# 10 Crowded Health

## Introduction

Crowds carry real health risks. By definition, crowds bring large numbers of people in to close proximity and confined spaces. The risk of injury is real, due to accident, crush or malice and the medical risk of disease transmission and demographic-specific presentations must also be considered.

Selecting health service providers is a key early decision. Consulting with local ambulance and health services to build relationships and to seek advice on local providers, legislative requirements and existing health system capacity is time well spent. It is critical that the provider(s) chosen have the skills, resources and experience to service the event and predictable escalation.

Pre-hospital health service provision is a niche industry and is variably regulated. The accumulation of clinical, command and logistical experience takes many years and is a truly heuristic process. A tiered service delivery model, discussed further below, should be adopted with centralized call-taking and management of resources.

Finalizing the size, scope and cost of this model can be a time-consuming and stressful process. This will be informed by the health risk assessment, with mitigation strategies according to ALARP principles, although high consequence outcomes (long tail risks) like cardiac arrest and major trauma will require additional resources.

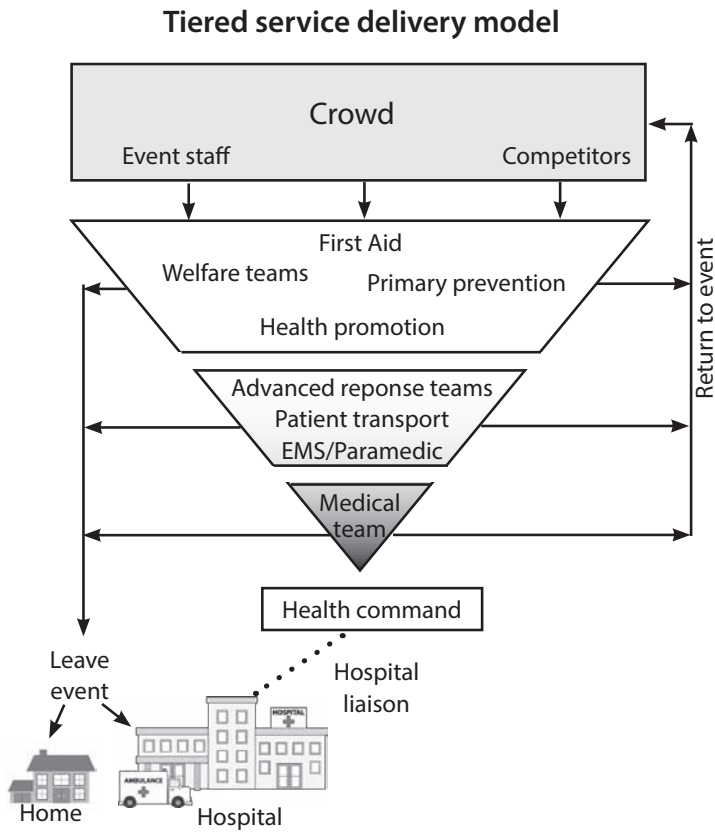


**Figure 10.1:** Tiered service delivery model

As events increase in size and complexity, so too will the health service delivery model. Systems and resources must be scalable and plans in place to respond to surges in presentations for medical assistance, including trauma in mass casualty incidents. As more providers are engaged and the health workforce increases, a clear command structure and manageable span of control must be maintained. The Health Command Team will coordinate all health resources and be the direct liaison point with event management. Experienced Health Commanders are experts in factor analysis and making decisions under uncertainty. The Health Command Team will also have direct communication with local ambulance, hospitals and health services.

It is often useful to consider health planning in the traditional risk and emergency management phases of Prevention, Preparedness, Response and Recovery (PPRR). While much of the focus will often be on the

response phase, investing in prevention builds resilience, preparedness ensures scalability and capacity to manage surge and recovery operations are restorative and focus on lessons learnt to be carried forward.

## Selecting health service providers

Health service is chosen deliberately to include all aspects of first aid, ambulance/EMS (Emergency Management Services), medical, logistics and health command. Who actually provides the clinical intervention is not as important as the service being provided, although legislation will often dictate and restrict clinical practice in many jurisdictions.

The pre-hospital environment is traditionally the domain of first aid providers and ambulance services. Having a wide variety to choose from can be a blessing and a curse. It is important to check that the organization(s) you choose have the resources and experiences necessary to manage the event. Insist upon being provided with a health risk assessment, operational plans and proof of medical indemnity insurance.

Medical teams, comprising doctors and nurses with out-of-hospital clinical experience, can be extremely useful when engaged strategically within the whole-of-event integrated health plan. These medical teams need to be networked with the local hospitals and health services, to clearly understand each other's capability and scope of practice.

The decision to 'in house' medical services with existing staff or groups of paid or volunteer clinicians should be made with caution. While this may appear to be convenient, flexible and a potential cost saving, established organizations bring experience, culture, systems, equipment, networks and teamwork that cannot be easily or quickly replicated. First aid, ambulance and medical providers should not be tasked with additional responsibilities for the event such as security and fire safety.

Where multiple organizations are engaged, it is essential that a single management structure is agreed upon. Patient flow and clinical responsibility must also be clearly agreed to in advance, especially where there is an overlap in clinical scope of practice between organizations.