TEXAS
Department of
State Health Services

TEXAS PREPAREDNESS STRATEGY

FOR

HIGH CONSEQUENCE INFECTIOUS DISEASES:

EBOLA AND OTHER PATHOGENS

SEPTEMBER 2015

Health Emergency Preparedness and Response Section

TEXAS Department of State Health Services

TEXAS PREPAREDNESS STRATEGY *FOR* HIGH CONSEQUENCE INFECTIOUS DISEASES: EBOLA AND OTHER PATHOGENS

Contents

Record of Change

Change Number	Change Date	Description of Change	Individual(s) Responsible

Executive Summary

This document, *The Texas Preparedness Strategy for High Consequence Infectious Diseases: Ebola and Other Pathogens* ("the Strategy"), provides the Texas strategy for preparing for and managing infectious diseases with significant impact to people and communities to include Ebola and other special pathogens. The Strategy relies on a coordinated approach involving governmental agencies (local, regional and state), the private sector, non-governmental organizations (NGOs), and academia.

The Strategy is based on:

- strengths and gaps learned from 2014 Texas Ebola activities;
- the Federal Emergency Management Agency (FEMA) Emergency Support Function 8 (ESF8) Public Health and Medical Core Functional Areas;
- the U. S. Centers for Disease Control (CDC) Public Health Emergency Preparedness (PHEP) capabilities;
- the federal Office of the Assistant Secretary of Preparedness and Response (ASPR) Hospital Preparedness Program (HPP) capabilities;
- the U. S. Department of Health and Human Services (HHS) National Health Security Strategy (NHSS); and
- the State of Texas Emergency Management Plan, Annex H, Public Health and Medical Services.

The Strategy lists the following ten objectives each with associated actions and outcomes:

Objective 1: Foster Informed, Empowered Individuals and Communities by Promoting Awareness of High Consequence Infectious Diseases

Objective 2: Develop and Maintain the Workforce Needed for a High Consequence Infectious Disease Incident

Objective 3: Ensure Situational Awareness within a High Consequence Infectious Disease Incident

Objective 4: Foster Integrated, Scalable Public Health and Healthcare Delivery Systems in a High Consequence Infectious Disease Incident

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Objective 9: Work with Other States to Enhance National Health Response and Recovery Activities in a High Consequence Infectious Disease Incident

Objective 10: Ensure That All Systems in a High Consequence Infectious Disease Incident Are Based on the Best Available Science, Evaluation, and Quality Improvement Methods

With the implementation of this Strategy, Texans and their communities will be better prepared for and able to respond, not only to an another incident of Ebola should it present itself, but also, to any high consequence infectious disease.

Objective 1: Foster Informed, Empowered Individuals and Communities by Promoting Awareness of High Consequence Infectious Diseases

Outcome: *The ability of communities to prepare for, withstand, and recover from a high consequence infectious disease incident.*

Texas communities must be informed about health risks associated with high consequence infectious disease, such as Ebola, in order to be prepared for such an incident. Awareness empowers individuals with the skills and resources they need to do the following:

- prevent disease and harm where possible;
- protect their own health, safety, and social well-being;
- mitigate the consequences of an unavoidable disease incident;
- respond to an infectious disease outbreak; and
- recover from a high-consequence pathogenic situation successfully.

During the preparedness stage of a high consequence infectious disease outbreak, such as Ebola, informed and empowered communities have the skills and resources necessary to:

- build strong neighbor-to-neighbor connections;
- create and implement contingency plans;
- coordinate communications plans; and
- ensure provisions are in place to provide and sustain the medical, behavioral, social well-being, and other health care needs of community members.

Texas communities are among the most diverse in the nation. To achieve the above, preparedness efforts should engage a "whole community" approach. The State role in community preparedness is to do the following:

- participate in awareness training with local health departments, public safety officials, municipal leaders, community and faith-based partners, and other local stakeholders on how to respond to a confirmed case of Ebola or other high consequence infectious disease in accordance with evidence-based Standard Operating Guides or Emergency Operation Plans;
- promote awareness of and access to medical and mental/behavioral health resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of individuals;

- support healthcare system preparedness to empower robust infectious disease practices by healthcare facilities, coalitions, and other clinical settings;
- engage public and private organizations in preparedness activities that address the functional needs of individuals as well as the cultural, socio-economic, and demographic components of the community;
- identify those populations that may be at higher risk for adverse health outcomes; and
- address and/or integrate the health needs of populations who have been displaced due to incidents (disaster, disease outbreaks, civil unrest) that have occurred in their own or distant communities.

Activities Necessary to Achieve Objective:

- Participate in regional and statewide information-sharing and educational workshops to gain information about lessons learned and best practices that will inform the development of planning documents and recovery protocols.
- Purchase supplies and equipment necessary to support communities' efforts to prepare for and respond to a high consequence infectious disease incident.
- Develop high consequence infectious diseases documents such as evidence-based Standard Operating Guides, protocols, public service announcements, algorithms, templates, and pocket guides.
- Create computer-based and just-in-time trainings specific to high consequence infectious diseases.
- Conduct both discussion and operations-based high consequence infectious disease preparedness exercises.

Objective 2: Develop and Maintain the Workforce Needed for a High Consequence Infectious Disease Incident

Outcome: *Ensure the ability of public health and healthcare workers to respond to a high consequence infectious disease incident with public health or medical implications.*

The ability of the State to prepare for, respond to, and recover from a high consequence infectious disease incident depends on a competent and available workforce. The State public health and healthcare workforce comprises staff and volunteers from all sectors, disciplines, and functional roles – public health, healthcare, academia, behavioral health, human services, Emergency Medical Services (EMS), Voluntary Organizations Active in Disaster (VOAD), and others.

The State is responsible for assessing the public health, medical, and behavioral health needs of its residents. Public health and healthcare workforce role is to satisfy the community's health and healthcare needs by:

- providing high-quality essential services;
- demonstrating proficiency within its specific functional area;
- involving and managing volunteers to make meaningful contributions; and
- utilizing communication and integration skills to coordinate emergency operations across multidisciplinary teams and multiple cultures.

Assessment of healthcare systems and facility infrastructure preparedness is also a State role. Through assistance with the purchase of equipment and supplies, the development of documents, the creation of trainings, and the staging of exercises, the State assures workforce preparedness. The State also seeks to ensure that public health and healthcare workforce competency is consistent throughout all sectors of the system and within all communities, with the workforce reflecting the diversity of the State.

Preparedness depends on a sufficient supply of health service staff and volunteers ready to meet both everyday community health needs as well as a surge in demand for services. Routine health care and public health functions are foundational. Effective planning and a coordinated, well-executed response in the face of a high consequence infectious disease incident expands these normal operating functions and fortifies individual and community resiliency.

Activities Necessary to Achieve Objective:

- Conduct regional and computer-based high consequence infectious diseases awareness trainings to aid in the assessment of public health and healthcare needs of the State.
- Create an assessment form that captures the public health and medical needs specific to high consequence infectious diseases.
- Create and conduct regional and computer-based trainings targeting elected officials, public health and healthcare leaders, emergency management, first responders, volunteers, and other stakeholders to increase education and awareness of high consequence infectious disease.
- Purchase supplies, such as basic PPE, necessary for public health and healthcare workers responding to high consequence infectious diseases.
- Conduct workshops to provide awareness level training on PPE for first responders and healthcare workers.
- Develop evidence-based regional Standard Operating Guides to establish response and recovery procedures for high consequence disease incidents.
- Create and conduct trainings to support the evidence-based Standard Operating Guide for behavioral health, public health, and healthcare workers handling people suspected of exposure to Ebola or another high consequence infectious disease.
- Create regional behavioral health teams to respond to the behavioral health needs of affected communities.
- Integrate Local Mental Health Authorities (LMHAs) into State and regional planning and exercise activities.
- Develop high consequence infectious disease documents such as evidence-based Standard Operating Guides, protocols, public service announcements, algorithms, templates, and pocket guides to support emergency operations coordination.
- Purchase supplies and equipment necessary for high consequence infectious disease emergency operations coordination.
- Create computer-based trainings specific to high consequence infectious diseases to support established evidence-based Standard Operating Guides and emergency operations coordination.
- Conduct both discussion and operations-based high consequence infectious disease preparedness exercises to support emergency operations coordination.
- Create Infectious Disease Response Units (IDRUs) to with the ability to transport patients with high consequence infectious diseases in areas without the current capacity to do so.

Objective 3: Ensure Situational Awareness within a High Consequence Infectious Disease Incident

Outcome: *The ability to conduct a multijurisdictional, multidisciplinary exchange of health-related information and situational awareness among federal, state, local, territorial, and tribal levels of government and the private sector during a high consequence infectious disease incident.*

Situational awareness of a high consequence infectious disease incident within the State involves capturing, analyzing, interpreting, reporting, and communicating data in a coordinated and timely cycle to:

- create evidence-based Standard Operating Guidelines (SOGs);
- inform decision-making in a continuous and timely cycle;
- make projections about likely future developments;
- identify resource gaps with the goal of matching available resources; and
- locate additional resources to meet current needs.

Ongoing situational awareness provides:

- the foundation for the successful detection, prevention, and mitigation of emerging threats;
- a preparedness baseline for an effective high consequence infectious disease response; and
- a collaborative culture that works together toward the ultimate goal of reducing disease.

Science-based and surveillance-focused situational awareness relies on the capacity of information technology software and on a robust understanding of the health information universe (e.g., public health, laboratory data, health care, public safety, pre-hospital emergency care, hospital care, rehabilitation, efficacy of countermeasures) to enable integrated supervision and execution of actions before, during, and after an incident.

Activities Necessary to Achieve Objective:

- Develop evidence-based Standard Operating Guidelines for information sharing to specifically address gaps identified in the 2014 Texas Ebola After Action Report.
- Conduct discussion and operations-based situational awareness exercises.
- Assess the need for a comprehensive and interactive system linking epidemiological information to disaster response.
- Develop software products and systems that address identified situational awareness needs.

Objective 4: Foster Integrated, Scalable Public Health and Healthcare Delivery Systems in a High Consequence Infectious Disease Incident

Outcome: *The ability to provide adequate medical evaluation and care as well as ensure support of fatality management services that exceed the limits of the normal medical infrastructure of an affected jurisdiction during a high consequence infectious disease incident.*

Protection of the public's health and the delivery of healthcare involve a large and complex network of private, public, and governmental organizations that provide a wide array of health care services. These networks and coalitions can increase a community's ability to: 1) survive the impact of a high consequence infectious disease incident – whether it is a single incident or a surge situation; and 2) maintain quality patient care regardless of the scale of the incident. A scalable system involves the integrated effort of public health and healthcare workers responsible for:

- patient movement;
- patient care;
- behavioral health;
- health, medical, and veterinary supplies and equipment;
- mass care;
- medical materiel management and distribution;
- medical surge;
- fatality management;
- public health surveillance and epidemiological investigation; and
- public health laboratory testing.

The State's role is to ensure that all public health and healthcare workers involved with these facets of preparedness and response have the supplies, equipment, tools (i.e. software), training, and practice provided by meaningful exercises to orchestrate a successful handling of an high consequence infectious disease outbreak. By working together across functional areas, public health and healthcare organizations can provide care that well exceeds the sum of the individual efforts.

In some cases, despite all attempts to increase public health and healthcare capacity and capabilities, the magnitude of an emergency may exceed available resources. Provider organizations, coalitions, and communities sometimes need to temporarily shift from normal standards of care to crisis standards of

care. In these circumstances, responders must be prepared to make difficult decisions regarding the allocation of scarce resources within the impacted area. Creating a framework from which ethical decisions can be made is a necessary part of any preparedness strategy. Developing such a framework requires the active engagement of health care providers, organizations, coalitions, and other partners to promote consistency while addressing the community's specific values, needs, and priorities.

Activities Necessary to Achieve Objective:

- Purchase supplies and equipment, develop documents, create trainings, and conduct exercises that facilitate public health and medical consultation, technical assistance, and support during a high consequence infectious disease outbreak.
- Purchase PPE necessary for patient movement during a high consequence infectious disease incident.
- Develop an evidence-based Standard Operating Guide for a high consequence infectious disease patient transport and evacuation.
- Conduct regional workshops to provide awareness level training on PPE for healthcare workers responsible for transporting patients with a high consequence infectious disease.
- Conduct discussion-based, tabletop, and operational exercises on high consequence infectious disease patient movement in a workshop environment.
- Purchase PPE necessary for Ebola or other high consequence infectious disease patient care.
- Develop an evidence-based regional Standard Operating Guide for patient care and treatment useful to all public health and healthcare stakeholders.
- Develop templates for high consequence infectious disease control orders.
- Create pocket or other guides specific to high consequence infectious disease patient care, including sections on epidemiological investigations, lab work, triage, etc.
- Conduct workshops to provide awareness training on appropriate PPE for public health and healthcare workers caring for patients with Ebola or other high consequence infectious.
- Ensure high consequence infectious disease patient care plans are in place at designated Ebola Treatment Centers.
- Ensure high consequence infectious disease patient care plans are in place at designated HHS Region VI Ebola Patient Care Hospital.
- Purchase supplies necessary for behavioral health workers responding to people suspected of exposure to Ebola or another high consequence infectious disease.

- Develop and train on an evidence-based Standard Operating Guide that establishes procedures for behavioral health workers working with individuals suspected of exposure to Ebola or another high consequence infectious disease.
- Create computer-based training to support an evidence-based Standard Operating Guide for behavioral health workers handling people suspected of exposure to a high consequence infectious disease, such as Ebola.
- Create behavioral health teams to respond to the behavioral health needs of affected communities.
- Integrate Local Mental Health Authorities (LMHAs) into State and regional activities.
- Purchase adequate caches of PPE for public health, medical, and veterinary needs.
- Identify and purchase equipment for public health, medical, and veterinary needs.
- Purchase supplies and equipment, develop documents, create trainings, and conduct exercises relating to mass care during a high consequence infectious disease incident.
- Implement the inventory tracking electronic asset management (ITEAM) system to effectively manage and distribute medical materiel.
- Review and update the protocol for medical materiel management and distribution.
- Create trainings for tracking software purchased for effective medical materiel management and distribution.
- Create computer-based guidance trainings on medical surge.
- Provide Crisis Standards of Care guidance with regard to medical surge in an Ebola or other high-consequence infectious disease incident.
- Develop an evidence-based Standard Operating Guide for the handling, transport, and cremation of fatalities.
- Create a fatality management pocket guide.
- Create computer-based trainings on fatality management procedures.
- Purchase PPE and create trainings and exercises to ensure responder safety and health.

Objective 5: Ensure Timely and Effective Communications in a High Consequence Infectious Disease Incident

Outcome: *The ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders in a high consequence infectious disease incident.*

Communication is critical to nearly every aspect of a high consequence infectious disease, as it supports and enables the full range of capabilities needed to respond efficiently and effectively. Two components of effective communication exist: (1) communication with the public and (2) operational communication, which focuses on communication among responders (public health, health care, behavioral health, human services, EMS, law enforcement, emergency management, and others).

The State has the responsibility of providing high-quality information (i.e. accurate, timely, credible, understandable, actionable) to elicit the appropriate response from individuals and their families, including at-risk populations; private, nongovernmental, and academic organizations; and all forms of government before, during, and after an incident. It relies on an understanding of what motivates human behavior. All documents directed to the public should be in languages and formats that are understandable to individuals with limited English proficiency, people with disabilities, and others with access and functional needs. Effective operational communication with responders places an emphasis on increasing efficiency, interoperability, and situational awareness during a response.

Activities Necessary to Achieve Objective:

- Purchase supplies and equipment, develop documents, create trainings, and conduct exercises relating to public health and medical consultation, technical assistance, and support during an Ebola or another high consequence infectious disease incident.
- Develop public service announcements for schools, communities, nursing homes, long-term care facilities, and hospitals to be utilized during an Ebola or high consequence infectious disease incident. All documents should be accessible to community members with limited English skills, people with disabilities, and others with access and functional needs.
- Establish a 1-800 telephone number to disseminate multi-language Ebola and high consequence infectious disease information.

Objective 6: Promote an Effective Countermeasures Enterprise in a High Consequence Infectious Disease Incident

Outcome: *The ability to provide medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with public health guidelines and/or recommendations in a high consequence infectious disease incident.*

Medical countermeasures include pharmaceutical and non-pharmaceutical interventions as well as diagnostic systems and products that aim to prevent or mitigate the adverse public health effects resulting from Ebola or other high consequence infectious diseases. Pharmaceutical countermeasures may be initiated either before or after exposure for the purposes of active immunoprophylaxis (e.g., vaccines), passive immunoprophylaxis (i.e., immunoglobulins and antitoxins), and chemoprophylaxis (i.e., post-exposure antibiotic or antiviral prophylaxis). Non-pharmaceutical interventions for disease control include isolation and quarantine, restrictions on movement and travel advisory/warnings, social distancing, external decontamination, hygiene, and precautionary protective behaviors. Diagnostic countermeasures (i.e. laboratory testing equipment and supplies) are used to identify persons with or without signs and symptoms after possible exposure to a high consequence infectious disease.

The Strategic National Stockpile – a federal repository with medicine, medical products, and medical supplies – is designed to supplement state, regional, and local supplies during a large-scale health incident. The safety and security of drugs, biologics, and medical devices are important facets of a countermeasures enterprise. Medical materiel management and distribution allows for the acquisition, maintenance (e.g., cold chain storage or other storage protocols), transport, distribution, and tracking of medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and the recovery and accounting for unused medical materiel, as necessary, after an incident.

Activities Necessary to Achieve Objective:

- Purchase PPE to support health, medical, and veterinary needs during a high consequence infectious disease incident.
- Identify other equipment to support health, medical, and veterinary needs during a high consequence infectious disease incident.

- Purchase supplies and equipment, develop evidence-based Standard Operating Guidelines, create trainings, and conduct exercises relating to safety and security of drugs, biologics, and medical devices during an Ebola or other high consequence infectious disease incident.
- Develop public service announcements surrounding social distancing, movement and travel, animals with infectious diseases or exposures, water supply safety, and hygiene.
- Develop a control order template.
- Purchase inventory management and tracking software necessary for effective medical materiel management and distribution.
- Review and update a protocol for medical materiel management and distribution.
- Create trainings for tracking software purchased for effective medical materiel management and distribution.
- Purchase supplies and equipment, develop evidence-based Standard Operating Guidelines, create trainings, and conduct exercises relating to medical countermeasures dispensing during a high consequence infectious disease incident.

Objective 7: Ensure Prevention or Mitigation of Environmental and Other Emerging Threats to Health Occurring in a High Consequence Infectious Disease Incident

Outcome: *The ability to implement strategies for disease, injury, and exposure control in a high consequence infectious disease incident. Strategies can include isolation and quarantine, restrictions on movement and travel advisory/warnings, social distancing, external decontamination, hygiene, and precautionary protective behaviors. All strategies can be maintained and supported by routine surveillance and confirmatory testing.*

By identifying specific threats that can emanate from high consequence infectious diseases and activities to address them, the State recognizes the interrelationships between human health, animal and plant health, environmental hazards, and other emerging threats, such as climate change, antimicrobial resistance, and gaps in food and water safety.

Although public health and medical activities to mitigate the adverse effects of these threats on human health from high consequence infectious diseases are the responsibility of the health sector, the prevention of, protection from, response to, and recovery from environmental and other emerging threats cannot be accomplished by one sector alone. These threats must be mitigated by a multi-sector, interdisciplinary approach which:

- recognizes the blurred lines between disciplines;
- encourages the integration of efforts;
- accepts the overlap of missions in an effort to facilitate collaboration and enhance outcomes; and
- understands some acute incidents require immediate response and management by specific sectors, whereas others present longer-term challenges to be managed by multiple sectors in partnership over many years.

Prevention and mitigation activities should be risk-based and research-informed to ensure that they are targeted to the most pressing threats to public health. Environmental hazards due to high consequence infectious diseases (i.e. medical waste and decontamination) pose special concern to emergency responders and health care workers because of both the potential for worker vulnerability to these threats and the potential effect of such hazards on mitigation and response. Disproportionate exposure to environmental hazards that can have serious adverse health effects persist in low-income and minority populations. The State works with its regional and local partners to eliminate these disparities.

Activities Necessary to Achieve Objective:

- Purchase supplies and equipment, develop evidence-based Standard Operating Guidelines, create trainings, and conduct exercises relating to food safety and defense, as well as agriculture safety and security.
- Purchase lab supplies and equipment needed to test potable water/wastewater if necessary.
- Provide public health input when necessary to assist the Texas Commission on Environmental Quality in the development of protocols for handling potable water/wastewater and solid waste disposal.
- Develop public service announcements in partnership with Texas Commission on Environmental Quality regarding potable water, waste, solid waste disposal, and associated public health issues.
- Conduct workshop trainings and exercises on waste disposal.
- Identify and purchase tablets, software, thermometers, and other supplies for health surveillance and epidemiological investigation.
- Develop an evidence-based Standard Operating Guide for high consequence infectious disease surveillance and epidemiological investigation.
- Create trainings specific to high consequence infectious disease surveillance and epidemiological investigation procedures.
- Create a pocket guide specific to high consequence infectious disease surveillance and epidemiological investigation.
- Conduct exercises on high consequence infectious disease surveillance and epidemiological investigation.
- Assess workforce needs, such as field electronic tablets, ipads, or 'go bags.'
- Purchase supplies and equipment, develop evidence-based Standard Operating Guidelines, create trainings, and conduct exercises relating to vector control.
- Purchase PPE for those engaging in veterinary medical support during a high consequence infectious disease incident.
- Work with Texas Animal Health Commission (TAHC) regarding DSHS roles and responsibilities regarding veterinary medical support.
- Develop public service announcements regarding social distancing, movement and travel, animals with infectious diseases or exposures, water supply safety, and hygiene as they related to non-pharmaceutical intervention.

- Develop template for control orders.
- Purchase water testing supplies, packages, and CAT A/B specimen supplies for public health laboratory testing needs.
- Purchase RT-PCR lab instruments, freezers, computers, autoclaves, etc. needed for public health testing (i.e. for blood and urine samples).
- Develop computer-based algorithm documents for the packing and transport lab samples involved in high consequence infectious disease.
- Create a pocket guide specific to Ebola patient blood and tissue sample issues and other laboratory testing needs.
- Develop a computer-based training on algorithm used for the packing and transport of lab samples.

Objective 8: Incorporate Post-Incident Health Recovery into High Consequence Infectious Disease Planning and Response

Outcome: *The ability to collaborate with community partners to plan and advocate for the rebuilding of public health, medical, and mental/behavioral health systems.*

Individuals and families may experience sadness, loss, and stress and may feel overwhelmed by the effort needed to rebuild their lives after they or their community experiences a high consequence infectious disease incident. Rebuilding daily routines and social support networks contribute to physical health, behavioral health, and overall well-being and allow individuals to regain their pre-incident level of self-sufficiency. Supporting individual and families recovering from a high consequence infectious disease outbreak is a critical role for the State. Public health and healthcare services address a wide array of needs from medical care, behavioral health care, health surveillance, to other support services crucial to community recovery.

Displaced and at-risk individuals—particularly children, seniors, people with disabilities, and other underserved populations—require continuity of care and access to public health, healthcare, and mental/behavioral health services. Gaps or delays in services can destabilize their health and well-being. Recovery benefits from a community-wide and unified approach that focuses on fostering partnerships among:

- individuals and their families;
- the private-sector businesses;
- non-governmental organizations;
- faith-based groups;
- voluntary organizations / VOAD
- schools (K-12) and higher education academic institutions; and
- all forms of government (i.e., local, state, territorial, tribal, and federal).

Activities Necessary to Achieve Objective:

- Purchase supplies and equipment, develop evidence-based Standard Operating Guidelines, create trainings, and conduct exercises relating to community and healthcare system recovery during a high consequence infectious disease incident.

Objective 9: Work with Other States to Enhance National Health Response and Recovery Activities in a High Consequence Infectious Disease Incident

Outcome: *The ability to meet the demand for public health and medical resources and enhance resilience of healthcare systems to deliver coordinated and effective care in a high consequence infectious disease incident.*

The preparedness of the United States for an Ebola or other high consequence infectious disease incident is dependent on, and interrelated with, the preparedness of the states. High consequence infectious diseases potentially move freely across borders and around the globe through air, land, and sea transport of people and goods – all of which provide points of entry into the United States. Such incidents can result in socio-political instability and/or economic stress that could negatively impact the public or economic health of the United States. The global nature of manufacturing and supply chains for food, water sources, medicines, diagnostics, vaccines, personal protective equipment, medical devices, and other health care supplies can be vulnerable in national emergencies, thus requiring national cooperation to ensure the reliability and sustainability of their supply and their safety.

To prepare for, prevent, detect, respond to, mitigate, and recover from negative public health events, the State must coordinate internally and with state partners. Building on a solid platform of existing relationships, mechanisms, and programming, efforts must be cooperatively aligned with those of other states. A broad base of stakeholders from other states provides additional resources, implementation support, and technical guidance as well as the opportunity for the State of Texas to learn from the experiences of other states.

Activities Necessary to Achieve Objective:

- Purchase PPE necessary for interstate patient movement during a high consequence infectious disease incident.
- Develop an evidence-based Standard Operating Guide for interstate patient transport and evacuation.
- Conduct workshops to train healthcare workers responsible for transporting patients with a high consequence infectious disease across state lines.
- Conduct exercises on the interstate movement of high consequence infectious disease patients.

Objective 10: Ensure That All Systems in a High Consequence Infectious Disease Incident Are Based on the Best Available Science, Evaluation, and Quality Improvement Methods

Outcome: *Develop and utilize tools to ensure continuous improvement of systems supporting public health and medical response in a high consequence infectious disease incident.*

This objective seeks to identify and integrate the processes and infrastructure needed to ensure that the best available evidence-based science is incorporated into all planning, training, and response activities associated with a high consequence infectious disease incident. Evaluation and quality improvement methods must be part of evidence-based standard operating procedures for all systems that support State preparedness. By leveraging existing work and establishing evidence-based Standard Operating Guidelines and infrastructure, the State can systematically apply a science-based approach to policy making and practice.

Improving Ebola and other high consequence infectious disease preparedness requires frequent progress reviews. Evaluation and monitoring of strategic goals, objectives, capabilities, and improvement processes must be incorporated into preparedness efforts at all levels. The State has an important role in implementing the activities and achieving the outcomes of this objective. However, successful implementation will require an ongoing effort among local, regional, and state government as well as nongovernmental and private stakeholders. Each of these sectors has a role to play in contributing to the State evidence base and should strive to incorporate evaluations and quality improvement mechanisms into their business processes.

Activities Necessary to Achieve Objective:

- Purchase supplies and equipment, develop documents, create trainings, and conduct exercises that reflect preparedness excellence and evidence-based best practices.

Appendix A. Acronym Legend

Acronym Legend	
CONOPs	Concept of Operations
DBHS	Disaster Behavioral Health Section
DCPS	Division for Disease Control and Prevention Services
DSHS	Department of State Health Services
EI	Exceptional Item
ELC	Epidemiology and Laboratory Capacity
ETC	Ebola Treatment Center
FY	Fiscal Year
HAI	Healthcare Acquired Infection
HCID	High Consequence Infectious Disease
HEPRS	Health Emergency Preparedness and Response Section
HHS	United States Department of Health and Human Services
HHSC	State of Texas Health and Human Services Commission
HPP	Hospital Preparedness Project
HSR	Health Service Region
IDPS	Infectious Disease Prevention Section
IDRU	Infectious Disease Response Unit
LHD	Local Health Department
LRN	Laboratory Response Network
LSS	Laboratory Services Section
MHSAS	Division for Mental Health and Substance Abuse Services
PHEP	Public Health Emergency Preparedness
PPE	Personal Protection Equipment
RLHS	Division for Regional and Local Health Services
RFP	Request for Proposal
SOG	Standard Operating Guidelines
UTMB	University of Texas Medical Branch

Public Health Preparedness Capabilities: 1 - 15		
Healthcare Preparedness Capabilities: eight in total / 1, 2, 3, 5, 6, 10, 14, 15		
National Response Framework / Emergency Support Function #8 Core Functional Areas: 17 in total		
1	Public Health/Healthcare #1	Community/Healthcare System Preparedness
2	Public Health/Healthcare #2	Community/Healthcare System Recovery
3	Public Health/Healthcare #3	Emergency Operations Coordination
4	Public Health #4	Emergency Public Information and Warning
5	Public Health/Healthcare # 5	Fatality Management
6	Public Health/Healthcare #6	Information Sharing
7	Public Health #7	Mass Care
8	Public Health #8	Medical Countermeasure Dispensing
9	Public Health #9	Medical Materiel Management and Distribution
10	Public Health/Healthcare #10	Medical Surge
11	Public Health #11	Non-Pharmaceutical Interventions
12	Public Health #12	Public Health Lab Testing
13	Public Health #13	Public Health Surveillance and Epidemiological Investigation
14	Public Health/ Healthcare #14	Responder Safety and Health
15	Public Health/Healthcare #15	Volunteer Management
16	NRF / ESF #8 Core Functional Area 01	Assessment of public health/medical needs
17	NRF / ESF #8 Core Functional Area 02	Health surveillance
18	NRF / ESF #8 Core Functional Area 03	Medical Surge
19	NRF / ESF #8 Core Functional Area 04	Health/medical/veterinary equipment and supplies
20	NRF / ESF #8 Core Functional Area 05	Patient movement
21	NRF / ESF #8 Core Functional Area 06	Patient care
22	NRF / ESF #8 Core Functional Area 07	Safety and security of drugs, biologics, and medical devices
23	NRF / ESF #8 Core Functional Area 08	Blood and tissues
24	NRF / ESF #8 Core Functional Area 09	Food safety and defense
25	NRF / ESF #8 Core Functional Area 10	Agriculture safety and security
26	NRF / ESF #8 Core Functional Area 11	All hazard public health and medical consultation, technical assistance, and support
27	NRF / ESF #8 Core Functional Area 12	Behavioral health care
28	NRF / ESF #8 Core Functional Area 13	Public health and medical information
29	NRF / ESF #8 Core Functional Area 14	Vector control
39	NRF / ESF #8 Core Functional Area 15	Guidance on potable water/wastewater and solid waste disposal
31	NRF / ESF #8 Core Functional Area 16	Mass fatality management, victim identification, and decontaminating remains
32	NRF / ESF #8 Core Functional Area 17	Veterinary medical support

Appendix C. HCID/Ebola Projects Report

Texas Preparedness Strategy Objective	Texas Preparedness Strategy Outcome	Capability	Project	Project Elements	Total Cost	Section Ownership: HEPRS, DCPS, LSS, DBHS	Project Completion Date and Comments
1. Foster informed, empowered individuals and communities by promoting Ebola and infectious disease awareness.	1. Communities will have the ability to prepare for, withstand, and recover in an Ebola or infectious disease incident.	C01 • C02 Community / Healthcare System Preparedness and Recovery	Local funding allocations	Local Health Department PHEP Ebola Supplemental Allocation for local preparedness activities.	$3,480,165	HEPRS	September 30, 2016
1. Foster informed, empowered individuals and communities by promoting Ebola and infectious disease awareness.	1. Communities will have the ability to prepare for, withstand, and recover in an Ebola or infectious disease incident.	C01 • C02 Community / Healthcare System Preparedness and Recovery	Local funding allocations	Hospital Preparedness Program (HPP) Ebola Preparedness allocations to current HPP contractors for local preparedness activities.	$2,487,686	HEPRS	This amount represents 70% of total allocation to HPP contractors for distribution in Years 1-2 (expiration 5/17/2017).
1. Foster informed, empowered individuals and communities by promoting Ebola and infectious disease awareness.	1. Communities will have the ability to prepare for, withstand, and recover in an Ebola or infectious disease incident.	C01 • C02 Community / Healthcare System Preparedness and Recovery	Local funding allocations	Hospital Preparedness Program (HPP) Ebola Preparedness allocations - Recipients to be determined for continuation of local preparedness activities	$1,081,453	HEPRS	This amount represents 30% of total allocation to HPP contractors for Years 3-5 (5/18/2017 - 5/17/2020). Recipients to be determined.
1. Foster informed, empowered individuals and communities by promoting Ebola and infectious disease awareness.	1. Communities will have the ability to prepare for, withstand, and recover in an Ebola or infectious disease incident.	C01 • C02 Community / Healthcare System Preparedness and Recovery	State Health Service Regions (HSR) Ebola Supplemental Allocation	State HSR PHEP Ebola Supplemental Allocation for local and regional preparedness activities.	$418,821	HEPRS	September 30, 2016
2. Develop and maintain the workforce needed for an Ebola or infectious disease incident.	2. The public health and healthcare workforce will have the ability to direct and support an Ebola or infectious disease incident with public health or medical implications.	C03 • Emergency Operations Coordination C06 • Information Sharing	Regional Workshops	Planning and execution of eight regional workshops for the purpose of planning, training and exercise.	$800,000	HEPRS	September 30, 2016

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2. Develop and maintain the workforce needed for an Ebola or infectious disease incident.	2. The public health and healthcare workforce will have the ability to direct and support an Ebola or infectious disease incident with public health or medical implications.	C03 • Emergency Operations Coordination C06 • Information Sharing	Regional Workshops and HCID Website (txidr.org)	Videography of select training sessions and targeted HCID modules (Ebola 101, MERS, PPE Donning & Doffing) to be posted on UT/DSHS collaborative HCID website for ongoing	$344,600	HEPRS	Conclusion of workshops
2. Develop and maintain the workforce needed for an Ebola or infectious disease incident.	2. The public health and healthcare workforce will have the ability to direct and support an Ebola or infectious disease incident with public health or medical implications.	C03 • Emergency Operations Coordination C06 • Information Sharing	Ebola Project Management for Selected Projects	One staff to support selected Ebola projects.	$150,000	HEPRS	COMPLETED June 15, 2015
2. Develop and maintain the workforce needed for an Ebola or infectious disease incident.	2. The public health and healthcare workforce will have the ability to direct and support an Ebola or infectious disease incident with public health or medical implications.	C03 • Emergency Operations Coordination C06 • Information Sharing	Infectious Disease Response Units (IDRUs)	Plan, develop, implement, and evaluate four to eight infectious disease response teams to include training and exercising.	$4,000,000	HEPRS	77% of project (represented by $3,065,000) completed by June 30, 2017 remaining 23% (or $935,000) of project completed by May 17, 2020
3. Ensure situational awareness within an Ebola or infectious disease incident. 5. Ensure timely and effective communication in a high consequence infectious disease incident.	3. Public health and healthcare leaders will have the ability to conduct multijurisdictional, multidisciplinary exchange of health-related information and situational awareness among federal, state, local territorial and tribal levels of government, and the private sector in an Ebola or infectious disease incident. 5. Public health and healthcare system leaders will have the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders in a high consequence	C04 • Emergency Public Information and Warning	Situational Awareness Platform	Plan, develop, implement and evaluate a situational awareness platform	$1,150,000	HEPRS	Exact funding per biennium $1,062,500 Year 1 (expiration: 8/31/2016) $87,500 Year 2 (expiration: 8/31/2017)

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3. Ensure situational awareness within an Ebola or infectious disease incident. 5. Ensure timely and effective communication in a high consequence infectious disease incident.	3. Public health and healthcare leaders will have the ability to conduct multijurisdictional, multidisciplinary exchange of health-related information and situational awareness among federal, state, local territorial and tribal levels of government, and the private sector in an Ebola or infectious disease incident. 5. Public health and healthcare system leaders will have the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders in a high consequence	C04 • Emergency Public Information and Warning	Bi-Directional Communications Platform	Plan, develop, implement and evaluatea web-based application to facilitate contact investigations, information dissemination, and contact monitoring activities.	$1,150,000	DCPS and HEPRS	Exact funding per biennium $1,062,500 Year 1 (expiration: 8/31/2016) $87,500 Year 2 (expiration: 8/31/2017)
4. Foster integrated, scalable public health and health care delivery systems in an Ebola or infectious disease incident.	4. Public health and healthcare leaders will have the ability to provide adequate medical evaluation and care, as well as ensure support of fatality management services that exceed the capacity of the normal medical infrastructure of an affected jurisdiction during an Ebola or infectious disease incident.	C03 • Emergency Operations Coordination C06 • Information Sharing	Statewide Symposium	Planning and execution of a statewide symposium to include lessons learned, gaps, and mitigation strategies identified from the eight regional workshops, concluding with a tabletop exercise.	$402,665	HEPRS	September 30, 2016
4. Foster integrated, scalable public health and health care delivery systems in an Ebola or infectious disease incident.	4. Public health and healthcare leaders will have the ability to provide adequate medical evaluation and care, as well as ensure support of fatality management services that exceed the capacity of the normal medical infrastructure of an affected jurisdiction during an Ebola or infectious disease incident.	C05 • Fatality Management C07 • Mass Care C10 • Medical Surge	Ebola Treatment Center (ETC) allocation	Ebola Treatment Center, Texas Children's Hospital, Houston, Texas, for the purpose of planning and maintaining heightened awareness for triage, transport, and treatment of confirmed Ebola patients within the State of Texas.	$1,000,000	HEPRS	May 17, 2020 eight (8) pediatric beds

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4. Foster integrated, scalable public health and health care delivery systems in an Ebola or infectious disease incident.	4. Public health and healthcare leaders will have the ability to provide adequate medical evaluation and care, as well as ensure support of fatality management services that exceed the capacity of the normal medical infrastructure of an affected jurisdiction during an Ebola or infectious disease incident.	C05 • Fatality Management C07 • Mass Care C10 • Medical Surge	Ebola Treatment Center (ETC) allocation	Ebola Treatment Center, University of Texas Medical Branch, Galveston, Texas, for the purpose of planning and maintaining heightened awareness for triage, transport and treatment of confirmed Ebola patients within the State of Texas.	$1,000,000	HEPRS	May 17, 2020 two (2) adult or pediatric beds
4. Foster integrated, scalable public health and health care delivery systems in an Ebola or infectious disease incident.	4. Public health and healthcare leaders will have the ability to provide adequate medical evaluation and care, as well as ensure support of fatality management services that exceed the capacity of the normal medical infrastructure of an affected jurisdiction during an Ebola or infectious disease incident.	C05 • Fatality Management C07 • Mass Care C10 • Medical Surge	Ebola Treatment Center (ETC) allocation	Ebola Treatment Center, University of Texas Medical Branch, Galveston, TX, for the purpose of planning and maintaining heightened awareness for triage, transport and treatment of confirmed Ebola patients within HHS FEMA Region VI (TX, AR, LA, OK, NM)	$983,700	HEPRS	This amount represents 30% of total allocation for Years 2-5 (5/17/2017 - 5/17/2020)
6. Promote responder safety and health.	6. Public health and healthcare leaders will have the ability to provide adequate caches of PPE.	C09 • Medical Materiel Management and Distribution C14 • Responder Safety and Health	Personal Protective Equipment (PPE)	Identification and purchase of compatible PPE for statewide use, to include storage costs.	$698,494	HEPRS	PHEP expiration: 9/30/2016 HPP expiration: 5/17/2020

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7. Ensure prevention or mitigation of environmental and other emerging threats occurring in an Ebola or infectious disease incident.	7. Public health and healthcare leaders will have the ability to implement strategies for disease, injury, and exposure control in an Ebola or infectious disease incident. Strategies can include the following: Isolation, Restrictions on movement and travel advisory/warnings, social distancing, external decontamination, hygiene, and precautionary protective behaviors. All strategies can be maintained and supported by routine	C12 • Public Health Laboratory Testing	Laboratory Response	Laboratory Safety/Security upgrades and renovations	$1,200,000	LSS	August 31, 2017
			Laboratory Response	Upgrades and ongoing maintenance of system in order to enhance specimen result reporting to providers. Includes hiring 3.0 FTEs	$900,000	LSS	August 31, 2017
			Laboratory Response	Hire two (2) laboratorians to support 24/7/365 testing capability for Ebola testing.	$200,000	LSS	August 31, 2017
			Laboratory Response	Purchase of laboratory equipment.	$300,000	LSS	August 31, 2017
			Laboratory Response	Laboratory of specific CDC directed lab equipment for ten (10) Laboratory Response Network (LRN) facilities	$2,916,236	LSS	September 30, 2016
7. Ensure prevention or mitigation of environmental and other emerging threats occurring in an Ebola or infectious disease incident.	7. Public health and healthcare leaders will have the ability to implement strategies for disease, injury, and exposure control in an Ebola or infectious disease incident. Strategies can include the following: Isolation, Restrictions on movement and travel advisory/warnings, social distancing, external decontamination, hygiene, and precautionary protective behaviors. All strategies can be maintained and supported by routine surveillance and confirmatory testing.	C13 • Public Health Surveillance and Epidemiological Investigation	Epidemiological Surveillance and Response	Healthcare Acquired Infection (HAI) Control Assessment and Response	$1,080,075	IDPS	March 31, 2018

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			Epidemiological Surveillance and Response	Funds to support expansion of epidemiology staff in Local Health Departments (LHDs)	$4,500,000	IDPS	August 31, 2017
			Epidemiological Surveillance and Response	Funds to support expansion of Dept. of State Health Services epidemiology staff	$900,000	IDPS	August 31, 2017
			Epidemiological Surveillance and Response	State epidemiology team training.	$250,000	IDPS	August 31, 2017
			Epidemiological Surveillance and Response	Purchase of tablets and thermometers for field epidemiologists.	$106,999	IDPS	September 30, 2016
			Epidemiological Surveillance and Response	Ebola assessment hospital site visits.	$251,921	IDPS	March 31, 2018
8. Incorporate post-incident health recovery into high consequence infectious disease planning and response.	8. Public health and healthcare leaders will have the ability to collaborate with community partners to plan and advocate for the rebuilding of public health, medical, and mental/behavioral health systems.	C03 • Emergency Operations Coordination C06 • Information Sharing	Regional Workshops	Disaster behavioral health component of the eight regional workshops	$100,000	DBHS	Conclusion of workshops

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9. Work with other HHS Region VI states to support response and recovery activities in a high consequence infectious disease incident.	9. The healthcare system will have the ability to meet the demand for medical resources to provide effective care in an Ebola or infectious disease incident.	C05 • Fatality Management C07 • Mass Care C10 • Medical Surge	Ebola Treatment Center (ETC) allocation	Ebola Treatment Center, University of Texas Medical Branch, Galveston, TX, for the purpose of planning and maintaining heightened awareness for triage, transport and treatment of confirmed Ebola patients within HHS FEMA Region VI , or TALON (TX, AR, LA, OK, NM)	$2,245,925	HEPRS	This amount represents 70% of total allocation for distribution in Year 1 (expiration date: 5/17/2016)
10. Ensure that all systems that support a high consequence infectious disease incident are based on the best available science, evaluation, and quality improvement methods.	10. Public health and healthcare system leaders will have the ability to develop and utilize tools to ensure continuous improvement of systems supporting public health and medical response in a high consequence infectious disease incident.	C01 • C02 Community / Healthcare System Preparedness and Recovery	Indirect	Indirect costs	$1,423,835		September 30, 2016 for PHEP funded portion of project • May 17, 2020 for HPP funded portion of project
					$35,522,575		

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