assume no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided is false.

This report was prepared between August 2013 and July 2014 and is based on the conditions encountered and information reviewed at the time of preparation. This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

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# Executive summary

Managing the safety of patrons and others in event and venue settings is of significant concern in Australia. A key strategy for dealing with this issue is the use of crowd controllers. Determining sufficient crowd controller numbers to reduce the potential for harm in these contexts is, however, problematic given the many variables that are involved (e.g. nature of entertainment, age of crowd, type of alcohol sold etc). In response to this challenge, subjective rules of thumb have emerged that do not necessarily take into account the characteristics of a specific venue or event. The common rule of thumb found in many Australian states is that of a ratio of two crowd controllers for the first 100 patrons and one for each additional 100 patrons or part thereof.

To facilitate the objective assessment of crowd controller to patron ratios, this study was commissioned and funded by the National Drug Law Enforcement Research Fund (NDLERF). The organisations charged with undertaking this research are the Australian Centre for Event Management (ACEM) and the Australian Institute of Criminology (AIC).

This study identifies key risk factors impacting the crowd controller to patron ratio decision and develops decision aids (Crowd Controller Assessment Tools) for use by those faced with advising on, or making decisions about, crowd management. In undertaking this enquiry, current Australian and international literature were reviewed to contextualise the project and create a basis for understanding a range of factors that impact crowd and alcohol-related violence in the context of public events and venues.

It was clear from the literature review that the social and cultural environment has a major influence on the drinking culture in a society. Among many young Australians, for example, there is a perception that excessive alcohol consumption is acceptable. Alcohol consumption can become part of identity formation and alcohol-related harm may subsequently be accorded less consideration than the social outcasting an individual may encounter by not drinking. It was also observed that the alcohol industry targets young drinkers through marketing efforts, attempting to link alcohol consumption with youth culture and so begin the process of fostering potential lifelong consumers. The ready availability of cheap alcohol is another factor seen as further aiding this process.

In addition to alcohol, a range of other factors were found to impact patron behaviour at events and venues. These include the attitudes and behaviour of crowd controllers, low lighting levels, crowded spaces, poor ventilation, loud noise/music, boredom, cleanliness and untidiness, and poor staff practices. Additionally, a sense of permissiveness/tolerance of antisocial behaviour was identified as contributing to acts of violence or aggression. Strategies employed to manage such issues were varied and include policies linked to alcohol consumption, licensing regulations, enforcement practices, management/design of the event/venue environment, and crowd controller and police training.

The themes and insights emerging from the literature review provided the basis for in-depth interviews with key informants drawn from general duties police, specialist liquor law enforcement police, liquor licensing authorities, security firms, local government, national security industry associations, large-scale event/venues and specialist research centres operating in the areas of crowd safety and risk management. In all, some 50 (individual and group) interviews were undertaken in three Australian jurisdictions—Western Australia (Perth and Fremantle), Victoria (Melbourne and Geelong) and New South Wales (Sydney and Newcastle) between April 2012 and February 2013.

# Results

Interviewees provided a number of detailed examples of approaches to managing the varied issues linked to crowd management at licensed venues/events. The majority of those interviewed advocated for a risk-management assessment approach, which embraced such factors as the characteristics (e.g. knowledge, training, personal characteristics) of crowd controllers, venue layout and design, crowd/patron characteristics and event/venue history.

Table 1 presents the seven major themes and their implications for estimating an appropriate number of crowd controllers at venues and events that serve alcohol.

**Table 1: Major themes affecting the management of crowds at venues and events that serve alcohol**

Theme	Sub-theme	Considerations linked to crowd management
<i>Alcohol and other drugs (AOD)</i>	<ul style="list-style-type: none"> <li>Type of alcohol</li> <li>Type of drug</li> <li>Management of Alcohol and other drugs</li> </ul>	<ul style="list-style-type: none"> <li>Serving full-strength alcohol (including spirits) increases the risk of alcohol-related violence.</li> <li>Pre- and side-loading are significant issues with regards to intoxication and the risk of violence. The magnitude of the issue varies by venue and event type.</li> <li>Activity type—some activities such as dance parties and youth-oriented music festivals were viewed as more prone to patron alcohol and drug abuse.</li> <li>Alcohol and drug-management strategies linked to staff and patron communication, crowd monitoring and enforcement of alcohol/drink regulation associated with responsible service of alcohol (RSA) were identified as fundamental to effective alcohol-related harm management.</li> <li>Provision of food, snacks and water were seen as key to decreasing the risk of intoxication and associated harm.</li> </ul>
<i>Crowd controllers</i>	<ul style="list-style-type: none"> <li>Types of crowd controllers</li> <li>Uniform</li> <li>Training and pay</li> <li>Personal characteristics</li> </ul>	<ul style="list-style-type: none"> <li>Other staff, including bar staff, medical and support/volunteer organisations, have the potential to play a major role in monitoring crowds and in alerting security and management to potentially volatile incidents.</li> <li>Clear identification of security staff and crowd controllers are important if patrons are to access support when needed. Additionally, some contexts (e.g. casinos) were seen by some interviewees as needing a less overt security presence.</li> <li>Pay rates and recurrent licence fees impact on the quality of crowd controllers.</li> <li>Personal characteristics can impact the way the crowd controller task is carried out; for example, level of training, fluency in English, quality of interpersonal skills and limitations emerging from cultural or ethnic backgrounds.</li> <li>Well-trained and experienced security staff are better able to manage issues associated with intoxication than are individuals who have only basic levels of training and who are employed infrequently.</li> <li>A lack of a national standard for security accreditation has led to opportunities for organised crime to infiltrate the security sector.</li> </ul>

**Table 1: Major themes affecting the management of crowds at venues and events that serve alcohol**

Theme	Sub-theme	Considerations linked to crowd management
<i>Environment and location</i>	<ul style="list-style-type: none"> <li>• Site/venue environs</li> <li>• Venue capacity</li> <li>• Transport</li> <li>• Location</li> <li>• Site/venue layout design</li> <li>• Entry and exit points</li> </ul>	<ul style="list-style-type: none"> <li>• Areas surrounding venue and event sites may need to be integrated into the venue or event's security planning to reduce the potential for patron harm and to ensure the amenity of nearby areas is maintained. In particular, crowd arrival and departure times may require crowd controllers to monitor public areas such as transport and taxi pick-up/drop-off points, and nearby streets and parks.</li> <li>• Venue/site layout and design decisions that reduce visibility (through lighting levels) and patron mobility create crowding situations that have the potential for increased patron contact. This can facilitate situations in which patron frustration builds (e.g. in queues), which may impact crowd controller needs.</li> <li>• The number of entry and exits points and their associated monitoring requirements, combined with the activities at these locations (e.g. bag searches, provision of pass outs), desired queuing times and potential for illegal entry affect crowd controller requirements.</li> </ul>
<i>Collaboration</i>	<ul style="list-style-type: none"> <li>• Police</li> </ul>	<ul style="list-style-type: none"> <li>• It is important to engage police in the pre-planning, planning and delivery phases of an event, or the conduct of an activity (e.g. dance parties) at licensed venues, to minimise patron harm associated with alcohol use and reduce the opportunity for criminal activity.</li> <li>• Determining event and venue police (including user-paid police) requirements should be done in the context of individual events/venues by taking account of factors such as event/activity history of alcohol-related incidents and criminal activity, audience characteristics and proposed number of private security staff.</li> <li>• Inclusion and active participation by police in government and/or community efforts to develop holistic approaches to the challenges posed by the operations of licensed venues and events are seen as key to the success of such efforts.</li> </ul>
<i>Practices used to mitigate risk</i>	<ul style="list-style-type: none"> <li>• Codes of conduct and related signage</li> <li>• Entry and exclusion criteria</li> <li>• Hours of operation</li> <li>• Numbers and positioning of crowd controllers</li> <li>• Availability of food and water</li> </ul>	<ul style="list-style-type: none"> <li>• Codes of conduct and regulations that seek to communicate behaviour, dress and other conditions associated with venue/event entry and criteria for potential exclusion.</li> <li>• ID scanning.</li> <li>• Varying operational hours with a view to encouraging the gradual dispersal of patrons.</li> <li>• Use of venue lock-outs.</li> <li>• Effective decision making in regards to the number, roles (e.g. static, roving) and positioning of security staff.</li> <li>• Readily available food (at affordable prices) and free water that are easily accessed, with their availability being clearly communicated to patrons.</li> </ul>

**Table 1: Major themes affecting the management of crowds at venues and events that serve alcohol**

Theme	Sub-theme	Considerations linked to crowd management
<i>Patron profile event types</i>	<ul style="list-style-type: none"> <li>• Age and gender</li> <li>• Type of event</li> </ul>	<ul style="list-style-type: none"> <li>• Patron age is a risk indicator, in that younger patrons have a greater potential to engage in unsafe drinking behaviour due to reasons such as a desire to conform to peer group norms.</li> <li>• Males have a higher propensity for violence than females and as such, events/venues attracting a predominantly male audience may have a higher risk profile.</li> <li>• Events based on high-energy entertainment (e.g. dance parties, youth-oriented music festivals) or that relate to a specific sport (e.g. soccer), may present more of a crowd-management problem (e.g. drug use, ethnic-based clashes) than other event types.</li> <li>• The presence of a mix of age groups and approximately equal numbers of males and females at an event or venue may have the effect of mitigating antisocial or aggressive behaviour.</li> </ul>
<i>Gangs</i>	<ul style="list-style-type: none"> <li>• Violence and crime</li> </ul>	<ul style="list-style-type: none"> <li>• View some venues and events as locations where illicit drugs can be sold.</li> <li>• They can have links with the security industry which may complicate the security management task at venues and events.</li> </ul>

The ratio of crowd controllers to patrons is considered to be only one aspect of a more holistic approach to the management of risk at events and within licensed venues. Best practice was identified as involving proactive planning based on a range of individually developed resources, tacit knowledge and previous experience and/or knowledge of the event/venue. Importantly, the input from a range of stakeholders (e.g. police, security firms, venue/event management, alcohol licensing authorities, local government and other groups such as volunteer care organisations e.g. Red Frogs) is considered crucial for the success of such efforts. This holistic approach has developed in response to a number of factors including a greater appreciation of a legal duty of care to patrons, the changing leisure environment (e.g. increasing use of recreational drugs), an interest in maintaining a positive brand reputation, a desire to avoid regulatory penalties and the emergence of a more litigious culture.

Together, the study's extensive literature review and key stakeholder interviews informed the development of decision aids for those charged with making, or providing advice on, crowd controller numbers at events and venues. These Crowd Controller Assessment Tools (CCATs) have been contextualised here for venue and stadia (VSCCAT) and events/festivals (ECCAT) settings. While these tools embrace key factors influencing crowd controller numbers in such settings, it is unrealistic to believe that every characteristic that might be at play in individual events, venues or stadia will be able to be captured by these tools. However, these aids will serve to significantly reduce the level of subjectivity and reliance on rules of thumb.

## Future directions

Initial feedback on the CCATs by selected potential users was positive, indicating that the tools could serve as an additional decision-making aid to determine crowd controller requirements. However, it must be noted that the CCATS in their current form require further testing of individual risk elements, along with the resultant overall risk rating. As such, the tools are considered to be at a developmental stage, with reliability and validity yet to be further established. It is proposed that a larger trial of the tools be undertaken across a wider variety of venue and event settings, with the specific intent of enhancing their sensitivity to ensure that individual risk elements, along with the resultant overall risk rating, are adequately reflective of the risk of a given activity and associated crowd controller needs.

# 1. Background

The harm associated with the consumption of alcohol, particularly among young people, is an area of growing concern within the Australian community and presents a major challenge to all levels of government. Developing policies that attempt to influence drinking behaviour is notoriously difficult, largely because the consumption of alcohol is widely accepted as a significant part of Australian culture and at the same time is responsible for a range of social and health-related problems. Indeed, it has been observed that there is a well-established drinking culture in Australia of 'determined drunkenness', whereby the consumption of alcohol, frequently at excessive and harmful levels, is associated with many forms of entertainment and participation in social events (Measham, 2006; Ministerial Council on Drug Strategy, 2006).

Consequently, licensed venues and events where alcohol is available have come under close scrutiny, with a focus on how to make them safer for patrons, serving staff, crowd controllers, police, other emergency workers and the broader community. One aspect of making venues and events safer is the use of crowd controllers to circulate among patrons and respond to disturbances and incidents. However, there is ambiguity regarding the appropriate ratio of crowd controllers to patrons. All jurisdictions have existing policies that stipulate the ratio of crowd controllers to patrons at licensed venues and public events but these policies do not appear to be based on empirical evidence. The absence of empirical evidence on this issue makes it difficult for police to mount arguments as to the adequacy or otherwise of proposed crowd controller numbers. Having an insufficient number of security staff per number of patrons can adversely impact:

- the health and safety of all persons employed at the event/venues, including the crowd controllers, serving staff, and the police and other emergency workers;
- the health and safety of patrons at events/venues (including issues related to the behavioural effects of intoxication with alcohol and other drugs); and
- the health, safety and amenity of the broader community within the environs of the event/venues.

While some guidelines concerning crowd controllers to patron ratios exist, the lack of objective assessment tools means that police, licensees and liquor licensing authorities must rely on anecdotal evidence arising from the experience of managing previous events. This approach lacks consistency and can present inherent dangers to patrons, police, licensees and crowd controllers themselves. It also places a considerable burden on police when assessing the component of liquor licensing applications that deals with crowd controller/patron ratios. Police are currently required to examine applications in considerable detail and approximate the implications of venue/event characteristics for crowd controller/patron ratios. This can be a very labour-intensive process. Additionally, the approach does not reflect the individual characteristics of events and venues including, inter alia, type of event or venue, previous history, physical characteristics, type of alcohol served, other crowd control personnel employed, and level of staff and security training.

## 1.1 Project objectives

This study aims to provide an empirical basis for the formulation of crowd controller to patron ratios that will act to:

- minimise the subjectivity associated with determining crowd controller to patron ratio decisions;
- recognise individual differences and requirements of venues, events and stadia;
- provide a platform from which police can assess the suggested crowd controller component of licensing applications; and
- reduce the risk of excessive alcohol consumption by patrons and associated broader community exposure to antisocial behaviour.

The study is informed by an extensive literature review and the accumulated knowledge and experience of firms, organisations and agencies involved in security management at events, as well as practical police experience. A project reference group (PRG) has overseen the study (see Table 2), providing support by suggesting contacts for key stakeholder interviews, contributing documents for review and commenting on the interim report.

**Table 2: Project Reference Group**

NDLERF	Maria Borzycki, NDLERF research officer/Australian Institute of Criminology
Qld	Senior Sergeant Nyree Whelan Queensland Police
SA	Sergeant Helen Nuske & Sergeant Russell Doddridge South Australia Police
NSW	Sergeant Grahame Barlow, Alcohol Licensing Enforcement Command New South Wales Police
Vic	A/G Senior Sergeant Dave Pinner, Victoria Police
WA	Sergeant Marcus Murray, Licensing Enforcement Unit/West Australian Police

## 2. Literature review

Various studies have demonstrated that alcohol consumption, even in moderate amounts, is associated with increased aggression, impaired decision making, increased risk taking and feelings of invulnerability (Allsop et al., 2005; ICAP, 2002; Morgan & McAtamney, 2009). The evidence relating to the range of individual and social harms associated with alcohol misuse is strong. In 2007, one in four Australians were a victim of alcohol-related verbal abuse, 13 percent were fearful and 4.5 percent of Australians aged 14 years or older had been physically abused by someone under the influence of alcohol (AIHW, 2008). The rates of physical and verbal abuse by a person affected by alcohol are more than twice the rate for other drug types. Alcohol-related crime and disorder can have a significant adverse impact upon the perceptions of safety among the broader community. This concern and perception extends well beyond those who have been directly involved in an incident of alcohol-related antisocial behaviour or harm (Nicholas, 2006).

Subsequently, the role of licensed venues and events where alcohol is available has come under closer scrutiny, with a focus on how to make them safer. One aspect of making venues and events safer is the use of crowd controllers to circulate among the patrons and respond to disturbances and incidents. However, there is ambiguity as to the appropriate ratio of crowd controllers to patrons. The purpose of this literature review is to provide an overview of factors that influence crowd-related violence, to explore strategies currently used for managing such behaviour and to identify approaches and decision-making tools used in calculating an appropriate ratio of crowd controllers to patrons. This study defines a crowd controller as a person who is “employed or retained principally to maintain order by doing all or any of the following: screening entry; monitoring or controlling behaviour; removing any person; or otherwise maintaining order at any public place” (Worksafe Victoria, 2007, p. 2).

### 2.1 Factors influencing crowd behaviour in venue and event settings

There is an extensive body of literature that provides evidence for an association between licensed venues and alcohol-related harm, in particular violent crime (Briscoe & Donnelly, 2001b). Australian crime incident data demonstrates that a high incidence of alcohol-related violence occurs in or around licensed venues, with a significant number occurring at particular “hotspots” or repeatedly problem venues (Briscoe & Donnelly, 2001b, p. 1). Measham (2004) contends that licensed venues and events have become key social spaces for young adults. She and others argue that young adults are attracted to these environments as they are perceived spaces for self-indulgence, pleasure and are devoid of restraint (Hobbs, et al., 2000; Measham, 2004). Subsequently, this use of drinking environments for pleasure, excess and gratification leads to an increase in alcohol-related harm (Measham, 2004).

While research demonstrates a strong correlation between liquor outlet density and the incidence of multiple forms of social disruption, not all licensed venues are problematic. In any given area, it may only be a small number of outlets that are responsible for a disproportionate number of incidents of alcohol-related harm (Briscoe & Donnelly, 2001b; Chikritzhs & Stockwell, 2002; Morgan & McAtamney, 2009). Briscoe and Donnelly (2001b), in a study of inner Sydney hotels, found that a number of hotels with extended 24-hour trading licences recorded no assaults, suggesting that there are other factors that can increase the risk of violence at hotels. These factors can include the age, gender and socioeconomic profile of patrons, the physical environment and types of alcohol available (e.g. full vs low-strength beers) (Briscoe & Donnelly, 2001; Chikritzhs & Stockwell, 2002; Morgan & McAtamney, 2009).

Emerging research is examining the relationship between “club drugs” and violence. Torok et al. (2008) found that incidents of violent offending and victimisation were higher among methamphetamine and opioid users than in the general population, with violent offending significantly higher among regular methamphetamine

users than regular heroin users. However, drug use was less of a significant factor for victimisation than concurrent alcohol intake among both studied groups. Anecdotally, club patrons and personnel attest that any kind of violence is not a feature of clubbing that is experienced often, if at all (Mundell, 2002). Specifically, four factors were found to influence crowd-related violence: crowd behaviour stereotypes, the security industry, environmental factors and psychosocial factors. Each of these will be discussed below.

## *Crowd behaviour stereotypes*

There are a number of common crowd stereotypes that have been discredited by the literature, including that they operate as a single mass, individuals lose their identity in the crowd and crowds are impulsive, irrational and prone to violence. Kenny et al., (2001, p. 12) summarise contemporary crowd theory as:

- Crowds are not homogeneous entities—all the participants are not the same.
- Crowds are not made up of isolated individuals, but of a minority of individuals and a majority of small groups of people who are acquainted with one another.
- Crowd participants are not unanimous in their motivation.
- Crowd participants are not anonymous to one another.
- Crowd members are not given to unique or distinctive emotional displays.
- Crowd participants seldom act in unison and if they do, that action does not last long.
- Crowds do not cripple individual cognition.

These stereotypes highlight the need for training individuals whose role is to handle crowd control to better understand those they are supervising (Fruin, 1993). Training areas advocated and shown to be effective include understanding crowd dynamics, how to recognise and diffuse aggression, conflict management and people interaction skills, proactive engagement with patrons and resorting to reactive action as a final resort (Fruin, 1993; ICAP, 2002; Stott et al., 2008).

## *The security industry*

The security industry in Australia, including crowd controllers hired for venues and events, has grown significantly over the past decade. Yet there is little research concerning the role and impact of the industry on the security and safety of public events and venues (Prenzler et al., 2009, 2007; Sarre, 2008). A large majority of the security industry workforce are less likely to have undertaken higher education, are part time or casual, earn lower salaries and receive ad hoc training. Additionally, the workforce as a whole has a high rate of turnover (Prenzler et al., 2009). This in turn has implications for the quality of staff security firms are able to provide, as well as their ability to maintain consistent levels of service. There is also no monitoring process in place to oversee how security personnel actually behave in practice (Prenzler et al., 2007). In this regard, Prenzler and Sarre (2008) have raised concerns about a need for increased regulation and the need to clearly define the powers security personnel have.

A key issue arises when security personnel gain their licences in states with less rigorous training and then cross state lines to work elsewhere. In 2008, to address consistency in licensing, Council of Australian Governments (COAG) introduced standards for national licensing and training based on units of competency in the national security training package. The purpose of these standards is to provide improvements across the Australian security industry and to implement a nationally consistent approach to the sector. While this has been an important step towards improving practices within the industry, there are still inconsistencies between jurisdictions (Sarre & Penzler, 2012). Additionally, the security industry itself admits there are a range of issues impacting the effectiveness of the current licensing regime. These extend to auditing and accountability, issues of integrity in assessment of competencies, lack of transparency regarding quality assurance processes, lack of enforcement and allowance for poor training (Prenzler & Milroy, 2012).

In a more general sense, the Australian Crime Commission (ACC) (2011, p. 1) has observed that “the nature of the industry and its level of access provide both an incentive and an opportunity for organised crime groups to infiltrate and exploit activities and operations”. Indeed while the majority of private security operators are reputable and provide excellent and legitimate services (ACC, 2011), the current approach to licensing has been found to create opportunities for exploitation of the sector by criminal groups such as outlaw motorcycle gangs who can:

- fraudulently gain security Masters Licenses;
- set up private security businesses with little or no skills, qualifications or capital;
- bribe or corrupt security firms or employees;
- use bribery to buy security equipment, influence tender processes or to obtain information and use that information for extortion;
- move proceeds of crime through security firms owned by organised crime groups to launder money; and
- control the distribution of drugs at entertainment venues in hotels and nightclubs under their patrol (ACC, 2011).

Hallsworth and Young (2004, 2006) refer to these types of gangs as groups pursuing collectively agreed criminal goals, in which members are professionally involved for personal gain and operating within a ‘grey’ or illegal marketplace.

Security personnel, while they may engage in policing activity, could be seen as having different motives to those of police. Sarre (2010) makes this point, noting that police are mandated to serve all of the public, while security personnel are working to serve their employer and thus their interventions could be more selective and potentially compromise the safety of some patrons. Indeed, how venue/event staff and security act and interact with patrons has been associated with influencing alcohol-related violence (Hughes et al., 2011). Such engagements, if aggressive or heavy handed, are more likely to be met with aggression, as well as send a message that aggression and violence are permissible at the event/venue. Permissiveness is also seen in the failure to serve alcohol responsibly, such as serving drunken patrons and underage patrons, which in turn reinforces a perception that drunkenness is acceptable (ICAP, 2002). Both police and security personnel have also been criticised on occasion for being reactive to incidents after they have started, rather than focusing on preventive engagements with patrons (Hoggett & Stott, 2010; Stott et al., 2008).

A number of alcohol-related incidences of violence and death have been linked to inappropriate behaviour by security staff, such as the high-profile death of the Australian cricketer David Hookey (Prenzler & Sarre, 2008). In a report by the Victorian Police Licensing Services Division (2007), it was noted that many clubs and venues still had a “bouncer” mentality about security staff; that is, that security should be large men reacting to and ejecting drunken patrons after the patron’s behaviour had escalated. However, studies have shown that alcohol-related violence is greatly reduced by factors such as a proactive, non-aggressive approach to patrons before they become intoxicated (Kenny et al., 2001), building rapport with patrons, having female as well as male crowd controllers and giving due consideration to other patrons and members of the community in or around the venue/event when ejecting intoxicated patrons unsupervised onto the street (ICAP, 2002; VPLSD, 2007).

## **Environmental factors**

The environment in which people consume alcohol can be associated with an increased risk of violence. Environmental factors such as low lighting, crowded spaces, poor ventilation, ready availability of cheap alcohol, loud noise/music, boredom, uncleanliness and untidiness (Allsop et al., 2005; Graham et al., 1998; 2006; Hughes et al., 2011), and poor staff practices (Allsop et al., 2005; Hughes et al., 2011; Quigley et al., 2003) all have the capacity to influence the behaviour of people in venues and events. A sense of permissiveness in the environment, as mentioned previously, can also contribute to an increase in violence, as individuals may perceive it is okay to behave in an aggressive way (Allsop et al., 2005; Hughes et al., 2011; Morgan & McAtamney, 2009).

As noted earlier, there is Australian evidence linking a higher incidence of alcohol-related violence to hotspots or particular venues/events rather than a generalised problem across all licensed venues or events (Briscoe & Donnelly, 2001; Eckersley & Reeder, 2008). Hughes and colleagues (2011) undertook a meta-analysis of studies that explored associations between physical, staffing and social factors in drinking environments and increased alcohol use or alcohol-related harm. As with previous studies, they too found that “large proportions of incidents are concentrated in and around just a small proportion of drinking venues, suggesting that certain characteristics of these venues are contributing to alcohol-related problems” (Hughes et al., 2011 p. 38). Furthermore, in the Australian context, they identified links between low staff/patron ratios and increased alcohol incidents, and the employment of friendly or all-female staff and lower levels of patron intoxication. They also found that younger members of staff were more likely to serve to individuals who are already intoxicated (Hughes et al., 2011).

## *Psychosocial factors/human behaviour*

Problem behaviour theory argues that health-related behaviour is influenced by three interacting components: the personality, the perceived environment and an orientation toward, commitment to and involvement in, the prevailing values and standards of behaviour of established institutions (Donovan et al., 1991). Factors linked to the environment have been discussed previously. Personality and norms are more complex. In 2008, a roundtable study was commissioned by Victoria Police to examine antisocial behaviour and public safety in Victoria. The ensuing report (Eckersley & Reeder, 2008, p. 5) cites a number of contributing factors, including:

changes in alcohol and drug use; the huge growth of the night-time economy; a 24/7 lifestyle; broad social changes relating to poverty and disadvantage; parents’ role in facilitating or delaying alcohol consumption; communications technology and the media; and an individualistic, consumer culture; young people’s biological and social development; links between antisocial behaviour and other aspects of young people’s health and wellbeing; and the lack of sustained action to address the problem.

Other specific issues cited were deregulation and the preferencing of economic considerations over social goals, a lack of consensus between licensees and authorities, inadequacies of public transport, parental supervision, social expectations and pressures, the normalisation of violence, lack of respect and empathy, a sense of invulnerability and a lack of consideration for others (Eckersley & Reeder, 2008). To this mix could be added low levels of self-restraint, which some writers have found to be linked to behaviours such as alcohol use and acts of violence (Bogg & Roberts, 2004; DeWall et al., 2007).

Both within Australia and internationally, there is a wide array of literature dedicated to the study of youth drinking culture, with the prevailing social and cultural environment being a key factor in impacting the behaviour of this group (Gordon, Heim, & MacAskill, 2012). It can also be observed that the alcohol industry itself has targeted young drinkers through marketing, promotions and the aligning of associations with youth culture (sports, music, fashion) to attain and groom potential lifelong consumers (Daube, 2012). Further, alcohol consumption may be part of identity formation in youth cliques and some communities (Allan et al., 2012; Ridout, Campbell, & Ellis 2012). Therefore, sometimes alcohol-related harm is given less consideration than the social exclusion an individual may encounter by not drinking (Allen et al., 2012). Such a view is understandable given that a study by Scott (2012) found that young people hold the perception that a culture of excessive alcohol consumption is pervasive in the Australian community.

In a cross-national study of youth drinking patterns, Gilligan and associates (2012) found a tendency for tighter controls on alcohol access and higher purchase prices to correlate with less adolescent drinking on average, but higher rates of drunkenness when they do drink. However, they contend this weak link needs to be further researched in order for causality to be established. Paschall and colleagues (2009) also conducted a cross-national study, which included Australia, finding that tighter controls on access and marketing lowered rates of alcohol use by youth, as well as increasing the age at which alcohol was first consumed. Youth accessibility to alcohol was additionally found by Scott (2012) to be a factor in alcohol usage; he also noted the important role played by parents in this area. A further study by Jones and Smith (2011) of this same

group found that point of purchase promotions had a significant impact on increasing the amount of alcohol purchased and as a result, they advocated for more regulation in this area.

From the preceding discussion, it can be seen that the behaviour of event and venue patrons is a complex one and can involve a complex interaction between a number of variables, including:

- pharmacological effects of alcohol on the cognitive, affective or behavioural functioning of the drinker, which can lead to increased risk taking, impulsive behaviour, 'liquid courage', a distorted interpretation of events and an inability to resolve incidents verbally;
- situational factors of the venue/event environment such as crowding, lighting, permissiveness of violent behaviour, management practices and the behaviour of staff and other patrons;
- individual characteristics, personality, deviant attitudes and expectations of the patron, the patron's age and predisposition to aggression; and
- societal attitudes and values, including a culture of drinking to deliberately become intoxicated, using alcohol as an excuse for behaviour not normally condoned and a perception that people are less responsible for their actions if they are intoxicated (Graham et al., 1998; Graham et al., 2006).

## 2.2 Approaches to controlling event and venue patron behaviour

### *National and state alcohol-management policies*

Recognition of the acute and chronic problems associated with alcohol and intoxication are reflected in the National Alcohol Strategy 2006–2011<sup>1</sup> (Ministerial Council on Drug Strategy, 2006). This Strategy represents a significant shift in emphasis in defining and prioritising alcohol-related problems, with an increased focus on the problems that are associated with intoxication, particularly within the public domain (Nicholas, 2008). The four main aims of the Strategy are to:

- reduce the incidence of intoxication among drinkers;
- enhance public safety and amenity at times and in places where alcohol is served;
- improve health outcomes among all individuals and communities affected by alcohol consumption; and
- facilitate safer and healthier drinking cultures by developing community understanding about the special properties of alcohol and through regulation of its availability (Ministerial Council on Drug Strategy, 2006).

Three of the four aims clearly relate to the operation and management of licensed venues and entertainment precincts and the need to develop a safe drinking culture. Australian policy directed towards reducing the incidence of alcohol-related victimisation has been primarily concerned with regulatory responses that target licensed venues and liquor outlets (Loxley et al., 2005). Licensed venues are a high-risk setting for alcohol-related violence, with a high proportion of assaults occurring in or within very close proximity to hotels and nightclubs. Both patrons and staff of licensed venues are at a heightened risk of becoming involved in a violent incident when compared with other locations (Graham & Homel, 2008).

Research demonstrates a strong correlation between liquor outlet density and the incidence of multiple forms of social disruption, including assault, injury and drink driving (Chikritzhs et al., 2008). Research has also shown that in any given area a relatively small number of outlets can be responsible for a disproportionate number of incidents of alcohol-related harm (Donnelly & Briscoe, 2005).

The broader social and regulatory context in which licensed venues operate must also be considered. The regulation of the sale and supply of alcohol in Australia is the responsibility of state and territory governments. While most jurisdictions have adopted harm minimisation as a primary objective in their liquor-licensing

<sup>1</sup> On 24 April 2009, the Ministerial Council on Drug Strategy approved an extension of the term of the current *National Alcohol Strategy* 2006–2009 until 2011.

legislation, National Competition Policy and the requirement for state and territory governments to ensure that there are no unfair restrictions on competition has in recent years resulted in considerable change to some liquor acts (Chikritzhs et al., 2007). As a result, there has been, as in many other countries, a general trend towards the liberalisation of liquor licensing legislation, deregulation of the sale of alcohol and growth in the night-time economy (Graham & Homel, 2008). This has important implications for the development of strategies that aim to reduce alcohol-related problems in and around entertainment precincts, influencing the specific types of venues that are established in these areas, the characteristics of the clientele and the culture and community within which the intervention is delivered (Graham & Homel, 2008).

As a result, there is a growing interest in a community systems approach, which emphasises the role of social and institutional features of communities and the interaction between people and places in managing alcohol-related issues (Lascala et al., 2005). A community systems approach recognises the importance of local conditions, such as different population characteristics, the movement of populations within and across different areas at different times, and the interaction of local and neighbouring populations (Gruenewald et al., 2005).

To be effective, prevention efforts must aim to influence the relationships between individuals and the environment in which alcohol is consumed (Holder & Treno, 2005). Environmental conditions (including social, economic, physical, political and cultural factors) can be manipulated to influence individual drinking behaviours and subsequent problems (Holder et al., 2005). Particularly important is the need for key participants within a total community system to establish appropriate standards for the consumption of alcohol and set formal and informal controls on the misuse of alcohol and the behavioural problems that result (Graham & Homel, 2008; Holder et al., 2005). Central among these key participants are licensed venues and police with responsibility for enforcing liquor laws.

## *Policing licensed venues*

Many of the problems that result from intoxication require some sort of action or response by police. Given that alcohol intoxication significantly contributes to the cost of law enforcement in Australia (Donnelly et al., 2007), it is not surprising that considerable attention has been given to the role of police in reducing the burden of alcohol-related issues both on the community and in terms of the demand for policing resources. There is a growing interest in the capacity of police to prevent, not just respond to, alcohol-related problems. Given the stringent regulations imposed upon licensees and operators of licensed venues, the role of police in the enforcement of these regulations is considered particularly important.

Policing interventions directed towards licensed venues have utilised both randomised and targeted strategies (Graham & Homel, 2008). Randomised enforcement focuses on all or most licensed venues within a defined geographic area, using highly visible enforcement of liquor licensing legislation according to a random schedule. Targeted enforcement utilises intelligence collected by police to target problematic venues (Graham & Homel, 2008). The fact that some venues are more problematic than others means that intelligence-led approaches to the policing of licensed venues and entertainment precincts are often recommended as the most effective mechanism for producing substantial reductions in alcohol-related problems (Doherty & Roche, 2003).

Generally speaking, studies exploring the impact of police on alcohol-related crime have examined the role of enforcement as part of a broader prevention strategy. There is considerable evidence that the effectiveness of strategies that aim to restrict the sale and supply of alcohol, such as responsible beverage service programs, liquor accords, restrictions on the access to alcohol among young people and community prevention initiatives, is contingent upon the presence of a strong and reliable enforcement component (Loxley et al., 2004; National Drug Research Institute (NDRI), 2007).

Some research has explored the impact of proactive policing and enforcement alone. Research suggests that when appropriately targeted, interventions focusing specifically on policing and enforcement can also

be an effective approach to reducing violence in licensed venues (Haines & Graham, 2005). Studies have demonstrated that a persistent and visible police presence in and around licensed venues has the capacity to reduce the level of alcohol-related crime and disorder in an area (Doherty & Roche, 2003). Strict enforcement of extant legislation pertaining to the responsible service of alcohol and management of licensed venues has also been shown to have some impact upon compliance with these policies (Grube & Nygaard, 2005). However, these studies have suffered from methodological limitations and the absence of appropriate comparison areas to determine the relative effect size.

The assumption underlying the strict enforcement of liquor licensing laws is that they have the capacity to increase the perceived risk and costs associated with breaching legislative provisions governing the responsible service of alcohol and management of licensed venues. In turn, these laws deter licensees and staff of licensed venues from failing to comply with the legislation. The likely effectiveness of enforcement as a deterrent will be dependent upon a number of factors:

- The frequency of the enforcement activity, including whether it has been sustained or is a one-off occurrence.
- The probability that breaches will be detected and penalised.
- The immediacy of the response to breaches.
- The severity of the penalty and whether it is commensurate with the scale and frequency of the breaches.
- Whether the activity has been widely publicised (Grube & Nygaard 2005; NDRI 2007)

There are, however, various issues surrounding the effective enforcement of liquor licensing laws. Briscoe and Donnelly (2003), for example, have noted that police can face difficulties in obtaining successful prosecutions for breaches of liquor laws and that enforcement has tended to be directed at patrons rather than venues. This latter situation is particularly noteworthy given that it can be observed that licensed venues frequently breach licensing provisions relating to the service of alcohol to intoxicated patrons (Donnelly & Briscoe, 2005). Fleming (2008) argues that such challenges can be resolved through liquor legislation training for both general duties officers and specialist police units and agencies. The benefits of such training were confirmed in a recent study, conducted in Queensland, of the role of police in policing licensed premises. In this study, Martin (2013) found that specialist officers are able to intervene knowledgeably and authoritatively when problems or issues emerge as they are better trained than their colleagues in generalist areas. Further, acknowledgement of the value of such specialist staff can be seen in the re-establishment of specialist liquor enforcement units from 2005 onwards in most police agencies in Australia.

Taken as a whole, the findings of these studies suggest that enforcement has the capacity to reduce the levels of alcohol-related problems associated with licensed venues. However, further research is required with respect to the following areas:

- The optimal amount of enforcement or proactive policing activity and the nature of this activity.
- The relative effectiveness of randomised versus targeted enforcement strategies and whether there is an optimal balance between the two.
- The impact of police enforcement over time, whether the positive effects that have been observed are sustainable and the degree to which enforcement efforts must be enhanced indefinitely.
- The cost effectiveness of police enforcement in preventing violence in the licensed environment.
- The capacity of policing strategies to influence other risk factors associated with alcohol-related violence beyond serving practices. This includes attitudes towards the consumption of alcohol and acceptable behaviour in and around licensed venues.
- The capacity of law-enforcement strategies to reduce population-level harms.
- The extent to which the impact of policy and regulatory strategies such as changes in police enforcement practices is influenced by local conditions and the effectiveness of these practices across different areas (Briscoe & Donnelly, 2005; Graham & Homel, 2008; Gruenewald et al., 2005; Stockwell et al., 2005).

## *Crowd controller behaviour*

How crowd controllers act and respond to patrons is critical, as it can set the behavioural tone in a venue. Graham et al. (2005) observed that staff behaviours can escalate or de-escalate aggression. Security staff who engage in heavy-handed tactics and approach situations aggressively have been shown to actually inflame situations rather than prevent or diffuse them (Prenzler & Sarre, 2008). Likewise, a heavy or excessive security presence can be seen by patrons as overkill and disproportionate to potential threats. More is not necessarily better, but rather it has been shown that the behaviour of crowd controllers has the greatest influence on whether a situation will be defused or exacerbated. Security should be visible but not overbearing. There is strong evidence for adopting strategies to create a positive physical and social environment to attract patrons who are more likely to be well behaved (Morgan & McAtamney, 2009).

Crowd controllers who engage with the patrons in a friendly and casual manner prior to any incidents occurring can reduce the number of incidents through building rapport (Kenny et al., 2001). For example, having crowd controllers collect glasses from patron tables, allowing them to interact closely with groups in a non-threatening way, enables them to monitor the crowd more closely for potential problems (VPLSD, 2007).

Possessing good communication and people skills, understanding effective conflict resolution and knowing how to monitor situations to implement passive, early intervention tactics have been advocated as essential skills security and crowd controllers need to have to perform their role effectively (Graham et al., 2005; ICAP, 2002; VPLSD, 2007). Unfortunately, as previously mentioned, training for security personnel is inconsistent and unregulated, as are the requirements around the type of security personnel managers of venues and events hire (Sarre, 2010).

## *Design considerations for managing alcohol-related violence*

Much of the literature reviewed discussed strategies for reducing alcohol-related violence, or how to manage crowds, with a measure of overlap between the two. This literature offers a wide array of preventative, design and proactive measures for enhancing patron safety. The design considerations that can assist crowd controllers in monitoring a room include elevated positions to view the crowd and clear sightlines across areas that are not blocked by furniture or pillars. Regular staff can augment crowd controllers by also acting as “eyes in the room” and alerting controllers to trouble spots in the crowd (VPLSD, 2007). The HSE Event Safety Guide (1999, 1993) and later changed to the Purple Guide (2013) is the key reference for local councils throughout the United Kingdom. It suggests physical elements, such as design of the venue to allow for ease of entry and exit and to allow for crowd movement within the venue, establishment of appropriate patron capacity limits, provision of adequate facilities for refreshments, sanitary requirements, etc and a system that provides a clear and effective means of communication with the audience.

## *Responsible service of alcohol*

Throughout Australia, significant effort has been invested into addressing issues of alcohol-related harm and violence through server regulations such as RSA training, liquor controls, security legislation and through localised liquor management plans and accords. Any individual who intends to work in an environment where they will be serving alcohol must complete RSA training. However, intoxicated people continue to be served alcohol in licensed venues and at events (Costello et al., 2011). This lack of conformity with efforts to ensure alcohol is served responsibly can be attributed to a range of factors, including:

- An inability of service staff to recognise intoxication in patrons.
- Ability of patrons to mask their intoxication.
- A lack of management support of service staff.
- An individual's own sense of right of access to alcohol.
- Avoidance of service staff of the negative or aggressive behaviour of patrons.

- Low level of service staff experience and training.
- A busy environment.
- Lack of service staff confidence in their ability to refuse service.
- The practice of some service staff continuing to serve friends and regular patrons despite their intoxication.
- Lack of necessary job skills in relation to patron management and personal refusal skills.
- Lack of a work ethic and associated general indifference to one's job.

(Doherty & Roche 2003; Costello et al., 2011; Gehan et al., 1999; McKnight & Streff 1993; Nusbaumer & Reiling 2003; Reiling & Nusbaumer 2006)

While server training has received significant attention, it appears that such training does not always facilitate the development of adequate skills and motivations for behavioural change (Gehan et al., 1999). Thus, there is a continued necessity for the use of crowd controllers in managing alcohol-related patron behaviour.

### **Current crowd controller practices—Use of ratios**

Anna Wood, a Sydney schoolgirl, died in 1995 after taking an ecstasy tablet at a rave party and ingesting large amounts of water. Two years later, the NSW Code of Practice for Dance Parties 1997 was drafted, partially in response to her death, and is widely cited in the security industry as the source of the oft-used ratio of one crowd controller per 100 patrons. Variations of this ratio can also be found in legislation, such as the *Queensland Liquor Amendment Regulation Act 2006*. This Act, which relates to licensed venues, employs a sliding ratio commencing with one crowd controller to 100 patrons or part thereof and rising to five crowd controllers for a crowd that exceeds 400 but is less than 500. Beyond this point a minimum ratio of one crowd controller per 250 patrons is applied. However, this practice differs in the United Kingdom, where crowd controller to patron ratios is based on elements identified in a risk assessment. According to the Purple Guide (2013, section 13.96), this approach is taken because “basing stewarding numbers on the risk assessment rather than on a precise mathematical formula will allow a full account to be taken of all relevant circumstances, including previous experience”.

While such ratios provide a benchmark for authorities charged with determining crowd controller numbers, it should be noted that there is no empirical evidence that supports the adequacy or otherwise of these determinations. It can also be observed that these “rules of thumb” have been criticised by venue managers who cite that alcohol-related violence incidents tend to be concentrated in problem hotspots, or are limited to specific venues. This being the case, they argue, it is these locations and venues that should be the focus of licensing authorities and police, rather than requiring a blanket approach necessitating the use of the same crowd controller ratios for all venues (Homan, 2011).

### **Health and safety at events and venues**

In addition to The Event Safety Guide noted previously, a range of publications have appeared over the last decade that have dealt with, in full or in part, the challenge of maintaining patron health and safety. Key among these in the Australian context are Worksafe Victoria's Crowd Control at Venues and Events (2007), Queensland Department of Tourism Sport and Racing's Alcohol Safety and Event Management (1999), New South Wales Premier's Department's Event Starter Guide (2007), Mellor and Veno's (for the Commonwealth Attorney-General's Department) Planning a Safe Public Event (2006) and ACT WorkCover's A Guide to Risk Management at Public Events.

Collectively, these publications highlight a range of key considerations that venue and event managers should take into account as they seek to ensure patron safety, specifically, the need for collaboration with key stakeholders such as government departments, councils, community agencies and police, the importance of trained event staff and security personnel, an appreciation of safe crowd-management strategies, and evaluation and refinement of current practice. These, and similar documents, have been drawn upon extensively here in order to develop tools that will aid both government authorities and venue and event managers in establishing crowd controller to patron ratios.

## 3. Methodology

The underpinning philosophy for the methodological approach used for this study involved the application of situational crime prevention theory to the component elements that go into the management of major events and venues, one element of which is the level of security provided. Situational crime prevention is based upon the premise that incidents of crime are often opportunistic and therefore it is possible to modify contextual factors to limit the opportunities for offenders to engage in criminal behaviour (Tonry & Farrington, 1995).

To guide the project, a Project Review Group (PRG) (see Section 1.1 for a listing of members) was established that acted initially to provide deeper insights into the task at hand, as well as suggest organisations and individuals that would be able to contribute to the study. This group was also involved in the latter stages of the project, acting to review and suggest changes to the Crowd Controller Assessment Tools (CCATs) and associated guide. The project's methodology involved four components:

- A literature and document review.
- Stakeholder interviews.
- Development of CCATs for use in venue and event settings.
- Refinement of the CCATs based on feedback from the study's PRG and stakeholders.

### 3.1 Literature and document review

Current Australian and international literature were reviewed to contextualise the project and create a basis for understanding a range of factors that impact patron behaviour in event and venue settings. The literature review was guided by the situational crime prevention theoretical orientation, providing a critical lens through which existing knowledge was assessed and its value determined.

A particular focus was placed on factors that influence patron-related violence and associated strategies for managing such violence. International research was incorporated where its meaning and value were relevant to the Australian context.

### 3.2 Interviews

To meet the aim of the project, fieldwork was conducted in three Australian jurisdictions—Western Australia (Perth and Fremantle), Victoria (Melbourne and Geelong) and New South Wales (Sydney and Newcastle). These locations were selected in consultation with the PRG. The research team also capitalised on existing relationships with specialist research centres in the area of crowd safety and risk management by consulting with the International Centre for Crowd Management and Security Studies, Bucks New University, the United Kingdom and the Centre for Spectator Sport Security Management, University of Southern Mississippi, United States.

The interviewee selection process was guided in part by the PRG and in part by the use of a 'snowballing' technique, with interviewees being asked to suggest other potential interviewees from within their geographic jurisdiction who have the capacity to inform the study. This process resulted in interviewees being drawn from general duties police, specialist liquor law enforcement police, liquor licensing authorities, security firms, local government, national security industry associations, large-scale event/venues and specialist research centres operating in the areas of crowd safety and risk management. Stakeholders interviewed are listed in Table 3.

Table 3: List of interviews conducted with national, metropolitan and regional key stakeholders			
Sydney	Melbourne	Western Australia	Other
Alcohol & Drug Policy Unit	Abode Nightclub (Registered)	Department of Racing, Gaming & Liquor	International Centre for Crowd Management Security Studies
Alcohol Licensing Enforcement Command	Australian Security Industries Association Limited	NIB Stadium	International Security Consultant
ANZ Stadium	Australian Hotels Association	Licensing Enforcement Division	
Australian Concert & Entertainment Security	City of Melbourne Social Planning Unit	Liquor Enforcement Unit	
Australian Hotels Association	City of Melbourne Community, Safety and Wellbeing	West Australian Police Operations Major Events (pre and post Parklife)	
Australian Security Industry Association Limited	City of Geelong	Two West Australian Events Companies	
Foundation for Alcohol & Research Education	City of Yarra	West Australian Security Firm	
Humm Events Management	The Corner Hotel		
Merivale	Eve Nightclub		
NSW Premiers Department	Fetish Club		
Office of Liquor, Gaming & Racing (OLGR)	Future Entertainment		
OLGR Regional NSW	Licensee Steering Committee		
Security firms	Melbourne Olympic Park & Trust		
Security Providers Association of Australia	Melbourne West Divisional Licensing Unit		
Security Events & Assets	Melbourne West Safe Street Task Force		
Sydney Festival	Nightclub Owners Forum		
Sydney Cricket Ground	Rod Laver Arena		
Urban Police Precinct NSW	Security specialist consultant & former superintendent		
	Summadayze		
	Tennis Australia		
	Victorian Commission for Gambling & Liquor Regulation		

Semi-structured in-depth interviews were employed, allowing the researchers to both compare and contrast resulting responses and to explore new avenues of information as they emerged. Drawing on the literature review, an interview schedule was used to prompt the discussions. The interview schedule included the following key areas:

- Interviewee details.
- Role and service of the organisation.
- Considerations in managing patron risk at venues and events.
- Inappropriate behaviour triggers and violence.
- Patron-management failures and their causes.
- Best-practice patron management.
- Security indicators and measures.

Interviews were conducted with individuals or in groups, depending on the preference of the stakeholder, and were conducted at the participant/s' place of work or a nearby convenient location. In some instances, brief follow-up interviews were conducted by telephone to seek additional information. In all, 50 (individual and group) interviews were undertaken between April 2012 and February 2013. Interviews were taped and transcribed verbatim. It should be noted that all interviewees gave generously of their time and knowledge, with interviews yielding a large amount of rich data.

### 3.3 Analysis

Interviews were analysed using content analysis. This method is “an approach to the analysis of text that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner” (Bryman, 2004, p. 183). The method involves adding up (or quantifying), the number of times a word or topic is addressed within the data. In this study, an Ethnographic Content Analysis (ECA) approach was used. This method is viewed as the most qualitative form of content analysis. Whereas the topical categories in content analysis are generally predetermined and fixed, the categories in ethnographic content analysis are allowed to emerge from the data (Bryman, 2004). ECA “draws on and collects numerical and narrative data, rather than forcing the latter into predefined categories of the former” (Altheide, 1987, p. 68). ECA is considered a more valid method than traditional content analysis, as it allows for the voice of the participant to be heard and given weight.

The analysis was conducted using NVIVO 10, a qualitative data-mining package. Interview responses were initially sorted into broad themes before being refined into related sub-themes. The coding structure is presented in Table 4. A separate case was created for each interview to enable data tracking. These themes and the implications for crowd management are discussed in Section 4.

**Table 4: Data-coding structure**

Theme	Sub-theme
<i>Alcohol and other drugs (AOD)</i>	Type of alcohol Type of drug Management of AOD
<i>Crowd controllers</i>	Types of crowd controllers Uniform Training and pay Personal characteristics
<i>Environment and location</i>	Site/venue environs Venue capacity Transport Location Site/venue layout design Entry and exit points
<i>Collaboration</i>	Police
<i>Practices used to mitigate risk</i>	Codes of conduct and related signage Entry and exclusion criteria Hours of operation Numbers and positioning of crowd controllers Availability of food and water
<i>Patron profile event types and gangs</i>	Age and gender Type of event
<i>Gangs</i>	Violence and crime

## 4. Results

The categories that emerged were used, in conjunction with evidence gathered from the literature and document review, to create an empirical base for the CCATs. The results of this analysis and the categories are discussed below.

### 4.1 Alcohol and other drugs

Without exception, participants agreed that there was a correlation between alcohol, drugs and incidences of violence at events and venues. In particular, they noted an association between the types of alcohol and drugs consumed and the level of violence observed.

#### *Type of alcohol*

Interviewees representing stadia and sporting events saw a clear association between the type of alcohol available at their venues or events and the risk of violence. More specifically, they saw a positive relationship between the sale of higher-strength alcohol and the potential for patron harm. This view was supported by direct experience, with a number of interviewees stating that they had observed a decrease in the incidence of violence as a direct result of moving from selling full-strength to low- or mid-strength beer.

...we don't have a lot [of incidents of violence] and most of those if we do have them relate primarily around the consumption of alcohol. Now that's changed in recent years for us. We've gone to a fully mid strength venue so we've improved our crowd behaviour enormously in those events that were challenging in the past (Participant 10).

Some participants noted that switching to lower strength alcohol had a number of other benefits besides decreasing the risk of violence, such as the promotion of an event as 'family friendly', thus increasing their potential market and the reduction in costs linked to the use of security staff and police. A decrease in violence also meant that venues were able to reduce their expenditure on security and police. In one example, the organisers of a previously problematic event that had a history of alcohol-linked problems were able to halve the number of user-paid police through a combination of practices, which included the switch to mid-strength beer only (participant 13). Further, they anticipated reducing this number again by another 50 percent in coming years.

While the consensus was that serving low to mid-strength alcohol positively impacted upon a venue's risk of violence, this did not address issues associated with preloading. Preloading refers to the act of engaging in heavy consumption of alcohol prior to attending an event or venue. In addition to preloading, another alcohol risk factor identified by interviewees was 'side-loading'. In this instance, patrons bring their own alcohol to an event or venue. Pre- and side-loading were driven largely by price, with one interviewee observing that a *'huge price differential (exists) between what a nightclub sells a drink for, or can sell drinks for, to what people can go to [a retail liquor outlet] and buy a drink'* (Participant 04). Both pre- and side-loading can cause issues for venues, especially in relation to licensing laws around the presence of intoxicated patrons on the premises.

Side loading is a smaller issue but preloading's a massive one...we have our licensees say to us things like 'Someone walks into my venue. They look fine. Thirty minutes later it's kicked. Thirty minutes when it's kicked in. How do I control that?' They can't. That's the argument (Participant 77).

The degree to which pre- or side-loading were considered a problem varied by the type of venue or event. For instance, large-scale venues such as stadia and sporting events reported less of a problem compared with businesses that operate as part of the night-time economy (NTE). Within large-scale venues, it was often concerts or particular types of sporting events where patrons were seen as more likely to have engaged

in preloading or side-loading. In these instances, patrons smuggle the alcohol in, circumventing detection procedures at the entrance. Some of the methods patrons employ include hiding bottles of alcohol in the middle of hollowed-out loaves of bread and emptying sunscreen bottles and replacing the contents with alcohol.

In comparison to larger venues, pre- and side-loading were much more of an issue for pubs and nightclubs, where the increasing price of drinks made it cheaper for patrons to drink elsewhere. Another reason participants gave for the high rate of pre- and side-loading was the late operating hours:

[T]he clubs are trading so late...they're [patrons] not planning to go out until 11.00 o'clock or midnight, you know what are they doing between 6.30 and that time and what they're doing is anecdotally...sitting at home or around at a mate's place where they've bought cheap booze and drinking and then they go out later half charged and that's where our problems start (Participant 01).

This same participant felt that the only way to address the issue of preloading was to bring forward the closing time of businesses within the NTE. This would result in people arriving at the clubs or pubs earlier, leaving less time to engage in the same level of preloading.

## *Type of drug*

Drugs were not considered to be as significant a contributor to violence compared with alcohol but the risk varied depending on the type of drug consumed. Those who consumed marijuana were considered to be easy going, friendly and even 'loving'. However, those who took harder drugs such as 'ice' were considered aggressive and violent. Many participants highlighted that dance parties and in particular, raves, tended to have a much greater problem with drugs.

It will vary from club to club. Certain scenes, if you like, are more conducive to the illicit drug users and that's broadly the dance scene...if you like, dance, obviously dance parties and rave parties and that type of thing. You're more likely to get your pill poppers and those and want to take GSB (Participant 42).

As with side-loading, patrons sometimes attempt to smuggle drugs into an event by such means as hiding them inside clothing items and bags and putting them in tennis balls and throwing them over the event's boundary fence. Given this situation, interviewees representing the events sector and the security sector saw security practices such as bag-check procedures and drug-detection dogs at entry points as key factors in reducing the risk from drugs. These practices will be discussed later, under the heading 'Practices'.

## *Management of alcohol and other drugs*

Three key factors—communication, effective crowd monitoring and drink regulation through alcohol-related policies—were considered to contribute significantly to the effective management of alcohol and other drugs.

Whether inferred or explicitly stated, strong communication systems were an essential part of many interviewees' alcohol and drug-management strategies. They were often structured so that communication could occur at different levels; for example, between security and floor staff, staff and patrons, and in some instances, between venues. Participants highlighted the importance of proactive engagement with patrons when seeking to minimise the risk of alcohol-related violence. The extent to which this was possible varied between venues and locations, likely due to a disparity in resources available. However, the aim was always to make patrons aware of the venue's policies and what constituted acceptable/unacceptable behaviour.

[B]efore the bucks party starts security goes in there and talks to the group and just says 'These are the rules. You can do this, but you can't do that. You can do this...' and obviously any breach of this is instant expulsion. Having been in one of those groups myself, it's quite powerful to [be told], 'Before you start anything', so you're not being told off, but you're being told. (Participant 42)

So we'll actually send out an email blast to every ticket holder to our members, to our corporates, to

remind them what the law is. And that is if they arrive intoxicated they won't be permitted into the venue and if they're found to be intoxicated in the venue they must be removed. That is the law (Participant 10).

While interviewees acknowledged the importance of crowd monitoring, some also noted that this was sometimes difficult to achieve due to the environmental features of a venue/site (low lighting, layout, crowding and so forth). Strategies employed to address these problems commonly involved the strategic placement of crowd controllers.

...[W]e will have static security on every bar. So that's making sure sobriety checks are well done. It takes the risk away from the point of sale so the person, the poor person that's pulling all the beers and trying to assess somebody when you've got a queue a mile long, we take that away from the point of sale (Participant 10).

...[W]here people would be behaving [intoxicated] or you know, suspiciously noticed behaviour, then a radio to a manager or senior guards and we'll go and assess the situation and make decisions as to what best (Participant 66).

If necessary, some events/venues sought to regulate drinking by refusing service or 'cutting off' patrons. Several interviewees also remarked that they did not engage with promotional drink campaigns (i.e. two-for-one deals), as these potentially promoted irresponsible drinking. As one participant stated:

We don't do happy hours, we don't do loaded drinks, we don't serve doubles at all here, we don't do you know, shots or any of those sorts of things to try and encourage you know, rapid drinking—we're not really interested in that (Participant 66).

Such actions, as one respondent from a state authority charged with the control of alcohol noted, are in a venue's best interest, as '*...the minute they're drunk, not only do they have to refuse service to them, but they have to ask them to leave because they can't remain in a licensed area*' (Participant 28). Having patrons become too intoxicated would, therefore, be bad for business.

### Box 1: Considerations linked to crowd management

The key factors that have implications for the number of crowd controllers with regards to alcohol and other drugs were identified as:

- serving full-strength alcohol (including spirits) increases the risk of alcohol-related violence;
- pre- and side-loading are significant issues with regards to intoxication and the risk of violence. The magnitude of the issue varies by venue and event type;
- activity type—some activities such as dance parties and youth-oriented music festivals are viewed as more prone to patron alcohol and drug abuse;
- alcohol and drug-management strategies linked to staff and patron communication, crowd monitoring and enforcement of alcohol/drink regulation associated with RSA were identified as fundamental to effective alcohol related harm management; and
- provision of food, snacks and water were seen as key to decreasing the risk of intoxication and associated harm.

## 4.2 Crowd controllers

The type of crowd controller employed, the visibility of their uniform, quality and level of training, pay rates, and their personal characteristics were seen to greatly influence the capacity of crowd controllers to effectively manage patrons and mitigate risks.

### *Types of crowd controllers*

The definition of 'crowd controller' varied between participants, but most generally referred to security guards or those employed in a security or protective capacity as a crowd controller. An important discussion point that emerged was the official or unofficial crowd monitoring roles other, non-security staff played.

An example of this is RSA marshals introduced in New South Wales by that state's Office of Liquor, Gaming and Racing. The role of an RSA marshal is to assist venues and events in identifying intoxicated patrons

and ensuring adherence to alcohol licensing regulations. Importantly, RSA marshals do not provide security services, but rather act as liaison for staff and security on matters pertaining to intoxicated patrons and in doing so make recommendations to bar staff and/or security regarding the regulation of a patron's drinks or their removal from the venue. One participant explained the idea behind their use in this way:

... [T]here'd be one per licensed premises and that person act as a go-between between the security and the bar staff to observe what patrons are doing out on the floor, not in that five seconds where the bar staff get to assess them before they serve them a drink and not in that five seconds where security guards assess them before entering the premises (Participant 12).

So the RSA will teach them all the signs to look out for... So that's where all that RSA training kicks in, is that they're managing their patrons and looking after everyone else and the persons who are getting to that stage where, they're not drunk, but they're getting close...the RSA practices kick in (Participant 28).

The use of RSA marshals in New South Wales now extends beyond pubs and nightclubs to include events and other selected activities where a licence to sell alcohol is required. Some interviewees expressed concern over the ability of staff with RSA training to do what is required of them in terms of the responsible service of alcohol, as the following examples demonstrate.

The problem is, they [the patrons] are pretty onto it, and they'll straighten up and try and act sober. And they'll do that again going up to the bars...they know how to act when they are coming up to an RSA officer. So...that's a bit of an issue (Participant 30).

There was also a perception that less desirable elements of the security industry were taking advantage of the 'back door' employment route provided by the requirement for RSA marshals.

[w]e suffered a bit from the law of unintended consequences here because some sort of rogue[s]...for want of a better word, got back in the industry who'd had their security licences taken away from them, so they call themselves RSA Marshals (Participant 04).

Unfortunately the security industry jumped on it and started providing RSA marshals for licensed premises. And they started employing large quantities of people who weren't capable, for one reason or another, of holding a New South Wales security licence or people who just didn't want to go and get the security licence (Participant 12).

Implicit in this concern is that the use of RSA marshals as surrogate security staff may compromise safety within a venue, particularly those that are declared premises (i.e. premises to which one of three restricted licenses have been imposed).

*One venue...it's a declared premises. They had seven RSA marshals working in the venue and one licensed security guard. So clearly the people, the seven RSA marshals were security guards. They were wearing the same uniform as security except instead of having the word security they had the word RSA marshal printed on the back. Other than that, it was identical. And, as I said, there were seven RSA marshals at a declared premise after midnight, one licensed security guard (Participant 12).*

There was also some scepticism as to how well some venues practised RSA: *'I would go further...and say that the vast majority of licensed premises do not adhere to RSA...Because the manager's saying come on, half an hour, and I need to make my turnover figure (Participant 74).*

Some interviewees highlighted the value of utilising bar staff and 'glassies' (people who pick up glasses and other cutlery once patrons have finished) to unofficially monitor patrons and report to security staff and RSA Marshals anyone that was showing signs of intoxication. As one participant phrased it:

So whilst we would never ask a customer service person to go in and deal with a violent or crowd-management issues...we've got 200 customer service on site, that's another 400 eyes we've got that can actually identify issues early as opposed to waiting... (Participant 10).

Other groups that interviewees identified as having the capacity to serve in an unofficial crowd-monitoring role were roving medical teams at festivals and volunteers for organisations such as Red Frogs and the Red Cross

through their Save a Mate program. According to their website, Red Frogs are an organisation that aims to 'provide a positive peer presence in alcohol-fuelled environments where young people gather, educate young people on safe partying behaviours, and promote and provide non-alcoholic and/or diversionary activities that engage young people in these environments' (Red Frogs 2013; <http://au.redfrogs.com/who-we-are>). In line with this philosophy, volunteers can be useful in identifying intoxicated persons and liaising with security staff and police with regards to incidents or potential incidents of alcohol-related violence.

Another concern linked to the type of crowd controller recruited was related to language and understanding the 'Australian' culture. One participant expressed concern that some of those entering the security industry may lack cultural understanding and the skills to deal with situations as they arise.

So that comes back again to the core issue of the quality of security...the people who are now applying to become security are genuinely your recent immigrants; Indians, Pakistanis, [Afghanis], whatever, a bit like the taxi industry is (Participant 804).

The same participant suggested that greater attention be placed on the appropriate training of crowd controllers and on improving the attractiveness of the career to a wider market.

## Uniform

Most respondents indicated that the security personnel they employed wore a standard uniform. This ranged from high visibility clothing or vests at large-scale events, through to a suit or other professional attire in pubs or private clubs. Having security clearly identifiable was related to creating both a sense of being in a secure environment and the ability to quickly identify and request assistance when required. As one interviewee noted, '*...the more high visible they are, in my opinion, it then allows people, patrons, to quickly identify them and then communicate anything they don't think is right*' (Participant 72).

Interviewees from larger venues and events stated they regularly employed 'undercover' crowd monitors or security, who are able to observe patrons at close quarters with a view to identifying potential problems before they expressed themselves.

## Training and pay

Currently, there is no national standard for security accreditation. Participants noted that the requirements for accreditation were more rigorous in some jurisdictions than in others. This has resulted in a practice among potential crowd controllers of obtaining their licences in a jurisdiction with less rigorous requirements with the intention of practising in one with more rigorous standards. Some participants felt that this practice has had a negative impact on the quality of available licensed crowd controllers.

Exacerbating issues related to the quality of crowd controller training is the relatively low pay rates endemic throughout the security industry. It was pointed out by a number of interviewees that these rates meant that the cost of obtaining and maintaining a security licence was difficult to justify in many instances, except for those individuals who had few other employment options. As noted by one security industry group representative, potential crowd controllers may:

find it as a disincentive to get this sort of part-time employment because the two- week training and the cost of that two-week training, which means we seem to attract persons who may not be physically and culturally able to fit that ideal scenario for an applicant (Participant 03).

Further, pay rates needed to be viewed in the context of the types of incidents and their associated risks that security and crowd controllers were required to deal with. This situation was summed up by several interviewees:

[S]o a person who's going to get probably paid around the same wage as a taxi driver has to sit at a door on a cold night with thermal underwear...is potentially abused and spat on by patrons... (Participant 804).

Yet these security officers on the door, when the bikie comes up and says, mate, I don't know where you live tonight, but I know where you live tomorrow. And I'll be around. Watch the gun shot through your door mate. And the guy goes, yeah mate come in, I don't get paid enough to stop you (Participant 05).

Combined, these issues are acting to reduce the pool of crowd controllers, as well as their quality. The quality of security was considered a critical issue, as *'... you need a combination of people who are physically capable as well as obviously the best requirement is the gift of the gab, if you like'* (Participant 804). Unfortunately, it was noted by some in the industry that organised crime has infiltrated security firms, with some being operated by *'bikie gangs'* and *'a lot of those [security personnel] they recruit, they're not really fussed about the quality of the security'* (Participant 01 and 804) and they *'manage to infiltrate themselves into clubs and various places and are part of the problem'* (Participant 74).

With regard to this last point, some individual security firms and venues do pay higher than average industry rates, as well as providing good working conditions; consequently, they attract staff of a higher standard. As one interviewee noted, staff *'gravitate to the venues that have more attractive conditions, like Crown Casino'* (Participant 804).

It is noteworthy that recently, COAG identified a minimum level of competency that should form the basis of security training in all jurisdictions. These competencies include non-physical means of conflict resolution and correct procedures when dealing with intoxicated patrons and risk assessment. However, these competencies have yet to find expression in the wider security sector. Acting to ensure national standards in this area would go some way towards addressing the issues previously noted, as would perhaps, as one interviewee believed, greater recognition by government of *'the importance of the industry and...the value of the job'* (Participant 04).

## **Personal characteristics and their impact on incident response**

It is no longer considered best practice for crowd controllers to respond to difficult patrons with aggression. Participants indicated that the industry had moved away from practices such as arm-locks to more non-violent means of conflict resolution.

Somebody who will present 'I'm 6'3" and a big hairy monster' is neither here nor there. The ability is in your communication skills, can you speak to somebody? Can you influence someone though eye contact and words? Can you get them to do what you want them to do? Now if you have those interpersonal skills, those qualities, then you're a winner (Participant 08).

The skills now considered essential for an effective crowd controller are a high level of communication interpersonal skills, friendliness and an awareness of issues around security (e.g. fake identity cards). One consequence of the disincentives associated with training and pay has been a decrease in the number of some groups, such as people from the trades and university students, who tend to possess these skills, taking up crowd-controller positions. This gap, according to interviewees, is being filled by people from a number of culturally and ethnically diverse backgrounds who may not be fluent in English and have had in some instances limited or no exposure to environments where alcohol and drugs are present. This situation can in turn result in an escalation of incidents into violent confrontations, or in responses that are inadequate given the particular circumstances.

That's some of the problems here is the English not being the first language. [Then] any incident is more likely to...necessarily result in the use of force because there are communication barriers (Participant 72).

Ultimately, it was clear that a risk factor for violence was a poor response to a given situation. Poor responses were routinely classified as being overly aggressive, a lack of communication between patron and security or a lack of cultural acceptance and understanding.

[W]ith the larger [Pacific] Islander guys who have a pretty poor understanding of English, their level of engagement is different to somebody else because their first contact is probably to get somebody in a head lock rather than try and, you know, speak to them (Participant 37).

[W]e've got drugs, we've got alcohol, we've got [different]cultures, we've got an insecurity in the security guards themselves, they've got the manpower, a lot of people who are Islamic background, they come from a misogynist society, they don't drink alcohol...and they don't engage with a lot of females who dress in short skirts. How do they react to that, I'm sure that plays a large part in what's going on and their responses from security (Participant 04).

### Box 2: Considerations linked to crowd management

Key considerations emerging from the above that are associated with the employment and use of crowd controllers centre upon:

- other staff, including bar staff, medical and support/volunteer organisations, having the potential to play a major role in monitoring crowds and in alerting security and management to potentially volatile incidents;
- clear identification of security staff and other staff involved in the crowd control task if patrons are to access support when needed. Additionally, some contexts (e.g. casinos) were seen by some interviewees as needing a less overt security presence;
- pay rates and recurrent licence fees impacting on the quality of crowd controllers;
- personal characteristics can impact the carrying out of the crowd controller task—level of training, fluency in English, quality of interpersonal skills and limitations emerging from cultural or ethnic backgrounds;
- well-trained and experienced security staff being better able to manage issues associated with intoxication than individuals who have only basic levels of training and who are employed infrequently; and
- a lack of a national standard for security accreditation leading to opportunities for organised crime to infiltrate the security sector.

## 4.3 Environment and location

Risks associated with crowd-related harm occur both in venues and the environs surrounding venues. Some of the issues presented here suggest greater clarity is required as to where responsibilities lie in terms of a venue or event's external environs. However, there are indications that various stakeholders are working together to implement a range of strategies to deal with this complex issue.

### *Site/venue environs*

The extent to which a venue/event has a duty of care in the external environment (i.e. nearby streets, car parks, footpaths) was found to be a contentious issue due to a lack of clarity around venue/site boundaries and police jurisdictions. Some participants, especially those from the NTE, felt that despite the street or footpath being the jurisdiction of police, incidents that occurred in close proximity to their venue were negatively contributing to their risk rating. Many participants stated that while they monitored the external crowd, only the police had the ability to arrest or deal with individuals who were drunk and disorderly or violent. Despite this, many venues monitored individuals and groups in nearby areas as part of 'good' crowd-management practices.

If you've got a car park and there's lots of people parking and they're walking to the entry point you've still got to maintain that they're walking through safe thoroughfares and everything's okay. So we sort of keep an eye on that and just generally, well it's not just security that do that, it's things like first aid and that... (Participant 02)

Proper supervision of external queues was also seen as important. The boredom and tension associated with waiting when coupled with patrons who were, or who had been, drinking was highlighted as a potential trigger for violence. Nightclubs especially stated that they often had more than one crowd controller to specifically monitor queues.

### *Venue capacity*

Overcrowding within the venue was also considered a potential trigger for violence. This was because overcrowding limited patrons' ability to move through the venue without making contact with others. With

respect to nightclubs and pubs, strategies to avoid overcrowding included regulating the number of people inside the venue at one time. For festivals or concerts, crowd-regulation techniques included such practices as capping ticket sales and designing programs in ways that did not lead to the development of crowd control issues.

[T]here have been occasions when they have not calculated the densities correctly, they have not worked on the programming and the [venue] holds five and a half thousand people and there's eight thousand who want to get in. It doesn't work...and my advice is generally, put another act of an equal draw at the opposite end (Participant 74).

## Transport

The issue of appropriate transport emerged as a key factor in regulating crowds and therefore in avoiding violent incidents. Effective transport was thought to facilitate rapid crowd dispersal post-event, minimising the potential for violence. As one participant from local government stated, '*[t]he issue always becomes when things close and they've got nowhere to go*' (Participant 77).

The control that an event/venue has over the availability of transport varies dramatically. For instance, due to large crowd sizes, sporting stadiums often form partnerships with transport authorities. One stadium estimated that 60 percent of an expected crowd of 50,000 would catch a train to their event. In the case of festivals, their sometimes remote locations necessitated transport arrangements with either public or privately owned transport providers. The layout of the area or precinct adjacent to the venue or event site was seen as key in facilitating crowd arrival and departure. With regards to transport, it is noteworthy that interviewees representing state gambling and racing authorities cited transport as a key factor when assessing licensing applications.

Transport options available to nightclubs, hotels and pubs were often regulated by local councils and city planners, and did not always take into account the need for people to return home late at night, along with the potential for incidents to occur during these times. Several nightclub owners made this point:

[I]n Melbourne trains stop at 1:00am. They bring in hundreds and thousands of people on Friday and Saturday nights who can't get a train home till 5:00 or 5:30 in the morning. Taxis are always impossible to get...[taxi] cherry pick fares and refuse to pick up people. So keeping, ironically, people safe in venues is quite critical because they'll either wander the streets or they stay in venues until 5:00 until they can go home (Participant 04).

And it's dark and it's cold and it's raining. And nobody's telling them anything. All they know is they're lining up. So...why are we waiting, what's going on? And some security guy walks past and they say hey mate, why are we...Well I don't know mate, I haven't been told anything. It's frustrating, they get angry (Participant 74).

Local government and police are aware of this problem and in some jurisdictions have worked together to develop solutions. These solutions have included supervised taxis ranks, courtesy buses, provision of personnel to supervise taxi ranks and an additional police presence. The response to these types of strategies has been positive, with one local government interviewee noting '*...because it's monitored, it's staffed, it's an orderly system*' (Participant 86).

## Location

The location of the event or venue also has implications for the risk of violence or the need for extra crowd controllers, with this need varying depending upon the type of event or venue. For instance, festivals are commonly staged in parks or other open spaces. This will result in different security measures compared with an event or venue held in an urbanised or highly populated location. As one promoter stated:

We do an event called Laneways—it's in the middle of the city. It's tiny, it's only 6,000 people that go, but we need—that's incredibly security intensive because of the nature of the site...we need...80...security for that one (Participant 30).

Representatives of the NTE voiced similar concerns. Specifically, that crowd management was an important consideration to avoid the event or venue imposing upon the routine activity that normally occurred in the area. Managing queues so that they do not impede public thoroughfare or adjusting the noise so as not to disturb surrounding residents were two examples given to illustrate the management of locational issues. For other venues, particularly nightclubs and pubs that may be located near residences, controlling the behaviour of their patrons was essential, as complaints from residents could see their licences revoked by the local council. In order to do so, venues often employed extra crowd controllers.

## Site/venue layout and design

Within venues, interviewees identified a number of layout and design considerations linked to reducing the likelihood of violent incidents. For example, one pub owner highlighted the issue of queue management, noting that:

[i]f you've got your queues for the bar and people have to get through to get to the toilets or to the food, you get aggro [because] people think they're trying to push in in the line or you know and if they've had a few and they're stumbling through, banging into people. They need to look at their layouts [because] queues really [expletive] people (Participant 27).

The issue of lighting in venues where low visibility was part of the atmosphere was also raised, along with the increased potential this created for 'flash points' if patrons bumped into one another, particularly in crowded situations (Participant 74). Design elements that reduced the potential for incidents to occur were identified as wide walkways and concourses, open-plan layouts and good lighting. The latter was seen as reducing the 'areas where antisocial behaviour would be more likely to occur' (Participant 03), as well as contributing to effective crowd monitoring through its role in increasing the effectiveness of closed circuit television (CCTV).

## Entry and exit points

Entry and exit points to a venue or event were highlighted as areas of concern, particularly by security firms. Specifically, the greater the number of such points, the more problematic they can be to monitor and the greater risk they pose in terms of controlling access to the venue or site. Additionally, depending on the tasks that need to occur at these locations (e.g. bag/ticket checking, providing pass outs etc) and the associated desired queuing times, these points represent places where frustration can build and find expression in aggressive or violent behaviour.

The extent to which an event or venue provides opportunities for illegal access (e.g. through climbing over fences/walls), along with its history of such, may also pose security challenges requiring a greater crowd-controller commitment, in association with strategies such as the use of dual fences.

### Box 3: Considerations linked to crowd management

Some risks associated with inappropriate patron behaviour can be reduced through site/venue design practices as well as seeking to manage surrounding areas.

- Areas surrounding venue and event sites may need to be integrated into the venue or event's security planning to reduce the potential for patron harm and to ensure that the amenity of nearby areas is maintained. In particular, crowd arrival and departure times may require crowd controllers to monitor public areas such as transport and taxi pick-up/drop-off points, and nearby streets and parks.
- Venue/site layout and design decisions can create spaces where illegal activities can occur, increase the potential for patron contact and facilitate situations in which patron frustration can build (e.g. in queues), which collectively can impact crowd controller needs.
- The number of entry and exits points, and their associated monitoring requirements, combined with the activities at these locations (e.g. bag searches, provision of pass outs), desired queuing times and potential for illegal entry affect crowd controller requirements.

## 4.4 Collaboration

Collaboration was discussed in the context of various stakeholders working together to deal with the alcohol-related issues that confront venues and events.

### Police

The stakeholder most commonly interacted with was the police. This collaboration occurred in many different forms. For example, during the pre-planning phase, police helped to identify potential risks or shared intelligence regarding problematic patrons. Police were also involved during the event, assisting security guards in dealing with incidents of violence or antisocial behaviour. Finally, once the event was completed, police often worked with the event or venue to resolve outstanding issues.

Interviewees who represented larger venues and events spoke of how police assisted them in making the event or venue safer for patrons. For example, police sometimes staffed entry points with drug detection dogs or conducted bag searches. For some festivals, for example, police also provided patrols either externally around the perimeter or maintained a presence internally, in some jurisdictions on a user-pays basis.

User-pay policing involves the event paying for the number of police they have onsite. One representative from a state liquor, gaming and racing authority stated '*...the value of having user-pay police that good event organisers can actually utilise and give direction to, rather than just having police following their instructions from their commanders, is a fantastic tool*' (Participant 12). The value of a police presence was also acknowledged by an event organiser who was of the view that:

[t]hey play a vital role in keeping the Queen's peace and detecting and preventing crime. And they are there to keep order. That's an absolute, vital role. And no security firm should ever think of doing this stuff without them. But they have totally separate skills and totally separate jobs to do and it should be a partnership (Participant 74)

This separate role was emphasised by a number of interviewees. However, participants (both industry and government) cautioned that the user-pay police should not be '*applied like a ratio*' but assessed on an '*event by event basis*' (Participant 29, 12, 37, 01). In particular, it was also noted that the police should only become involved when an incident progresses beyond the capabilities of security; for instance, if a matter turned violent or criminal. Instances were also identified where a police presence beyond that which event organisers saw as adequate did not necessarily lead to a safer event. For example:

[police] might say 'Well we need publicity, we need some good publicity here about the work we're doing with these things so we might want to put in 100 police as opposed to four' and they can do that. Still getting the same result...but if the amount of arrests that you've got are substantially more in one case because if you've got more resources there you're going to nab more people than you got (Participant 09).

Because there was no major incidents down there this year, you've actually got a lot more police officers stood around the, you know, the outside of the venue, you know, chasing up fence jumpers, dealing with people being drunk and disorderly. So you actually find that the stats increase, the less busy it is (Participant 96)

When the relationship between police and the venue's owner or event organisers is strained, effective operation can be difficult. Some participants operating within the NTE felt that police were overly authoritarian towards their business, subjecting them to unnecessary searches and licensing inspections. Common complaints included different teams of police conducting walkthroughs on the same night (which projected a poor image to patrons) and failing to actively participate in forums and accords. Conversely, venues found working with these different regulatory groups problematic '*so you can imagine...it's hard enough getting one group to listen to you and do it the right way, but when you've got eight different groups...*' (Participant 06).

A holistic approach to the management of venues and events was cited as best practice for managing patron behaviour, as it fostered open communication and the sharing of information between different agencies, '*if*

*we all work together and we communicate and we sort of line up what we do we can be a whole lot more effective than if we're fragmented'* (Participant 86).

Examples of various stakeholders working together to deal with the alcohol-related issues that confront venues and events include the Newcastle Alcohol Management Strategy, Greater Geelong Integrated Alcohol Response, Melbourne Licensee Forum and the City of Sydney Liquor Accords. According to a number of industry interviewees, the benefits of working with police and government agencies who have ongoing experience, specialist knowledge and an understanding of festivals and events should not be underestimated.

#### Box 4: Considerations linked to crowd management

Police play an important role in the management of patron behaviour at events and venues. Considerations associated with their use include:

- engaging police in the pre-planning, planning and delivery phases of an event, or the conduct of an activity (e.g. dance parties) at licensed venues, to both minimise patron harm associated with alcohol use and reduce the opportunity for criminal activity;
- determining event and venue police (including user-paid police) requirements should be done in the context of individual events/venues by taking account of factors such as event/activity history of alcohol-related incidents and criminal activity, audience characteristics and proposed number of private security staff; and
- inclusion and active participation by police in government and/or community efforts to develop holistic approaches to the challenges posed by the operations of licensed venues and events are seen as key to the success of such efforts.

## 4.5 Practices used to mitigate risk

Practices refer to the practical ways in which venues and events currently mitigate the risks associated with inappropriate patron behaviour, particularly alcohol-related violence.

### *Codes of conduct and related signage*

Codes of conduct were used to make patrons aware of the rules and regulations of venues and events prior to entry. These were displayed voluntarily and often in conjunction with signs required by licensing laws (e.g. 'under 18's not to be served alcohol').

[I]t just uses an additional tool to set the scene for a more responsibly managed property and also to send a signal back to the customers or the would-be customers that there are standards which must be observed (Participant 03).

As with many of the practices used to mitigate the risk associated with alcohol-related violence, these rules and regulations were thought to contribute to patron education; something many participants felt was lacking, particularly among young people. Larger venues also used other methods in an effort to make patrons aware of their codes of conduct and entry rules prior to their arrival.

[W]e ramp that up for that concert we did a couple of weeks ago of the festival, we used Twitter and Facebook as a way of getting to the kids. And in actual fact our incidents that intoxication was [involved compared with the same event held last year]...was significantly down...this year. So the message is getting across (Participant 10)

It's called a "So You Know" poster...it's just something that can be put up unis and on the backs of toilets and all the places you do things. And it's just saying, look if you're going to have a good night, fantastic, but if you decide you want to fight and you want to vomit and you want to wreck something then here's the fines. So if you were taking a leak in the street and a police officer comes in and gives you a fine of \$460 it's just 'so you know'. Don't go, 'Oh, my god. I didn't know I wasn't allowed to do that' (Participant 86).

## Entry and exclusion criteria

Similar to codes of conduct, various criteria were routinely used to deny entry to unsuitable patrons who may instigate violence, with larger venues sometimes using police knowledge to exclude potentially problematic patrons (those with a history of violence) prior to entry.

[W]e had a number of the police from that particular operation that knew that who the main participants were in the gang...at each of our entry points and then if any one of those known gang members attended they had their tickets refunded and they weren't allowed entry. So that actually thwarted the gang-related activity and the event was relatively incident free that year (Participant 09).

Some venues and events employ ID scanning to enable the easy identification of patrons who engage in inappropriate activities while inside licensed venues or at an event site. Information gained in this way can be used to deny entry to individuals who have been involved in previous incidents. Some venues in entertainment precincts have taken the further step of sharing patron ID information so as to reduce the potential for individuals who have been ejected from one venue entering another. According to one participant the use of ID scanning is *'having an influence on how many security may need to be around or at those venues'* (Participant 37) and *'to date it's been very successful. The reductions of reported assaults in those venues has all dropped'* (Participant 12).

One government interviewee noted that the practice of one venue or event banning entry to a person who has been troublesome at another, may be problematic, as *'a licensee has the authority to ban a person who has committed an offence in his licensed premises...we haven't a strategy in place previously to ban somebody from multiple venues without engaging the services of the Liquor and Gaming Authority'* (Participant 12). ID scanning also raises privacy issues, as noted by several interviewees. It is noteworthy in this regard that the recently released Queensland Office of Liquor, Gaming and Racing's *ID Scanner Guide* (2012) has been written with these considerations in mind.

While ID scanning can be a useful tool in reducing the incidents of patron harm and criminal activity, several interviewees noted that it may not be appropriate in many instances, with those venues and events with higher levels of risk due to type and patron age group likely to benefit most. It should also be kept in mind that the act of exclusion itself can create a context in which violence can occur. As one participant noted:

[R]ejection is probably one of the biggest trigger points of people reacting in antisocial or violent behaviour, whether or not they've had alcohol, because rejection in human life, whether it's boyfriend-girlfriend, entry to a pub or whatever, not getting a job or whatever, it triggers negative emotions and reactions (Participant 04).

## Hours of operation

Closing time was identified as a period when violence was most likely to occur. This was mainly due to the potential for demand to greatly exceed the capacity of available transport options, thus restricting the ability of patrons to get home easily. Interviewees identified a number of strategies that have been developed to mitigate the potential for harm at this time. For example, some venues cease alcoholic drink service prior to closing. This encourages gradual dispersion of patrons as people finish their drinks and move on.

Alternatively, larger venues would vary the closing times of different parts of their operations; for example, closing the beer garden at 11.30 pm and the front bar at 3 am. Some interviewees also felt that it was important to ensure the risks associated with closing time were acknowledged through the maintenance of an adequate number of crowd controllers at and after close. This was to assist in ensuring order and to minimise 'nuisance' activities as patrons left the venues and immediate environs.

Lock-outs are another strategy in evidence in the context of some venues. This involves preventing entry to licensed venues after a set time, with a view to, among other things, stopping patrons moving from one venue to another after they have been excluded. It reduces the opportunity for pub crawls and provides police with a

timing focus for their activities in and around venues. In some instances where this approach had been used, it had proven ineffective because of the way it was implemented, with one interviewee noting:

[T]hey attempted to introduce a lock-out, a 2:00am lock-out upon a trial basis for three months, which we campaigned heavily against. In effect it was defeated because they gave exemptions to any venue that wanted an exemption...For that reason we call it the "Clayton's Lock-out" in a sense because the lock-out you're having when you're not having a lock-out (Participant 04).

This interviewee also noted that lock-outs had the potential to further contribute to the risk of violence by making people vulnerable. For instance, friendship groups were sometimes split up and the policing focus was often switched to enforcement rather than engagement once lock-outs were in effect (Participant 04).

## *Number and positioning of crowd controllers*

The number of crowd controllers and their placement throughout the venue was seen as being of strategic importance when seeking to mitigate the risk of crowd-related violence. Once again, approaches varied between venues and events depending on their size and available resources. For smaller venues, such as pubs and nightclubs, there was usually one or two security at the door with roving crowd controllers inside. For larger events, such as festivals or sporting matches, section managers directed the crowd controllers in their area and information was fed back to a central command point. Larger venues and events were also more likely to use other types of crowd controllers, besides security, such as police with detection dogs, staff conducting bag searches who were placed at the entry to the venue or event, and people charged with traffic management.

We have a couple of set positions where we know that you can get a good vision of the place, everyone wears a radio...radio to a manager or senior guards and we'll go and assess the situation and make decision as to what best (Participant 66).

We'll have a control in which you'll find an ECC, emergency control centre, at every event and basically there'll be a rep from the cops and first aid and venues and security and traffic control and all those sorts of things (Participant 02).

[W]e generally won't just use one particular security firm but we'll have a number of them on staff as consultants...we might assign them different tasks to do, so one might be the perimeter security, one might be roving security out on the streets to protect against the many issues (Participant 09).

There was a degree of ambivalence towards the current 1:100 ratio. Some participants who directly spoke about the ratio noted that they have moved away from its arbitrary use. One representative from an office of liquor, gaming and racing, for example, stated:

So you know, each venue is considered on its own merits. I don't use the 1:100 to impose that on anyone anywhere. And, I mean, I've negotiated licences for everything from a 20,000 person music festival to rave parties. And I'm still not talking about 1:100 for a 20,000 person event. They would just have a phenomenal amount of security there...I'd like to see probably a more balanced approach (Participant 12).

Factors put forward as other considerations to be taken into account when determining the ratio of crowd controllers to patrons included the quality of the security, type of event, the patron age profile and the type of violent incidents that have occurred previously at the venue or event.

[W]hat you can control is persons inside your property to the best that you can and that of course involves careful management, understanding of obligations, taking those obligations very seriously, understanding non-compliance, consequences, but ultimately what we also find is that if you cannot properly manage those sorts of licensed premises in a safe enjoyable way without attracting infringement notices for non-compliance then you won't stay in the business (Participant 03).

## Availability of food and water

Food and water were considered by a number of interviewees (Participant 28) and in the literature to be ‘harm minimiser[s]’, acting to reduce the effects of alcohol in particular. Some interviewees stated that strategies are required to encourage patrons to consume food and water. In this regard, they believed that consideration needed to be given to the venue/event layout, number of available food and water outlets, pricing and staff service training.

...[C]urrent design, [is] wide concourses, lots of food and beverage outlets, looking wherever you can for technology to minimise queuing times, service times. So we do what we can and we’re cognisant of all those things (Participant 02).

It’s a lot harder to have that ability to speak, inject yourself and to have that confidence and say ‘excuse me sir, I think you, you’re approaching intoxication, you might want to slow down, have some food...’ (Participant 04).

Placing food in strategically visible locations was seen as a key method for encouraging people to eat. As one interviewee noted, ‘*Food, making sure that there’s lots of food available during the evening, it’s not just one Chicken Treat van that runs out of chicken after two hours*’ (Participant 28). RSA marshals were also considered useful for managing the food and water environment.

You’ve got an RSA marshal who gets out, interacts with the crowd, has a look at how they’re behaving and then makes reports back to security on people who may be approaching intoxication and make recommendations to the bar staff on other people who may, it might be time to put them on water or suggest they have something to eat and strategies like that to reduce the alcohol-related harm (Participant 12).

Unfortunately, some interviewees from liquor and gaming authorities have concerns that venue licensees and some events do not always promote the availability of free water.

...[W]hen we talk to Licensees, especially with the events, there’s always an issue, it doesn’t matter how experienced or how cognisant they are of the fact, there’s always an issue with water, provision of free water and then the signage. And we know water is just one of the tactics that slow down the rate of intoxication, but just educating [licensees] on that for the last few years has been mind-numbingly hard... Yeah and it will be the case, they’ll have a free water station at the bar, [but] they won’t put a sign up and advertise it (Participant 04).

### Box 5: Considerations linked to crowd management

Practices related to mitigating patron risk and harm were found to be diverse, and included:

- codes of conduct and regulations that seek to communicate behaviour, dress and other conditions associated with venue/event entry and criteria for potential exclusion;
- ID scanning;
- varying operational hours with a view to encouraging the gradual dispersal of patrons;
- use of venue lock-outs;
- effective decision making with regards to the number, roles (e.g. static, roving) and positioning of security staff; and
- readily available food (at affordable prices) and free water that are easily accessed with their availability being clearly communicated to patrons.

## 4.6 Patron profile and event types

Patron profile and the type of activity or event impact the effective management of patron behaviour in a variety of ways.

## Age and gender

The literature consistently identified a relationship between patron age and the risk of violence; a view that was supported in the interviews. However, age was closely linked in interviewees' minds with the type of event, making it difficult to distinguish the contributory risk of either one. For example:

[A] jazz festival that has a target demographic of 35+ is a much different type of event to a rave party which has a target demographic of age 16 to 25 (Participant 12).

Despite this difficulty, younger age groups were considered by participants to be higher risk. The reasons given were mainly a lack of education around responsible behaviour/drinking, cultural norms and factors associated with their incomplete physical and biological development.

[H]ave a look at 18 to 23 year olds playing sport. They get angry. I mean, there's stuff happening in their body and their brain. Well, to think they're all going to sit there and be little perfect angels...are they like that at home, mums and dads? (Participant 86)..

[K]ids are kids, they are young and dumb, they are going to get drunk, some are going to get drunker than others, we've got to create a safe environment and have the systems to pick them up if they fall down...the cultural issues are much broader, it's nothing we can do (Participant 30).

Education, a lot of people don't know what, I can tell you now it's happened since the dawn of time...kids are gonna take drugs and they're gonna get drunk and they're gonna have sex. You can throw whatever line you want on it, use whatever media chump you want to, you'd need to tell them and educate about what they're doing (Participant 12).

The ability to influence these issues is often times beyond the control of the venue or event. As such, participants spoke of putting practices in place to manage the problem and ensure the safety of participants. One participant involved with the organisation of large-scale music festivals spoke of having alternative events that did not encourage binge drinking.

[W]e don't want 15 year olds getting sloshed and we've got a whole system to manage that before. Outside the gate we've got a minors management plan and a minors tent and it's got a whole service to it that's integrated with police, first aid (Participant 12).

Events that were patronised by an older crowd were considered less of a risk because of the perception that older patrons had different foci and would behave more responsibly. While they were still interested in the music, there was less interest in getting drunk or engaging in antisocial behaviours. One participant also noted that mixing the age demographic often had a positive impact on the behaviour of younger patrons.

[T]he more families, the more kids, the better the crowd behaviour. Because it also stops the idiots from being poorly behaved as well, where they're sitting amongst families. It's a great leveller in some ways... we have a lot of female security guards...who are very, very good at dealing with and diffusing issues and going up to young groups of males and suggesting in a motherly way...I think it's probably like chatting to your mum, telling you that you need to settle down (Participant 10).

Interviewees were in general agreement that males were more likely to be involved in violent incidents but there were concerns that *'you've still got more fights between women now that are in premises or on the streets'* (Participant 04).

## Type of event

As stated previously, disassociating the influence of patron age demographics from the type of event was difficult. Types of events considered high risk were those that were more likely to attract younger people:

You'll get a lot more sprains and bruises and we've even noticed styles of genres of events there's different types of first aid patterns...a metal punk hard core that was all a lot of joints damage and rolled

ankles and head clashed with another bloke... 'cause there's different type of activity. Whereas you'll get another event which is say electronic music... that it's more about dehydration and them types of things 'cause they just dance and dance and dance and dance and dance in the sun all day (Participant 02).

But the presence of young people did not automatically mean that an event was at greater risk. As participant 10 noted, mixing age demographics can be an excellent 'leveller' and can exert a positive influence on young people who may be prone to antisocial or aggressive behaviour.

In summary, events considered to be more sedate (including certain types of music festivals and musical acts) were thought to have a lower risk of violence compared with high-energy events. A similar logic was in evidence in the context of venues hosting entertainment.

Of note is that interviewees from the stadia and sporting events areas that had had experience in conducting soccer games noted a variance in the potential for violence compared with other types of football. As one participant noted;

...we don't have the issues that we have with soccer. There's not that tribalism within the Rugby League as there is with soccer (Participant 02).

In the context of venues, a type of event that featured as possessing significant potential patron risk was dance parties. This was more of a problem for nightclubs than for other licensed venues, with the main issue being the presence of drugs and the need to restrict their entry/availability and the associated requirement to care for people who had been affected by their use.

#### Box 6: Considerations linked to crowd management

Patron profile and event types impact the task of crowd management in a variety of ways:

- Patron age is a risk indicator, in that younger patrons have a greater potential to engage in unsafe drinking behaviour due to such reasons as a desire to conform to peer group norms.
- Males have a higher propensity for violence than females and as such, events/venues attracting a predominantly male audience may have a higher risk profile.
- Events based on high-energy entertainment (e.g. dance parties, youth-oriented music festivals) or that feature a specific sport (e.g. soccer), may present more of a crowd-management problem (e.g. drug use, ethnic based clashes) than other event types.
- The presence of a mix of age groups and approximately equal numbers of males and females at an event or venue may have the effect of mitigating antisocial or aggressive behaviour.

## 4.7 Gangs

Gangs are considered to be a serious issue that presents significant challenges for those working in the security industry, law enforcement and licensed venues and events.

### *Violence and crime*

The problem of gangs was mentioned by a range of interviewees. The primary issue was the predisposition of gangs towards violence and their connection with the supply of illicit drugs. Gangs also posed a significant threat because of their ability to overwhelm crowd controllers. One police representative gave this example:

[T]he crowd controllers were just outnumbered [by the gang], couldn't do anything. We know that [the gang] had a predisposition to violence and they would act on it. And they wanted to fight. So the crowd controllers, the decision was made to just leave them [the gang] be and then not serve them because you knew they weren't going to be paying for their drinks. Yeah, so that was a decision that was made by the licensee (Participant 72).

Other examples of gang-related crime provided by interviewees was a group armed with machetes who attacked a bouncer at a club and almost severed his lower leg, and the attempts by outlaw motorcycle gangs,

or 'bikie' gangs, to intimidate and extort the owners of licensed venues. Mitigating the risk associated with gangs was deemed to be difficult, with their ability to infiltrate the security sector, as noted previously, being a significant concern for event and venue managers.

So there's obviously some issue with organised crime trying to control it, and associated issue that... some bikie gangs run security companies...[and] there are pressures on certain legitimate companies that it's not wise to be in a particular area and they ought to leave that one alone and let someone else do it (Participant 804).

#### Box 7: Considerations linked to gangs

Gangs present challenges for the management of crowds and law enforcement as:

- they view some venues and events as locations where illicit drugs can be sold; and
- they can have links with the security industry which may complicate the security management task at venues and events.

## 5. Developing a Crowd Control Assessment Tool

A range of variables emerged from the literature review, examination of existing regulations and policies, and in-depth interviews with key stakeholders (see Appendix 1 and Appendix 2) as impacting decisions on crowd controller numbers in event and venue settings. It is these variables that were incorporated into the CCATs to aid those charged with determining, or advising on, crowd controller numbers. This section overviews the nature of these tools, discusses their use and how they were trialled and refined.

### 5.1 Overview of the CCATs

The CCATs are specifically developed to address the currently unsystematic and often subjective methods by which crowd controller to patron ratios are determined. The aim of the tools is to facilitate an objective assessment of an appropriate ratio of crowd controllers to patrons for major events, licensed venues and stadia. Due to subtle differences between venues and events, it was decided to develop two tools, one that embraced key considerations in event contexts (e.g. concerts, parades, large parties, sporting events) and another for use in licensed premises and stadia (e.g. pubs, community clubs, and nightclubs, stadia) The tools are:

- Event and Festival Crowd Control Assessment Tool (ECCAT)
  - This tool is to be used for events and festivals that are staged in urban (brownfield) and non-urban areas (greenfield).
- Venue and Stadia Crowd Control Assessment Tool (VSCCAT)
  - This tool is to be used for activities conducted within a permanent licensed venue such as a club, pub or stadium.

As noted earlier, the function of the CCATs is to provide a more empirical basis for the decisions, or advice, provided by key stakeholders such as regulators, venues, police, licensing bodies, event organisers and security firms, in the context of venue and event crowd controller requirements. While this focus differentiates them from more general risk assessment tools, they can still form part of broader risk assessments efforts.

While the CCATs identify key elements in determining crowd controller requirements, it is unrealistic to believe that every factor that might be at play in individual events, premises or stadia can be captured by a single decision-making tool. This being the case, they should be viewed as a decision-making aid that should be used in conjunction with pre-existing knowledge and experience associated with a specific event or venue, and in consultation with the relevant stakeholders. It should also be noted that the tools can be used irrespective of whether there is alcohol at an event or venue.

### 5.2 Underlying assumptions to the CCATs

The CCATs are differentiated from other assessment tools through a focus on the variables that directly affect the number of required crowd controllers. As such, they can also form part of a broader overall risk assessment if required.

While the CCATs serve to identify key elements likely to influence crowd controller ratios and to place a value on these in terms of their respective impacts on this ratio, it is unrealistic to assume that every characteristic that might be at play in individual events, premises or stadia that impact decisions in this area can be captured by a decision-making tool.

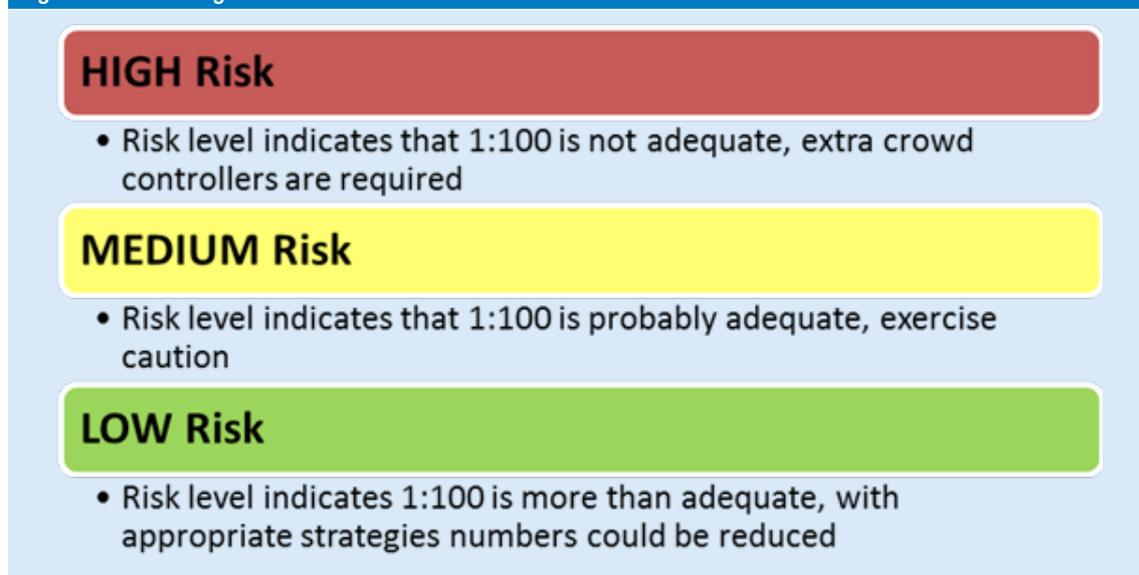
The quality of individual licensed crowd controller staff, for example, is an important factor that is not easy to capture in the tools that have been developed here. This being the case, the CCATs should be viewed more as decision-making aids rather than as a means of producing highly definitive responses to the challenge of determining crowd controller numbers.

The CCATs were created in Excel spreadsheets and require users to respond to a series of questions. Responses to variables are each given a predetermined weighting ranging from 1=Low to 10=High. The assigned weighting is based on the potential for a variable to contribute to the range of individual and social harms identified in this report. For example the service of full strength beer and an under 30 years of age male crowd are assigned high weightings, while a crowd energy level considered to be passive and an activity of less than five hours duration are assigned weightings of very low. Therefore, responses to variables collectively result in a summative evaluation of the overall risk level of the activity that the event or venue poses from the perspective of crowd control. Actual weightings can be found in Appendices 5 and 6.

The overall risk ratings are presented in Figure 1 below. Given that many interviewees viewed the 1:100 crowd controller to patron ratio as a useful benchmark or starting point when making decisions in this area, this ratio was employed as the baseline ratio in determining crowd controller numbers. The CCATs facilitate decision making flexibility, for example:

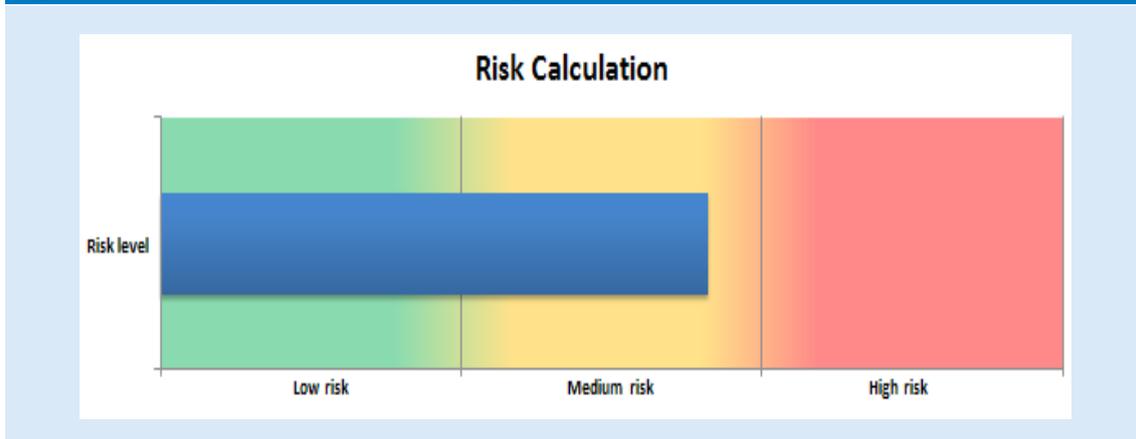
- If the users' intended crowd control ratio does not match the recommendation, this suggests the need to vary the proposed ratio of crowd controllers and/or to make changes to strategies that affect the risk associated with the activity.
- If the user makes changes to their crowd control strategies, they can also make changes to their responses to the related questions in the CCAT in order to gauge the impact of these changed strategies on the suggested ratio.
- Depending on the revised strategies the overall risk rating for the activity may change.

**Figure 1: Risk ratings for CCATs**



A visual example of the risk calculation and proposed ratio rating also appears at the bottom of the spread sheet. The visual risk calculation indicates to the user where along the risk scale their activity may lay providing further information to guide decision making.

Figure 2: Visual Representation of the Risk Rating



A design feature of the CCATS is to alert the user to areas of weakness that may exist within proposed patron and crowd management strategies. A red cross may occasionally appear in CCATs. The red cross indicates an area of potential weakness in the proposed crowd management strategies, which will in turn impact the overall crowd control risk rating. The red cross indicates that the user should reassess their strategies in this area so as to improve overall patron and crowd control management in order to reduce the potential for patron harm.

Completed CCATs can be used in several ways. They can be submitted in conjunction with an event or venue licensing application to provide evidence that a proposed crowd control ratio is adequate. Additionally, licensees or permit holders can use the CCATs to illustrate that they have thought proactively about elements related to the safe management of patrons and crowds, and to demonstrate that they have strategies in place to address areas of risk. Further, they can be employed by licensing/permit bodies and police to gauge the adequacy or otherwise of proposed crowd controller numbers and to highlight areas of risk that need further mitigation.

To facilitate the use of CAAT tools, a user guide has been prepared (see Appendix 3). This guide overviews the key features of the tools, explains the rating scales and their respective weightings that are in use and provides 'screen shots' of the tool in operation.

### 5.3 Trialling the CCATs

To refine the CCATs, the research team undertook several reviews of the tools, as well as seeking input from a large security and risk management firm operating in the event and venue area. On completion of this review process, the tools were sent to 20 stakeholders who had participated in the interviews, inclusive of the PRG, security companies, law enforcement police, night clubs and hotels, major stadiums, and regulatory authorities. After two weeks, non-responders were sent a reminder email and a courtesy telephone call was made. Unfortunately, a number of stakeholders had either left their positions or were away on leave. Six responses were received (a stadium, two security firms, two police and a liquor, gaming and racing authority). Feedback from those who trialled the tools was used in their further refinement.

Feedback on the tools was positive, indicating that respondents found the tool of value (see Appendix 6). However, it is clear that further refinement is required. In particular, this refinement should focus on ensuring that individual risk elements, along with the resulting overall risk rating, fully reflect the risk of a given activity and associated crowd controller needs.

## 6. Summary

The current approach to determining crowd controller numbers at events and venues lacks an empirical base. While acknowledging that the commonly used rule of thumb of one crowd controller for each 100 patrons is a useful guide or starting point, this study has shown that it is possible to introduce a more reasoned and less subjective approach to such decisions. In particular, this research has identified and placed weight on those factors that are key determinants in the crowd controller decision process and to subsequently indicate the crowd controller needs of individual events and venues.

The key considerations in managing patron risk at venues and events include:

- the presence and nature of alcohol and drugs;
- crowd controller training, quality and behaviour;
- environment and locational factors;
- degree of collaboration between stakeholders involved in patron risk management;
- types of practices used to mitigate patron harm;
- event/venue type; and
- patron profile.

While the impact of these factors will vary between individual events and venues, the literature, along with most interviewees, pointed to the major role played by alcohol and drugs in incidences of patron harm. Further, an association was made between the types of alcohol and drugs consumed by patrons and the level of violence observed. It was also found that other factors are likely to play a role in conditioning the impact of alcohol and/or drugs in such settings, including levels of crowding, entertainment and music type, and the nature of harm-minimisation strategies in use.

With regards to harm minimisation strategies, a range of practices are used by regulatory agencies and event and venue managers, of which the key practices are:

- patron entry controls and codes of conduct;
- restricted availability of alcohol after specific times;
- venue lockouts;
- regulations linked to the serving of alcohol and associated staff training requirements;
- crowd controller positioning and use (e.g. static and roving staff);
- patron education on responsible service of alcohol; and
- venue design and layout practices.

These practices worked the most effectively when conducted in conjunction with enforcement and an appropriately trained and capable workforce (inclusive of event/venue staff, suppliers and volunteers). For example, the effectiveness of regulatory regimes is linked to the extent to which they are well understood by staff and consistently implemented. It was noted by a number of interviewees that collaboration between stakeholders strengthened the impact of these practices.

Various issues were identified that may require further investigation. Crowd controller licensing and associated training in particular was identified by a number of interviewees as problematic. In particular, differing security guard licensing regimes in Australian states were seen as influencing the quality and level of training, with some being significantly less onerous and costly than others. Additionally, concerns were expressed in connection with current security guard pay rates and their associated ability to induce appropriate individuals to seek out security work. Of particular note is that a lack of a national standard for security accreditation has led to opportunities for organised crime to infiltrate the security sector. The ability of some security staff to understand and act on written and oral instructions was another area of concern. Further, there was a view

held by some interviewees and supported by the literature that inadequately trained and/or inappropriately behaved security staff can contribute to, or cause, violent incidents at events.

Another issue of note was the geographic boundaries of the duty of care owed by event and venue owner managers to patrons, with some interviewees noting that greater clarity was sometimes required as to where their responsibilities ended. There was some evidence from the interviews that in some areas, stakeholders were working together to implement a range of strategies to deal with this complex issue.

Tools from the findings two CCATs were developed—ECCAT and VSCCAT. These decision-making aids, have the potential to reduce the level of subjectivity involved in determining crowd controller numbers. When used in conjunction with pre-existing knowledge and experience associated with a specific event or venue, and in consultation with the relevant stakeholders, the tools can be used to moderate the dynamic mix of factors that go into determining whether a specific event or venue presents a greater or lesser potential for patron harm, particularly in settings where alcohol and/or drugs are present. In this way, the tools can enhance decision making for those charged with proposing crowd controller ratios (e.g. venues, stadia, night clubs, festival organisers) and those whose role it is to determine the adequacy or otherwise of such decisions (e.g. councils, police, licensing and permit bodies).

### *Future directions*

While limited, the feedback on the CCATs from selected potential users was positive, indicating that the tools could serve as an additional decision-making aid to determining crowd controller requirements. While such feedback is encouraging, the CCATs in their current form require further testing in a wider variety of settings in which they may ultimately be utilised. Given this, the tools are considered to be at a developmental stage, with reliability and validity yet to be further established.

It is proposed that a larger trial of the tools be undertaken across a wider variety of venue and event settings, with the specific intent of enhancing their sensitivity such that individual risk elements, along with the resulting overall risk rating, better reflect the risk of a given activity and associated crowd controller needs. Following further refinement the tools could be suitable for use within the venues and events sector.

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# 8. Appendices

# Appendix 1: Key risk variables for events and festivals

Variable name	Description
Start time	Time event starts (24 hour)
Finish time	Time event finishes (24 hour)
Description	Type of event (e.g. music festival, community festival, food and wine, arts, matchmaking)
Crowd size	Estimated peak crowd size
Security	Proposed number of security staff (if known)
Police	Proposed number of police (if known)
RSA marshals	Proposed number of RSA Marshals (if known)
Days	Number of days (round up to nearest number of days)
Crowd controllers/crowd safety	Proposed ratio of crowd controllers and security staff to patrons
Proposed ratio of RSA marshals	Proposed ratio of RSA Marshals to serving staff
Closing time	Program finish time rounded to the nearest hour
Event history	Indicate the ratio of crowd-related incidents per 1,000 people at previous staging of this event (i.e. arrests & summonses, drug or alcohol-related exclusions, resident complaints. Your response should exclude dehydration or first aid incidents)
Crowd Energy Level	Describe the energy level of the crowd
Security Assessment	Has a risk-management plan been prepared by a 2A consultant or a 2A licenced security firm?
Camping	Will camping be available?
Patron demographic	Age/gender demographic of patrons
Under 18 patrons	Are patrons under the age of 18 allowed entry to event?
Location	Location of event with respect to urban environment
Beer type available	Type of beer served at this event
Other alcohol available	Is all alcohol served at the most at one standard drink?
Alcohol policy	When are patrons made aware of the alcohol policy?

Variable name	Description
ID checks	Are IDs checked prior to entry?
Bag checks	Are bags checked prior to entry?
Vehicle	Are patron vehicles checked prior to entry?
RSA under 18s	How is under 18s exposure to alcohol regulated?
Free water	Is there adequate signage for free water during both day and night?
Free water communicated	Is the availability of free water clearly communicated to patrons at points of alcohol sales?
Food	Is food available for purchase?
Pre-event briefing	Will security/crowd control staff be briefed about alcohol-management strategies prior to event?
Other staff	Are there other staff who may also monitor the crowd (i.e. red frogs, roving medical, etc.)?
Planning	Are police involved in planning and undertaking staff briefings for the event?
Uniform	Will security be clearly identifiable from other staff (i.e. uniform or high-visibility vests/jackets)?
Communication	What ratio of security/crowd controllers are equipped with a two-way radio?
Pass outs	Are pass outs (people leaving and re-entering) allowed?
Fence	Is the venue fenced?
Site map positioning (police/licensing authority only)	Does the site map clearly show security/crowd controller placement pre, during and post event in reference to key site features (stages, fence lines, entry/exit points, toilets, bars etc)?
Public access	Will members of the public be able to access the site?
Disruption	Will event cause disruption to public access or thoroughfare?
Entry/exit	Are all entry and exit points monitored by security/crowd controllers?
External responsibilities	Does the festival have responsibility for monitoring the surrounding areas (e.g. nearby streets, car parks, waterways)?
Public transport	Does the event have a transport strategy to deal with the safe arrival and departure of patrons?

## Appendix 2: Key risk variables for venues and stadiums

Variable name	Description
Start time	Time event starts (24 hour)
Finish time	Time event finishes (24 hour)
Description	Type of event (e.g. music festival, community festival, food and wine, arts, matchmaking)
Crowd size	Estimated peak crowd size
Security	Proposed number of security staff (if known)
Police	Proposed number of police (if known)
RSA marshals	Proposed number of RSA Marshals (if known)
Days	Number of days (round up to nearest number of days)
Crowd controllers/crowd safety	Proposed ratio of crowd controllers and security staff to patrons
Proposed ratio of RSA marshals	Proposed ratio of RSA Marshals to serving staff
Closing time	Program finish time rounded to the nearest hour
Event history	Indicate the ratio of crowd-related incidents per 1000 people at previous staging of this event (i.e. arrests & summonses, drug or alcohol-related exclusions, resident complaints. Your response should exclude dehydration or first aid incidents)
Crowd Energy Level	Describe the energy level of the crowd
Security Assessment	Has a risk-management plan been prepared by a 2A consultant or a 2A licenced security firm?
Camping	Will camping be available?
Patron demographic	Age/gender demographic of patrons
Under 18 patrons	Are patrons under the age of 18 allowed entry to event?
Location	Location of event with respect to urban environment
Beer type available	Type of beer served at this event
Other alcohol available	Is all alcohol served at the most at one standard drink?
Alcohol policy	When are patrons made aware of the alcohol policy?

Variable name	Description
ID checks	Are IDs checked prior to entry?
Bag checks	Are bags checked prior to entry?
Vehicle	Are patron vehicles checked prior to entry?
RSA under 18s	How is under 18s exposure to alcohol regulated?
Free water	Is there adequate signage for free water during both day and night?
Free water communicated	Is the availability of free water clearly communicated to patrons at points of alcohol sales?
Food	Is food available for purchase?
Pre-event briefing	Will security/crowd control staff be briefed about alcohol-management strategies prior to event?
Other staff	Are there other staff who may also monitor the crowd (i.e. red frogs, roving medical, etc)?
Planning	Are police involved in planning and undertaking staff briefings for the event?
Uniform	Will security be clearly identifiable from other staff (i.e. uniform or high-visibility vests/jackets)?
Communication	What ratio of security/crowd controllers are equipped with a two-way radio?
Pass outs	Are pass outs (people leaving and re-entering) allowed?
Fence	Is the venue fenced?
Site map positioning (police/licensing authority only)	Does the site map clearly show security/crowd controller placement pre, during and post event in reference to key site features (stages, fence lines, entry/exit points, toilets, bars, etc.)?
Public access	Will members of the public be able to access the site?
Disruption	Will event cause disruption to public access or thoroughfare?
Entry/exit	Are all entry and exit points monitored by security/crowd controllers?
External responsibilities	Does the festival have responsibility for monitoring the surrounding areas (e.g. nearby streets, car parks, waterways)?
Public transport	Does the event have a transport strategy to deal with the safe arrival and departure of patrons?

# Appendix 3: Crowd Control Assessment Tool Guide

## USER GUIDE for the Crowd Control Assessment Tools: ECCAT and VSCCAT

### *Assessing the Crowd Controller to Patron Ratio*

## Background

Presently, the approach used to determine crowd controller to patron ratios in the context of venues/stadia and events/festivals is often unsystematic and subjective. In order to address this issue, the National Drug Law Enforcement Research Fund commissioned the Australian Institute of Criminology and the Australian Centre for Event Management, University of Technology, Sydney, to develop tools that would aid both those charged with making and assessing the appropriateness of such decisions. Resulting from their work are two tools—Crowd Control Assessment Tools (CCATs)—which are introduced in this guide:

- **Event and Festival Crowd Control Assessment Tool (ECCAT)**
  - This tool is to be used for events and festivals that are staged in urban (brownfield) and non-urban areas (greenfield) (e.g. festivals, parades, ceremonial/heritage events); and
- **Venue and Stadia Crowd Control Assessment Tool (VSCCAT)**
  - This tool is to be used for stadia and venues that hold a range of activities in a defined venue (e.g. nightclubs, hotels, commercial venues, sporting stadia).

The criteria used in the CCATs are based on interviews with police, venue managers/owners, festival/event owners, security firms and selected industry associations, and an extensive literature review was conducted that sought to determine policies, practices and issues impacting decisions concerning crowd controller to patron numbers.

The CCATs are differentiated from other assessment tools through a focus on the variables that directly affect the number of required crowd controllers. As such, they can also form part of a broader overall risk assessment if required.

## Context

While the CCATs serve to identify key elements likely to influence crowd-controller ratios and to place a value on these in terms of their respective impacts on this ratio, it is unrealistic to assume that every characteristic that may be at play in individual events, venues or stadia and impacts decisions in this area can be captured by a decision-making tool.

The quality of individual licensed crowd-controller staff, for example, is an important factor that it is not easy to capture in the tools that have been developed here. This being the case, the CCATs should be viewed more

as decision-making aids rather than as a means of producing highly definitive responses to the challenge of determining crowd-controller numbers.

## How are the CCATs to be used?

Completed CCATs can be submitted in conjunction with an event or venue licensing application to provide evidence that a proposed crowd-control ratio is adequate.

**Licensees** can use the CCATs to illustrate that they have thought proactively about elements related to the safe management of crowds and demonstrate that they have strategies in place to address areas of risk.

For **assessment authorities** including **city/town officials and police**, the tools can guide decisions on what crowd controller to patron ratios are adequate for licenses and permits, rather than employing the common rule of thumb of 1:100 without any clear means of judging the appropriateness of otherwise of this figure.

## How the tool works

The tools ask a series of questions of which a small number require a manual response and the rest require a selection response from a drop down menu. The purpose of the descriptive questions is to provide a context from which responses can be viewed.

The selection response questions relate to variables that have been identified as having the capacity to influence the ratio of crowd controllers to patrons. The tools attribute a level of risk to these factors based on the answers provided. Upon entering all data into the tools, a level of risk will be calculated that in turn will suggest an appropriate crowd controller to patron ratio (see below).

<b>HIGH Risk</b>
<ul style="list-style-type: none"> <li>• Risk level indicates that 1:100 is not adequate, extra crowd controllers are required</li> </ul>
<b>MEDIUM Risk</b>
<ul style="list-style-type: none"> <li>• Risk level indicates that 1:100 is probably adequate, exercise caution</li> </ul>
<b>LOW Risk</b>
<ul style="list-style-type: none"> <li>• Risk level indicates 1:100 is more than adequate, with appropriate strategies numbers could be reduced</li> </ul>

The CCATs will not make a recommendation unless the user responds to all questions. Should any questions be missed a note will appear at the bottom of the page stating, "Not all questions have been answered - please review your responses".

As you make your responses, you will notice that a red cross may occasionally appear in column G of the CCAT. The red cross indicates an area of potential weakness in your proposed crowd-management strategies, which will in turn impact your overall crowd control risk rating.

It is recommended that you review your current approach to these areas as you proceed through the tool, or upon having entered all of your responses, and consider changing your current approach/strategy so as to reduce the potential for patron harm.

Upon completion of all CCAT questions a recommended ratio is suggested and this is compared with the user's proposed ratio. Below is an example of the potential recommendations based on a user's proposed ratio and responses to the range of selection questions.

User proposed ratio	>1:100	1:100	<1:100	>1:100
Recommended ratio of crowd controllers:	High risk consider a ratio of >1:100	High risk consider a ratio of >1:100	Medium risk consider a ratio of 1:100	Medium risk consider a ratio of 1:100
Is the ratio you proposed meeting the assessed risk?	Your proposed ratio of crowd controllers is the same as the recommended ratio	Your proposed ratio of crowd controllers should be reviewed	Your proposed ratio of risk controllers should be reviewed	Your proposed ratio of risk controllers should be reviewed

## How to use the tool

Before entering data into the tool, ensure you have selected the CCAT that is most appropriate to your event, venue or stadium. Additionally, read through the tool first and ensure you have on hand, or have been provided with, documents and other information that you may need in order to respond to the questions asked (e.g. venue/site diagram/map, statistics on incidents at previous events, envisaged numbers of crowd controllers, RSA marshal, etc.).

- To begin, open either the VSCCAT or ECCAT using Excel and review the variables listed on the left-hand side of the page.
  - The questions are grouped under the categories of **Descriptors, Alcohol Management** and **Environment/Design**.
  - The first few questions will be manual entry

Category	Variable name	Description	Input	Options	Enter your responses below	Risk flag
	Name	Name of venue	Manual			
	Application Date	Date of application for activity license	Manual			
	Crowd size	Expected peak crowd size	Manual			
	Security	Proposed number of security staff (if known)	Manual			
	Police	Proposed number of police (if known)	Manual			
	Venue type	What is the type of venue	Manual			

Others will ask you to select an option from a drop-down menu.

	Location	Location of venue	Selection	Options		
	Beer type available	Type of beer served at this activity	Selection	Entertainment strip; Sporting precinct; City centre; Suburb/other		
	Other alcohol available	Are other types of full strength alcohol (spirits, wine, champagne, shots) served?	Selection	No alcohol served; Mid/low strength; Full strength (incl. spirits); Mixed (mid/low and full strength)		
	Drinks promotions	Alcohol sale linked to drink promotions/incentives? (i.e. 2-4-1 or meal and drink combo, happy hour)	Selection	Yes; No		
	Happy hour	Does the venue have a happy hour?	Selection	Yes; No		

2. Respond to the questions one by one as accurately as possible.

- Entries for those questions requiring a **Manual** response are to be typed into column **F**. **EXAMPLE:**

D	E	F	G
Input	Options	Enter your responses below	Risk flag
Manual		A FabFictional Stadia	
Manual		1/05/2013	
Manual		30000	
Manual			
Manual			
Manual			
Selection	Primarily < 30 years & male; Primarily < 30 years & female; Primarily < 30 years & mixed; Primarily >30 years & male; Primarily >30 years & female; Primarily >30 years & mixed; Family oriented; All ages (mixed)		

- To make a selection response click on the cell to the right of the option column (column E). A drop-down arrow will then appear in the bottom right-hand corner of the cell. Click on this arrow and make your selection from the choices available by clicking on the option.

D	E	F	G
Input	Options	Enter your responses below	Risk flag
Manual		A FabFictional Stadia	
Manual		1/05/2013	
Manual		30000	
Manual		300	
Manual		3	
Manual		Stadium	
Selection	Primarily < 30 years & male; Primarily < 30 years & female; Primarily < 30 years & mixed; Primarily >30 years & male; Primarily >30 years & female; Primarily >30 years & mixed; Family oriented; All ages (mixed)		
Selection	Yes; No		
Selection	<1:100; 1:100; >1:100		
Selection	Before or at midnight; After midnight;		

Type the response to manual questions in column F

Click on the arrow to open a drop-down box for selections

3. When you have finished answering all the questions, you will be given a risk rating for the event with a suggested crowd control ratio.

- If the intended crowd control ratio does not match the recommendation, this suggests the need to vary your proposed ratio of crowd controllers, or make changes to strategies that affect the risk associated with the ratio of crowd controllers.
- If you make changes to your crowd-control strategies, you can then make changes to your responses to the related questions in the CCAT in order to gauge the impact of these on the suggested ratio.
- Depending on the revised strategies, the overall risk rating for the activity may change.
- You can save multiple versions of the VSCCAT and ECCAT with a file name of the event if you wish to work through different scenarios based on different crowd-management strategies.

## Appendix 4: Risk rating categories for VSCCAT

Variable	Risk Rating
Patron Demographic	1–8
Primarily < 30 years & male	Medium to High
Primarily < 30 years & female	Low to Medium
Primarily < 30 years & mixed	Medium to High
Primarily >30 years & male	Very Low
Primarily >30 years & female	Very Low
Primarily >30 years & mixed	Very Low
Family oriented	Very Low
All ages (mixed)	Low
Age Restrictions	1–5
Yes	Low
No	Very Low
Crowd Controllers/Crowd Safety	
<1:100	description only, no risk rating assigned
1:100	
>1:100	
Closing time	1–5
Before or at midnight	Very Low
After midnight	Low to Medium
After 3am	Medium to High
Venue Layout Plan	1–2
Yes	Very Low
No	Low
Layout Plan Pre, During, Post	1–3
Yes	Very Low
No	Very High
N/A	Very High
Layout Plan Entry Exit	1–3
Yes	Very Low

Variable	Risk Rating
No	Very High
N/A	Very High
Layout Plan Bar Locations	1–3
Yes	Very Low
No	Very High
N/A	Very High
Security Assessment	1–10
Yes	Very Low
No	Very High
Venue History Drugs	1–6
<1:1000	Very Low
<3:1000	Low
<5:1000	Low to Medium
<7:1000	Medium
≥7:1000	Medium to High
N/A	Low
Venue History Alcohol	1–6
<1:1000	Very Low
<3:1000	Low
<5:1000	Low to Medium
<7:1000	Medium
≥7:1000	Medium to High
N/A	Low
Venue History Violence	1–6
<1:1000	Very Low
<3:1000	Low
<5:1000	Low to Medium
<7:1000	Medium
≥7:1000	Medium to High
N/A	Low
Crowd Energy Level	1–10
Passive	Very Low
Active	Low to Medium
Energetic	Medium to High
Mood descriptor	1–9

Variable	Risk Rating
Passive	Very Low
Active	Low to Medium
Energetic	Medium to High
Duration	1–4
< 5 hours	Very Low
5–8 hours	Low
8-10 hours	Low to Medium
>10 hours	Medium
N/A	Very Low
Activity	1–2
Single activity	Very Low
Multiple activity	Low
Location	1–3
Entertainment strip	Very Low
Sporting precinct	Very Low
City centre	Low
Suburb/other	Low
Beer type available	1–7
No alcohol served	Very Low
Mid/low strength	Low
Full strength (incl. spirits)	Medium to High
Mixed (mid/low and full strength)	Low to Medium
Other alcohol available	
Yes	Medium
No	Very Low
Drinks promotions	1–3
Yes	Low to Medium
No	Very Low
Happy hour	1–3
Yes	Low
No	Very Low
Duration happy hour	1–2
≤3 hours	Very Low

Variable	Risk Rating
>3 hours	Low
N/A—no happy hour	Very Low
RSA under 18s	1–2
Identifiers (i.e. wrist bands)	Low
Restricted/no access to licensed areas	Low
Combination	Very Low
N/A (U18 Patrons not allowed at Venue/Stadia)	Very Low
Water communicated	1–3
Yes	Very Low
No	Low to Medium
N/A	Very Low
Food	1–5
Yes—hot food available	Very Low
Limited—snack food available	Low
No	Low to Medium
RSA marshals	1–2
Yes	Very Low
No	Low
Uniform	1–2
Yes	Very Low
No	Low
Staff Communication	1–2
Yes	Very Low
No	Low
Other Venue Communication	1–2
Yes	Very Low
No	Low
Pass outs	1–5
Yes	Low
No	Very Low
Code of conduct	1–4
Yes inside the venue	Low

Variable	Risk Rating
Yes outside the venue	Low
Yes both	Very Low
No	Medium
Checks	1–4
Yes—IDs only	Low
Yes—bags only	Low
Yes—IDs and bags	Very Low
No—no checks completed	Medium
Conditions of Entry	1–3
Manually	Low to Medium
Electronically	Very Low
External responsibilities	1–3
Yes	Low to Medium
No	Very Low
Public transport	1–4
Yes—public transport extra services	Very Low
Yes—public transport (but no extra services)	Low
Yes—taxi only	Low to Medium
No	Medium

## Appendix 5: Risk rating categories for ECCAT

Variable	Risk Rating
Crowd controllers/ crowd safety	
<1:100	description only, no risk rating assigned
1:100	
>1:100	
Proposed ratio of RSA marshals	1–5
<1:4	Very Low
<1:6	Low
<1:8	Low to Medium
<1:10	Medium
>1:10	Medium to High
Closing time	1–5
Before or at 6pm	Very Low
Between 6pm and midnight	Low to Medium
After midnight	Medium to High
Event history	1–6
<1:1000	Very Low
<3:1000	Low
<5:1000	Low to Medium
<7:1000	Medium
<9:1000	Medium to High
≥9:1000	High
Crowd Energy Level	1–10
Passive	Very Low
Active	Low to Medium
Energetic	Medium to High
Security Assessment	1–10
Yes	Very Low
No	Very High

Variable	Risk Rating
Camping	1/2
Yes	Low
No	Very Low
Patron demographic	1–8
Primarily < 30 years & male	Medium to High
Primarily < 30 years & female	Low to Medium
Primarily < 30 years & mixed	Medium to High
Primarily >30 years & male	Very Low
Primarily >30 years & female	Very Low
Primarily >30 years & mixed	Very Low
Family oriented	Very Low
Mixed (include family)	Low
Under 18 patrons	1–5
Yes	Low
No	Very Low
Location	1–3
Established venue/site	Low to Medium
Greenfield site	Very Low
Beer type available	1–7
No alcohol served	Very Low
Mid/low strength	Low
Full strength (incl. spirits)	Medium to High
Mixed (mid/low and full)	Low to Medium
Other alcohol available	1–3
Yes	Medium
No	Very Low
Alcohol policy	1/2
Upon ticket purchase (i.e. conditions on back of ticket)	Low
At event entry points	Low
Displayed at bar	Low
At two or more of the above options	Very Low
ID checks	1–6
Yes—all checked electronically	Very Low

Variable	Risk Rating
Yes—all checked manually	Low to Medium
Yes—randomly checked manually	Medium to High
No—no checks completed	High
Bag checks	1-4
Yes—all checked systematically	Very Low
Yes—checked randomly	Low to Medium
No—no checks completed	Medium
Vehicle	1-5
Yes—all checked systematically	Very Low
Yes—checked randomly	Low to Medium
No—no checks completed	Medium to High
N/A—no patron vehicles on site	Very Low
RSA under 18s	1-2
Identifiers (i.e. wrist bands)	Low
Restricted/no access to licensed areas	Low
Both identifiers and access restriction	Very Low
Free water	1-2
Yes	Very Low
No	Low
Free water communicated	1-3
Yes	Very Low
No	Low to Medium
Food	1-2
Yes	Very Low
No	Low
Pre-event briefing	1-3
Yes	Very Low
No	Low to Medium
Other staff	1-2
Yes	Very Low
No	Low
Planning	1-5

Variable	Risk Rating
Yes—planning and briefing	Very Low
Yes—planning only	Low
Yes—briefing only	Low to Medium
No	Medium to High
RSA marshals	1–5
<1:4	Very Low
<1:6	Low
<1:8	Low to Medium
<1:10	Medium to High
>1:10	High
Uniform	1–5
Yes	Very Low
No	Low
Communication	1–6
1:1 (i.e. all)	Very Low
1:2	Low
1:3	Low to Medium
1:4	Medium
1:5	Medium to High
>1:5	High
Pass outs	1–5
Yes	Low
No	Very Low
N/A	Very Low
Fence	1–5
Yes	Very Low
No	Low to Medium
Site map positioning (police/licensing authority only)	1–7
Yes—highly detailed (i.e. positioning of security staff pre, during and post event and other features of the site)	Very Low
Yes—moderately detailed (i.e. positioning of security staff during event only and security features of event site)	Low to Medium

Variable	Risk Rating
Yes—basic map only (i.e. no details of security staff positioning or security site features)	Medium
No	Medium to High
Disruption	1–3
Yes	Low to Medium
No	Very Low
Entry/exit	1–3
Yes	Very Low
No	Low to Medium
N/A	Very Low
External responsibilities	1–3
Yes	Low to Medium
No	Very Low
Public transport	1–4
Yes—public transport (but no extra services)	Low
Yes—extra public transport services	Very Low
Yes—taxis	Low
Yes—combination taxis/public transport	Very Low
No	Medium
Don't know	Medium

## Appendix 6: Feedback on the CCATs

Positive comments in response to the trial of the CCATs:

- Appears to be very well thought out.
- This tool is very much needed in the security industry. It highlights the importance of harm-reduction strategies such as signs advising of free water. These measures have traditionally been overlooked by security providers in my experience.
- Well framed and relevant questions, easy to answer with available data.
- It is easy to understand if you have experience as a licensee.
- Most results were sufficient for applicants to begin planning for the function. Any increases in ratio by the licensing authority would be easily made. The questions were good at evoking thought from the applicant, which is a plus.
- We feel the CCAT has met the objectives relating to activities at this Stadium. It enables us to demonstrate we recognise individual differences and requirements dependent upon the type of event and estimated crowd numbers.
- Reasonably short time to complete the CCAT, appropriate and understandable language. The risk categories are appropriate. In relation to further, future usage.
- I would like to see a more finalised document after feedback from other similarly positioned venues.

Recommended suggestions and changes:

- Place the tool online so documentation in relation to the activity/venue/event can be shared between relevant stakeholders to enhance decision-making and ensure consistency in rating outcomes.
- Being online will overcome problematic issues related to different versions of Excel not working together.
- Fine tuning some of the variables to incorporate a scaled system for some questions.
- Expansion of the history section to take greater consideration of previous violent acts that have occurred followed by intoxication incidents.
- Reword the question relating to 'RSA under 18s'.
- Provide more N/A options.
- Provide more opportunity for subjectivity through the use of sliding scales where appropriate.

It must be noted that an issue arose in relation to the different versions of Excel that are in use by various organisations. This resulted in the loss of functionality of the tools. Modifications were made to the tools to mitigate this problem and redistributed to those involved in the trial that were using older versions of Excel.

