

32nd lecture:

Safe and Healthy Mass Gathering

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The doctor has explained this lecture in 11 minutes.

Blue writings are the information that the doctor mentioned, the rest, are from his handout.



Definition:

Mass gatherings are events attended by a sufficient number of people to strain the planning and response resources of the host community, state/province/, nation, or region where it is being held.

Example: Football matches, graduation parties, etc.

Organizers:

- ◆ Any public event begins as a concept proposed by an individual or organization. The concept may not be more than the type of event, and when and where it will be held. During the planning process many issues will need to be considered and explored by organizers and authorities before an event proceeds.
- ◆ Event organizers/promoters should be encouraged to form a management committee. Including members of the emergency services, local authorities and health services. Sub-committees may be required to provide planning for particular aspects of the event. Health professionals should be involved in planning for all phases of the event, including pre-event preparation, conduct of the event and demounting of the facilities.



The following are some of the key issues that should be addressed from a health and safety perspective.

Approval for event:

Event organizers usually must gain approval from local, and sometimes state, authorities to hold public events. Information on the approval process should be obtained, including:

1. Details of the approving authority and any other authorities actively involved in the approval process;
2. Information required to support their application.
3. Timetable including relevant deadlines for lodging of applications. (Lead time will be required for applications to be processed).

As a condition of approval being granted, after the event, organizers may be required to provide feedback on the approval process and an evaluation of the event. This may be done in the form of a debrief or a report to relevant authorities.

Debrief: A series of questions about a completed mission or undertaking.

Legal issues:

There is usually some form of legislation, which governs or restricts public events or aspects. In some cases, particularly for extremely large or high impact events, special State or local legislation for the event may require.

Organizers should consider obtaining legal advice prior to the event. Items, which warrant consideration, include:

1. Liability for injuries.
2. Liability for acts or omissions.
3. Liability for financial obligations incurred in responding to major emergencies occasioned by the event.
4. Possible liability for the resultant effects of the event on normal emergency operations.

Permits will be required for parades, sale and consumption of alcohol, and fire safety. Permission may also be required should it be necessary to close certain adjacent or peripheral roads or streets.

Most public sector agencies have adopted a User Pays policy for services provided at sporting and entertainment events. The aim of this policy is to improve the allocation of statute resources in the general community, by providing a system of charging for services deployed to plan for, and respond to, sporting and entertainment events. Event organizers should consult local and state authorities for relevant fee structures and to determine any charges for services provided.

Organizers may be required to post a bond or provide liability insurance cover to meet costs of response to emergencies, subsequent venue cleanup, traffic, crowd, and other policing functions.

Venue:

It may be necessary to consider a number of alternative venues for the event. [Emergency managers may be able to recommend appropriate venues based on health and safety considerations.](#)

The following should be considered in selecting a suitable venue:

- ◆ Will multiple venues be required to stage the event?
- ◆ Is the event normally conducted at a fixed facility?
- ◆ Is it planned to use a fixed facility in other than its normal use?
- ◆ Is the event regularly conducted at a temporary venue?
- ◆ Is the event a one off at a temporary venue?
- ◆ What services/utilities are available at the venue?
- ◆ What additional services and utilities will be required at the venue?
- ◆ Is there a need for backup services?
- ◆ What shelter facilities are available at the following?
 - Transport pick-ups and set-downs areas.
 - Spectator and official viewing areas.
 - Seated eating areas.
 - Pedestrian thoroughfares.
 - First aid and medical centers.
 - Competitor and officials marshaling areas.
- ◆ What will be the duration of the event and will it go into the hours of darkness?

- ◆ Have the needs of people with disabilities been provided for?
- ◆ Does the date of the event clash with other events to be conducted in the area?
- ◆ Will the weather require any special considerations?

Hazards:

In selecting a site, especially for an outdoor event, an analysis should be made of any potential hazards in the area. Hazards may include:

- Power lines which could be brought down by a severe storm.
- Waterways that may be prone to flooding.
- Bush fires.
- High winds.
- Extremes of temperature.
- Pests, large animals, pollens and poisonous plants.

Access and Egress of Health and Emergency Services:

The needs of health and emergency services for access to, and egress from, the venue, as well as movement around and within the site, must be taken into account in planning for the event. Official parking should also be made available for attending health and emergency services personnel.

Planning should ensure that emergency services personnel have access to all subsections of the venue, including performance, spectator and parking areas.

Transport management is essentially the domain of police, venue security, and transport and local government authorities. Planning should ensure that the venue has adequate access and egress for emergency service vehicles. Dedicated perimeter roads may be required for emergency services. In order to provide access and a buffer zone, adjacent streets on all sides of a venue may need to be closed, and parking banned, with access restricted to emergency, service and residents. Emergency services need to be informed of any traffic alterations from the norm, such as the blocking off of public streets. Roadways and access routes should be clearly distinguished, signposted and kept clear.

The venue needs to have an adequate access and marshaling area for emergency vehicles. Considerations should include the following:

- ◆ Is there adequate access to and within the venue? Is there a road network, or would responders have to walk significant distances to the spectator or performer areas?
- ◆ Is the venue served by a road, which could be closed to the public and used only for access and egress of emergency service vehicles?

- ◆ If access roads were unpaved, would emergency or service vehicles become bogged if heavy rains occurred during, or just prior to, the event?
- ◆ Once on-site, is there sufficient room for marshaling, maneuvering, repositioning or redeployment of emergency vehicles?
- ◆ Would departing vehicles be prevented from leaving by congestion produced by other vehicles arriving?
- ◆ Are adequate access and marshaling areas available for large numbers of emergency vehicles should a major incident occur?
- ◆ Is there a suitable site available for aeromedical evacuation?
- ◆ In the event of a mass casualty situation, does the venue layout provide, space for an on-site triage area to permit treatment prior to removal of patients? To eliminate the need to carry casualties and equipment over long distances, is such an area easily accessible?

Crowd Movement:

Aspects of managing crowd movement where there may be health and safety implications include the following:

- ◆ Public transport congestion at road, rail, and water interchanges. In some cases at airports.
- ◆ Use of coaches and buses to reduce private vehicle usage and any potential problems which large vehicles may present, for example access difficulties, parking requirements, potential road blockages.
- ◆ Alterations to normal traffic arrangements and different patterns of road usage.
- ◆ Traffic control.
- ◆ The surrounding road network should be able to handle the anticipated spectator vehicular traffic, before, during and after the event.
- ◆ Public parking arrangements overflow parking arrangements, signposting, and segregation of pedestrian and vehicular traffic. If spectator parking areas overflow,
- ◆ Will it cause congestion on surrounding roads? Are shuttle buses desirable, feasible, or necessary?
- ◆ Parking control.
- ◆ Communication between traffic management groups and other services.

Access and egress routes including:

- ◆ Arrangements for people with disabilities.
- ◆ Pedestrian access including consideration of distance, terrain, surface and lighting.
- ◆ Designated pick up/set down points.
- ◆ Signposting, including gate numbering, inside and outside of the venue.
- ◆ Communications inside and outside the venue to provide public announcements, marshaling instructions and evacuation orders.

- ◆ Systems to monitor crowd flow, for example the use of spotters.
- ◆ Emergency services access.
- ◆ Outdoor events, sometimes spread over large areas, require some further considerations such as:
 - ◆ Toilet facilities outside gates and between disembarkation points and the venue.
 - ◆ Shelters.
 - ◆ Telephone facilities.

The venue should allow adequate regulation of crowd movement, for example: existing ticketed seating areas, sectoring and flow barriers including separation of vehicles from pedestrians.

Spectator overflow areas should be available to prevent crushing. Contingency plans are required in case spectator turnout significantly exceeds expectations. This phenomenon is common at rock concerts.

Spectators:

Different kinds of events may attract certain types of spectators, which require special considerations such as:

- ◆ Rock concerts may have a higher incidence of problems with drug and alcohol abuse, underage drinking and possession of weapons;
- ◆ Religious/'faith healing' events may attract a significant number of ill and infirm people, which may increase the need for on-site medical care;
- ◆ Events for senior citizens may also require higher levels of health services;
- ◆ Certain sports events may attract over-reactive and violent supporters; and
- ◆ Cultural events may require special arrangements, including the provision of interpreter services, special food services and multilingual signposting, brochures and announcements.

Where possible, spectators should be informed prior to the event, through advertisements or in leaflets accompanying tickets, of any special conditions or arrangements for the event such as public transport, traffic and parking, clothing, food and drink, sunscreen, shelter and alcohol restrictions.

Public health:

Relevant health authorities must be consulted on:

- ◆ Safe and adequate water supply.
- ◆ Food safety.
- ◆ Sanitation requirements and waste management.
- ◆ Water and swimming pool safety.
- ◆ Pest/vector control.
- ◆ Infectious diseases prevention and investigation.

- ◆ Standards for activities involving skin penetration, such as tattooing and body piercing.
- ◆ Building safety.
- ◆ Noise and other nuisance issues.
- ◆ [Public health emergency management/planning.](#)

Environmental Health Officers should be available on-site during the event to deal with any public health issue and to monitor public health aspects of the event.

Health authorities need to have legal authority to enforce .cease operation. orders upon any on-site food providers who are found to be in contravention of food safety standards or otherwise operating contrary to the public interest.

Medical care:

General:

General medical issues to be considered include the following:

- ◆ What level of on-site medical care, if any, is expected to be required given the nature of the event?
- ◆ What mix of medical personnel will be required on-site, for example, first aiders, paramedics, nurses, doctors?
- ◆ Who will provide the personnel? How will they be funded?
- ◆ Are they the health service providers for the local area? If not, how will their services be integrated with the local services?
- ◆ Are the selected personnel appropriately skilled for the event? Additional training may be required.
- ◆ Will there be a need for any special credentialing to allow medical personnel and/or vehicles access to all parts of the venue, especially to any restricted areas?
- ◆ How will medical supplies be obtained and resupplied? Who will do this?
- ◆ How will drugs be stored securely on-site?

Facilities:

Suitable medical facilities, such as a first aid room, tent, or vehicle, should be on-site. It should be clearly identified and easily accessible.

Ambulances:

The relevant ambulance service must be consulted to determine ambulance requirements for the event. Some considerations are as follows:

- ◆ Will ambulances be pre-positioned on-site, or will they have to be called to the venue on an as-required basis?
- ◆ If ambulances are on-site for participants, (for example at sporting events) are these ambulances exclusively for participants, or will they be available for injured spectators?

Logistics:

There are many medical logistic issues to be considered in the planning of an event including:

- ◆ Will medical staff operate in a facility to which the injured must make their way, or will clearly identified medical teams patrol spectator areas?
- ◆ Will there be vehicles to transport spectators to the medical facility?
- ◆ Will medical vehicles be appropriate to the terrain? For example, four-wheel-drive vehicles may be required for off-road areas, and golf carts or similar vehicles for high-density spectator areas.
- ◆ Where an ambulance is not required, will a 'chauffeur system' be provided to transport persons from the medical facility to their own transport?
- ◆ How will medical staff be notified of or summoned to spectators requiring assistance in widespread spectator areas?
- ◆ What means of communication will be available for attending medical personnel to communicate with off-site medical staff, event organisers, security and other support staff?
- ◆ Are there any sponsorship conflicts between the event sponsor and any medical service sponsors?