## Emergency Medical Services Medical Surge and Crisis Care Planning Guide - Draft

The development of an individual ambulance service, local or regional EMS medical surge and crisis care plans involves three phases: Assessment, Planning and Implementation. The purpose of this guide is to assist licensed ambulance services and designated regional EMS system coordinators understand EMS medical surge and crisis care elements and how to best approach the development of EMS crisis care planning to best match individual, local and regional planning needs and capabilities.

The **assessment phase** involves an examination, inventory and consideration of all resource elements involved within the continuum of the EMS system individually, locally, regionally, inter regionally and some cases, interstate. This continuum includes:

* The request for ambulance service made to a 911 center/Public Safety Answering Point (PSAP),
* Dispatch of first responders and the ambulance service,
* First responder and ambulance scene response, patient assessment and treatment, and
* Ambulance transport of the patient to definitive care.

The assessment phase identifies individual and EMS system capabilities, resource capacity, vulnerabilities, gaps, barriers, limitations, shortages or issues with or between resources when the incident exceeds any single EMS elements ability to receive or respond to all ambulance service requests.

The **planning and design phase** brings together all the parties involved with the continuum of EMS. The parties assess and develop the plan and approach to address the gaps and vulnerabilities identified in the assessment phase. This enables pre-planned coordination and maximizes the capacity and capabilities of the EMS system resources available leading up to or during a disaster. Planning includes identifying indicators and triggers to recognize when EMS may be or is moving from day to day conventional operation to contingency and potentially into crisis operations and enables the implementation of the pre-planned modifications to all operational areas to prevent or reduce time spent in crisis mode.

The **implementation phase** involves developing and conducting local and regional training and exercises which engage all disciplines and agencies involved in the local and regional EMS systems. This phase will test EMS surge and the crisis care plan, identify what works well, what needs improvement, gaps and development of appropriate strategies and changes for improvement. Elements of the EMS medical surge and crisis care plan should be utilized and evaluated any time the EMS system or elements of the EMS system are stressed.

#### **Crisis Care Activation Indicators**

A disaster occurs which overwhelms your local ambulance service capabilities and capacity. Usual mutual aid ambulance resources are inadequate or unavailable to provide the usual level of response and standard of care. The situation is more pervasive and longer term than ‘normal’. With additional ambulance resources not rapidly available, systematic adaptations must be implemented to provide the best response and care possible under the circumstances. Situational examples include:

* Ambulances are not available to respond to all emergency requests for service or inter-hospital patient transfers;
* ‘911’ call centers/public safety answering point (PSAP) phone lines are busied out or have calls waiting;
* Local clinics are overwhelmed with patients, exceeding their capacity and capabilities; some clinics may be closed;
* Additional local and regional EMS mutual aid resources are equally stressed or not available;
* Community hospital surge capacity is overwhelmed and patient care is being provided on cots or adequate qualified staff are not available;
* Temporary alternate care sites are set up but do not have the clinical staff or resources to provide urgent or emergent care;
* Ambulance supplies are running low and out of some items; replacement availability is unknown or unavailable;
* Long term care facilities need the evacuation of residents or patients, but adequate numbers of ambulances to assist are not available, or
* Illness or the event situation has resulted in 30% of clinical or EMS personnel not being available for duty.

#### **Notifications**

Ambulance service manager, supervisor, commander notifies local mutual aid partners, designated regional EMS system coordinator, 911/PSAP point of contact and ambulance service medical director of the situation and attempt to obtain needed resources;

Jurisdictional emergency management and local/tribal public health is notified of situation as appropriate;

The regional health care preparedness coordinator and designated regional EMS system coordinator is notified of situation;

MN EMSRB or MN Department of Health is contacted and notified for situational awareness.

#### **Plan Activation**

**Short-Term Strategies**: Immediate short-term strategies to increase EMS capacity should have been triggered and implemented. If the resource shortages (ambulances, personnel, supplies) can be quickly addressed (e.g., within hours to days) by these strategies contingency responses may only be necessary or crisis care response may be brief or intermittent:

* Work shifts extended; call in additional personnel if available;
* Alternative transport options identified and used for non-emergent response and transport;
* If Governor declares a State emergency, modify ambulance crew staffing and utilize other public safety or qualified personnel to staff or drive ambulances;
* Implement basic call screening and triage at PSAP/911 center or EMS dispatch;
* PSAP or ambulance dispatch activate ‘auto answer’ system, or auto call transfer to another call center with additional call taking or call triage capability and capacity;
* Implement pre-approved and authorized by EMS medical director or ambulance service administration patient disposition and patient left at scene protocols;
* Consider non-ambulance patient transport options per ambulance service policy or SOP;
* Refer callers or at scene individuals with patients to informational call lines, help lines, clinics or alternate care sites if operational and appropriate;
* Request wider area mutual EMS assistance including non-emergency transportation services, such as buses, public transit, wheel chair or stretcher services, scheduled BLS;
* Consider requesting ambulance strike team (AST) or MCI bus through the State Duty Officer and EMSRB.

**Longer-Term Strategies**: Longer term strategies are usually employed in a greater than 24 hour incident which will continue to require a crisis standard of care due to a pervasive region-wide or multi regional-wide demands on resources. A governor’s State declaration of emergency should or may occur. Incident management ‘Planning’ cycles will be implemented by the EMS incident command or MN AST. Strategies may include:

* Establish and communicate through an EMS multi agency coordination center (EMS MACC), regional health care coordination operations and overall Emergency Management Incident Command if established;
* Continue to modify ambulance crew staffing and use of first responders to provide initial patient assessments;
* Initiate request to the State Duty Officer or EMSRB on call for additional EMS resources;
* Utilize crisis dispatch algorithms at 911/PSAP or EMS dispatch centers for resource allocation and deployment with appropriate management or supervisor notifications and oversight;
* Identify and implement additional alternative patient transportation resources;
* Identify if appropriate Medical Reserve Corps resources are available to support EMS operations;
* Implement revised pre-approved treatment and transport procedures as authorized by ambulance service medical director or ambulance service management;
* Provide public announcements via public information officers or joint information agency to keep the public advised on incident information and any recommended actions to reduce requests for ambulance response for non-life threatening or urgent emergencies; and
* Prepare to support other clinical operations (i.e. hospital, clinics, alternate care sites, EMS Triage station) continued force protection and support as response phase winds down.

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**EMS RESPONSE AND CARE CONTINUUM**

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| --- | --- | --- |
|  **CONVENTIONAL** |  **CONTINGENCY** |  **CRISIS** |

 **Incremental changes to standard response and care**

Usual EMS Response and care Triaged EMS response, transport and basic life support care

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| --- |
|  Operationally equivalent changes Operational and clinical changes  To Standard Response considered or initiated to Standard Response and Care |
|  |  |  |  |  |  |  |
| All calls requesting ambulance response receive ambulance Usual ambulance resources available for response requestsUsual mutual aid partners available | Additional ambulance personnel called in and consider additional ambulances and personnel fielded if availableRegional mutual aid available if requested | Ambulance staffing changes implementedFirst responders assess need for ambulance responsePre-approved modified ambulance protocols authorized by medical director or EMS management | Decisions made not to respond by ambulance except for specific life threatening emergencyGovernor declared emergency made, EMSRB ambulance statutes waived except for medical director authority |
| Patients transported to closest hospital able to receive and treat patient or patients hospital of choice  | 911/PSAP/EMS assess need to establish information and ‘nurse line’ or public health information and assistance call centers | Ambulance response call triage implemented at 911/PSAP or EMS dispatch centerConsider/initiate request to State Duty Officer for additional EMS resources | Vital signs and patient assessed for decisions to respond, transport, alternate transport or leave at sceneRegional EMS mutual aid limited or not available |
| Inter hospital facility patient transfers as normal | Inter facility patient transfers limited to urgent and only if units available for time required | Back up 911/PSAP or alternate EMS dispatch call taking implemented and used to support local EMS  | ‘Stable’ patients transported to alternate care or clinic sites if appropriate support available |
| ‘Local’ normal mutual aid EMS support resources available if requested | Alternate resources for patient transport identified if needed, i.e., wheel chair vans, special transportation, mobility transports, buses for large evacuations if needed | Assess need to request additional ambulance and EMS resources to the EMSRB or State Duty Officer. Other public safety resources readied for use to respond to and transport patients | Patients transported by non-ambulance or available resources911/PSAP/EMS referrals for information to ‘nurse line’ assistance or public health information and assistances lines |
| Normal work shifts and staffing | Consider request for resources  | Conservation and re-use of selected supplies initiated or authorized | BLS and first aid support and transport only |

**EMS Medical Surge and Crises Care Assessment and Planning Tool**

The questions and considerations which follow are intended to foster discussion and assist individual ambulance services, groups of local ambulance services, a regional EMS system and their respective public safety counterparts assess and understand their current operations, capabilities, capacities and EMS disaster planning needs. The process is not intended to be a ‘one size fits all’ approach but rather a tool to be adapted by the designated regional EMS system and the corresponding regional health care coalition to the EMS resource and operational realities of their region and EMS providers. In some case individual EMS agencies may be able and want to develop their own EMS medical surge and crisis care plans as part of an integrated regional plan. Other ambulance services may want to work together as a group. In some cases, ambulance services may request regional leadership in assessing and planning for regional EMS medical surge and crisis care. Time and resource constraints among individual ambulance providers and their public safety partners may make it very difficult to take on the planning task individually or in groups.

**Emergency Call Taking and Call Triage:**

* Which public safety agency or agencies receive ‘911’ calls for your ambulance service? (Identify agency or agencies)
* Does the ‘911’ agency have separate ‘call takers’ and ‘dispatchers’? Yes/No
	+ If not, does the call taker/dispatcher have other tasks which they perform as a part of their daily duties when not answering the phone or dispatching? How would those other duties impact their ability to support EMS in a crisis surge situation?
* Does the ‘911/PSAP' provide EMS response call triage, provide EMS pre-arrival information to the 911 caller or transfer the call to an agency that does? Yes/No
	+ If ‘No’, how would an overwhelming number of incoming calls for ambulance response be handled and triaged?
* Does the ‘911/PSAP’ agency or agencies have a backup call transfer/call answering or forwarding capability to another ‘911/PSAP’ agency if their operations are overwhelmed with calls or have calls waiting? Yes/No
* Does the ‘911/PSAP’ agency or agencies have a backup ‘911/PSAP’ facility or capability if their primary location is unable to operate or receive incoming calls for any reason? Yes/No

**Dispatch and Ambulance Response:**

* Does the ‘911’ agency or agencies you work with notify you and dispatch your ambulance for emergency ambulance responses? Yes/No
	+ What is the primary method the 911/PSAP agency or agencies use to notify you to respond to the emergency ambulance request? Land line phone call, cell phone call, pager, two way radio, other (explain)
	+ If ‘No” how does your ambulance service receive response requests?
	+ Is there a backup or redundant communications capability if the primary communications system or method goes down?
* Does your ambulance crew communicate with the ‘911/PSAP’ agency when your ambulance crew is enroute to or at the scene?
* Does your ambulance service provide inter facility transfer of patients? Yes/No
	+ If your ambulance service provides inter facility patient transfers for your local health care facilities, which agency/agencies or facility/facilities contact you to request a non-emergency or inter-facility ambulance response and transport and how does that impact emergency response requests? (Please identify)
		- How does each facility or agency contact your ambulance service to respond to the non-emergency ambulance or inter facility transfer request?
			* Land line phone call, cell phone call, pager, two way radio, other (explain)
	+ Is there a plan in place with the health care facility to hold patients or residents if your ambulance service is not able to transport a patient and mutual aid transport is not available? Yes/No
* How many staffed ambulances do you have available for emergency response on an average daily basis? (Indicate number)
* Do you have additional ambulance(s) you operate that you can call into service if needed? Yes/No
	+ If yes how many ambulances can you bring into service? (Number)
	+ How long do you think it would take to have the ambulances staffed and ready to go into service: less than 2 hours 2 – 4 hours Greater than 4 hours
* Do you have additional EMSRB registered EMS off duty personnel you can call in for work in an emergency? Yes/No
	+ If yes approximately how many personnel could you call in? (Number)
	+ Approximately how long would it take for them to get to the EMS office? Less than one hour one to two hours greater than two hours
* Does the ambulance service have a plan for when and how long shift hours will be extended in order to maintain maximum ambulance resource availability? Yes/No

**EMS Mutual Aid Support and Response:**

* If an incident occurs which soon will or immediately exceed the capability and capacity of your ambulance service to provide response and patient transport:
	+ Does your 911/PSAP have pre-designated mutual aid response plan for your ambulance service which they can initiate depending upon the information they receive from the 911 caller or responding ambulance crews? Yes/No
	+ Is there an indicator in place which would trigger a request for more than ‘usual’ mutual aid response? Yes/No
	+ Do you contact your ‘911/PSAP’ to request EMS mutual aid? Yes/No
		- If ‘No’ do you contact each mutual aid partner and if so, how?
		- If ‘yes’, do you contact by: Land line phone call, cell phone call, pager, two way radio, other (Please explain)
* How many mutual aid partners do you have agreements or understandings with? (Number)
	+ Approximately how many ambulances and crews can your mutual aid partners collectively respond with on a ‘normal’ day? (Number of rigs)
	+ On average, approximately how long does it take for mutual aid partner(s) to get to a scene within your PSA with their ambulance(s)? Less than 30 minutes 30 – 45 minutes Greater than 45 minutes
* If your usual/local mutual aid partners do not have sufficient ambulances and crews available to support your response and transport needs, what do you do or who do you contact for additional ambulance resources? (Explain)
* Does your designated regional EMS system coordinator have a role or support function in a disaster to help identify additional ambulance resources when your ambulance service does not have sufficient local mutual aid resources to meet your ambulance response needs? (Please explain)
* Does your local community or county emergency manager have a role or support function when your ambulance service does not have sufficient local and mutual aid ambulance resources to meet your ambulance response needs in a disaster? (Please explain)
* Do you routinely have first responders (police, sheriff, fire, rescue squad, state patrol, medical response unit or specialized medical response unit) arrive at the scene of a medical emergency prior to or with the ambulance. Yes/No
* Does your ambulance service have a plan, process, agreement or contact list in place to request wheel chair, special transport, and school or transit buses to hold or transport patients or victims of a multiple casualty incident? Yes/No
	+ If ‘yes’, who or how is the request initiated? (Explain)
	+ Approximately how many of each resource are available on a day to day basis? (Identify resource and number of units and any important variations)
	+ Are the resources readily available on a 24 hour request basis?
* Does your ambulance service have a plan, process or contact list in place to request medical helicopter response and transport to the scene of a multiple casualty incident? Yes/No
	+ If ‘yes’, who or how is the request initiated? (Explain)
	+ Is there a similar plan for requesting fixed wing medical aircraft?
* Does your ambulance service have a plan, policy or procedure for requesting an ambulance strike team or multiple casualty incident bus? Yes/No
	+ If yes who/how/when would the request for an ambulance strike team or MCI bus be made? (Explain)

**Patient Treatment:**

* Does your ambulance service have a capability and capacity for rapidly replacing supplies used during the course of a prolonged period of patient response, treatment and transport? Yes/No
	+ If ‘yes’ how many responses would you estimate the current inventory of supplies on ambulances and in stock inventory at a base station or other facility could support?
* Does the ambulance service have medical director guidance on the use of supplies, re-use of supplies or extending the shelf life of supplies that may be expiring, in short supply or supplies are not available situation? Yes/No
* Does the ambulance service have pre-approved modifications to ambulance service personnel S.O.P.’s, protocols or guidance for when they may be authorized by EMS supervisory personnel or ambulance service medical director when there are more requests for ambulances than are ambulances available to respond and transport or when a shortage of supplies or equipment exists? Yes/No
* Is there an equipment or supplies sharing agreement, formal or informal between your service and mutual aid partners? Yes/No With a local hospital? Yes/No With your regional EMS system or regional health care coalition? Yes/No
* Does your ambulance service maintain an inventory of ‘key’ supplies required in a disaster which may include:
	+ Hemorrhage control – particularly tourniquets and dressings
	+ Backboards (helpful for transferring multiple patients, and for short carries over uneven terrain)
	+ Medications – (particularly pain medication and IV fluids if authorized)
	+ Triage tags/tagging system
	+ General personal protective equipment (masks, N-95 masks, gowns, aprons, face shields, regular and cuff length gloves),
	+ Specialty supplies for pediatric or burn patients (in particular, airway, pain management, IV access and fluids and burn sheets/dressings) and potentially chemical (auto-injectors)

**Transport:**

* Do police, fire, sheriff or other public safety personnel ever accompany the ambulance to provide patient clinical support in the patient compartment or drive the ambulance? Yes/No
	+ If ‘yes’ how frequently: Often Occasionally Only when a regular driver is not available or more than one person is required to provide patient care or support during transport.
	+ If ‘no’ would they be authorized and be willing to do so in a disaster?
* Does your ambulance service have a plan or policy in place to allow another public safety, first responder, medical response unit or other appropriate non-EMS person to drive the ambulance if an EMT, EMT-A or EMT-P is not available or is tasked or assigned to another activity at the scene of an EMS response? Yes/No
* Do local law enforcement, sheriff’s personnel, fire service or public works have vehicles that could be used to transport patients in the event the number of ambulances available were significantly less than needed to respond to and transport patients? Yes/No
	+ If yes, is there a formal arrangement in place to obtain this assistance? Yes/No
* If the closest local hospital is overwhelmed with patients, does your ambulance service have a plan or policy for where patients will be taken if other options exist, i.e., clinics, alternate care site, hospitals much further away? Yes/No
* If the number of ambulance requests exceed the number of ambulances that can respond does your ambulance service have a plan or policy in place to allow ambulance personnel to make triage and transport decisions in the field? Yes/No
* In a disaster situation, do first responders in your primary service area have the training or authority to assess and determine that a patient does not immediately require ambulance transport, can be reasonably transported by other means or can cancel the need for ambulance response? Yes/No
* How is the receiving hospital notified of patient arrival and conditions by ambulance, by non-ambulance?

**Post Transport and Recovery:**

* Depending on the nature of the event, your ambulance service may need to continue to provide force protection, support and assistance, increased support of hospitals, long term care facilities, clinics or other alternate care or community support facilities. Does your ambulance service have a plan, strategy or capacity for this continued effort? Yes/No
* Would community recovery support require additional EMS support from your local mutual aid partners or from outside your usual resources and if so, how long could it be sustained?
* Does your service have a plan or policy in place and resources available or accessible for post incident counseling, debriefing or behavioral health support of your personnel? Yes/No
* Will your service be able to re-supply ambulances and base station inventories rapidly post event?