

The State of Texas Disaster Medical System Overview

Texas Department of State Health Services
Texas Disaster Medical System
February 2012

This page intentionally left blank

Table of Contents

Contents

I. INTRODUCTION	4
A. PURPOSE OF THIS OVERVIEW DOCUMENT	4
B. AUTHORITY	4
C. SCOPE.....	5
D. GOALS	5
E. SITUATION AND ASSUMPTIONS.....	6
F. ESF-8 PRIMARY FUNCTIONS	7
1. <i>Assessment of Public Health and Medical Needs</i>	7
2. <i>Health Surveillance</i>	7
3. <i>Medical Care Personnel</i>	7
4. <i>Health and Medical Equipment and Supplies</i>	7
5. <i>Patient Evacuation</i>	7
6. <i>Patient Care</i>	7
7. <i>Food Safety and Security</i>	7
8. <i>All-hazard Public Health, Behavioral and Medical Consultation, Technical Assistance and Support</i>	8
9. <i>Behavioral Health Services</i>	8
10. <i>Public Health/Medical information</i>	8
11. <i>Recovery Support</i>	8
12. <i>Potable water/wastewater and solid waste disposal (public health aspects only: primarily handled by TCEQ</i> 8	8
13. <i>Mass Fatality Management</i>	8
II. PREPAREDNESS.....	9
A. STATE ESF-8 PLANNING AND COORDINATION	9
B. SINGLE-JURISDICTIONAL (LOCAL) AND MULTI-JURISDICTIONAL ESF-8 PLANNING AND COORDINATION	9
C. PLANNING FOR ORGANIZATION AND STRUCTURE FOR DISASTER RESPONSE	10
III. RESPONSE	11
A. MOC ORGANIZATION.....	11
1. <i>Single jurisdictional MOC/ ESF-8 function</i>	11
2. <i>Multi-jurisdictional DDC MOC</i>	11
3. <i>State-MOC (SMOC)</i>	11
B. STAGES OF INCIDENT RESPONSE.....	12
1. <i>Incident Recognition</i>	12
2. <i>Notification/Activation</i>	12
3. <i>Mobilization</i>	12
4. <i>Incident Operations</i>	13
5. <i>Demobilization</i>	14
IV. RECOVERY.....	15
V. MITIGATION	15
APPENDIX A.....	17
APPENDIX B.....	19
APPENDIX C	20
APPENDIX D.....	38
APPENDIX E	39
APPENDIX F	40

I. Introduction

For several years, and especially since Hurricanes Katrina and Rita, many dedicated public health and acute medical care entities and groups throughout Texas have worked to improve the health security of the general population, elderly, and medically fragile citizens of the state during a disaster. Many of the response models created have proven to be very effective in minimizing negative health impacts in disasters with public health significance. However, communication and professional culture and planning gaps exist between many of the entities and groups working towards this goal, resulting in uncoordinated plans and an unclear organizational structure for receiving State assistance when requested and required. There is a general need for awareness among Emergency Support Function 8: Public Health and Medical Services (ESF-8) entities of what each can provide in support resources, both human and material. To address these issues and to bridge the gaps, the Texas Disaster Medical System was created by the Texas Department of State Health Services (DSHS)

The Texas Disaster Medical System is the coordination of all public health and acute medical resources, planning groups, and initiatives for improving the response to public health and medical needs during and after a disaster in which state assistance is requested by local or regional leaders. The Texas Disaster Medical System (TDMS) Steering Committee is comprised of ESF-8 leaders representing local, regional and state perspectives and all geographical areas throughout the state. To ensure a comprehensive approach to the development of the TDMS and this guideline, DSHS assured representation from local and regional public health, emergency medicine and Emergency Medical Services (EMS), Trauma Service Areas (TSA) and Regional Advisory Councils (RAC), hospitals, academic institutions, the Texas State Guard, emergency management and the DSHS Preparedness Coordination Council (PCC).

TDMS steering committee meetings were initiated in 2010 through Hospital Preparedness Program funding from the Assistant Secretary of Preparedness and Response (ASPR) and Public Health Emergency Preparedness funding from the Centers for Disease Control (CDC). This multi-year ESF-8 improvement planning project will result in a better designed system for coordinated public health and medical care disaster response and recovery.

A. Purpose of this Overview Document

The Texas Disaster Medical System Overview is the result of the first year of meetings of the TDMS Steering Committee. It describes initial recommendations for the structure of a Texas disaster public health & medical, preparedness response and recovery system. The overview proposes integration at all four phases of emergency management, and provides a concept of operations for how the various ESF-8 entities can work seamlessly at all jurisdictional levels during response and recovery phases. Descriptions of deployable teams assembled for providing State assistance are included as an appendix. The overview also describes how these and other resources can be requested and will be deployed by the State.

B. Authority

This document has been developed by the Texas Disaster Medical System (TDMS) Steering Committee under the direction of the Texas Department of State Health Services (DSHS). DSHS is the lead agency for ESF-8 (Public

Health & Medical Services) per the state of Texas Emergency Management plan, Annex H, Texas Government Code §§ 418.042, 418.043(13), and 418.173(a).

C. Scope

This document serves as a strategic framework and resource guide for public health and medical response and recovery for all hazards disaster incidents, regardless of type, with direct, indirect, or threatened public health and/or medical significance that may require resources beyond those routinely available within the affected jurisdictions or through standing agreements. It provides guidelines, establishes protocols, develops concepts, identifies tasks, lists responsibilities, and provides resource management information necessary to provide a coordinated regional and/or State response in support of an incident that exceeds the ESF-8 capabilities of local jurisdictions. The overview takes ESF-8 responsibilities as defined in the National Response Framework (with State specific modifications) and proposes how they should be coordinated and supported by a Medical Operations Center (MOC) structure at each jurisdictional level. The MOC model will be applicable to challenges presented by both natural & man-made disasters, terrorism, cross-border violence and any other event requiring a coordinated public health and medical response.

This plan is not intended to supplant local plans for health and medical response; rather it is suggested as a model for improved coordination. The TDMS Steering Committee hopes that local and regional jurisdictions will use this guide to modify and implement local and regional public health and medical plans and strategies to incorporate and reflect the concepts and resources included herein.

D. Goals

The goals of the Texas Disaster Medical System include:

- Ensure the highest level of readiness to respond to the public health and medical aspects of an emergency or disaster at all jurisdictional levels in the State of Texas
- Ensure coordination, communication, and collaboration among public health and medical partners during all four phases of emergency management (preparedness, response, recovery, and mitigation) and at all jurisdictional levels in the State of Texas
- Ensure understanding of roles and responsibilities of the Texas Department of State Health Services and all supporting / partner ESF-8 agencies at all jurisdictional levels in the State of Texas
- Maintain an up-to-date list of state ESF-8 resources, and ensure elected officials and other community leaders, partners, and stakeholders at all jurisdictional levels understand the resources and how to obtain them.

E. Situation and Assumptions

- Texas' local jurisdictions vary widely in their: geography; population numbers and make-up; structure of their medical, public health, and emergency management functions; and availability of resources. As a result, they vary widely in the threats they face, the vulnerability of their populations, and the response resources immediately available to them to respond to emergencies.
- Many of Texas' citizens have needs that make them more likely to rely on government during an emergency or disaster. These needs may include: medical needs, functional and access needs, behavioral health needs, transportation needs, and language barriers. Local governments, multi-jurisdictional regions, and the State of Texas must adequately plan for the assistance and accommodation of all populations.
- Communities have an ongoing functional public health and medical response capability that must be maintained, even in a disaster.
- Local jurisdictions are vulnerable to natural and man-made disasters that can exceed the capacity of one jurisdiction's ability to respond to the health and medical needs of the community. Public health and medical resources in most communities are already at or near maximum capacity and capability during day-to-day operations.
- Each agency and/or healthcare system within each local jurisdiction will implement their agency specific, appropriate, and prudent plans and procedures when actually or potentially threatened by natural and/or man-made disasters, or any other event that causes a surge or excessive demand on local public health and/or medical capabilities.
- Response to disasters is the responsibility of local jurisdictions and emergency response is best coordinated at the local level with support immediately implemented at the regional, State, and Federal levels when requested.
- Mutual Aid for a local jurisdiction has been, or is anticipated to be, exhausted before State assistance is requested.
- This document does not replace the need for or supplant local Mutual Aid Agreements (MAAs), Memorandums of Understanding (MOUs), or other contracts for assistance that may in place.
- Requests for State assistance originating locally will follow the process established in the State of Texas Emergency Management Plan.
- All ESF-8 plans and processes at single-jurisdictional, multi-jurisdictional, and state levels will remain consistent with principles of the National Incident Management System (NIMS) and the National Response Framework (NRF).
- Local, regional, State and Federal response and recovery plans are coordinated at the appropriate points so that response and recovery assistance can be anticipated and provided when requested.

F. ESF-8 Primary Functions

1. Assessment of Public Health and Medical Needs

- Continuity of operations of public health and medical infrastructure
- Disaster surge capacity for hospital, dialysis, and long-term care facilities and capacity
- Emergency Medical Services
- Plans and service capacity for home-bound and medically fragile population

2. Health Surveillance

- Communicable disease prevention and control
- Monitor health of individuals in general population shelters and medical shelters, hospitals, dialysis and long-term care facilities
- Monitor illness, injury, and deaths related to the event

3. Medical Care Personnel

- Coordination and management of deployed staff and teams
- Public health and medical resources to support response
- Medical Volunteer Management

4. Health and Medical Equipment and Supplies

- Supplies and equipment needed to support medical care services in both general population shelters and medical shelters
- Needed for medical surge in health care facilities
- Emergency Medical Services
- Pharmacy services in shelters, medical countermeasure distribution and dispensing
- Oxygen for evacuees, EMS, and shelters

5. Patient Evacuation

- Coordinate medical ground and medical air assets
- Coordinate staging of all medical ground and air assets
- Coordinate facility evacuations and destinations
- Coordinate embarkation/reception triage/shelter placement
- Coordinate and support Medical Incident Support Teams (M-IST)
- Patient tracking

6. Patient Care

- Maintain situational awareness of hospital census, bed availability, unmet needs
- Facilitate management of medical surge
- Facilitate transfer of patients if required
- Support medical care personnel needs in general population and medical shelters

7. Food Safety and Security

- Food safety in shelters

- Food safety during recovery
- Food borne illness outbreaks

8. All-hazard Public Health, Behavioral and Medical Consultation, Technical Assistance and Support

- Assess public health and medical effects resulting from disasters.
- Conduct field investigations, including collection and analysis of relevant samples

9. Behavioral Health Services

- Disaster behavioral health for public
- Disaster behavioral health for responders
- Substance abuse services
- State Mental Health Hospitals

10. Public Health/Medical information

- Provide risk messaging for the public and health care workers
- Public health policy and guidance

11. Recovery Support

- Evaluation of public health and medical needs for re-entry of evacuees
- Coordination of transportation resources and other needs for re-entry of medically fragile individuals
- Evaluation of the public health and medical infrastructure including behavioral health infrastructure and ancillary services
- Vector control

12. Potable water/wastewater and solid waste disposal (public health aspects only: primarily handled by TCEQ)

- Determine recommended water intake during drinking water emergencies
- Advise on water needed for sanitation purposes
- Assist TCEQ in testing and analyzing drinking water and non-drinking water samples, in particular from private wells

13. Mass Fatality Management

- Assist in the coordination of all fatality management operations in a unified command with emergency management and the jurisdictional medico-legal authority
- Assist the jurisdictional medico-legal authority in Family Assistance Center operations
- Assist in reducing the hazard presented by chemically, biologically or radiologically contaminated human remains

II. Preparedness

A. State ESF-8 Planning and Coordination

Over the past several years, there have been many ESF-8 planning activities at a State level by DSHS, the GETAC Disaster and Emergency Preparedness Committee, the Preparedness Coordinating Council, Texas Military Forces, and other planning groups. The TDMS Steering Committee is tasked with taking all State ESF-8 plans and incorporating them into one coordinated plan for a State response and recovery to any disaster, emergency, or incident. The TDMS Steering Committee has found that bringing together representatives from all aspects of public health and acute care in a discussion forum on a regular basis has revealed many gaps and overlaps in planning, and has also led to better understanding of each partner's role in response. It has also led to several improvements in the plan for a State response and continues to allow improved planning and coordination. The TDMS Steering Committee will review State and Federal plans to ensure that all points of coordination for response and recovery planning efforts at the State and Federal levels are coordinated.

See **Appendix E** for a list of all identified state ESF-8 resources available for disaster response.

B. Single-jurisdictional (local) and Multi-jurisdictional ESF-8 Planning and Coordination

It is expected that local jurisdictions have developed a coordinated plan among public health and medical care entities in that local area. The TDMS Steering Committee strongly recommends that a similar group of public health and acute medical care representatives form an ESF-8 coordination steering committee for multi-jurisdictional areas that may respond together and coordinate ESF-8 resources in a multi-jurisdictional event. This Multi-jurisdictional (or Regional) ESF-8 Steering Committee should include representatives from all aspects of public health and medical care in each region, and each geographical area should be represented. Functions of this group should include (but not be limited to):

- Assess all current ESF-8 plans in each single-jurisdictional (local) area and for the multi-jurisdictional area. De-conflict and coordinate all public health and medical plans for the multi-jurisdictional area.
- Compile a list of all public health and medical resources that might be needed for a local and multi-jurisdictional response to a disaster. Compare this with resources that are currently available at a local or multi-jurisdictional level and assess gaps and overlaps in resource availability and utilization.
- Establish mutual aid agreements for ESF-8 resources among jurisdictions.
- Determine the best organization for medical operations centers at single-jurisdictional and multi-jurisdictional levels, including participants, organizational charts, and plans for coordination with DDCs and the SOC/SMOC.
- Develop relationships and communications plans among public health and medical leaders and decision-makers in the region/multi-jurisdictional area.
- Familiarize members of the Multi-jurisdictional (Regional) ESF-8 Steering Committee with the state plans and TDMS documents, and determine how single-jurisdictional and multi-jurisdictional ESF-8 plans will integrate into state ESF-8 plans.
- Develop plans for how information regarding local/single-jurisdictional, multi-jurisdictional, and state ESF-8 plans will be disseminated to all public health and medical personnel that might

participate in response to a disaster. Implement these plans and coordinate dissemination of this information.

- Develop written documents for all ESF-8 plans and resources in each region/multi-jurisdictional area.
- Communicate local and multi-jurisdictional gaps and capabilities to the TDMS Steering Committee and DSHS to complete the circle of a fully coordinated and integrated plan among all local/single-jurisdictional, regional/multi-jurisdictional, and state ESF-8 entities.

See **Appendix D** for Recommended Participants in each Multi-Jurisdictional ESF-8 Steering Committee.

C. Planning for Organization and Structure for Disaster Response

There are two primary organizational components that make up TDMS: public health and medical care services. In a day to day environment, public health typically works behind the scenes to fight disease and keep us healthy, and the medical care delivery system, to include mental health services, is focused on treatment of illness and injury. The medical care system is complex and multi-faceted. During an incident, the two components must come together quickly to provide an effective health and medical response (ESF-8). Complete integration of the components may never be possible but the components must integrate within an incident command structure to facilitate an effective response.

ESF-8 coordination requires collaboration among public health and medical care entities within a single organization or multiple organizations for coordinated disaster response and recovery activities. The name of this organizational structure is not as important as what operational branches must be covered and coordinated within it, and how and where it will be integrated into the overall disaster response. The TDMS Steering Committee proposes the term “medical operation center” (MOC) as a standard title for the ESF-8 response and recovery structure.

MOCs are not stand alone organizations, but are the public health and medical component within the incident management structure. MOCs should support incident management in the local (single-jurisdictional) EOC, the multi-jurisdictional Disaster Districts, and the State Operations Center. MOCs should operate in a traditional incident command structure. All incident command structures are flexible, so for larger events, the MOC structure may need to include finance, plans, logistics, and operations sections. Often, the DDC and State MOCs will perform more coordination, information gathering, and logistics center functions rather than running actual operations, which will be left to local (single-jurisdictional) MOCs.

Local jurisdictions and multi-jurisdictional areas should have collaboration and agreement among public health and acute medical care entities as to who will be represented in the MOC and how each representative will function in the MOC organizational chart. This, of course, may be different for different incidents.

III. Response

A. MOC Organization

As with any incident, public health and medical operations should start at the local level until the scope of the incident overwhelms the capabilities of the medical operations center.

While not all inclusive, the basic tenets for each level of MOC are listed below. An area may or may not incorporate all levels of a MOC in a step-wise fashion.

1. Single jurisdictional MOC/ ESF-8 function

- Supports one local EOC
- May or may not be co-located within the local EOC
- If not co-located, provides a liaison position at the local EOC to the local MOC (if EOC is operational)
- Has operational control over ESF-8 resources responding to an incident in the local area
- Coordinates the acquisition and management of local public health and medical resources for response, as well as mutual aid resources
- Initiates resource requests through the emergency management process
- Manages public health and medical resources assigned to that local area
- Initiates mutual aid requests
- Document financial costs of the incident.

2. Multi-jurisdictional DDC MOC

- Supports state public health and medical response activities within the DDC boundaries
- Supports more than one local EOC
- May support more than one DDC
- May or may not be co-located within a DDC
- Provides a liaison position at each DDC being supported. If staffing levels prevent this, it is essential that a robust communications link be established (virtual liaison).
- Coordinates state public health and medical resources assigned by the SMOC
- Initiates and/or processes resource requests through the emergency management process
- May be delegated state level activities (i.e. base camp, staging, etc.) by the SMOC
- Facilitates regional mutual aid requests for public health and medical resources
- Document financial costs of the incident.

3. State-MOC (SMOC)

- Support state response activities
- Supports the State Operations Center (SOC) and DDCs
- Not co-located with the SOC
- Provides liaison positions in the SOC
- Facilitates the acquisition of state public health and medical resources
- Pushes state public health and medical assets to the DDC for further deployment to local or multi-jurisdictional EOCs

- Responds to resource requests through the emergency management process
- Coordinates with the appropriate Federal agencies as required.
- Document financial costs of the incident.

Although each operational center is described separately above, there may be circumstances where a MOC would serve multiple emergency operation centers. For example, the C-MOC in Houston serves the local EOC for Houston, multiple EOCs within Harris and surrounding counties, and also serves as a DDC-MOC which supports multiple DDCs. When operations are combined in this manner, the responsibilities grow significantly and MOC leadership must be able to serve in multiple capacities at the same time without giving preference to one single area of responsibility.

The actual organizational structure of the MOC will depend on the jurisdiction, staffing capabilities, and the size and scope of the incident itself. Organization of local MOCs will be at the discretion of the local jurisdiction. Organization of the multi-jurisdictional MOC should be a collaborative agreement of all participating regional entities.

See **Appendix F** for some examples of MOC Organizational Charts.

B. Stages of Incident Response

1. Incident Recognition

Incident recognition is the point in time when a health and medical entity becomes aware of a significant event or potential event (i.e. hurricane) is imminent or occurring

- Once recognized or notified by the local EOC, assemble appropriate experts to determine the level of threat and anticipated resource needs
- If it is determined that ESF-8 entities can handle the incident independently, there is no need to activate the MOC
- If it is determined that the incident and resources needs are beyond the capacity of individual ESF-8 entities, the MOC should be activated

2. Notification/Activation

Notification/Activation refers to the activities required to inform ESF-8 assets within the response system about the incident onset and potential needs

- Activate the MOC and notify appropriate ESF-8 response partners
- If it is anticipated the resource needs are beyond the capabilities of the jurisdictional area, multi-jurisdictional response partners should be notified

3. Mobilization

Mobilization is the transition from normal operations to a determined response level staffing for MOCs will require active support from all public health and medical entities across an area. Support partners should always include:

- Local and/or regional public health departments
- Local and/or regional public health authority
- Regional Advisory Council (RAC)
- Hospitals/Hospital systems
- EMS agencies
- Other acute care facilities (nursing homes, assisted living centers, dialysis centers, mental health centers)

Other partners in the MOCs might also include (depending on the impact of the incident):

- Health Service Region representatives
- Medical Examiners/Justice of the Peace
- Medical supply providers
- Medical staffing providers
- Mental Health Agencies
- Disability community specialists
- DADS and DARS representatives

4. Incident Operations

The operational responsibilities of different levels of Medical Operations Centers will be similar in some respects and different in others. DDC MOCs and the State Medical Operations Center will have more emphasis on receiving, coordinating, and prioritizing resource requests from local and regional MOCs, then distributing and tracking those resources as they are pushed down to the local and regional areas. Local (single-jurisdictional) and multi-jurisdictional MOCs will have more operational responsibilities for assuring all local, mutual aid, and regional ESF-8 assets have been exhausted before state resource requests are made; making resource requests through the proper channels per the Texas Emergency Management plan; then managing local, mutual aid, and regional ESF-8 resources, as well as state resources once those resources are distributed from the DDC MOC or SMOC.

The operational objectives to each MOC level will be consistent:

1. Set overall public health and medical service priorities
2. Maintain and disseminate situational awareness
3. Be central point for communications, coordination, and resource management for health and medical services
4. Facilitate development of public health guidance
5. Facilitate public health and medical resource needs and allocation
6. Manage and track critical resources assigned

Two critical actions should occur early during operations are:

- a) Establishment of incident management authority:
 - A single MOC director or a unified command (UC) model may be used
 - When a UC model is used, the ultimate authority for action should rest with the appropriate public health authority
 - The MOC Director or UC will determine the initial ICS organizational structure and staffing requirements of the MOC based upon an assessment of incident scope and complexity
 - Activation of MOC personnel should be initiated thru standard notification processes
 - If not already done by the jurisdiction's EOC, an incident should be created in WebEOC
- b) Establishment of Incident Action Plan
 - The MOC Director/UC in coordination with health authorities and EOC leadership will establish operational objectives for the MOC and create incident action plans.
 - Operational objectives and incident action plans should be communicated to the next higher level MOC in the incident management chain

5. Demobilization

Demobilization of assets is an ongoing activity of each MOC. Assets should be demobilized and released as incident objectives are met so as to return resources to normal function.

- Asset demobilization should be coordinated with overall incident command prior to release of any asset
- Coordination with asset managers/owners prior to and during demobilization is critical

IV. Recovery

Recovery is a long term process with activities that extend beyond demobilization and other response activities. ESF-8 and MOC responsibilities do not stop at the end of the response phase of an incident or after the acute threat passes. There will be need for ESF-8 coordination during recovery of a jurisdiction from every incident. The goal is to return to a pre-incident state as quickly and effectively as possible.

Medical Operations Centers should remain engaged and at least partially operational through the recovery process, but may require different organizational models and levels of capacity than during the response phase of an incident. The requirements of the MOC structure and partners during recovery will be determined by each incident and the needs of each jurisdiction. A MOC may activate physically, or may operate as a “virtual MOC” through the use of WebEOC and other web-based programs utilized by the jurisdictions, partners, and the State.

Some of the recovery activities the MOC may assist with include:

- Rehabilitation of personnel and equipment
- Re-supply of used health and medical materials
- Access to public health and medical resources
- Recovery of public health, behavioral health, and medical infrastructure of affected areas
- Planning for and assistance with long-term public health issues
- Planning for and assistance with medical surge
- Disaster behavioral health issues
- Vector control issues
- Mass fatality issues
- In coordination with local EOCs, DDCs, and the SOC, document financial costs of the incident response

During recovery, communication and coordination within the single and multi-jurisdictional ESF-8 planning committees will be vital.

V. Mitigation

Mitigation consists of environmental or system changes made based upon either hazard vulnerability assessment or post-incident after-action review in order to minimize risk or strengthen response capabilities in future responses. Preparedness for public health and medical response is based upon planning, training and exercise. While focused initially on designing an improved system for coordinating in the response and recovery phases of emergency management, all TDMS partners should commit to collaborating to identify opportunities to minimize the need for health and medical disaster response by developing strategies for mitigation. TDMS partners should commit to planning together, training together and exercising together.

The TDMS Steering Committee commits to further evaluation and coordination of current mitigation initiatives within the State of Texas. With this evaluation, it is expected gaps and overlaps will be recognized and efforts made to correct these and establish improvements for ESF-8 coordination during mitigation for the future.

Appendix A

TDMS Steering Committee Members and Acknowledgements

The TDMS Steering Committee would like to acknowledge:

Dr. David Lakey, Commissioner, Texas Department of State Health Services
Dr. Adolfo Valadez, Assistant Commissioner, Texas Department of State Health Services
Chief Nim Kidd, Texas Division of Emergency Management, and the TDEM staff
Mrs. Regan Fritts, Special Projects Coordinator, STRAC
All local emergency management officials
All local public health officials and public health authorities
All local emergency medical services, hospital, and other acute care officials

TDMS Steering Committee Members

Emily Kidd, MD, TDMS Project Director, Assistant Professor, UT Health Science Center San Antonio
Bruce Clements, MPH, Director, Community Preparedness Section, DSHS
Rick Bays, Director, Response and Recovery Unit, Community Preparedness Section, DSHS
Nim Kidd, CEM, Assistant Director, Texas Department of Public Safety, Chief, Texas Division of
Emergency Management (TDEM)
Eric Epley, CEM, NREMT-P, Executive Director, Southwest Texas RAC (STRAC)
James Morgan, MD, Assistant Commissioner, Regional and Local Health Services Division
Sandra Guerra, MD, MPH, Medical Director, DSHS Region 8
Ira Nemeth, MD, Director of EMS and Disaster Medicine, Baylor College of Medicine
Scott Lillibridge, MD, Professor, Texas A&M Health Science Center
Ray Swienton, MD, FACEP, Associate Professor, UT Southwestern Medical Center Dallas
Mitch Moriber, MD, PhD, Medical Director, Rolling Plains Memorial Hospital Trauma Center
Chip Riggins, MD, Public Health Authority, Williamson County Health Department / Joint Surgeon, Texas
Military Forces / Chair, PCC
Kevin Veal, Emergency Preparedness Liaison, Division of Regulatory Services, DSHS
Rick Antonisse, MSA, Executive Director, North Central Texas Trauma RAC (NCTTRAC)
Leigh Anne Bedrich, LP, MA, Emergency Healthcare Systems Program Manager, NCTTRAC
Mike Elliott, LP, Division Chief for Emergency Preparedness, Austin-Travis County EMS
Wanda Helgesen, RN, Executive Director, Border RAC
Jeff Hoogheem, Manager, Response and Recovery Operations Group, Response and Recovery Unit,
Community Preparedness Section, DSHS
Mike Czepiel, Deployable Teams Coordinator, Response and Recovery Unit, Community Preparedness
Section, DSHS
Priscilla Boston, Preparedness Plans Coordinator, Community Preparedness Section, DSHS
Victor Wells, Texas EMTF Program Manager, STRAC
Joe Palfini, RN, Director, Emergency Preparedness and Response Division, STRAC
Chuck Phinney, MA, State Coordinator for Preparedness, TDEM
Kelly Curry, RN, LP, Consultant and Professional Associate
Dudley Wait, LP, EMS Director, Schertz EMS
Denise Rose, Senior Director, Government Relations, Texas Hospital Association

Jack Sosebee, MSHA, LP, Program Director, Cook Children's Hospital Teddy Bear Transport
Steve Hannemann, Manager, Public Health and Emergency Preparedness Section, DSHS Region 8
Sallie Connor, Manager, Public Health Emergency Preparedness Branch, Community Preparedness Section, DSHS
Debbie Evans, Program Manager, Epidemiology Response Team, DSHS Region 4/5N
Beverly Ray, Manager, Healthcare Systems Branch, Community Preparedness Section, DSHS
Martha Gonzalez, Manager, Preparedness Coordination Branch, Community Preparedness Section, DSHS
Ray Apodaca, HPP Program Manager, Healthcare Systems Branch, Community Preparedness Section, DSHS
Sherrie Meck, Project Manager, Community Preparedness Section, DSHS
John Burlinson, Project Coordinator, Division for Regional & Local Health Services, DSHS
Lisa Abate, PhD, Emergency Preparedness Training Specialist, Community Preparedness Section, DSHS

TDMS Invited Participants Contributing to this Document:

Melanie Moss, Planner II, Policy and Plans Unit, TDEM
Patricia Moriber, RN, Taylor County Local Emergency Preparedness Council

Previous TDMS Steering Committee Members contributing to this document:

Doug Havron, RN
Matt Richardson, PhD
Mike Proctor, MD
David Persse, MD
Lars Thestrup, MD
Scott Mitchell, LP

Appendix B

Acronyms

- ARC – American Red Cross
- ARCC – Alamo Regional Command Center
- ASM – Ambulance Staging Manager
- AST – Ambulance Strike Team
- ASTL – Ambulance Strike Team Leader
- BCFS – Baptist Child and Family Services
- CAT – Command Assistance Team
- DADS – Department of Aging and Disability Services
- DARS – Department of Assistive and Rehabilitative Services
- DDC – Disaster District Committee, Disaster District Chair
- DOG – Diverse Occupational Group
- DPS – (Texas) Department of Public Safety
- DSHS – Department of State Health Services
- EMS- Emergency Medical Services
- EMTF – Emergency Medical Task Force
- ESRD – End-Stage Renal Disease
- ESF-8 – Emergency Support Function-8
- HSR – Health Service Region
- LMOC – Local Medical Operations Center
- LTAC – Long-Term Acute Care
- MIST – Medical Incident Support Team
- MMT – Mobile Medical Team
- MOC – Medical Operations Center
- NIMS – National Incident Management System
- PIO – Public Information Officer
- RAC – Regional Advisory Council
- RAT – Rapid Assessment Team
- RMOC – Regional Medical Operations Center
- ROC – Regional Operations Center
- SME – Subject Matter Expert
- SMOC – State Medical Operations Center (former DSHS MACC)
- SOC – State Operations Center
- TDEM – Texas Division of Emergency Management
- TDMS – Texas Disaster Medical System
- TSA – Trauma Service Area

Appendix C

Incident Scenarios

The following incident scenarios are intended to illustrate how local and regional jurisdictions should prepare for specific threats, as well as resources that might be utilized when State assistance has been requested. The incidents were chosen by the TDMS Steering Committee as a sampling of threats that are real concerns in Texas. These scenarios are not intended to be an exhaustive or all-inclusive list, as there are many other threats, both natural and manmade, to the State of Texas. The TDMS Steering Committee hopes local jurisdictions will utilize these scenarios during planning activities to determine what resources local areas should have available for use before requesting State assets.

The ESF-8 functions included in the scenarios are below. Those functions marked in *Italic and Underline* are functions that have primary responsibility with a Texas agency other than DSHS.

ESF8 Functions

- A. Assessment of public health/medical needs
- B. Health surveillance
- C. Medical care personnel
- D. Health/medical/veterinary equipment and supplies
- E. Patient evacuation
- F. Patient care
- G. Safety and security of drugs, biologics, and medical devices
- H. Blood and blood products
- I. Food safety and security
- J. Agriculture safety and security (Texas Department of Agriculture and Texas Animal Health Commission)
- K. All-hazard public health and medical consultation, technical assistance, and support
- L. Behavioral health care
- M. Public health and medical information
- N. Vector control
- O. Potable water/wastewater and solid waste disposal (Texas Commission on Environmental Quality)
- P. Mass fatality management, victim identification, and decontaminating remains (jurisdictional medicolegal authority)
- Q. Veterinary medical support (Texas Animal Health Commission)

1. Hurricane

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local/Jurisdictional Resources Before State Request	State ESF8 Resources
Injury risks during storm preparations	Public health and medical information	Injury prevention messaging distributed to impacted areas	Pre-scripted public health and medical messages for media	Pre-scripted messages
Medically unstable individuals or medical decompensation during evacuation	Patient Evacuation	Medical facility evacuations	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF, Transportation Triage Tool	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources Transportation Triage Tool
		Screen for most appropriate transport type for general population evacuees	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF Transportation Triage Tool	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources Transportation Triage Tool
		Medical oversight at air evacuation points	Medical personnel including from local hospitals and EMS, local staffing agencies; Medical Reserve Corps;	Mobile Medical Team; TXMF. If federal declaration, this will be a federal NDMS mission.
Medical care for sheltered individuals	Patient Care	Medical personnel resources for mass care general pop. shelters	Local hospitals, staffing agencies, EMS, Medical Reserve Corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	Contingency contracts with medical staffing agencies; mobile medical teams (formerly known as TXMAT).
	Patient Care	Medical shelters (skilled nursing care)	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	Contingency contract with BCFS; potential supplemental staff through contingency contracts with medical staffing agencies; mobile medical teams (formerly known as TXMAT).
Moderate to severe stress reactions	Behavioral Health Care	Promote coping skills. Provide access to mental health services.	Local mental health agencies Pastoral care Social workers (local) VOADs	BHATs (which may include activating contracts with local mental health authorities).
Prevent disease spread in congregate care settings	Health Surveillance	Inspect shelter facilities for general sanitation	Local health departments - Sanitarians and Inspectors Shelter Assessment Tool	DSHS Sanitarians; shelter assessment tool

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local/Jurisdictional Resources Before State Request	State ESF8 Resources	
	Health Surveillance	Collect health surveillance data to monitor for infectious disease outbreaks	Local health departments - Epidemiologists Shelter Assessment Tool	DSHS Epidemiologists; shelter surveillance tools http://www.dshs.state.tx.us/comprep/surveillance/default.shtm	
Carbon monoxide poisoning	Public health and medical information	Exposure prevention messaging	Local health department – messages for media, social media Local EMS RACs	DSHS Pre-developed messages to distribute to media	
Mold sensitivity or infection	Public health and medical information	Exposure prevention messaging	Local Health Department – messages for media, social media	DSHS Pre-developed messages to distribute to media during recovery phase	
Medical Surge	Health/ Medical Equipment and Supplies	Hospital bed monitoring/ management	Local hospitals RACs WebEOC	DSHS WebEOC CMS	
	Patient Care	Medical Care	Local hospitals Private physicians Local EMS Local Alternate Care Sites Local MRC	EMTF – MMU/MMT, RNST	
Mass fatalities	Health Surveillance	Collect and report out mortality statistics	Local health department - epidemiologists	Disaster Mortality Surveillance System forms and instructions http://www.dshs.state.tx.us/comprep/surveillance/form.shtm ;	
	Assessment of public health and medical needs	Determination of functionality and continuity of operations of jurisdictional mortality infrastructure	Local health department	Contract with Texas Funeral Directors Assn for Disaster Mortality Strike Teams; 3 trailers with mortality supplies.	
	Mass Fatality Management	Victim identification		Local Medical Examiner / JP Local health departments Local funeral homes Local EMS Local MRC Hospitals Local funeral homes	State Mortality Strike Teams – 3 trailers with mortality supplies
		Family Assistance Centers		Local funeral homes Local churches / ministers Local mental health agencies	Behavioral Health Assessment Teams VOAD Social workers
ESF-8 coordination and incident management	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC RAT CAT M-IST	

2. Flooding

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local / Jurisdictional resources before state request	State ESF8 Resources
Injury risks	Public health and medical information	Injury prevention messaging distributed to impacted areas	Pre-scripted messages for media (public health and medical issues) / social media	Pre-scripted messages
Evacuation of medical facilities	Patient Evacuation	Medical facility evacuations	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources
		Coordination of medical facility evacuation	Local fire department / EMS agencies Local and multi-jurisdictional (DDC) MOC	M-IST Teams
Medical care for sheltered individuals	Patient Care	Medical personnel and care in mass care general population shelters	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	Contingency contracts with medical staffing agencies; EMTF-mobile medical teams
		Medical shelters (skilled nursing care)	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	BCFS, Contingency contracts with medical staffing agencies; EMTF-mobile medical teams
Moderate to severe stress reactions	Behavioral Health Care	Promote coping skills. Provide access to mental health services.	Local mental health agencies Pastoral care Social workers (local) VOADs	BHATs (which may include activating contracts with local mental health authorities). VOADs
		Mental health / CISM for responders	Local CISM teams	State CISM teams
Prevent disease spread in congregate care settings	Health Surveillance	Inspect shelter facilities for general sanitation	Shelter Assessment tool Local public health department sanitarians / inspectors	Sanitarians / inspectors Other DSHS personnel as needed Shelter assessment tool
		Collect health surveillance data to monitor for infectious disease outbreaks	Shelter assessment tool Local public health epidemiologists	Epidemiologists Other DSHS personnel as needed
Floodwater contamination / illness	Assessment of Public Health /	Public awareness Vaccination Medical	Public messaging / social media Local public health	Pre-developed messages Epidemiologists EMTF – MMU / MMT

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local / Jurisdictional resources before state request	State ESF8 Resources
	Medical Needs, Health Surveillance, Patient Care	surveillance Medical Care	departments - epidemiologists Hospitals Private physicians	
Post flood cleanup injuries / illness	Assessment of Public Health / Medical Needs, Health Surveillance, Patient Care	Public awareness Medical care	Public messaging (radio, TV, PODS, foot, signage) / social media Hospitals Private physicians Local EMS	Pre-developed messages EMTF – MMU/MMT
Medical Surge	Health/ Medical Equipment and Supplies	Hospital Bed Monitoring/ Management	Local Hospitals Local Public Health Departments RACs WebEOC	DSHS WebEOC CMS
	Patient Care	Medical Care	Local hospitals Private physicians Local EMS	EMTF – MMU/MMT, RNST
Mass fatalities	Health Surveillance, Mass Fatality Management	Mass fatality assessment and management	Local public health Local medical examiner / JP Local funeral directors / funeral homes Local / regional mortuary trailers Utilize DSHS Mass Fatality Planning Kit	Contract with Texas Funeral Directors Assn for Disaster Mortality Strike Teams; 3 trailers with mortality supplies. Disaster Mortality Surveillance System forms and instructions http://www.dshs.state.tx.us/comprep/surveillance/form.shtm ;
	Public Health and Medical Information	Collect and report out mortality statistics	Local registrar / vital statistics Local medical examiner / JP Local media	Disaster Mortality Surveillance System forms
ESF-8 coordination and incident management	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC RAT CAT M-IST

3. Wildfire

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local / Jurisdictional resources before state request	State ESF8 Resources
Injury risks	Public Health and Medical Information	Injury prevention messaging distributed to impacted areas	Pre-scripted messages for media (public health and medical issues) / social media	Pre-scripted messages
Evacuation of medical facilities	Patient Evacuation	Medical facility evacuations	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources
		Coordination of medical facility evacuation	Local fire department / EMS agencies Local and multi-jurisdictional (DDC) MOC	M-IST Teams ASM
Medical care for sheltered individuals	Patient Care	Medical personnel and care in mass care general pop. shelters	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	Contingency contracts with medical staffing agencies; EMTF-mobile medical teams
		Medical shelters (skilled nursing care)	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	BCFS, Contingency contracts with medical staffing agencies; EMTF-mobile medical teams
Moderate to severe stress reactions	Behavioral Health Care	Promote coping skills. Provide access to mental health services.	Local mental health agencies Pastoral care Social workers (local) VOADs	BHATs (which may include activating contracts with local mental health authorities). VOADs
		Mental health / CISM for responders	Local CISM teams	State CISM teams
Prevent disease spread in congregate care settings	Behavioral Health Care	Inspect shelter facilities for general sanitation	Shelter Assessment Tool Local public health department sanitarians / inspectors	DSHS Sanitarians / inspectors Other DSHS personnel as needed Shelter assessment tool
	Health Surveillance	Collect health surveillance data to monitor for infectious disease outbreaks	Shelter assessment tool Local public health epidemiologists	DSHS Epidemiologists Other DSHS personnel as needed
Firefighter / responder rehab	Patient Care	Medical care, screening, and monitoring of responders	Local Fire Department / EMS Local volunteers / CERTs / VOADs Regional EMTF	EMTF – MMU/MMT, Ambus
Acute burns /	Public	Public awareness	Public messaging (radio, TV,	Pre-developed messages

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local / Jurisdictional resources before state request	State ESF8 Resources
inhalation / surge	Health and Medical Info		PODS, foot, signage) / social media	
	Patient Care	Medical Care	Hospitals Private physicians Local EMS	EMTF – MMU/MMT, RNST
Post fire cleanup injuries / illness	Public Health and Medical Info	Public awareness	Public messaging (radio, TV, PODS, foot, signage) / social media	Pre-developed messages
	Patient Care	Medical Care	Hospitals Private physicians Local EMS	EMTF – MMU/MMT, RNST
Durable medical supplies / equipment / oxygen	Health / Medical Equipment and Supplies	Supply home-bound persons, shelters, and other community needs with equipment	Local pharmacies Local DME companies Local hospitals Home health agencies Local dialysis agencies	State contracts for DME / oxygen, etc.
Access to chronic medical care	Public Health and Medical Info	Public awareness	Public messaging (radio, TV, PODS, foot, signage) / social media	Pre-developed messages
	Patient Care	Dialysis access Access to physician care Access to medications	Local dialysis agencies Local hospitals Local physicians Local pharmacies Local transportation resources	ESRD Medical buses School buses State pharmacy contracts
Mass fatalities	Health Surveillance, Mass fatality Management	Mass fatality assessment and management	Local public health Local medical examiner / JP Local funeral directors / funeral homes Local / regional mortuary trailers Utilize DSHS Mass Fatality Planning Kit	Contract with Texas Funeral Directors Assn for Disaster Mortality Strike Teams; 3 trailers with mortality supplies. Disaster Mortality Surveillance System forms and instructions http://www.dshs.state.tx.us/comprep/surveillance/form.shtm ;
	Public Health and Medical Info	Collect and report out mortality statistics	Local registrar / vital statistics Local health department epidemiologists Local medical examiner / JP Local media	DSHS SMOC
ESF-8 coordination and incident management	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC RAT CAT M-IST

4. Catastrophic Disease (including Pandemic)

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local/Jurisdictional Resources Before State Request	State ESF8 Resources
Identification of Disease Agent	Health Surveillance	Surveillance systems, Consultation with laboratory partners Biowatch	Local public health Departments, epidemiologists/ Authorities Hospitals School absenteeism monitoring	DSHS Epidemiology; RODS, Essence state syndromic surveillance system State Lab
Select best disease response actions	All-hazard public health and medical consultation, technical assistance, and support	Convene SMEs, jurisdictional conference calls, networking	Local public health departments, epidemiologists/ Authorities	Public Health Information Network (PHIN) DSHS Infectious Disease SMEs State Epidemiologist
	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC
Outbreak Management (Treatment, Surge Management, Alternative Care Sites, Volunteers, EMS, Medical Documentation	Patient Care	Pre-hospital dispatch triage Pre-hospital medical care Hospital Bed Capacity Monitoring	RACs Local EMS Medical Directors RACs Just in Time Training	DSHS HSRs and SMOC WebEOC
	Medical Care Personnel	Hospital, Long Term Care Facility/Alternate Care Site Bed Staffing	MRC/VOAD/Family	EMTF Contracted Groups DSHS SMOC DADS
	Patient Care, Assessment of Public Health & Medical Needs, Health & Medical Equipment and Supplies	Patient Care, including Alternate Care Sites/Long Term Care Facilities if needed	Local Hospitals RACs Local EMTF/MMU Family	DSHS HSRs and SMOC DSHS Regulatory (emergency rule modifications) Center for Medicare and Medicaid involvement if indicated
	Health & Medical equipment and supplies	Ventilator Acquisition and Management	Local Hospitals RAC Cache WebEOC	DSHS State Cache SNS WebEOC
	Public Health and Medical Information	Force Protection	Local guidance for first responders and essential CIKR workforce Local EMS Medical Directors RACs	DSHS HSRs and SMOC

Consequence Management (Mitigation, Prevent Illness)	All-hazard public health and medical consultation, technical assistance, and support Patient Evacuation (some scenarios, e.g. anthrax, tularemia)	Public awareness	Public messaging (radio, TV, PODS, signage) / social media	DSHS Pre-developed messages CDC Pre-developed messages SNS Team for medical countermeasures if indicated
	Health & Medical Equipment and Supplies; Assessment of Public Health & Medical Needs	Vaccinations, beginning with first responders	Local public health departments - immunization and SNS program	DSHS Cache / Established distribution mechanisms SNS Team for medical countermeasures if indicated
		Antivirals/ Antibacterials, beginning with first responders	Local public health departments - immunization and SNS program	DSHS Cache / staff Federal SNS if needed
Crisis Standards of Care	Assessment of Public Health & Medical Needs, Patient Care, Public Health and Medical Information	Establish standards of care with multiple casualties and limited resources	Local EMS Medical Directors Local Hospital Medical Directors	Guidelines under development Declaration of Public Health Emergency
		Medical Orders for sustainable treatment		
Mass Fatality Management	Mass Fatality Management	Mass fatality assessment and management	Local medico-legal authority: ME or JP Local funeral directors / funeral homes Local / regional mortuary trailers	DSHS Mass Fatality/Pandemic Plans DSHS Mass Fatality Management Response Operating Guideline, Contract with Texas Funeral Directors Assn for Disaster Mortality Strike Teams - 3 trailers with mortality supplies
	Health Surveillance	Collect and report out mortality statistics	Local registrar / vital statistics Local medical examiner / JP Local media Local health department - epidemiologists	Disaster Mortality Surveillance System forms and instructions http://www.dshs.state.tx.us/comprep/surveillance/form.shtm DSHS SMOC
Moderate to Severe Stress Reactions	Behavioral Health care	Promote coping skills. Provide access to mental health services.	Local mental health agencies Pastoral care Social workers (local) VOADs	BHATs (which may include activating contracts with local mental health authorities). VOADs
	Mental health / CISM for responders	Local CISM teams	State CISM teams	Mental health / CISM for responders

5. Drought / Water Loss

Public Health and Medical Concerns	ESF8 Functions	ESF8 Responsibilities	ESF8 Local Resources	ESF8 State Resources
Lack of potable drinking water	Public Health and Medical Info	Public information about rationing, health impacts	Public Messaging / Social Media / Reverse 911 systems	DSHS Pre-developed messages
	Assessment of Public Health and Medical Needs, All-hazard public health and medical consultation	Water rationing	Local Health Authority Local Water Authority	DSHS Texas Commission on Environmental Quality
	Food safety and security	Lower drinking water standards if necessary	Local Health Authority Local Water Authority	DSHS Sanitarians
	Health surveillance		Local Health Department / Authority	DSHS Epidemiology
Hospital & Long Term Care Facility Infrastructure	Health surveillance, Health / Medical Equipment and Supplies	Maintain situational awareness of facility census, bed availability and unmet needs	Local Hospitals Local public health department RACs Local Emergency Management WebEOC	DSHS DADS DARS WebEOC
	Health / Medical Equipment and Supplies	Maintain coolers and water availability	Local Public Health Department Local Water Authority Local Emergency Management Local Public Works RACs	DSHS DADS DARS Public Works Strike Team
	Patient Evacuation	Medical facility evacuations	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources
		Coordination of medical facility evacuation	Local fire department / EMS agencies Local and multi-jurisdictional (DDC) MOC	M-IST Teams
Medical impacts/ medical surge	Public Health and Medical Info	Public awareness	Public messaging (radio, TV, PODS, foot, signage) / social media	DSHS Pre-developed messages

Public Health and Medical Concerns	ESF8 Functions	ESF8 Responsibilities	ESF8 Local Resources	ESF8 State Resources
	Patient Care	Medical Care	Local Hospitals Private physicians Local EMS	EMTF – MMU/MMT, RNST
ESF-8 coordination and incident management	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC RAT CAT M-IST

6. Tornado

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local/Jurisdictional Resources Before State Request	State ESF8 Resources
Injury risks immediately after storm and shelter/help information	Public health and medical information	Injury prevention messaging and storm information distributed to impacted areas	Pre-scripted public health and medical messages for media / Local Reverse 911/ Social Media	DSHS pre-scripted messages
Medically unstable individuals or medical decompensation after storm due to loss of infrastructure	Patient Evacuation	Medical facility evacuations	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF, Transportation Triage Tool	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources Transportation Triage Tool
		Screen for most appropriate transport type for general population evacuees	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF Transportation Triage Tool	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources Transportation Triage Tool
		Medical oversight at air evacuation points	Medical personnel including from local hospitals and EMS, local staffing agencies; Medical Reserve Corps;	Mobile Medical Team; TXMF. If federal declaration, this will be a federal NDMS mission.
Medical care for sheltered individuals	Patient Care	Medical personnel resources for mass care general population shelters	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	Contingency contracts with medical staffing agencies; mobile medical teams (formerly known as TXMAT)
		Medical shelters (skilled nursing care)	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross	Contingency contract with BCFS; potential supplemental staff through Contingency contracts with medical staffing agencies; mobile medical teams (formerly known as TXMAT)
Moderate to severe stress reactions	Behavioral Health Care	Promote coping skills. Provide access to mental health services.	Local mental health agencies Pastoral care Social workers (local) VOADs	BHATs (which may include activating contracts with local mental health authorities).

		Mental health / CISM for responders	Local CISM teams	State CISM teams
Prevent disease spread in congregate care settings	Health Surveillance	Inspect shelter facilities for general sanitation	Local health department – sanitarians and inspectors	DSHS Sanitarians; shelter assessment tool
	Health Surveillance	Collect health surveillance data to monitor for infectious disease outbreaks	Local health department - epidemiologists	DSHS Epidemiologists; shelter surveillance tools http://www.dshs.state.tx.us/comprep/surveillance/default.shtm
Carbon monoxide poisoning	Public health and medical information	Exposure prevention Messaging	Local health department – messages for media, social media Local EMS RACs	DSHS pre-developed messages to distribute to media
Mold sensitivity or infection	Public health and medical information	Exposure prevention messaging	Local health department – messages for media, social media	DSHS pre-developed messages to distribute to media during recovery phase
Medical Surge	Health/ Medical Equipment and Supplies	Hospital Bed Monitoring/ Management	Local Hospitals RACs WebEOC	DSHS WebEOC CMS
	Patient Care	Medical Care	Local hospitals Private physicians Local EMS	EMTF – MMU/MMT, RNST
Mass fatalities	Health Surveillance	Collect and report out mortality statistics	Local health department – epidemiologists, registrar	Disaster Mortality Surveillance System forms and instructions http://www.dshs.state.tx.us/comprep/surveillance/form.shtm ;
	Assessment of public health and medical needs	Determination of functionality and continuity of operations of jurisdictional mortality infrastructure	Local health department	Contract with Texas Funeral Directors Assn for Disaster Mortality Strike Teams; 3 trailers with mortality supplies.
ESF-8 coordination and incident management	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC RAT CAT M-IST

7. Radiologic Emergency

Health Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local/Jurisdictional Resources Before State Request	State ESF 8 Resources
Radiation Exposure	Assessment of public health / medical needs	Conduct field investigations of radiation in environment.	Local Haz-Mat Teams Local Public Health Departments	DSHS Radiological Emergency Response Team (RERT) - assess potential hazard, provide protective action recommendations, assess radiation dose, conduct environmental impacts and assist in radiation monitoring of affected populations.
		Assess potential ingestion/external exposure of victims based on field investigation.		
	Public Health and Medical Information	Public awareness of event(s), shelter in place, evacuation, health info	Public messaging (radio, TV, PODS, signage) / Reverse 911 / social media	DSHS Pre-developed messages CDC Pre-developed messages
	Health / Medical Equipment and Supplies	Coordinate sampling and laboratory analysis of biological and environmental samples	Local private labs: none for Biological Samples. DSHS and other PH labs only analyze environmental samples. Local Haz-Mat teams Local Public Health Departments	DSHS Laboratory Response Network. LOA's with Texas A&M and UT for back up laboratory support.
	All-hazard public health and medical consultation	Develop criteria for entry and operations within the incident site	Local Fire Department Local Haz-Mat Teams Local Radiation SMEs	DSHS RERT Team - provide field monitoring teams to conduct radiation surveys and assess potential short/long term hazard, contamination/control teams to provide hotline monitoring of individuals entering and leaving.
	Medical Care Personnel, Assessment of Public health and Medical Needs	Monitor workers' exposure levels, health, and safety	Local Fire Department Local LHD or Regional Advisory Council Teams (?)	EMTF/MMU/MMT DSHS RERT Team - provide radiation monitoring of pts. and medical staff. RERT prepared to provide radiation monitoring of pt. and hospital staff.
	Health Surveillance	Prevent cross-contamination through people, objects (including pets) or places.	Local Fire Department Local Haz-Mat Teams Local public health department	DSHS RERT Team can provide contamination control teams for points of entry/egress at shelter/reception/population monitoring locations.

	Patient Care	External or internal decontamination of people.	Local Fire Department Local Haz-Mat Teams Local EMS Local Hospitals Local public health department	Provide some SME assistance identifying federal and other resources for this. RERT - conduct radiation surveys and identify potential internal/external contamination.
	Public health and medical consultation, technical assistance, and support	Convene subject matter experts	Local public health departments Some local hospitals have capability to provide these services.	DSHS (needs further development) Federal Resources
		Assist in establishment of registry for potentially exposed individuals	Local public health department - Epidemiologists	DSHS Environmental Epidemiology RERT - dose monitoring records for individuals issued dosimetry.
Acute Radiation Syndrome (ARS) or Cutaneous Radiation Syndrome (CRS)	Patient care	Medical Care	Local hospitals Private physicians Local EMS	EMTF – MMU/MMT, RNST
	Health surveillance	Perform dose reconstructions and long-term monitoring of individuals	Local public health Departments	DSHS Radiation SMEs Federal resources
Prenatal Radiation Exposure	Patient Care	Perform Dose reconstruction	Local public health departments	DSHS RERT conducts investigation to determine radiation levels present during exposure. Maintains contact information for federal resources and some local hospitals to provide treatment advice.
Evacuation of medically fragile in affected areas	Patient Evacuation	Evacuations of medical facilities and local home-bound persons in plume	Local non-emergency ambulance contracts, emergency ambulances, local air medical ambulances, para-transit vehicles, school buses, public transit, regional EMTF, Transportation Triage Tool	EMTF – AST, Ambus ASM Medical buses, MBT M-IST Air Medical resources Transportation Triage Tool
Medical care for sheltered individuals	Patient Care	Medical personnel resources for mass care general population shelters	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross; Local MRCs	Contingency contracts with medical staffing agencies; Mobile Medical Teams (MMT)

	Patient Care	Medical shelters (skilled nursing care)	Local hospitals, staffing agencies, EMS, medical reserve corps, local MAs / LVNs / PCAs, local volunteers, local Red Cross; Local MRCs	Contingency contract with BCFS; Contingency contracts with medical staffing agencies; mobile medical teams (MMT
ESF-8 coordination and incident management	All	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC, DSHS Radiation SMEs RAT CAT M-IST

8. Food Contamination Attack / Food-borne Illness

Public Health and Medical Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local / Jurisdictional resources before state request	ESF8 Resources in Texas
<p>Dependent on the type and virulence of organism and numbers of people exposed, moderate to severe illness necessitating medical treatment.</p> <p>May or may not be communicable from person to person.</p>	<p>Health Surveillance</p>	<p>Epidemiology Investigation with or without Lab Surge</p>	<p>Local health department - epidemiologists Communication with all local EMS, hospitals, (pvt sector MDs?) DSHS Laboratory Response Network Local private labs (human samples)</p>	<p>Public Health Information Network (PHIN) HSR Epidemiologists DSHS Infectious Disease Epidemiology SMEs State Epidemiologist Texas Rapid Response Team (TRRT) for foodborne illness investigation – Joint State/Federal Team for outbreaks and emergencies that occur in multiple jurisdictions. DSHS State Lab If TRRT activated, access to Federal Laboratories through the TRRT</p>
		<p>Environmental Investigation with or without Lab Surge</p>	<p>Local Health Department -, Sanitarians Local Haz-Mat Teams Local private labs (environmental samples)</p>	<p>HSR Sanitarians (conduct retail inspections in areas with no LHD) Regulatory Division Sanitarians or Inspectors housed in the regions. (Conduct wholesale distributed foods, milk, meat, and seafood inspections) DSHS Regulatory Division SMEs in retail food facilities (restaurants, catering, fairs, weddings, picnics, etc); wholesale distributed foods; meat; milk (dairies, milk pasteurization plants and tankers); seafood (oysters, crab plants, bay opening and closing) DSHS State Lab TRRT for foodborne illness investigation – Joint State/Federal Team for outbreaks and emergencies that occur in multiple jurisdictions. If TRRT activated, access to federal laboratories</p>

Health Concerns	ESF8 Functions	ESF8 Tasks to Accomplish	Local/Jurisdictional Resources Before State Request	State ESF 8 Resources
	Public health and medical information	Risk messaging / assurance information to public	Local Health Authority	State Health Authority DSHS Communications Office (state-wide consistent) message
Food safety	Food Safety and Security	Regulatory compliance (i.e. quarantine of product, recall, seizures, closure)	Local health department for Retail Facilities only.	DSHS Regulatory Division SMEs in retail (areas without LHD) food facilities (restaurants, catering, fairs, weddings, picnics, etc); wholesale distributed foods; meat; milk (dairies, milk pasteurization plants and tankers); seafood (oysters, crab plants, bay opening and closing)
ESF-8 coordination and incident management of large scale incident	All; possible patient care; medical care personnel; health/medical equipment and supplies	Incident management of public health and medical issues	Local MOC Type III IMT	DDC MOC RAT CAT

Appendix D

Recommended Participants for Regional Public Health and Medical (ESF-8) Planning Committees

- DSHS Health Service Region Preparedness staff
- RAC(s) Preparedness staff (with adequate hospital and EMS representation)
- Local Public Health Department(s) Preparedness staff
- Texas Division of Emergency Management (TDEM) State Coordinator for the Region
- TDEM District Coordinator(s)
- TDEM Regional Planner
- DDC Captain or representative
- Local Mental Health / Behavioral Health / Substance Abuse representative(s)
- Local Skilled Nursing Facilities representatives
- Local Medical Society representative
- Local Emergency Management representative
- Health Science Center or academic medical institution (if applicable)
- Nursing School representative (if applicable)
- Medical Examiner's Office representative
- Local Department of Aging and Disability Services (DADS) representative
- Local Department of Assistive and Rehabilitative Services (DARS) representative

Appendix E

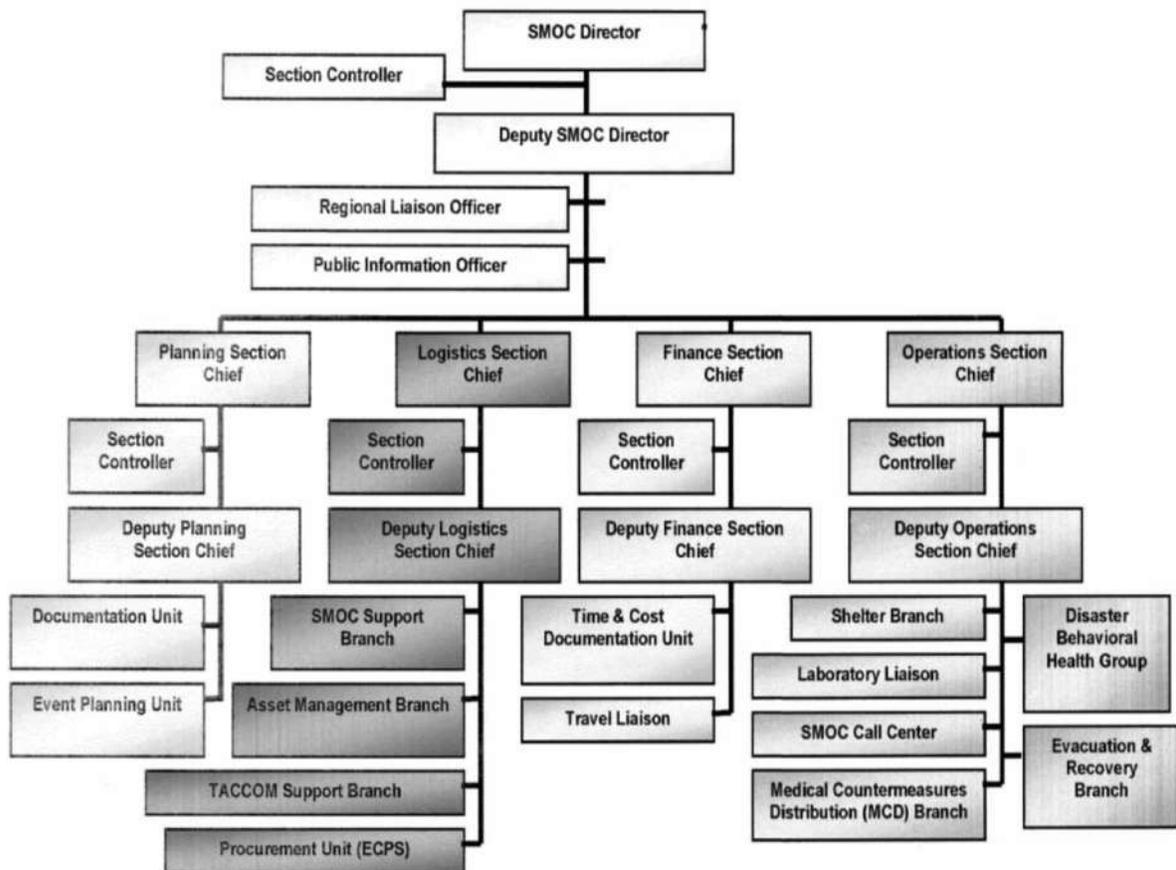
[Deployable Teams - Response Operating Guidelines](http://www.dshs.state.tx.us/commprep/response/1ROG/pdf/2012ROGDeployableTeams.pdf)

<http://www.dshs.state.tx.us/commprep/response/1ROG/pdf/2012ROGDeployableTeams.pdf>

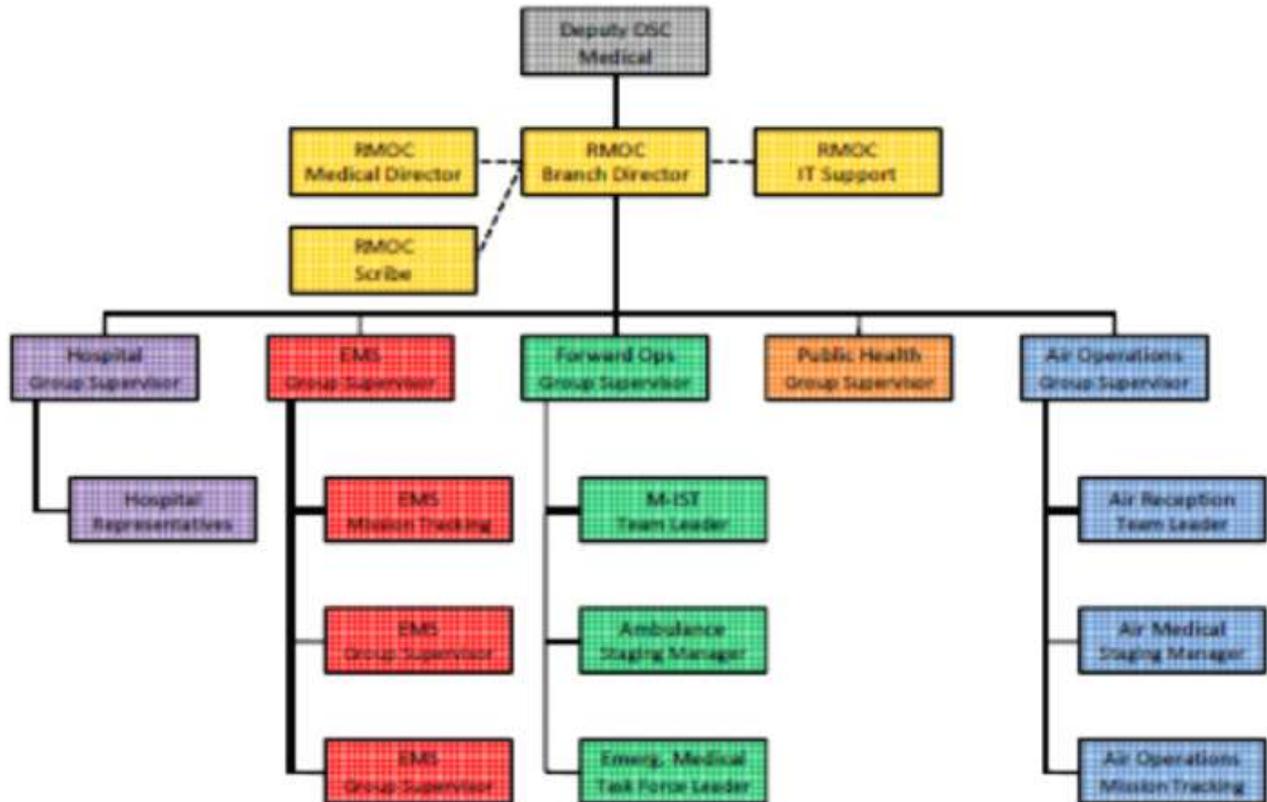
Appendix F

MOC Organizational Chart Examples

1. State Medical Operations Center (SMOC)



2. Southwest Texas Regional Advisory Council (STRAC) Regional Medical Operations Center – San Antonio (RMOC-SA)



3. North Central Texas Trauma Regional Advisory Council Emergency Medical Operations Center (EMOC)

