CROWD **MANAGEMENT**

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COURSE OUTCOMES

At the conclusion of this session, participants will be able to:

- 1. Identify the general factors and elements that affect crowd dynamics
- 2. Understand the specific industry challenges of venue management that influence crowd behavior
- 3. Better understand contemporary expectations of minimum preparedness for potential issues arising from crowded places
- 4. Understand how the key dynamics of force, information, space and time, shape crowd behavior
- 5. Have an increased understanding of essential components of developing crowd management strategies and plans

1. Introduction

"If we fail to prepare we prepare to fail."

James H. Hope – State Superintendent of Education for South Carolina (1929)

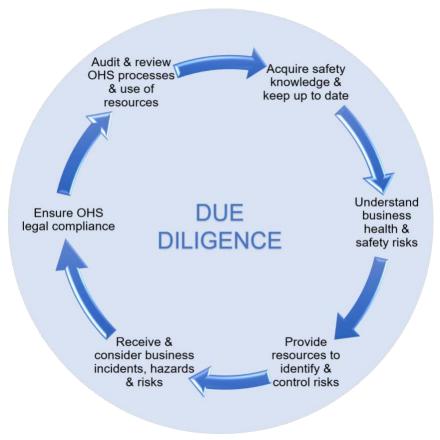
The operating environment for crowded places has changed significantly in recent years. We have seen, and will continue to see, a greater focus on safety and resultant changes in laws and legislation, coupled with the increased safety expectations of those working in, and visiting, public assembly facilities.

Furthermore, there have been a number of critical and significant safety and security incidents (including threats) within the venue industry both locally and across the world. This has drastically redefined the venue industry working environment and required a change to the way in which we manage our venues and think about, and plan for, events.

There is no doubt that since the tragic events of 11th September 2001 and subsequent incidents around the world that have been planned with intent to create calamity, public perceptions and expectations of personal and public safety have changed. The very real threat from acts of terrorism (and other acts intended to incite fear and cause harm) where there are mass gatherings or large volume of people at a given time, has rallied everyone directly and indirectly associated with the venue and events industry to redefine their expectations of preparedness for a potential attack and effective responses.

Globally, governments at all levels are passing laws and enforcing legislation with the aim of raising the awareness of potential for either major incidents and increased standards for effective crowd management in mass gatherings. Their goal is to ensure venues are doing what they can to prevent, or otherwise be prepared for, such incidents, of the size and type of venues we operate, or operate within, we each have a legal obligation and duty of care (including due diligence responsibility) to provide a safe and secure environment for our patrons (the public), hirers (promoters), performers and participants, staff and contractors.

Due diligence is a comprehensive appraisal of a business environment to ensure reasonable steps have been undertaken to consider and manage risk and safety. A baseline due diligence model for venue management is shown below.



Our own industry has been very pro-active in this field. The International Association of Venue Managers (IAVM) has developed an extensive number of documents, planning guides, best practices and audio-conferences on security and crowd management. It would be prudent that your venues be in possession of the guides relevant to your service sector.

2. Psychological, Physical, and Environmental Elements of **Crowd Management**

There are three major areas of focus in crowd management:

I. the *psychological* category deals with the humanistic factors of crowd management;

- II. the *physical* category deals with all the physically-alterable aspects of the environment,
- III. and the *environmental* category deals with the items that alter the living environment, stemming from both human and natural causes.

In some cases, these elements interact or overlap.

Note, although 'events' is frequently referenced herein as the context for crowd management theory, it is acknowledged that not all venue businesses plan and host events. All industry professionals, regardless of the type of public assembly facility they represent, must ensure preparedness for the patrons/guests expected to visit, utilize or congregate within your venue (i.e. your 'crowd'). Unless otherwise specified, 'events' may be interpreted as venue operating conditions when 'doors open' to your guests/patrons/visitors.

2.1. The Psychological Element

It is clear that each participant comes to any given event (or venue) with a certain frame of mind and with a variable level of emotions. All individuals have their own personality and all of these varied personalities, in a group, must be accommodated in a venue setting that aims to create comfort and enjoyment to the greatest extent possible.

The primary challenge is to maintain a psychological environment that is permissive yet does not include infringing upon the rights of others in attendance by facilities and services that allow for inclusiveness and opportunities for all.

"Crowds are made up of individuals, each with their own agenda. Individuals form larger groups, which then become joined by a common purpose. This purpose can be celebration and joy but can also be anger, panic or violence."

Live Performance Australia

There are many ways to upset the psychological environment. Several areas of concern are

- Tobacco smoking regulations enforcement
- Aisle restrictions enforcement
- Contraband and alcohol enforcement (including patron search and seizure)
- Discourteous service personnel
- Lack of information available at venue
- Timing issues such as late admittance, late show starts, and performer cancellations at the last minute

2.2. The Physical Element

The aspects within the realm of physical crowd management stem from both the physical limitations of a facility, as well as those of the crowd. Importantly, some of the physically related factors can also have a strong psychological impact on the crowd, manifested as a wide variety of undesirable behaviors.

The following are some of the more common physically-related crowd management complexities that may have disrupting affects upon spectator/patron behavior:

- Insufficient gates open leading to late patron entry
- Poor seating comfort and lack of sufficient inclusive seating

- Lack of circulation space leading to 'pinch-points' or 'pressure-points' around the venue
- Bad sightline restrictions from sold seats
- Oversold general admission or standing areas
- Insufficient food and beverage outlets
- Poor or inadequate sound and lighting systems

2.3. Environmental Factors and Behavior

Environmental factors are represented in many forms and can profoundly affect the behavior of individuals as well as create larger scale crowd management problems.

An examination of the public setting of an event includes factoring in the location of the event, potential capacity, the purpose and nature of the event, and whether the community is conflicted over the event. Certain events will, by the nature of their purpose, spark greater crowd management concerns.

In terms of such crowd management considerations, some environmental factors for analysis include:

- Expected time of arrival (e.g. is it an afternoon or evening event?)
- Demographics (e.g. concerts by popular-music-genre artists will very likely draw a demographically different crowd than a hip-hop or rap artist; just as an all-ages circus will attract different ticket-holders from an adults-only burlesque performance)
- History of crowd (e.g. is there a known history of rowdiness by this crowd?)
- Age group/bracket or generation (e.g. is the event likely to attract a younger or older demographic? Knowing this can give insights into plausible mobility of patrons and rate of movement through venue, for example.)
- Ticket demand (e.g. is the event a sell-out? If so, this may influence levels of scalping or sale of unofficial tickets causing entry issues.)

Nature of event and scrutiny (e.g. is the event considered controversial in the community, which may spur protest or demonstrations?)

Serious crowd management problems can occur if there are no clear standards of behavior that have been communicated and advertised to ticket holders and enforced by venue staff. This can include examples such as failure to check for prohibited items at entry, allowing intoxicated patrons to enter the venue precinct, or allowing guests to stand on chairs or in aisles.

Once all of the above psychological, physical, and environmental factors are analyzed as thoroughly as possible, policies must be developed and tailored appropriate to every event, the anticipated crowd, and the circumstances under which the event is occurring.

After policies are established, staff must thoroughly understand those policies and be prepared to implement them through a regular series of briefings and training.

3. Public Safety

This subject is one of many within the IAVM Venue Management School program that reflects (or attempts to recognise) the broad-ranging professional sectors represented by venue management industry attendees. Meaning, this course has been thoughtfully designed to ensure attendees better understand that the term 'crowd management' does not singularly pertain to the planning of sizeable scale events, which attract masses/large numbers to an event location.

Crowd management is certainly synonymous with event planning for major multiprecinct festivals, city-wide celebrations, and operating iconic sporting and entertainment stadia, arenas and theatres. However (as mentioned earlier) all venue professionals must ensure a fundamental preparedness for any spectators/patrons/guests anticipated to visit, utilize or congregate within your venue (i.e. your 'crowd').

It is the venue professional's responsibility to appropriately prepare for, manage and scale up or down as relevant to their venue business, whether this be a gallery, boutique bar, live music club, or an international convention and exhibition center. Crowd management should consequently be viewed as a

'mindset' and another of the essential risk-mitigating duties of any venue professional.

When developing public safety plans, you will need to contemplate various matters as part of the venue operations and event planning process, and specifically in relation to the efficient and effective management of crowds of any scale. (While much of the narrative in these notes appears to pertain to large volumes of people gathering, as prefaced above information can apply to any venue situation if scaled accordingly.) Spectator/Patron Safety Policy

Venue operators must ensure that all activities undertaken in their venues are conducted in a manner that places the safety of the public (patrons) as an absolute priority.

Venue operators may consider developing a Spectator/Patron Safety Policy, which underpins the operator's approach to public safety and its commitment to developing a strong, whole-of-business safety culture, embraced by employees, contractors,

s (promoters) and any other persons charged with the responsibility of public safety on event/venue operating days.

2.5. Venue/Event Manager and Staff Responsibilities

Venue/event managers and their staff and contractors have significant responsibilities as it relates to the safe delivery of the operation of their venues and events.

The below list is not exhaustive but provides a brief summary of items that responsible persons should consider as it relates to public safety.

Compliance:

- o adherence to all relevant occupational health and safety legislation, regulations, standards and venue codes of conduct;
- o testing the effectiveness of systems, procedures, response and contingency plans; and

o providing safe work conditions and safe systems of work for all persons working at the venue.

Event planning:

- o undertaking an integrated planning process with key stakeholders (including emergency services agencies such as police, medical/ambulance and fire services), which contemplates public safety;
- o implementing a risk management process, which identifies venue and event risks which could affect public safety; and
- o developing mitigation strategies, appropriate response and contingency plans to counter risks and procedural failures.

Venue safety & readiness:

- o reporting any potential safety hazards and taking preventative or corrective action as required;
- o undertaking continuous systems and equipment inspections, including testing and maintaining recording systems; and
- o undertaking pre-event inspections to ensure the venue is safe and ready to open.

Patron entry & venue capacity:

- o providing adequate entry/ingress infrastructure;
- o ensuring venue capacities are not exceeded;
- ensuring patrons are admitted in an orderly and safe manner; and
- o contemplating the entry and exit requirements of persons who have ambulatory disabilities, any other accessibility requirements, which would make the venue environment safe and inclusive.

Patron exit:

- providing adequate exit/egress infrastructure (if necessary);
- providing adequate, safe and unobstructed exits for both routine and emergency exit/egress;

- deploying adequate staff to direct patrons to exit points and ensure patrons leave in an orderly manner; and
- o contemplating the exit requirements of persons who have ambulatory disabilities, any other accessibility requirements, which would make the venue environment safe and inclusive.

Crowd control:

- o ensuring event staff responsible for assisting with patron safety are easily identifiable;
- developing appropriate, well-articulated and well-communicated Conditions of Entry;
- not permitting entry to persons affected by alcohol or other drugs;
- removing persons deemed to pose a risk to patron safety; and
- deploying adequate staff to prevent overcrowding and who are capable of efficiently and effectively responding to emergency situations.

Communication:

- having the means to communicate with patrons via an effective public address system and other mechanisms (e.g. Emergency Warning & Intercommunication System, video screens, television monitors, social media platforms);
- appropriate way-finding and directional signage (uniforms and visible presence are also important signs, a notion introduced later in these notes).

Emergency services:

- o developing a close working relationship with emergency services (e.g. police, ambulance/paramedics, and fire and rescue agencies or departments); and
- having emergency services providers attend events or during particular venue operating times as required (based on identified risks).

Security, customer service, medical & facility personnel:

o deploying sufficient and appropriately trained and qualified personnel to oversee and manage patron safety and welfare and the management of the venue's infrastructure

Emergency Management & Evacuation Plan:

- o developing a venue-specific Emergency Management and Evacuation Plan, which is regularly tested; and
- o establishing a centralized command, control and communication structure and location.

Training & briefing:

- o ensuring all persons working in the venue have been appropriately inducted:
- o ensuring staff have the necessary qualifications and training to safely undertake their work; and
- o ensuring that staff receive a pre-event briefing and are alerted to any known risks which could impact patron safety.

Incident Reporting:

- o recording and investigating all incidents and maintaining an incident log; and
- o utilizing a safety management system to track performance, improve processes and ensure potential hazards are reported and addressed efficiently and effectively.

Review & Evaluation:

- o reviewing the Spectator/Patron Safety Policy (referenced above) annually or as required; and
- o reviewing management plans, procedures and systems (especially after a major accident or incident).

In summary, a core activity in the process of managing venues and organizing events, with public safety as a foremost priority, involves having robust systems in place to identify risks and appropriate processes in place to manage and

mitigate such risks to an acceptable level.

Venue managers and staff, and event organizers and staff must always be able to demonstrate that they have adopted sound management practices and strong and visible leadership when it comes to safety.

4. Industry-Specific Challenges

The venue industry has several specific and significant challenges requiring consideration when managing safety and crowds. A few of these factors are outlined below, noting the following summary is by no means exhaustive.

A varied and changing workforce:

- o Due to the dynamic nature of the venues and events sector, the workforce that delivers services for venues and events is made up of many types of worker, including (but not limited to):
 - directly employed casual and permanent part-time or full-time staff:
 - service and labor contractors;
 - the venue hirer's (promoter's) staff and contractors;
 - volunteers: and
 - emergency services.
- o The 'seasonal' and 'spontaneous' nature of the venue and events industry and the volume of human resources required means that much of the workforce can comprise short-term connections and a high rate of turnover. With the level of investment/engagement from the workforce often not being long-term, venues must overcome a lack of familiarity and knowledge-depletion via effective induction and training programs or implement innovative reward, recognition and retention strategies.
- o The entire workforce (all persons involved in the venue/event delivery) need to:

- understand the risks associated with their tasks;
- be able to confidently manage the environment of those they have control over;
- have management and 'chain of command' structures in place to deal with the unexpected; and
- learn from experience and/or actions and activities of other venues and events.

Managing large crowds in public spaces:

- The following characteristics of venue and event visitors/patrons/spectators (examples only) can have an impact on a venue workforce's response when managing large groups of people:
 - unfamiliarity with the venue environment;
 - displaying exuberance or being in the 'grip of emotion';
 - being affected by alcohol or other substances;
 - being affected by extremes of weather (e.g. excessive heat, humidity, cold, rain and high winds);
 - reaction in an emergency (response driven by fear and anxiety);
 - unfamiliarity with or unwillingness to follow directions or commands given by others, including emergency services personnel; and
 - diverse levels of physical fitness and intellectual capacity.
- o In addition, the *design* of the venue and nature of the event may also affect the management of large crowds, irrespective of the environment being comprised of permanent or temporary infrastructure. This is particularly so for venues that may have capability for changeable configuration of spaces or paths of entry/exit/patron flow, and different general 'venue' layouts from one event or hire to another.

The pressure of achieving 'Doors':

o It is important not to compromise safety when working to demanding time constraints of performances/ event programming.

Weather:

- o Particularly for large outdoor venues and event spaces, weather conditions can have both psychological and physical impacts as it relates to crowd management issues.
- o As touched upon above, extremes of weather such as excessive heat, humidity, cold and damp will impact upon spectators'/ patrons' capacity and willingness to comply with directions and their patterns of behavior.
- o In addition, sudden adverse weather (e.g. thunderstorm, squall, dust storm) will give rise to different psychological and physical behaviors.

Buildings, facilities, amenities and temporary infrastructure

- o A variety of features can influence the management of crowds in both a positive or negative manner, for example:
 - building/infrastructure design;
 - security zoning;
 - physical barriers that secure, deny or enable access control (e.g. fences, walls, doors, gates, bollards and stanchions, and other infrastructure); and
 - security lighting.

5. Managing Crowds

'Crowded places' require personnel who have the knowledge and expertise to manage crowds, be they large or small. This is one of the most significant risks for a venue operator, particularly when people are contained in and move through the venue.

In line with a venue operator's public safety obligations, *comprehensive risk*

assessments on crowd management are critical and should be undertaken prior to each event, giving due consideration to what response and contingency plans will be required to control crowds, should mitigation treatments fail.

Good crowd management is more than crowd control and containing unruly behavior. It is the process of ensuring people are not put at risk or *create* risk. Effective crowd management ensures people are able to enjoy themselves without threat or duress. It is therefore the practice of safely controlling patrons as they enter and move around your venue and leave safely, having had a positive experience.

4.1. Crowd Behavior

According to Dr John F. Fruin, Ph.D, a highly acclaimed Professional Engineer and world-renowned expert in the area of crowd science, there are four elements that shape crowd behavior as it relates to serious crowd incidents (or crowd disasters). Presented as the acronym **F.I.S.T.** the elements comprising Fruin's model of crowd disasters are:

- F–Force:
- I–Information;
- S-Space; and
- T–Time.

Top-level considerations of the **F.I.S.T. model** are introduced below.

Force:

- High energy crowds are difficult to control so it is important that you plan ways in which you can slow the crowd down.
- Barriers, breaks or slow music at an exciting concert is a good way to lower the energy or excitement level.
- The presence of uniformed security staff or police officers can act as a deterrent and quieten a crowd's energy.
- Lengthening the distance necessary to reach a desired point will also use up some crowd energy.
- Dispersing different areas of your venue in a timed manner (rather than all at once) will assist in managing force impacts.

Information:

- There are three critical areas of information:
 - (i) firstly, the information you as a venue find out and act upon before an event (the event background);
 - (ii) secondly, the information you provide to patrons who attend the event (signage and information); and
 - (iii) finally, how you monitor and act on *real-time* information.
- Guests want to be informed! Information is perhaps the most powerful tool when it comes to managing or controlling a crowd. Information must be fast, accurate, and often. Not only do guests like to be informed, they will often rely on information from those around them, even if it is totally false.
- Remember that uniforms and visible presence are important *signs*. The obvious presence of staff in uniform has a definite impact on a crowd. Other information mechanisms such as social media/digital platforms, pre-recorded taped messages, and text messages for video boards, and venue announcements will provide fast and consistent information.

Ensure that you also have the ability to quickly communicate to crowds (e.g. changes in conditions; the reason for delays or congestion; and emergency management messages). Lack of information can lead to misinterpretation of a situation or 'jumping to conclusions' which can quickly lead to chaotic conditions that are difficult to recover from.

Space:

- When the flow of a crowd suddenly becomes restricted as they are forced through a narrow passageway or onto a narrow escalator, problems can occur.
- When a mass of people try to pack into insufficient space, the potential for injury increases.
- Plan ahead so that you disperse patrons around the site, through different gates or doors and around various sections of the venue.
- Think carefully about the placing of your crash barriers or fencing to allow for sufficient space.
- Avoid forcing crowds along routes that bottleneck or create pressure or pinch-points; provide optional routes to the same destination.

Time:

- Crowds are less likely to become problematic when there is sufficient time to meet their needs, whether it involves:
 - o time to get them into the venue;
 - o time for patrons to reach and settle into their seats;
 - o time for guests to use toilet amenities; and
 - o minimal queuing and service duration at food and beverage or merchandise outlets.
- Following from the above, crowds rarely become a problem when there are *sufficient* facilities to handle patron needs.

- Crowds can build up quickly!. Challenges for your venue's systems and procedures can be common as crowds arrive or leave, or as they all try to reach a specific location at the one time. For example, half time at sports events or intermission at a performance is a peak time for use of amenities and concessionaries. Similarly, general admission events can cause problems as everyone tries to get a position close to the stage as a premium spot for viewing.
- The best solution is a plan that prevents the masses from reaching a gate/entrance or focal point at the same time. Send/direct crowds to different entrances/outlets and ensure adequate services and facilities commensurate to crowed numbers.

4.2. Crowd Management Strategy & Plans

Having investigated the broad range of factors introduced in the above sections and collaborated with relevant stakeholders to reach consensus on a thorough understanding of your venue/event needs, it is most important that your planning be well documented.

Collate your preparations into a documented crowd management strategy, demonstrating planning (and plans) that cover the following key considerations. (Several of these matters are discussed in more detail in the next few sections.)

Understand applicable legislation, such as...

- Occupational Health and Safety legislation;
- o Occupancy certificates and space capacities within your venue;
- o Liquor licensing and alcohol regulations; and
- Fire safety, essential services and emergency evacuation systems legislation, codes and standards.

Understand specific safety codes and standards

IAVM Venue Management School attendees may wish to note that the National Fire Protection Association (NFPA) based in Massachusetts, USA, is a global self-funded nonprofit organization, devoted to

eliminating death, injury, property and economic loss due to fire, electrical and related hazards.

The NFPA 101® Life Safety Code ® [current edition (2021] is a nationally recognized, consensus-based standard and considered the most widely-used source for strategies to protect people based on building construction, protection, and occupancy features that minimize the effects of fire and related hazards.

Regarding crowd management, the Code specifies a requirement for at least one trained crowd manager in ALL assembly occupancies and it is essential to note that the definition of "assembly occupancy" therein is:

"An occupancy (1) used for a gathering of 50 or more persons for deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation, or similar uses; or (2) used as a special amusement building, regardless of occupant load."

Instructor's notes re References and Suggested Reading:

- o For a clear and practical interpretation of the *Code* for venue professionals, visit the blog post on the NFPA.org website titled "#101Wednesdays: Crowd managers - where's yours?".
- o To improve public safety and provide venue operators a means to meet their obligations under the NFPA Life Safety Code, the Trained Crowd Manager Course was developed by the IAVM, which may provide support to your venue via further professional development.

Even if the jurisdiction, territory (or country) you operate within does not currently adopt the Life Safety Code, the NFPA's international offices cover the Asia/Pacific region, Europe and Latin America, and international members have access to the latest fire, building, electrical, and life safety codes and standards.

It is recommended that the person/s responsible for crowd management security and safety within your venue business should make themselves familiar with the NFPA guidelines, which could greatly assist with evaluating your venue or event's potential exposure.

Ensure appropriate resourcing

- o Allocate sufficient appropriately trained and experienced staff, capable of monitoring crowd behavior, managing access and movement and responding to serious incidents or emergencies.
- Develop crowd management deployment plans detailing assigned posts and responsibilities.
- o Demonstrate maintenance of training records.
- o Heed resourcing standards outlined in the NFPA Life Safety Code (referenced above; or applicable regulatory standards in your territory), which specifies occupancy thresholds and crowd manager allocations.

Ensure adequate planning including the development of...

- o Safety plans;
- Security / police plans;
- Medical response plans;
- o Contingency plans; and
- o Procedures to deal with emergencies.

Incorporate adequate record keeping and documentation, such as...

- Standard forms;
- Records of safety audits, event assessments and reviews;
- o Methodology as to how capacity and entrance and exit plans are arrived at:
- o Records of every event including security plans, risk assessments and action taken;
- o First aid and medical provision; and
- Liaison with external agencies.

Know and adhere to venue capacities

In all cases, venue managers must understand the capacities of their facilities in various operating modes and any regulations and planning requirements. In many cases maximum capacities will be determined by your occupancy, emergency management plan, liquor regulations/license or entertainment license/certifications.

Obviously, you will still need to take into account issues specific to an event such as, type of event, expected crowd behavior and the design and placement of staging and security infrastructure such as crowd barriers.

Two guides (produced in the United Kingdom) are both valuable to understand capacity, safety and resource planning and provide detailed information as to how you should go about this:

- o 'Green Guide' Guide to Safety at Sports Grounds (published by the Sports Grounds Safety Authority, the UK Government's advisor on safety at sports grounds); and
- o 'Purple Guide' Health, Safety and Welfare at Music or Other Events (written by The Events Industry Forum, which brings together trade bodies and institutions from across the events industry to collaborate on issues of common interest.)

Establish communication and decision making protocols

Be certain you establish a reliable communication system and a formalized 'chain of command and control structure'. Clearly articulate accountabilities and responsibilities in place during venue/event operations. There should be no confusion or doubt in a situation where crowd control intervention is required, as to who is taking charge and providing direction.

• Benchmark your planning (learn from case studies and collaborate with industry colleagues)

Keep in touch with other venues, not only those in your own country who have had the event or similar operating requirements for what you are planning but also overseas. The contacts you make through the IAVM are invaluable when it comes to assessing and planning.

Debrief, Review and Evaluation of Crowd Management Planning

After an event (or on a periodic basis for some types of venues) there should be a review and evaluation, which should also be documented. The document you finish up with will prove an invaluable reference for the future.

4.3. Staff Training

Staff training is an integral part of crowd management. This includes a specific focus on conflict management, self-protection and incident management.

Crowd management training must be ongoing and in excess of any basic training required to obtain a crowd control/security qualification.

Training should also be relevant to the tasks undertaken by crowd controllers and other key venue staff (e.g. Fire Wardens and customer service personnel).

Quality service providers specializing in security and crowd control are plentiful and operate in arguably all venue industry markets around the world.

When engaging such providers or collaborating with stakeholders, it would be considered a best practice approach for personnel involved in crowd management planning and frontline delivery roles to demonstrate extended competency training in specialty areas, such as:

- Crowd risk analysis
- o Human behavior training (to detect, deter and disrupt undesirable activity)
- Detection of hostile intent and suspicious behaviors
- o Behavioral questioning techniques, which elicit information and resolve potential threats
- Managing violence and aggression

"Detailed assessment, planning and preparation before an event may never prove infallible, but with the involvement of appropriate personnel and the commitment of the right resources, the potential for injury, illness, death and disaster will at least be reduced."

Emergency Management Australia (a Commonwealth of Australia agency)

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