NORTH CENTRAL TEXAS
TRAUMA REGIONAL ADVISORY COUNCIL

DRAFT AMENDMENT TO
TSA-E TRAUMA SYSTEM PLAN

REGIONAL DISASTER PREPAREDNESS AND RESPONSE

This draft amendment to the TSA-E Trauma System Plan provides regional disaster preparedness and response concepts, and defines the emergency response system for Trauma Service Area E, which encompasses the following counties within the State of Texas: Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, and Wise.

This amendment is prepared for, and will be incorporated into, the regional Trauma System Plan.

Last update: 2/16/2017

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VIII. DISASTER PREPAREDNESS

A. The Healthcare Coalition

The emergency response system within Trauma Service Area E (TSA-E) incorporates all emergency support functions (ESF) indicated in the National Response Framework, and as incorporated within state and local emergency plans. Health and Medical response (ESF-8) is managed at the local level, with regional support provided by Health Service Region 2/3, which principally supports responses to incidents of infectious disease outbreak and other public health issues, and by NCTTRAC, which supports health care delivery by pre-hospital and hospital agencies. Typically there is little involvement by emergency management officials in the delivery of healthcare when emergencies are localized. However, additional regional resources must be used when these incidents exceed local capacity and when multiple jurisdictions are required in order to achieve a satisfactory response.

TSA-E's pre-hospital resources are primarily found in the public sector, while most regional hospital assets are in the private sector. NCTTRAC works with these resources and agencies to promote emergency preparedness and healthcare delivery response.

Medical facilities and other resources in an affected area have response obligations to their patients, clients, and communities. During emergencies with significant impact, both private and public sector entities may require resources beyond their capacities and these agencies must be incorporated into local emergency response activities. Both sectors must be prepared to share status information, coordinate their response and requests for support with their respective local government jurisdiction, and to use the incident command system to integrate and manage their response activity.

In order to support a coordinated health and medical response during emergencies and disasters, NCTTRAC has formed the foundation of a Healthcare Coalition (HCC) that supports this interaction with pre-hospital, hospital, jurisdiction emergency management, and public health authorities.

The response goal of the HCC is to promote resiliency and adequate surge capacity and capability across the TSA during a mass casualty and / or a mass effect incident.

Specific objectives supporting this goal include:

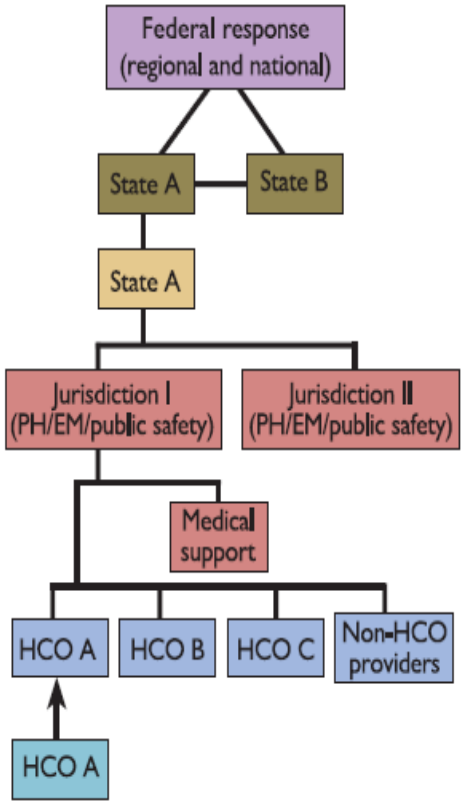
1. Protect healthcare personnel, current patients, visitors, and the integrity of the healthcare system;

2. Provide the best available medical care for responders, victims, and affected families;

3. Manage costs, regulatory compliance, and other issues so they do not compromise higher priority objectives, and;

4. Develop and use processes that enhance the integration of healthcare organizations into the community response.

The Healthcare Coalition is comprised of six tiers, and is pictured below:

Level		Represents	Agency Application
Tier 6		Federal	FEMA HHS CDC
Tier 5		State	Texas SOC, DSHS Medical Ops Center Austin
Tier 4		Regional	Texas DDC, DSHS Region 2/3 TSA-E Medical Coordination Center
Tier 3		Jurisdiction	County and City Emergency Mgmt Local Medical Ops Centers
Tier 2		Healthcare Coalition	Healthcare Systems / Corporations
Tier 1		Healthcare Organization	Hospitals, EMS agencies

The specific objectives for the TSA-E HCC during emergency response and recovery include:

1. Facilitate information sharing among participating healthcare organizations (Tier 1 and Tier 2) with jurisdictional authorities (Tier 3 and higher) to promote common situational awareness;

2. Facilitate resource support by expediting the mutual aid process or other resource sharing arrangements among HCC partners, and by supporting the

request and receipt of assistance from local, regional, state, and federal authorities;

3. Facilitate the coordination of incident response actions for the participating healthcare organizations so incident objectives, strategy, and tactics are consistent for the healthcare response;

4. Facilitate the interface between the HCC and relevant jurisdictional authorities (Tier 3 and higher) to establish effective support for healthcare system resiliency and medical surge.

During emergency response, NCTTRAC leads the TSA-E health and medical response by conducting a range of activities to achieve these objectives. Some of these activities include:

1. Provide notification to member organizations that an actual or potential incident is developing;

2. Rapidly disseminate information from Incident Command and other authorities to HCC member organizations so that they can effectively and safely participate in emergency response;

3. Rapidly disseminate information from HCC member organizations to Incident Command and other authorities, at their request;

4. Convene (often virtually) specific personnel (senior executives, technical specialists, etc.) from HCC member organizations at the request of incident command authorities to discuss strategic issues or make policy recommendations related to the healthcare response;

5. Help HCC member organizations obtain incident-related information that is not otherwise readily available;

6. Disseminate resource needs to member organizations and help match organizations that request mutual aid or other assistance with organizations that can provide the needed assistance;

7. Facilitate the coordination of response actions among member organizations if this is requested by the HCC's responding members and/or by jurisdictional authorities.

The HCC response is enhanced within TSA-E by partnerships with jurisdictions and health departments that have used other federal and state funding streams to develop health and medical response systems. Some of these supporting programs include:

1. Jurisdictional participation through health departments in the federal Bioterrorism Public Health Emergency Preparedness Program (PHEP), which includes all nineteen counties of TSA-E, of which eleven counties participate in the Cities Readiness Initiative (CRI). These programs prepare jurisdictions, their supporting local health departments, and partnering health and medical professionals for epidemiological intervention in biological events, including Strategic National Stockpile preparations;

2. Five cities (Garland, Irving, Dallas, Fort Worth, Arlington) are designated as participants in the Metropolitan Medical Response System (MMRS), integrating through the North Central Texas Council of Governments;

3. Texas Hospital Preparedness Program (HPP), contracted through NCTTRAC, through which approximately 67% of the area's more than 180 hospitals work towards a higher level of local and regional disaster preparedness.

In order to meet the objectives and activities of the HCC system, NCTTRAC has developed a range of supporting capabilities and systems linking pre-hospital and hospital healthcare delivery agencies to Tier 2 and Tier 3 agencies. These include:

1. Establishment of the TSA-E Medical Coordination Center (EMCC);

2. Development of a regional ESF-8 redundant and interoperable communications system;

3. Development of regional information systems linking Tier 1 through Tier 5 agencies for common situational awareness, including patient tracking and distribution, incident command awareness, and resource sharing;

4. Procurement of regional mobile medical assets and supporting caches;

5. Procurement of mass fatality supporting equipment and supplies;

6. Provision of mass alerting and notification capabilities;

7. Provision of administrative support of a regional volunteer management system for health and medical professionals that interfaces with the state;

8. Implementation of a Tier 1 mutual aid / sharing system;

9. Procurement of equipment supporting regional emergency medical task forces and development of task force personnel teams;

10. Provision of regional exercises testing ESF-8 functions and capabilities of Tier 1 through Tier 5 HCC partners;

11. Leadership and guidance for Tier 1 and 2 development of Healthcare Coalition Organization (HCO) all-hazards emergency management plans including:
    a) Business Continuity and Continuity of Operations plans
    b) Pandemic response plans
    c) Evacuation and shelter – in – place plans
    d) Alternate Care Site
    e) Communications Plans
    f) Medical Countermeasures plans
    g) Fatality management plans
    h) Decontamination and Personal Protective Equipment protocols

12. Provision of emergency medical task forces supporting:
    a) Mobile Medical Units (MMU)
    b) Ambulance Strike Teams (AST)
    c) Ambulance Staging Management Teams (ASM)
    d) Nurse Strike Teams (RNST)
    e) Ambulance Buses (AmBus)
    f) Medical Incident Support Teams (M-IST)
    g) Infectious Disease Response Units (IDRU)
    h) Texas Mortuary Operations Response Team (TMORT)

B. General Concept of Relationships During Routine and Emergency Operations

In everyday, normal operations, Tier 1 and 2 HCC partners deliver healthcare support to local and regional partners without the need to interface with jurisdictional authorities or NCTTRAC. These routine business processes may not adequately support healthcare delivery in an emergency, and Tier 1 and 2 HCC partners may need to request support from jurisdictional and regional Tier 3 and higher partners. Because most Tier 1 and 2 partners do not routinely practice the transition from normal to emergency operations in which higher tier support is needed, a knowledge gap exists between health and medical caregivers and jurisdictions.

The State of Texas has directed that all emergencies are local emergencies, and that jurisdictions are expected to:

- Use their own resources first
- Summon mutual aid to assist in the emergency
- Request and activate trained and untrained volunteers
- Implement contingency support agreements or contracts with industry
- Track all costs of emergency operations

Similarly, hospitals, medical treatment centers, and other ESF-8 agencies should:

- Use internal assets until exhaustion is predicted
- Use assets provided under existing memoranda of understanding, mutual aid agreements, or other interlocal agreements
- Tap existing vendor relationships
- When local and mutual aid resources are inadequate, request support from city / county emergency management, as appropriate

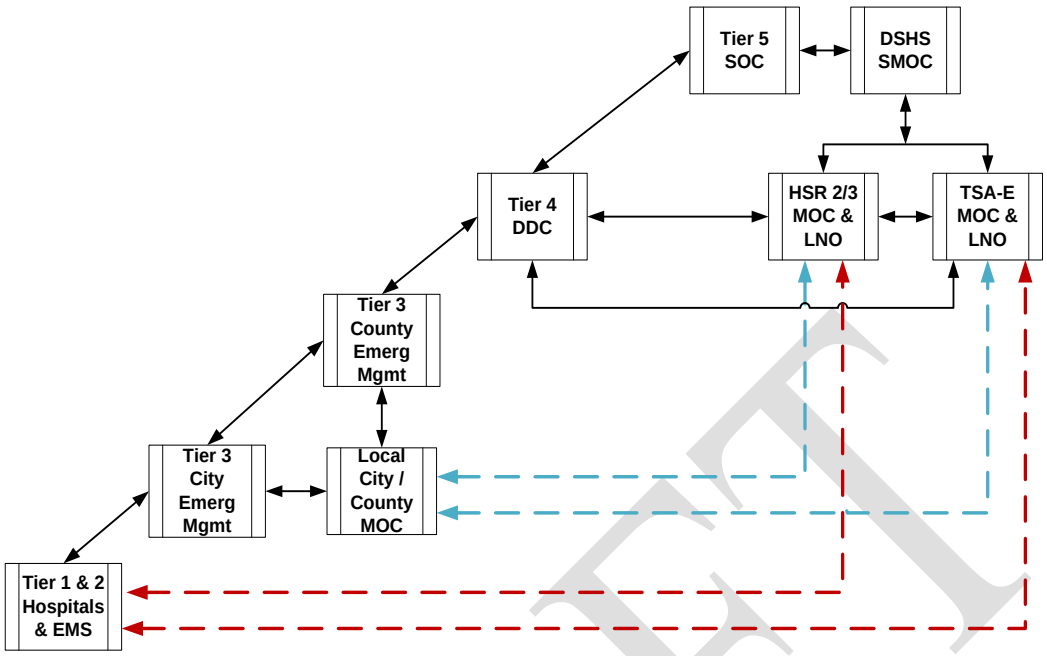
Two regional ESF-8 agencies provide support to Tier 1 and 2 HCC partners during normal and emergency operations. NCTTRAC provides support to hospitals and EMS agencies, primarily supporting healthcare delivery issues. DSHS, Health Service Region 2/3 (HSR 2/3), provides support in more than 25 public health roles, but primarily in infectious disease control matters. Both NCTTRAC and HSR 2/3 provide support as a Tier 4 liaison to the Disaster District Committee during emergencies.

The following chart reflects the emergency operations relationships expected of regional Tier 1 through 5 HCC partners. When resources are predicted to be inadequate for Tier 1 and 2 partners to continue to function, those hospitals and EMS agencies must inform and request support from their jurisdictional partners. These relationships are indicated by solid lines of communication.

NCTTRAC provides support through crisis applications, including EMResource and WebEOC. These systems are addressed in greater detail on subsequent pages.

HSR 2/3 focuses on public health matters and systems, to include but not limited to epidemiological reporting systems, Chempack, and Strategic National Stockpile operations. These relationships with Tier 1 through 3 partners are reflected as dashed lines. For more information on HSR 2/3 response support, contact should be made with local and regional health offices.

When activated by the State of Texas, NCTTRAC and HSR 2/3 assume a greater role in direct support of the Tier 4 Disaster District Committees, or as activated by the DSHS State Medical Operations Center.



Regional Emergency Relationships

C. Mutual Aid and Reimbursement for Costs of Emergency and Disaster Response

1. Texas Government Code §418.115 (the Texas Disaster Act of 1975, as amended by the 83rd Texas Legislature, June 14, 2013) established the Texas Statewide Mutual Aid System, which provides integrated statewide mutual aid response capability between local government entities without a written mutual aid agreement. Key elements of the System, which may be amended from time to time, include:

   a) The personnel, equipment, and resources of a responding local government entity being used in the response effort are under the operational control of the requesting local government entity unless otherwise agreed;
   b) Direct supervision and control of personnel, equipment, and resources and personnel accountability remain the responsibility of the designated supervisory personnel of the responding local government entity;
   c) Unless otherwise agreed in advance, an emergency medical service organization providing assistance under the system shall use the medical protocols authorized by the organization's medical director;
   d) A person assigned, designated, or ordered to perform duties by the governing body of the local government entity employing the person in response to a request under the system is entitled to receive the same wages, salary, pension, and other compensation and benefits, including

injury or death benefits, disability payments, and workers' compensation benefits, for the performance of the duties under the system as though the services were rendered for the entity employing the person.

e) The local government entity employing the person is responsible for the payment of wages, salary, pension, and other compensation and benefits associated with the performance of duties under the system.

f) If the assistance of a person who holds a license, certificate, permit, or other document evidencing qualification in a professional, mechanical, or other skill is requested by a state agency or local government entity under the system, the person is considered licensed, certified, permitted, or otherwise documented in the political subdivision in which the service is provided as long as the service is required, subject to any limitations imposed by the chief executive officer or the governing body of the requesting state agency or local government entity.

2. **Reimbursement of costs:** If a local government entity requests mutual aid assistance from another local government entity under the system **that requires a response that exceeds 12 consecutive hours**, the requesting local government entity shall reimburse the actual costs of providing mutual aid assistance to the responding local government entity, including costs for personnel, operation and maintenance of equipment, damaged equipment, food, lodging, and transportation, incurred by the responding local government entity in response to a request for reimbursement. Local government entities with a mutual aid agreement when the request for mutual aid assistance is made are subject to the agreement's terms of reimbursement.

   Most emergencies can be resolved within the 12 consecutive hour window indicated above, or one operational shift. However, as emergencies expand and begin overwhelming the HCC, NCTTRAC may be required to remain operational beyond the single operational period, or to provide resources that mitigate or resolve health care delivery issues. Emergency or disaster support beginning with a second operational period, or which requires the expenditure of resources, may require reimbursement of NCTTRAC's costs.

   When activated by State of Texas Tier 4 or 5 partners, incident goals and objectives are expected to be denoted in an activation / mobilization order, to which reasonable costs of the activation will be applied for state reimbursement.

   When activated by Tier 1, 2, or 3 agencies or jurisdictions, costs of NCTTRAC support for more than one operational period are expected to be reimbursed by requesting authorities.

   NCTTRAC activation for a real-life event may be characterized as an "exercise" to satisfy certain contractual obligations. After action reports and

corrective action plans must be developed if response efforts are so characterized.

The preferred method of gaining reimbursement requires obtaining a state-issued mobilization order or state mission assignment (SMA) in writing with reimbursement procedures / parameters stated within the order / SMA.

D. General Concept of NCTTRAC Emergency Operations

1. Routine preparedness capabilities and support:

   NCTTRAC provides as a normal business function regional administration and support for ongoing preparedness and response programs, such as hosting WebEOC, EMResource, and regional alerting of HCC partners regarding incidents affecting regional health and medical care delivery. These daily functions are provided on a 24/7 basis, are not considered an "activation", and do not require that NCTTRAC be reimbursed for such support.

   Routine support will transition into an activated stance when an activation request or mobilization order is received, or as directed by the Executive Director, when the duration of event – specific support would be presumed to exceed one operational period (shift).

   NCTTRAC may share preparedness resources, such medical device caches, in advance of known events. The costs of these preparedness efforts, such as transportation and reconstitution costs, must be paid by the recipient.

2. Emergency support:

   NCTTRAC supports health and medical care emergency operations that may encompass events in individual counties, across the region and state, and may support operations in other states.

   NCTTRAC may respond to local, regional, state, and federal emergency situations. Response activities will be scaled as appropriate for the given event, and may range from desk support during working hours, to 24/7 activation of the EMCC and the provision of liaison officers to work with various regional and state response agencies.

3. NCTTRAC emergency operations:

   The Executive Director (or designee) will direct staff functions for emergency operations. The Board of Directors has approved emergency use of unrestricted funds for 72 hours after initiation of emergency operations so that appropriate reimbursement sources may be put in place.

4. Immunity from Civil Liability:

   a) It is preferred that a request for disaster assistance be issued by an authorized representative of a local, state, or federal agency, including a fire department, police department, emergency management agency, or a disaster response agency.
   b) Attorney General of Texas Opinion GA-0172 cites that Texas Civil Practices and Remedies Code, Chapter 79.003 provides immunity from civil liability for certain acts of omissions involving management of hazardous – material incidents and disasters, which applies to individuals, associations, corporations and other private legal entities, *when such jurisdiction officials request support*.
   c) Requests for support from non-jurisdictional authorities, such as officials representing private hospitals, do not provide this immunity.

5. Activation for emergency operations:

   NCTTRAC may be activated:

   a) At the direction of the Executive Director (or designee)
   b) At the request of:
      1) Officials representing state emergency management or the Department of State Health Services, including:
         i. Texas Department of Public Safety, Regional Commander, or designee. The Regional Commander may be represented by designated TXDPS State Coordinator for the affected region.
         ii. Texas State Operations Center (SOC);
         iii. Texas Department of State Health Services State Medical Operations Center (SMOC), including the State Commissioner of Health, the Assistant Commissioner of Health for the Division of Prevention and Preparedness Services, and subordinate program managers;
      2) The Regional Director, Health Service Region 2/3, of the Department of State Health Services (HSR 2/3);
      3) Disaster District Chairs (or designees) from DDCs 4B (Garland), 4A (Fort Worth/Hurst), 22 (Sherman), 7 (Abilene) and 3 (Wichita Falls). Representing the DDC Chair may be designated District Coordinators (formerly Regional Liaison Officers – RLOs).

4) Senior elected city and county officials (city mayor or county judge) or their designated emergency management coordinators;
5) Officials of regional hospitals, EMS agencies, and EMS Medical Directors.

How to Activate NCTTRAC:

a) Affected HCC partners should notify NCTTRAC by voice contact as emergency situations begin to develop, if the situation may be reasonably expected to develop into a scenario in which regional support may be required. NCTTRAC's 24/7 emergency hotline may be reached at (817) 607-7020.
b) Initial activation requests may be made verbally to start regional support processes, such as region-wide alerting, notification and establishment of specific events in crisis application systems.
c) All activation requests must be provided in writing within the first operational period following the initial request.
d) The preferred written request for activation is a State of Texas Assistance Request (STAR) in WebEOC, which requires submission of the request via city / county, and DDC officials. Telephone contact to NCTTRAC's emergency hotline at (817) 607-7020 to ensure delivery is recommended. A general message, such as an ICS-213, may be used if the STAR system is not available. If electronic transmission of the STAR or 213 is not possible, a fax copy of the 213 may be sent to (817) 608-0399. Establish telephone contact with NCTTRAC to ensure delivery of the request has occurred.
e) If a 213 is not available in electronic or hard copy form, written activation requests may be provided in any written narrative format. Follow local jurisdiction processes.
f) All activation requests to NCTTRAC should be concurrently provided to supporting Tier 3 jurisdictional partners. NCTTRAC will provide Tier 3 partners a copy of any activation request when it appears that jurisdictional emergency management partners have not been included in the request distribution.

E. Communications Systems

NCTTRAC has emplaced a series of redundant communications systems that support a common ESF-8 operating picture among Tier 1 though Tier 5 HCC members. These redundant systems support normal telephone and cellular phone systems, and also include:

1. Internet-based crisis application systems;

2. Commercial band and amateur radio (HAM) two-way radio systems. Commercial band radios have been placed with HPP – participating hospitals to enable direct communications between the hospital and their supporting jurisdiction emergency management officials, as allowed by the jurisdiction.

    a) NCTTRAC operates HAM radio systems in HF, VHF and UHF bands.
    b) Commercial radios capable of operating on Texas interoperable frequencies have been installed in VHF, UHF, and 700/800 MHz ranges at both the TSA-E Medical Coordination Center and the NCTTRAC Emergency Warehouse.

3. Satellite voice and data systems. NCTTRAC has procured a variety of satellite transceiver systems capable of supporting voice and / or data uplink / downlink. These include:

    a) V-SAT, installed as a disaster response system on Mobile Emergency Response Center (MERC Lite) communications trailers for uplink / downlink of data, including internet-based systems;
    b) MSAT G2 Land Mobile Satellite Radio, including 12 mobile units with VHF radio capability, four units supporting Ambulance Bus operations, and fixed units supporting the TSA-E Medical Coordination Center and the NCTTRAC Emergency Warehouse;

F. Regional Information Systems

Regional internet-based information systems contribute to common situational awareness. Specific guides for the use of these systems are located on the NCTTRAC website.

The systems include:

1. **WebEOC**, which provides the ability to track evacuees, inter-hospital patient transfers, hospital significant event reporting, situation reporting, and a mission / task system. WebEOC offers a virtual collaborative incident management system that NCTTRAC has made available to Tier 1 through 5 HCC partners, as permitted by login and password access.

2. **EMResource**, a component of the overarching Intermedix EMSystem, which provides hospitals, ground EMS, and air-based EMS services a platform for alerting and reporting the ability to respond to a mass casualty event. This system indicates agency ability to respond to mass casualty locations and the ability to receive disaster victims, and provides healthcare facilities the ability to report immediate bed availability.

3. The **Texas Disaster Volunteer Registry (TDVR),** which is the Texas version of the federal Emergency System for Advance Registration of Voluntary Healthcare Professionals (ESAR / VHP). It is an electronic system for registration of volunteer health and medical and other supporting professionals. Focusing primarily on integration of Medical Reserve Corps volunteer personnel, the TDVR system use is principally a jurisdictional responsibility. TDVR is available for any agency that pre-registers such personnel, and provides selected licensure validation services. TDVR functions as part of EMSystem, using Intermedix's EMCredential component.

G. Regional Mobile Response Assets

NCTTRAC has procured many mobile resources to improve hospital and EMS disaster response readiness. These include:

1. Mobile medical units (Base-X), each capable of providing independent deployment of up to 110 beds in six surge units with three supporting command, control, and logistics units. These units are capable of providing alternate care sites while operating in biological / chemical events in a negative pressure environment. The surge units are held by Tier 3 HCC partners in Arlington, Collin County, and Navarro County.

2. One mobile medical unit (ZUMRO) with a rapid deployment capability, supporting emergency response 32 beds. This unit is held by NCTTRAC.

3. Four ambulance buses (AMBUSes), each capable of supporting up to 20 litter patients or ambulatory patients. AMBUSes are operated by Tier 3 HCC partners, Frisco Fire Department (MPV 2-01), Flower Mound Fire Department (MPV 2-02), Cedar Hill Fire Department (MPV 2-03), and by MedStar / Fort Worth Fire Department (MPV 2-04).

4. Mission caches of medical supplies continue to be developed to support health care delivery. These include:

    a) Evacuation equipment, including adult and bariatric MedSleds, Evacusleds, backboards, pediatric spine immobilization boards, wheelchairs, and crutches. NCTTRAC also holds a small quantity of Stokes wire basket litters.
    b) Radiological Response Cache developed in kits for rapid deployment with EMTF forces, but with capability for individual deployment, including:
        1) Six portal detection devices with pedestrian and vehicle kits
        2) 117 multipurpose radiation survey meters which can be used as personal dosimeters
        3) 20 radiation high-sensitivity personal radiation dosimeters

4) Four calibration kits for radiation detection and identification kits
5) Personal protective equipment for up to 24 staff
6) Patient decontamination support supplies

5. A cache of pandemic supplies and consumables for hospital or alternate care site use, including emergency TEMPS beds and bariatric equipment for deployment to surge locations.

6. Caches of emergency – use ventilators, defibrillators, and suction units.

7. Deployable communications kits with interoperable two-way radios, satellite phones, and internet-based platforms. This equipment is held by NCTTRAC and includes:

   a) Two Mobile Emergency Response Center (MERC Lite) communications trailer systems. These units are held by HCC partners and have the following capabilities:
      1) VSAT disaster response satellite uplink / downlink for data transfer and internet connectivity
      2) HF, VHF, and UHF two-way HAM radio
      3) VHF, UHF, and 700/800 MHz commercial band interoperable two-way radio
      4) MSAT G2 Land Mobile two-way satellite voice capability
      5) Cell tower boosters for ATT, Verizon, and Sprint cell phone systems
      6) WIFI support for area computer systems
   b) Five mobile communications kits with VHF commercial band capability, each with:
      1) One mobile VHF transceiver and external antenna kit
      2) Twelve VHF handheld transceivers
   c) Five mobile HAM communications kits with VHF / UHF amateur band capability, each with:
      1) One mobile HAM VHF / UHF dual band transceiver
      2) One external antenna kit
   d) MSAT G2 Land Mobile Satellite Radio. NCTTRAC holds:
      1) 12 mobile units with VHF radio capability in pelican cases for independent deployment
      2) Fixed installation units at the TSA-E Medical Coordination Center and the NCTTRAC Emergency Warehouse;
      3) Four units installed in AMBUSes operated by regional partners in Cedar Hill, Frisco, Fort Worth, and Flower Mound.

8. Four refrigerated support units, trailers that are configured for cold transportation or storage of deceased human remains, but which also may be used for vaccine transportation or responder rehabilitation. Units are placed as follows:

a) One unit held centrally at NCTTRAC's warehouse in Arlington
b) One unit held by Ferris Fire Department in Ellis County
c) One unit held by Grayson County Emergency Management

9. NCTTRAC has placed four Evacuation Support Trailers within Metroplex jurisdictions, including Dallas County, Bedford, Burleson, and Denton County Emergency Services District (1). These trailers have been outfitted with equipment and supplies that will support initial evacuation of facilities that may require abandonment, such as may be required after a tornado strike or an explosion. Each trailer holds two Stryker Stair Chairs, ten adult and two bariatric MedSleds, one each MedSled pediatric and toddler inserts, ten pediatric immobilization boards, ten backboards, five each adult and bariatric MegaMover slings, and blankets, and pillow wedges. Such evacuation response equipment may be supplemented from NCTTRAC warehouse stock of evacuation equipment.

10. One regional cache of BioSeal, a mass fatality response system capable of supporting Biosafety Level 4 containment of whole or partial human or animal remains, for up to 1,500 average human adult remains. Use of this system temporarily precludes the use of refrigeration for the storage of remains. This equipment is held by NCTTRAC. Two BioSeal Level 5 containment systems are retained for use in High Consequence Infectious Disease events.

Emergency response equipment and supplies held by HCC partners may be requested through a standard mutual aid request.

Tier 1 HCC partners should request support through their Tier 3 jurisdiction emergency management officials when Tier 1 and Tier 2 resource sharing cannot fulfill needs. Tier 1 HCC partners should develop relationships with their jurisdictional Tier 3 partners to enhance emergency support by Tier 3 agencies.

NCTTRAC will release regional emergency assets upon request or mobilization order from Tier 4 or 5 HCC partners, including the TXDPS Region Commander, Disaster District Chairs in Fort Worth, Garland, Sherman, Abilene, and Wichita Falls, the HSR 2/3 Regional Director, the DSHS State Medical Operations Center (SMOC), and the State Operations Center (SOC). In local or regional emergencies, the NCTTRAC Executive Director may release emergency equipment and supplies at the request of county senior elected officials.

H. Mass Alerting and Notification Systems

Mass alerting and notification capability for HCC members is made available to all Tier 1 through Tier 5 HCC partners through EMResource. DSHS routinely uses EMResource to test hospital reporting of Immediate Bed Availability. Pre-hospital

and hospital healthcare providers have the ability to issue region-wide alerts in EMResource.

NCTTRAC uses the EverBridge notification system to alert EMTF, Board of Directors, and staff personnel.

I. Regional Volunteer Management System

NCTTRAC supports use of the Texas Disaster Volunteer Registry (TDVR). TDVR is available for any agency that pre-registers such personnel, and provides licensure validation services. Tier 1 through 3 partners are encouraged to make use of the TDVR, especially for administrative support and credentialing of Medical Reserve Corps, Community Emergency Response Teams, and Citizen Corps teams. If requested, NCTTRAC can notify TDVR local administrators of any state request for support by TDVR registrants, and can facilitate regional requests for local or regional volunteers by local administrators. At no time will NCTTRAC manage volunteer pools registered within TDVR.

J. Regional Mutual Aid and Sharing System

As in other parts of the nation, TSA-E is susceptible to disasters, both natural and man-made, that could exceed the resources of any individual hospital.

Although resources needed to support emergency and disaster response are normally in adequate supply to provide for the needs of the HCC in local and regional events, some situations may cause temporary shortages in personnel, equipment, and supplies. Temporary disruptions may be experienced when mass casualties or mass effect events occur. Planning scenarios imposing such temporary disruption might include a stadium collapse, airplane crash, or a major explosion. Long term shortages may occur when the supply chain is disrupted, or when resource demand exceeds typical usage. Scenarios experienced within TSA-E causing long term impact on resources include the pandemic influenza outbreak of 2010, support of evacuees from hurricanes Katrina and Rita, and the Ebola outbreak of 2014.

A disaster could result from incidents generating an overwhelming number of patients, from a smaller number of patients whose specialized medical requirements exceed the resources of the impacted facility (e.g., hazmat injuries, pulmonary, trauma surgery, etc.), or from incidents such as building or plant problems resulting in the need for partial or complete hospital evacuation.

In emergencies, following the concepts of the Texas Disaster Act of 1975, pre-hospital and hospital healthcare providers are expected to:

1. Use internal assets until exhaustion is predicted;

2. Sharing: Use assets provided under corporate / system agreements, memoranda of understanding, mutual aid agreements, and interlocal cooperation agreements, etc.;

3. Access and use vendor relationships;

4. Request support from Tier 3 city or county emergency management, as appropriate, when local and mutual aid resources are inadequate.

Hospitals participating in the Hospital Preparedness Program have joined into a mutual aid agreement for resource sharing of supplies, equipment, and personnel. Hospitals not participating in this program are encouraged to also enter into the mutual aid agreement. It is expected that this "horizontal" sharing of resources will fulfill many needs that may not be immediately available locally.

K. Hospital Emergency Planning

State of Texas hospital licensing regulations and the Centers for Medicare and Medicaid Services require hospitals to develop all-hazard response plans. Hospitals participating in the Texas Hospital Preparedness Program, and those pursuing accreditation under Joint Commission (or other) standards, likewise are required to develop all-hazard response plans and protocols, including methods by which they respond to mass casualty events. These plans and resultant Hospital Incident Command Systems (HICS) incorporate the National Incident Management System (NIMS), and are based on hospital, city, county, and regional hazard vulnerability assessments (HVA). Hospital integration to local emergency management systems is emphasized.

Hospital emergency plans should reflect integration with Tier 3 HCC partners, and include protocols for the following:

1. **Hospital evacuation**, including horizontal and vertical evacuation, evacuation within the immediate hospital area, and remote evacuation. Evacuation plans should consider communications, medical records, mobile assets, patient tracking, repatriation, staffing, supplies, pharmaceuticals, and transportation requirements.

2. **Mass fatality** in which deceased human remains exceed the hospital's storage capacity and where normal mortuary support may not be functioning;

3. **Hospital sheltering – in – place**, for situations in which it may be safer and more medically responsible to remain within the hospital versus evacuating;

4. **Pandemic influenza response**, addressing alternate care sites, triage of the ill, science-based triggers for action, personal protective equipment, just-in-time training of staff, education of the workforce, education of the ill and caregivers, and equipment and supplies.

5. **Alternate care sites**, supporting response in a pandemic influenza outbreak with an anticipated nominal 30% attack rate. Plans for alternate care sites during pandemic situations should encompass site locations, bed reporting, staff, staff and patient support services, transportation, security, communications, level of care provided and types of patients that can be taken care of, and summarize plans for supply and resupply of the alternate care site.

6. **Personal Protective Equipment (PPE)** planning for the purchase, sustainment, use, and rotation of PPE, and the training of personnel in its use. PPE plans should be implemented in such a manner as to meet Occupational Safety and Health Administration (OSHA) guidelines required under 29 Code of Federal Regulations §1910.132, and OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents. These documents may be found on NCTTRAC's website.

7. **Decontamination** planning for the purchase, sustainment, use, and rotation of decontamination equipment, and the training of personnel in its use.

   PPE and decontamination plans should be implemented in such a manner as to meet Occupational Safety and Health Administration (OSHA) guidelines required under 29 Code of Federal Regulations §1910.132, and OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents. These documents may be found on NCTTRAC's website.

8. **Pharmaceutical cache planning**, including considerations for accessing caches, the provision of prophylactic medications and vaccines to hospital personnel and their families, and the stockpiling, rotation, and funding of the cache.

9. **Patient tracking and bed reporting** plans, reflecting the integration of hospital staff into use of EMResource.

10. **Business Continuity** plans, reflecting health care agency continuity of operations plans and needs.

L. Emergency Medical Task Forces (EMTF)

NCTTRAC serves as the lead agency for administration of a statewide EMTF development project for North Central Texas (TSA-E – Arlington), North Texas (TSA-

C – Wichita Falls), and West Central Texas (TSA-D – Abilene). EMTF elements will stand ready to provide medical surge support throughout the State of Texas, and regionally as requested for mutual aid. Designated **EMTF 2**, the regional task force is capable of providing ambulance buses, mobile medical units, nurse strike teams, ambulance strike teams, Ambulance Staging Management, and Medical Incident Support Teams (M-IST). In development are Infectious Disease Response Units (IDRU) and Texas Mortuary Operations Response Teams (TMORT). When called upon by the State, teams and assets will deploy with costs reimbursed by the State. When called upon locally or regionally, costs must reimbursed by the receiving jurisdiction, or be absorbed by the providing agency.

M. Regional Health and Medical Exercise Program

TSA-E leads the state in the development and execution of Homeland Security Exercise Evaluation Program – compliant ESF-8 exercises that integrate participating hospitals, supporting jurisdictions, inter- and intra-regional and state partners into discussion-based and operations-based exercises. Exercises are based on regional and state hazard vulnerability assessments. Regional communications drills testing both internet-based communications and radio systems are routinely conducted. Exercises contain elements testing Hospital Preparedness Program capabilities, including interoperable communications, bed reporting, patient tracking, fatality management, hospital evacuation and / or sheltering in place, and volunteer management. All exercises test the integration of Tier 1 and 2 partners with Tier 3 jurisdictional partners, and have incorporated resource sharing, resource requests, and information sharing through Tier 5 partners. Exercises may be run concurrently with intra-regional partner exercises required of DSHS Health Service Region 2/3 and the Public Health Emergency Program, with Cities Readiness Initiative Tier 1 – 3 partners, and with other inter-regional Trauma Service Area partners. All participating agencies produce after action reports and corrective action plans for internal use, and provide input for regional development of these documents. Real life events may be used to substitute for exercise play.

N. Integration with Public Health Emergency Programs

Texas has implemented an overarching Community Preparedness program unifying emergency planning and response for ESF-8 health and medical activities. For pre-hospital and hospital activities, NCTTRAC serves as the TSA-E lead on the Hospital Preparedness Program (HPP), which is one of the two major Community Preparedness programs. Regional response planning and activities are described above.

The second major Community Preparedness program is the **Public Health Emergency Preparedness program (PHEP).** Within TSA-E, there are six principal program participants:

1. DSHS Health Service Region 2/3, serving Cooke, Ellis, Erath, Fannin, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, and Wise counties;
2. Collin County Department of Homeland Security;
3. Dallas County Health and Human Services;
4. Denton County Health Department;
5. Grayson County Health Department;
6. Tarrant County Public Health.

Within TSA-C and TSA-D, there are three county health departments that participate in PHEP:

1. Sweetwater-Nolan County Health Department
2. Abilene - Taylor County Public Health District
3. Wichita Falls – Wichita County Public Health District

A special federal initiative called the **Cities Readiness Initiative (CRI)** provides additional preparedness focus for counties that fall within the Dallas – Fort Worth metropolitan statistical area. Within TSA-E, this includes Collin, Denton, Dallas, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Tarrant, and Wise counties.

PHEP and CRI coalition partners are responsible for development and improvement of community preparedness to respond to health threats in conjunction with HPP partners.

O. NCTTRAC Emergency and Disaster Response

The NCTTRAC Emergency Operations Plan (EOP) is published separately and provides guidance on the response organization, concept of operations, direction and control, and other pertinent information for EMCC and NCTTRAC support in emergency and disaster situations.

NCTTRAC provides pre-hospital and hospital liaison support to area DDCs when called upon by the State of Texas. Health Service Region 2/3 likewise supports

area Disaster Districts (DDCs) with a public health liaison, rounding out regional ESF-8 support.

Selected situations may call for an activation of NCTTRAC response systems, including the EMCC, in preparation for an actual incident occurring. This "leaning forward" in preparation for a possible event particularly applies during large scale public events in which Tier 3 through 5 partners have asked NCTTRAC to support jurisdictional emergency readiness. As an example, NCTTRAC activated the EMCC for Super Bowl XLV in January 2011 for a period of ten days. During this period, NCTTRAC reviewed and reported on regional medical surge capacity, resulting in development of pre-hospital and hospital support strategies.

P. Tier 1 and 2 Coalition Partner Emergency and Disaster Response

Pre-hospital and hospital Tier 1 HCC partners are expected to develop emergency response plans for an "all hazards" response. Regional disaster response concepts of operation should be considered and integrated into local plans, where applicable. Hospital systems and EMS agencies may develop Tier 2 plans that encompass and direct the actions of their subordinate Tier 1 agencies.

NCTTRAC invites hospital system and EMS agency Tier 2 representation within the activated EMCC. Such representation may be virtual or physical in nature.

Q. Tier 3 Coalition Partner Health and Medical Response

As reflected in the State of Texas Homeland Security Plan, all emergencies are considered a local responsibility, and legal responsibility for provision of support for emergencies is placed on the senior elected official within the affected jurisdiction. Tier 1 HCC partners such as hospitals and EMS agencies must work through these officials when resource needs cannot be met by local assets alone.

Cities and counties may elect to establish local medical operations centers (LMOCs) or desks through which ESF-8 support to their jurisdiction's public health and healthcare providers. When such LMOCs are established, NCTTRAC will integrate Tier 3 LMOC plans into the TSA response plan, and provide designated representatives access to regional information and communications systems. LMOCs supporting Tarrant and Dallas counties are currently being developed.

NCTTRAC invites LMOC Tier 3 representation within the activated EMCC. Such representation may be virtual or physical in nature.

R. Tracking of Bed Availability

NCTTRAC supports the tracking of immediate bed availability (IBA) and the use of 27 WholeBed categories, as specified by the Department of State Health Services. Hospital bed availability reporting is conducted in ***EMResource***. When called for by the Department of State Health Services, NCTTRAC must collect and aggregate hospital bed availability reports and submit results to the state within two hours, or as otherwise required by the State.

For exercises, NCTTRAC will send out a scenario with the reporting request to facilitate ease and create a reference, for calculating IBA. Additionally, as the region grows in capability, along with ongoing evaluation of exercises and real events, regional specific documents regarding the reporting of beds training will be posted on the NCTTRAC website.

Hospitals will be asked to report **Current Available beds** by WholeBed category.

Current Available Beds: Beds that are vacant and to which patients can be transported immediately. These must include supporting space, equipment, medical material, ancillary and support services, and staff to operate under normal circumstances. These beds are licensed, physically available, and have staff on hand to attend to the patient who occupies the bed. Also refers to vacant / available beds.

The following standard definitions have been developed by the Agency for Healthcare Research and Quality (AHRQ), Public Health Emergency Preparedness Program, and incorporated into the national HAvBED program by the Department of Health and Human Services (DHHS). In implementing WholeBed standard, Texas has further supplemented these definitions.

1. **Licensed Beds**: The maximum number of beds for which a hospital holds a license to operate. Many hospitals do not operate all of the beds for which they are licensed.

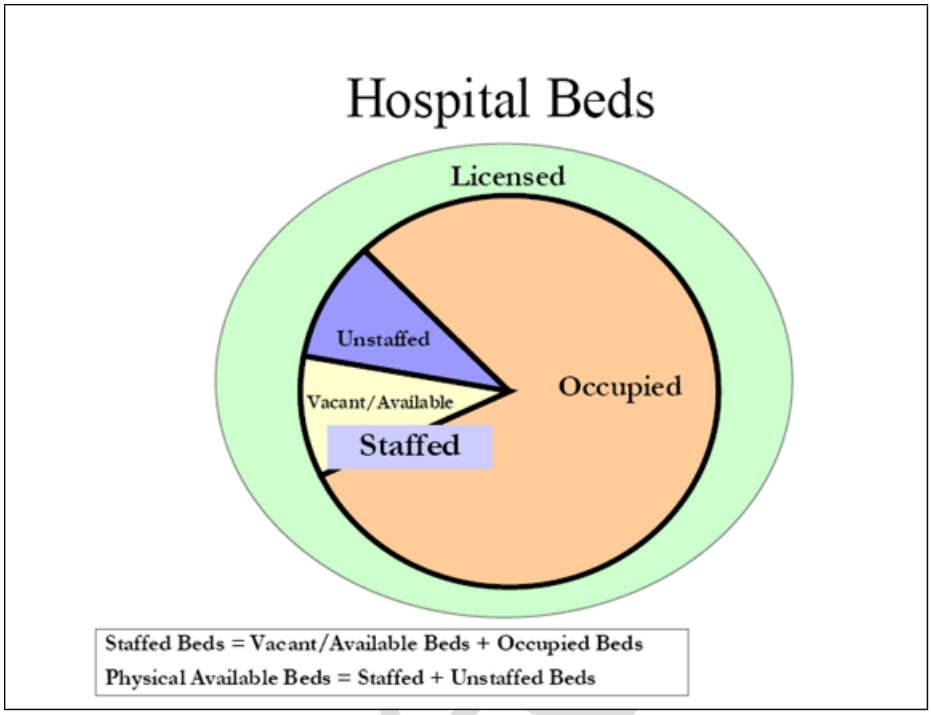
2. **Staffed Beds**: Beds that are licensed and physically available for which staff is on hand to attend to the patient who occupies the bed. Staffed beds include those that are occupied and those that are vacant.

3. **Unstaffed Beds**: Beds that are licensed and physically available and have no current staff on hand to attend to a patient who would occupy the bed.

4. **Occupied Beds**: Beds that are licensed, physically available, staffed, and occupied by a patient.

5. **Vacant/Available Beds**: Beds that are vacant and to which patients can be transported immediately. These must include supporting space, equipment,

medical material, ancillary and support services, and staff to operate under normal circumstances. These beds are licensed, physically available, and have staff on hand to attend to the patient who occupies the bed.



Immediate Bed Availability in Mass Casualty Surge Situations: For purposes of estimating institutional surge capability in dealing with patient disposition during a large mass casualty incident, the following bed availability estimates also may be reported:

1. **4-hour Beds Available**: An informed estimate of how many staffed, vacant beds for each WholeBed category could be made available above the current number within 4 hours. This would include created institutional surge beds as well as beds made available by discharging/transferring patients.

2. **24-hour Beds Available**: An informed estimate of how many staffed, vacant beds for each WholeBed category could be made available above the current number within 24 hours. This would include created institutional surge beds as well as beds made available by discharging/transferring patients.

3. **72-hour Beds Available**: An informed estimate of how many staffed, vacant beds for each WholeBed category could be made available above the current number within 72 hours. This would include created institutional surge beds as well as beds made available by discharging/transferring patients.

Texas WholeBED Definitions
Effective July 1, 2016

1. **ER Beds**
    a. Emergency Room Beds - Provision of unscheduled outpatient services to patients in need of immediate care. Hospital Emergency diagnosis and treatment of illness or injury is provided.
2. **Med/Surg Beds**
    a. Med/Surg (Monitored) - Provides acute care to inpatients.
    b. Med/Surg (Non-Monitored) - Provides acute care to inpatients.
3. **Pediatric Beds**
    a. Pediatric Beds (Monitored) - Provides pediatric care to children.
    b. Pediatric Beds (Non-Monitored) - Provides pediatric care to children.
4. **ICU Beds**
    a. Adult ICU Beds - (also referred to Adult Intensive Care Type Unit) - Provides care, including ventilator support, for critically injured or ill patients. Specialized support or treatment equipment is available for patients with life-threatening conditions that require intensified comprehensive observation and care.
5. **PICU Beds**
    a. PICU Beds - (also known as Pediatric Intensive Care Type Unit) - Provides care, including ventilator support, for critically injured patients. Specialized support or treatment equipment is available for patients with life-threatening conditions that require intensified comprehensive observation and care.
6. **NICU Beds**
    a. NICU 1 - Level 1 Basic – (Also known as Newborn Nursery) Provides care for neonatal resuscitation at every delivery; provides care for infants born at 35-37 weeks and are physiologically stable; provision of care to stabilize infants born at less than 35 weeks or who are ill until transfer to a higher level of care becomes available.
    b. NICU 2 - Level 2 Specialty - Provides care for infants less than 35 weeks or are less than 1500 grams who have physiological immaturity or who are moderately ill with problems that are expected to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis. Provision of convalescent care after intensive care; assisted ventilation on a limited basis; or mechanical ventilation for more than 24 hours.
    c. NICU 3 - DSHS designated Level 3 & 4 Subspecialty - Provides care for infants requiring sustained life support, conventional ventilation, minor surgical procedures, and severe and complex illnesses.
7. **Psychiatric Beds**
    a. Adolescent Female (Aged 13-17) - Provides inpatient psych services for individuals with acute mental health issues.
    b. Adolescent Male (Aged 13-17) - Provides inpatient psych services for individuals with acute mental health issues.
    c. Adult Female (Aged 18 and Over) - Provides inpatient psych services for individuals with acute mental health issues.

d. Adult Male (Aged 18 and Over) - Provides inpatient psych services for individuals with acute mental health issues.
e. Child Female (Aged 12 and Under) - Provides inpatient psych services for individuals with acute mental health issues.
f. Child Male (Aged 12 and Under) - Provides inpatient psych services for individuals with acute mental health issues.
g. Chemical Dependent Male - Provides (supportive) care for patients with chemical dependencies.
h. Chemical Dependent Female - Provides (supportive) care for patients with chemical dependencies.

8. **Isolation Beds**
   a. Negative Pressure Isolation Beds (In Patient) - provides care for patients where environmental factors, such as air exchanges, are controlled in an effort to minimize the transmission of infectious agents.
   b. Negative Pressure Isolation Beds (ER) - Provides care for patients where environmental factors, such as air exchanges, are controlled in an effort to minimize the transmission of infectious agents.
9. **Burn Beds**
   a. Burn Beds (Monitored) - Provides care for severely* burned patients. These beds may either be approved by the American Burn Association or self-designated.
   b. Burn Beds (Non-Monitored) - Provides care for severely* burned patients. These beds may either be approved by the American Burn Association or self-designated.
   c. Severe Burns: 1. Third degree burns 2. Second-degree burns more than 2-3 inches wide 3. Second-degree burns on the hands, feet, face, groin, buttocks, or major joint
10. **Obstetric Beds**
   a. Labor & Delivery Beds - Provides care through all stages of labor and delivery during childbirth.
   b. Recovery & Postpartum Beds - Provides care following childbirth.
11. **Operating Room Beds**
   a. Operating Room Beds - Provides care for patients in equipped and staffed operating rooms. These beds can be made available for patient care in a short period of time. Provision of care for patients in operating rooms / recovery Rooms (post anesthesia care units).
12. **Other**
   a. Adult Ventilators
   b. Pediatric Ventilators

Available bed projection considerations: Tier 1 and 2 planners should evaluate the potential needs and resources required to manage a mass casualty incident, and project hospital bed availability 4, 24 and 72 hours into the future of an event from the time of hospital notification. It is understood that these numbers represent a “best guess” estimate and that the actual number of beds available in 4, 24 and 72 hours will vary from these estimates, based upon the demands of the incident as well as the “routine”, non-

incident-related patient workload. Such beds could be made available by a number of means including:

1. The early discharge of patients
2. Cancellation of elective admissions
3. The transfer of patients to alternate care sites and facilities, and
4. The creation and opening of institutional surge beds.

Department of Health and Human Services (DHHS) evidence suggests that anywhere from 15-25% of a hospital's bed capacity could be made available by the early discharge of patients and cancellation of elective admissions. Furthermore, evidence suggests that an additional 5-20% of a hospital's bed capacity could be made available by transfer of stable patients requiring ward-type care (with the exception of oxygen administration) to a non-hospital alternate care site or facility.

Regional, state, and federal goals in the improvement of bed availability call for the provision of no less than 20% bed availability of staffed members' beds, within 4 hours of disaster inception. Coordinated mechanisms should be established by hospitals supporting this goal.

S. Simple Triage and Rapid Treatment (START)

START is a method used by first responders to effectively and efficiently evaluate all of the victims during a mass casualty incident (MCI). The first-arriving medical personnel will use a triage tag to categorize the victims by the severity of their injury. Once they have a better handle of the MCI, the on-scene personnel will call in to request additional appropriate resources and assign the incoming emergency service personnel their tasks. The victims will be easily identifiable in terms of what the appropriate care is needed by the triage tags they were administered.

The whole evaluation process is generally conducted in 60 seconds or less. Once the evaluation is complete, the victims are labeled with one of the four triage categories.

1. Minor: delayed care / can delay up to three hours
2. Delayed: urgent care / can delay up to one hour
3. Immediate: immediate care / life-threatening
4. Deceased: victim is dead or mortally wounded / no care required

When medical personnel first arrive on the scene, they quickly assess the situation and do a call-out; they ask that any victim who is able to walk to separate themselves from non-ambulatory victims and to relocate to a certain area, or they may be asked to assist the medical personnel with the other non-ambulatory victims. These ambulatory victims are either uninjured or have minor injuries that do not need immediate care, so they are labeled with a green tag (minor).

With the non-ambulatory victims, personnel assess their respiratory, circulatory, and neurological functions, and based on those conditions the patient is labeled with one of the three remaining triage categories (i.e. delayed, immediate, dead). The three functions to check, respiratory, circulatory, and neurological, can be remembered using the mnemonics RPM (respiration, perfusion or pulse, and mental status), or ABC (airway, breathing, and circulation/shock).

Use of the START system is incorporated into NCTTRAC's ETRACS-based Patient Tracking Module. This module supports field or home-base entry of critical patient information by use of bar code scanners, RFID tag entry, manual entry, or importation from spreadsheet.

NCTTRAC has implemented a standard triage tag system throughout the region, and made available kits of tags for all ambulances for use in mass casualty situations. Further, NCTTRAC as prepared five kits with bar code scanners and computers that can be pre-positioned or used in a post – event scenario to support patient tracking from the field. Additional tracking assets are assigned to DFW International Airport and AmBus operators.

T. Mass Human Fatality Considerations

1. Medico-legal authority:
    a) Mass human fatalities may occur as the result of catastrophic incidents, disasters, or public health emergencies. Initially, mass human fatalities should be considered unnatural or unexplained deaths requiring medico-legal investigation.
    b) Medico-legal authorities in TSA-E include medical examiners within Collin, Dallas, Tarrant, and Johnson counties, and justices of the peace in all other counties. In some cases, county medical examiner offices may be contracted to support counties that do not have a designated medical examiner.
    c) Human fatality events involving infectious disease outbreaks fall under health authority jurisdiction to investigate. The result of this investigation will be the case definition for use in certification of death by medico-legal authorities.
    d) Texas law requires that every human death be officially pronounced, certified, and registered by appropriately licensed professionals prior to the final disposition of remains.
    e) During an emergency the Governor may determine that it is necessary to suspend procedural laws and rules related to the pronouncement, certification and registration of deaths. The data and biometric identifiers necessary for accomplishing these procedures should still be methodically collected and appropriately stored to effectuate the purpose of those laws whenever possible.

f) The certification of death involves determining the cause and manner of death. Licensed treating or primary-care physicians are authorized to certify natural deaths.
g) Deaths of unidentified individuals, children, and unnatural deaths fall under the jurisdiction of the local medico-legal authority. Such deaths must be reported to the local medico-legal authority as soon as possible and prior to movement of the body, outside of rescue and resuscitative efforts.
h) The scope of a medico-legal death investigation, although somewhat variable, generally includes investigation of the scene of the death, collection of evidence, external examination of the body, an autopsy, tests of body tissues or fluids, and the completion of a death certificate. The scope of the investigation is determined by the medico-legal authority in the jurisdiction where the death occurred.
i) Deaths are investigated for both criminal justice and public health purposes.
j) While death registration requires the determination of cause and manner of death, it is possible to secure an interim death certificate that states cause of death is pending. Interim death certificates allow progress towards the final disposition of human remains.

2. Responsibilities of HCC partners:
   a) Tier 1 partners such as hospitals and their supporting Tier 2 corporate agencies have developed fatality management plans that use commonly available assets for the disposition of human remains in a dignified manner. In general terms, hospitals use the services of various mortuary agencies when medico-legal authority is not required. Most hospitals do not have refrigerated storage capability and must release human remains expeditiously to these supporting private and public entities.
   b) Tier 3 and Tier 4 Local Health Departments/Districts (LHD) and Health Service Regions (when fulfilling LHD recommended responsibilities for counties without an LHD) are required to work in coordination with medico-legal authorities and emergency management officials, and:
      1) Take a leadership role in the development and exercise of local mass fatality plans.
      2) Identify the surge capacity of the various agencies and local death care providers to strengthen and sustain local medico-legal authority response.
      3) Assist in determining the need for requesting state fatality surge resources.
      4) Work with local authorities to pre-identify multiple sites for the interim storage of human remains.
   c) Hospitals participating within the Hospital Preparedness Program are additionally charged with developing the capability of storing deceased human remains, without refrigeration for at least 24 hours, for at least

5% of their licensed bed capacity. This is accomplished by the pre-staging of the BioSeal, a mass fatality response system capable of supporting Biosafety Level 4 containment of whole or partial human remains. Fatality planning must include the process for requesting jurisdictional support should normal, private mortuary support not be available.

d) NCTTRAC holds an emergent use Level 3 BioSeal kit capable of supporting up to 1,500 average human remains. This kit will be made available for use by Tier 3 though Tier 5 HCC partners when requested. NCTTRAC additionally retains two Level 5 BioSeal kits for use in High Consequence Infectious Disease cases.

e) The BioSeal product should not be used in medico-legal cases except as a last resort because components within the BioSeal material may interfere with specialized medical examiner tests.

3. Management of mass fatality response operations is under the direction of the Tier 3 or Tier 4 medico-legal authority in impacted jurisdiction(s), and should be conducted on a community-by-community basis. Tier 1 and Tier 2 requests for mass fatality support should be made through the traditional emergency management chain.

4. Worst case mass fatality planning scenario: The following scenario is based on information provided by the Department of State Health Services in the State of Texas Emergency Management Plan, Annex H, Appendix 7 – Pandemic Influenza Response, and as developed by the Infection Control Branch of DSHS. Tier 1 through Tier 4 HCC partners should consider the impact of a novel influenza in planning for mass fatalities.

   Based on a 30% attack rate and a 19 county population of approximately 7.1 million, in an attack period of 4 – 6 weeks:

   a) Approximately 2,130,000 may get sick from the influenza;
   b) Approximately 639,000 may need hospitalization;
   c) Approximately 191,700 will die;
   d) Mortuary support services (transportation, funeral home, burial, cremation, etc) will be unable to support disposition of human remains on this scale;
   e) Jurisdictions will need to establish and support temporary disposition until mortuary services may be re-established
   f) Use of refrigerated trailers will be made nearly impossible due to a lack of equipment, fuel, and support personnel

5. NCTTRAC and regional HCC partners hold regional assets that may support mass human fatality management operations and which may be obtained through regional mutual aid requests. These include:

   a) Four refrigerated trailers for the transport of human remains within TSA-E (Arlington, Tarrant County, Ferris, Grayson County)

b) One refrigerated trailer for the transport of human remains within TSA-C (Wichita Falls)
c) One refrigerated trailer for the transport of human remains within TSA-D (Abilene)
d) One refrigerated trailer for the transport of human remains within TSA-F (Texarkana)
e) One refrigerated trailer for the transport of human remains within TSA-G (Tyler)
f) Caches of N95 masks and selected personal protective equipment
g) BioSeal Mass Fatality Response System, supporting approximately 1,500 average deceased human remains

6. Medical Examiner offices may be contacted as follows:

Collin County	Collin County Medical Examiner 700B Wilmeth Rd. McKinney, TX 75069 (972) 548-3775 (McKinney) (972) 424-1460 x 3775 (Metro) Fax (972) 548-3760
Dallas County	Institute of Forensic Sciences Medical Examiners Office / Crime Investigation Lab 2355 North Stemmons Freeway, Dallas, Texas 75207 (214) 920-5900 Fax (214) 920.5908
Johnson County	Johnson County Medical Examiner Office 121 W. Chambers St. Cleburne, Texas 76033 (817) 558-2245 Fax (817) 558-7212
Tarrant County	Tarrant County Medical Examiner and Forensic Science Laboratories (serving Tarrant, Denton and Parker Counties) 200 Feliks Gwozdz Place, Fort Worth, TX 76104-4919 (817) 920-5700 Fax (817) 920-5713

U. Disaster Behavioral Health (DBH) Considerations

Tier 1 partners such as hospitals and their supporting Tier 2 corporate agencies have behavioral health support mechanisms in place. When disasters occur, these capabilities may be overwhelmed and DBH support from local, regional, and state agencies may be required.

Appropriate DBH services must be made available for responders, victims, survivors, and other community members during emergency response and recovery operations. The Disaster Behavioral Health rapid triage tools PsySTART Victim and / or PsySTART Responder may be utilized to measure psychological impact, link mental health provisions to persons impacted, inform continuum of care in the acute phase for evidence based interventions, and to inform Incident Command regarding DBH response and recovery in their decision making process.

DBH Services may include psychological first aid, crisis counseling, Critical Incident Stress Management (CISM), referral to other services and organizations, and education about normal, predictable reactions to a disaster and how to cope with them appropriately.

When disaster behavioral health service needs exceed local capacity, Tier 1 and 2 HCC partners should request additional DBH resources from regional partners and if necessary, from the appropriate Tier 3 jurisdiction.

DSHS has implemented local, regional, and state DBH procedures and assets that may be called upon when inherent resources are depleted.

1. **Local Mental Health Authority (LMHA)**: DSHS has selected and contracted Local Mental Health Authorities (LMHAs) to provide DBH support when, in response to a disaster, the contract is activated by DSHS. The LMHA is tasked to:
    a) Perform pre-emergency planning for emergency behavioral health services.
    b) Coordinate such activities during major emergencies and disasters.
    c) Maintain working relationships with DSHS, county level emergency management, the county health departments, and the local mental health / substance abuse consortium.
    d) Participate in local and state disaster response exercises.
    e) Ensure that local provisions and plans are made for the following:
        1) Establishment of a behavioral health component with local emergency management.
        2) Establishment of a behavioral health component at the Incident Command Post (ICP) or other Emergency Operations Center (EOC).
        3) Coordinated behavioral health response and recovery efforts, including use of volunteers and working with VOAD organizations.
        4) Triage utilizing PsySTART Victim or other methods to provide the appropriate level of DBH intervention and provide immediate intervention for any identified acutely stressed and or psychologically impacted persons.
        5) Medical care, including hospitalization and transportation of the psychiatrically disabled.
        6) Identifying risks to the adaptive capacities of individuals and supporting all positive coping strategies.

7) Constructing advisories for the public, in conjunction with the public information officer and the emergency operations centers, on issues such as stress symptom identification and management.
8) Conducting behavioral health assessments of, and support for, congregate care facilities.
9) Development of a mechanism for reporting information to the appropriate state mental health authorities.

f) Establishment of stress management procedure for DBH responders utilizing PsySTART Responder and Anticipate Plan Deter training or other methods.

LMHAs within the EMTF-2 Region include:

County	LMHA
Collin, Dallas, Ellis, Hunt, Kaufman, Navarro, Rockwall	**North Texas Behavioral Health Authority** (NorthSTAR program) Crisis Phone: 1-866-260-8000 Main Phone: 214-366-9407 Website: http://www.valueoptions.com/northstar/
Denton	**Denton County MHMR Center** Crisis Phone: 800-762-0157 Main Phone: 940-381-5000 Website: http://www.dentonmhmr.org/
Cooke, Fannin, Grayson	**MHMR Services of Texoma** Crisis Phone: 903-957-4701 Main Phone: 903-957-4700 Website: http://www.mhmrst.org/
Erath, Hood, Johnson, Palo Pinto, Parker, Somervell	**Pecan Valley MHMR Region** Crisis Phone: 800-772-5987 Main Phone: 254-965-7806 Website: http://www.pvmhmr.org/
Tarrant	**MHMR of Tarrant County** Crisis Phone: 800-866-2465 Main Phone: 817-569-4300 Website: http://www.mhmrtc.org/

(Table continues)

County	LMHA
Archer, Baylor, Clay, Foard, Hardeman, Haskell, Jack, Knox, Montague, Stonewall, Throckmorton, Wichita, Wilbarger, Wise, Young	**Helen Farabee Regional MHMR Centers** Crisis Phone: 800-621-8504 Main Phone: 940-397-3143 Website: http://www.helenfarabee.org/
Eastland, Comanche, Brown, Coleman	**Center for Life Resources** Crisis Phone: 800-458-7788 Main Phone: 325-646-9574 Website: http://www.cflr.us
Mitchell, Nolan, Runnels, Fisher	**West Texas Centers** Crisis Phone: 800-621-8504 Website: http://www.helenfarabee.org/
Callahan, Jones, Shackelford, Stephens, Taylor	**Betty Hardwick Center** Crisis Phone: 800-375-4357 Website: https://www.wtcmhmr.org./

2. **State Mental Health Authority (SMHA):** DSHS supports DBH by acting as the SMHA. Specific responsibilities include:
    a. Coordinate and ensure performance of emergency DBH activities in response to a state or federally declared disaster.
    b. Rapidly assess behavioral health needs and activate LMHAs as needed.
    c. Request additional resources as the need develops.
    d. Coordinate with state and federal officials regarding state and federal behavioral health assistance to include the pursuit of funding for longer term DBH services during state and federally declared disasters.
    e. Provide coordination of CISM for emergency responders.
    f. Provide long-term recovery services, subject to available funding and resources. This includes funding awarded by the Federal Emergency Management Agency (FEMA) in the event of a federal disaster.

V. Glossary and Acronyms:

A glossary of preparedness and response acronyms will be found on the NCTTRAC website.