

# Special Event and Mass Gathering Medical Care Planning Guideline

## Background

Special events and mass gatherings may present unique challenges to public safety event planners. Variable weather, unpredictable crowds, the presence of alcohol and other drugs and difficulty accessing and extricating patients in crowded or austere environments adds barriers to providing standard medical care. Surges in requests for EMS above a service's daily call volume can severely stress unprepared EMS systems. Without proper planning and allocation of EMS resources to an event, EMS units assigned to cover a community for emergencies may need to be diverted to provide care at the event, in effect leaving a community without 911 EMS coverage. This document aims to help risk stratify mass gatherings in regards to their potential to generate medical events requiring an EMS response.

For special events and mass gatherings the local EMS primary service area holder (MN Statues 144E.06) and the local hospital should be notified of the event in advance and ideally involved in the development of the medical plan.

*Event classification matrix – add up scores (0-2) for each of 6 categories:*

Variable	Points		
	2	1	0
<b>Weather</b> (outdoor events)	>90°F (Heat Index) <0°F (Wind Chill) No climate controlled shelter	80-90°F (Heat Index), 0-40°F (Wind Chill), Minimal climate controlled shelter	Climate-controlled environment
<b>Peak attendance</b>	>15,000	1,000 – 15,000	<1,000
<b>Ethanol Consumption</b>	Significant	Limited	None
<b>Crowd age</b>	Older	Mixed	Younger
<b>Crowd intent</b>	Animated/rowdy	Intermediate	Calm
<b>Transport Time to Hospital</b>	>30 minutes	20-29 minutes	<20 minutes

**Higher Risk:** Total score  $\geq 5$ , or scores of 2 in two different categories.

- ALS on-site medical aid station, ALS on-site ambulance and roaming teams are recommended. An on-site physician should be considered.

**Intermediate Event:** Total score 3 or 4, or a score of 2 in any category.

- BLS on-site medical aid station and on-site ALS ambulance recommended. Staffing levels, number of aid stations, and consideration of mobile teams should be based on event characteristics\*.

**Lower Risk Event:** Total score  $< 3$  and no single category with a score of 2.

- BLS on-site care with consideration of on-site BLS ambulance based on event characteristics\*.

**Unique Characteristics for Consideration in Planning for Mass Gatherings**

- Venue location – indoors vs. outdoors, availability of shelter/shade or other climate control methods
- Nature of event – spectator event, athletic competition, concert, parade (or other linear distribution of spectators/participants)
- Weather – extremes of temperature and humidity correlate with volume/severity of patient encounters
- Alcohol availability, potential for recreational drug use
- Anticipated age of spectators and participants
- Crowd dynamics – varies with type of event, from calm to rowdy/aggressive
- Reasonable availability of free and unlimited drinking water
- Ingress/egress for emergency vehicles and access to the medical tent
- All-terrain vehicles or other intra-venue patient transport methods
- Liability insurance, medical supplies, and security considerations
- Transport time to the hospital – distance, traffic conditions, air ambulance (helicopter) assets

Grange, Baumann, Vaezazizi. "On-site Physicians Reduce Ambulance Transports at Mass Gatherings." *Prehosp Emerg Care*, 7 (3), 2003. pp 322-326.

Hartman et al. "Predicting Resource Use at Mass Gatherings Using a Simplified Stratification Scoring Model." *Am J Emerg Med*, 27 (3), 2009. pp 337-343.