Biological Incident Annex

Planning Team

Coordinating Agency: KDHE	**Primary Agency:** KDHE
Supporting Agencies: • KDEM • KHP • KSBEMS • KSNG • KDOC • SRS • KDOT • Kansas Department of Education • KBI • Kansas Division of Printing • Kansas Board of Pharmacy	**NGOs:** • Kansas Pharmacists Association • Kansas Hospital Association
Federal Agencies:	**Private Sector:**

Introduction

This annex supports policies and procedures outlined in the ESF #8, ESF 10, ESF #13, and ESF 15.

Infectious Diseases and Bioterrorism

Infectious diseases are human or animal illnesses caused by microscopic agents, including viruses, bacteria, parasites, and fungi or by their toxins. They may be spread by direct contact with an infected person or animal, ingesting contaminated food or water, vectors such as mosquitoes or ticks, contact with contaminated surroundings such as animal droppings, infected droplets, or by aerosolization.

One aspect of modern infectious disease control is the realization that infectious agents have the potential of being used by individuals or groups who wish to cause illness, panic, and confusion in the civilian population for personal or political reasons. For the purpose of this plan, bioterrorism (BT) will be defined as *the intentional or threatened use of viruses, bacteria, fungi, or toxins from living organisms to produce death or disease in humans, animals, or plants and to disseminate terror among the population*.

The state's public health care providers must be prepared to rapidly identify and contain a wide range of biological agents, including pathogens rarely seen in the U.S. The CDC and its partners have developed a list of critical agents that might be used in biological terrorism. The highest priority agents (category A) are organisms that are believed to pose an immediate risk to national security because they exhibit one or more of the following characteristics:

a. May be easily disseminated or transmitted from person to person;
b. May cause high mortality, with potential for major public health impact;
c. Are likely to cause public panic and social disruption; and
d. Require special action for public health preparedness.

Category B diseases and agents are the second highest priority. These agents include those that:

a. Are moderately easy to disseminate;
b. Result in moderate morbidity rates and low mortality rates; and
c. Require specific enhancements of CDC's diagnostic capacity and enhanced disease surveillance.

Category C consists of the third highest priority and includes emerging pathogens that could be engineered for mass dissemination in the future because of:

a. Availability;
b. Ease of production and dissemination; and
c. Potential for high morbidity and mortality rates and major health impact.

A list of all of these agents is available on the CDC Website at
(http://emergency.cdc.gov/agent/agentlist-category.asp).

CDC Bioterrorism Agents by Category

Category A

1) Anthrax (Bacillus anthracis)
2) Botulism (Clostridium botulinum toxin)
3) Plague (Yersinia pestis)
4) Smallpox (variola major)
5) Tularemia (Francisella tularensis)
6) Viral hemorrhagic fevers (filoviroses [e.g., Ebola, Marburg] and arenaviruses [e.g., Lassa, Machupo])

Category B

1) Brucellosis (*Brucella* species)
2) Epsilon toxin of *Clostridium perfringens*
3) Food safety threats (e.g., *Salmonella* species, *Eschericha coli* 0157:H7, *Shigella*)
4) Glanders *(Burkholderia mallei)*
5) Meliodosis *(Burkholderia pseudomallei)*
6) Psittacosis *(Chlamydia psittaci)*
7) Q fever *(Coxiella burnetii)*
8) Ricin toxin from *Ricinus communis* (castor beans)
9) Staphylococcal enterotoxin B

10) Typhus fever (*Rickettsia prowazekii*)
11) Viral encephalitis (alphaviruses [e.g., Venezuelan equine encephalitis, eastern equine encephalitis, western equine encephalitis])
12) Water safety threats (e.g., *Vibrio cholerae*, *Cryptosporidium parvum*)

Category C

Emerging infectious diseases such as Nipah virus and hantavirus

Purpose

The purpose of the Kansas Biological Incident Annex (BIA) is to outline the actions, roles, and responsibilities associated with response to a disease outbreak of known or unknown origin requiring state assistance. Actions described in this annex take place with or without a declaration of emergency. This annex outlines biological incident response actions including threat assessment, notification procedures, laboratory testing, joint investigative/response procedures, management of the SNS and activities related to recovery. Specific, detailed information is maintained in the KDHE Internal Operating Guidelines for BIA activation.

Scope

The broad objectives of the state's response to a bioterrorism event, pandemic influenza, or an emerging infectious disease, are to:

a. Detect the incident through disease surveillance and/or environmental monitoring;
b. Characterize and monitor the outbreak to determine the best interventions;
c. Identify and protect the population(s) at risk;
d. Determine the source of the outbreak;
e. Quickly frame public health, medical, and law enforcement implications;
f. Control and contain any possible epidemic (including providing guidance to local public health authorities);
g. Augment public health and medical service surge capacity;
h. Track and contain any potential resurgence or additional outbreaks and,
i. Assess the extent of residual biological contamination and decontaminate as necessary.

Each individual response will include traditional as well as unique components which will require separate planning considerations that are tailored to specific health concerns and effects of the agent (e.g., terrorism vs. natural outbreaks; communicable vs. non-communicable, etc.). Specific operational guidelines will be developed by the appropriate organizations to address the unique aspects of a particular disease or planning consideration. These documents will not be included in the KRP, and are intended as guidance to be used by state and local public health and medical planners.

Situation

Federal Authority

Presidential Decision Directive 5 *U.S. Policy on Domestic Incidents* outlines a national approach treating crisis and consequence management as an integrated function. The secretary of DHS is the principal federal

official for domestic incident management. Pursuant to the Homeland Security Act of 2002, the secretary is responsible for coordinating federal operations within the U.S. to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies.

Generally acting through the FBI, the attorney general, in cooperation with other federal departments and agencies engaged in activities to protect our national security, shall also coordinate the activities of the other members of the law enforcement community to detect, prevent, preempt, and disrupt terrorist attacks against the U.S. Following a terrorist threat or an actual incident that falls within the criminal jurisdiction of the U.S., the full capabilities of the U.S. shall be dedicated, consistent with U.S. law and with activities of other federal departments and agencies to protect our national security, to assisting the attorney general to identify the perpetrators and bring them to justice.

Federal assistance may be provided to state and local authorities in enforcing their quarantine and other health regulations pursuant to Section 311 of the Public Health Service Act (42 U.S.C.243(a)). In addition, while intrastate control of communicable diseases generally may be the purview of state and local officials, CDC's domestic quarantine regulations authorize federal intervention "in the event of inadequate local control" (42 C.F.R..70.2 and 21 C.F.R.1240.30).

Under the authority of Section 361 of the Public Health Service Act (42 U.S.C.264), the secretary of HHS may issue regulations necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the U.S. and from one state or possession into another. The statute defines interstate movement to include authority over individuals who might expose other persons engaged in travel to other states. The current implementing regulations, found at 42 C.F.R. Part 70, authorize:

a. Imposition of permit requirements by the surgeon general for interstate travel, or travel on conveyances engaged in interstate traffic, applicable to any person in the communicable period of smallpox, or who, having been exposed to smallpox, is in the incubation period (42 C.F.R.70.5(a))
b. Federal enforcement of state-required travel permits (42 C.F.R.70.3); and
c. Imposition of disease mitigation requirements and reporting for interstate carriers transporting infected individuals or those suspected of infection (42 C.F.R.70.5(b) and70.4).

In addition, these regulations, through Section 70.2, authorize action by the CDC in the event that measures taken by local and state health authorities are insufficient to prevent the spread of smallpox to other states. The director of the CDC is empowered to "take such measures to prevent such spread of the diseases as he/she deems reasonably necessary, including inspection, fumigation, disinfection, sanitation, pest extermination, and destruction of animals or articles believed to be sources of infection." This section, in conjunction with other sections of the interstate quarantine regulations, authorizes the apprehension and examination of "any individual reasonably believed to be infected with a communicable disease in a communicable stage," so long as the individual either is "moving or about the move from a state to another state," or is "a probable source of infection to individuals who, while infected with such diseases in a communicable stage, will be moving from a state to another state."

State Authority

Preparedness and response for bioterrorism incidents are the primary responsibility of KDEM (K.S.A. 48-905a. See, also, K.S.A. 48-904(d) for the definition of 'disaster'.), with KDHE having a lead role for the public health components. This KDHE plan represents the main reference document for these public

health preparedness activities. KDEM supports training at the local level and provides planning standards for use in local emergency operations plans (K.A.R 56-2-1). K.S.A. 48-926 requires KDEM to prepare and maintain a state disaster Emergency Operations Plan (EOP), and K.S.A. 48-927 requires the maintenance of a state resources management plan. This KDHE plan (as well as annexes, attachments, and supporting internal operating guidelines) will provide the EOP with details necessary for and effective response to an infectious disease emergency.

Prevention of the introduction to the state and the spread within the state of a bioterrorism incident is a responsibility of KDHE and the primary duty of local health departments, through public health surveillance and follow-up activities (See, K.S.A. 65-118, K.S.A 65-119, K.S.A 65-123, K.S.A. 65-126, K.S.A. 65-128(b) and K.S.A. 65-129a-65-129e). K.S.A. 65-101(a)(2) authorizes the secretary of Health and Environment to "investigate the causes of disease, including especially, epidemics..."

Consequence management for emergencies at the state level is the primary responsibility of KDEM (See, K.S.A. 48-907(e), (i)). KDHE supports KDEM with technical advice regarding the public health measures necessary to contain the effects of bioterrorism incidents and to treat victims. The CEPR was created to facilitate a coordinated effort for mitigation, preparedness, response, and recovery from emergencies and disasters in the state, as defined in K.S.A. Chapter 48, Article 9, (Kansas Emergency Management Act). Members of the CEPR include the agency head or designee from various state, local, and private entities. For the charter and complete list of members go to: http://www.kansas.gov/kdem/commissions/index.shtml .

Authority for the management of public health threats is given to the Secretary of Health and Environment in several state laws. Some instances of this authority include: (1) K.S.A. 65-101(a)(5) in which the secretary is given the authority to "take action to prevent the introduction of infectious or contagious disease into this state and to prevent the spread of infectious or contagious disease within this state... [as well as] adopt rules and regulations necessary to carry out [those] provisions..." (K.S.A. 65-101(b)). (2) K.S.A 65-126, which authorizes the secretary to quarantine cities, townships and counties when necessary to prevent the spread of epidemic. (3) K.S.A. 65-128, which directs the secretary to compile a list of infectious or contagious diseases and to adopt such rules and regulations as are necessary regarding the isolation and/or quarantine of persons affected by contagious and infectious diseases. (4) K.S.A. 65-129, which further fortifies the secretary's authority by stating "Any person violating, refusing or neglecting to obey any of the rules and regulations adopted by the secretary of health and environment for the prevention, suppression and control of infectious or contagious diseases... shall be guilty of a class C misdemeanor."

In any disaster that is declared by the governor, broad emergency powers are delegated to the TAG.

Local Authority

By state law, counties represent independent public health jurisdictions, however, K.S.A. 12-16, 117 encourages local jurisdictions to work together to " ...establish a policy regarding the provision of assistance to other municipalities and public safety agencies...located within or without the state of Kansas... [and] shall include the procedure for the provision of assistance during times of disaster." Immunity from liability is included in that statute.

Local officials and agencies have a key role and legal responsibility in the preparedness and response to bioterrorism incidents. The authority given to local health officers for isolation and quarantine is

similar to that given to KDHE as described above. K.A.R. 28-1-5 states that "When conditions of isolation and quarantine are not otherwise specified by regulation, the local health officer or the secretary of health and environment shall order and enforce isolation and quarantine of persons afflicted with or exposed to infectious or contagious diseases. The duration and manner of isolation or quarantine so ordered shall be based upon the incubation period, communicable period, and usual mode of transmission of the infectious agent of the disease for which isolation or quarantine is ordered."

K.S.A. 65-129 reinforces the authority of the local health officer to isolate or quarantine by declaring any person "who leaves any isolation area of a hospital or other quarantined area without the consent of the local health officer having jurisdiction, or who evades or breaks quarantine or knowingly conceals a case of infectious or contagious disease" guilty of a class C misdemeanor.

K.S.A. 65-129(a), (b), and (c) define “infectious disease”, authorize the use of isolation and quarantine including enforcement, and outline the rules of procedure in such cases.

Although legal authority for isolation and quarantine is well described in the state laws, this authority has seldom been used in recent years for diseases other than tuberculosis, primarily because of the decreased frequency of epidemics or other situations that would require measures restrictive of individual freedom, and the availability of other control measures. Isolation for sick individuals is often enforced for short periods, but usually on a voluntary basis.

Counties are to have CEOPs and are to have submitted a copy of their plans to the CEPR. KDEM supports training at the local level and provides planning standards for use in local emergency operations plans (K.A.R 56-2-1). All local public health agencies in the state were required by KDHE to submit their “Biological Incident Annexes” to KDHE to be included as an incident annex to the CEOP.

Other Authority/Legal Issues

KDHE has legal authority to require physicians and laboratory directors to report specific diseases, conditions, or laboratory test results in an appropriate and timely manner. The state’s disease reporting regulations were amended in 2000 to include the requirement to report potential bioterrorism agents and suspected bioterrorism events. These regulations were amended again in 2004 to include Severe Acute Respiratory Syndrome (SARS).

Other guidelines outlining authority for the response to biological weapons include PDD-62, *Combating Terrorism* and PDD-63, *Critical Infrastructure Protection*, issued in May 1998, and public Law 104-201, Title XIV, *The Defense Against Weapons of Mass Destruction Act of 1996*. PDD 62 and 63 provide a four-part initiative focused on biological weapons. They call for a national surveillance system based on the public health system; provision of local authorities with necessary equipment and training; stockpiles of vaccines and specialized medicines; and research/development programs to guide development of new and better medicines and vaccines. Subsequent chapters of this plan will individually address these topics and their relevance to BT preparedness in the state.

The U.S. Congress recently addressed the issue of liability protection for health care providers during times of smallpox and smallpox-related emergencies; Section 304 of the Homeland Security Act has alleviated some of these liability concerns.

Planning Assumptions and Considerations

Importance of Public Health at the Local Level

A naturally occurring infectious disease outbreak is almost always identified after public and private health care providers at the local level have identified a sufficient number of cases of the disease to attract the attention of the public health surveillance system at the local, state, or federal level. This often occurs through "passive surveillance" that relies upon local providers informing public health officials about the suspected disease or clusters of illness. It is believed that "active surveillance" systems, which elicit information from providers, would improve the response through earlier detection and intervention. An unannounced act of BT must be detected based on appearance of symptomatic or diagnosed individuals identified at the local level. Detection capabilities at the local level vary considerably from jurisdiction to jurisdiction, as does the level and efficiency of communications between public and private health care providers and KDHE. The affected area may eventually include one local community, several communities, unincorporated areas of the state, other states, neighboring countries, or multiple countries around the world.

Any disease outbreak suspected or identified by a local entity will be brought to the immediate attention of the state epidemiologist per Kansas Reportable Disease Regulations. A listing of reportable diseases in the state may be located at http://www.kdheks.gov/epi/download/KANSAS_NOTIFIABLE_DISEASE_FORM.pdf.

In a large disease outbreak, local, tribal, state, and federal officials require a highly coordinated response to public health and medical emergencies. The outbreak also may affect other states and countries and therefore involves extensive federal coordination. It is also important to remember that disease transmission by any mode is possible. Response to public health emergencies with pathogens that have person-to-person transmission will require a different response than those that are not spread from person-to-person.

A biological incident is often distributed across multiple jurisdictions simultaneously, which may require an incident management approach. This approach will facilitate the simultaneous management of multiple "incident sites" from across the state, region, and nation.

The introduction of biological agents, both natural and deliberate, are often first detected through clinical or hospital presentation and this is historically how emerging pathogens have been identified. However, there are other unevaluated methods of detection, including syndromic surveillance that may be useful in specific areas.

No single entity possesses the authority, expertise, and resources to act unilaterally on the many complex issues that may arise in response to a disease outbreak and loss of containment affecting a multi-jurisdictional area. State and federal response will require close coordination with numerous agencies at all levels of government and from within the private sector.

The state will support affected local health departments and healthcare entities as requested or required. The response by KDHE and other state agencies will be flexible and adapt as necessary as the outbreak evolves.

The Laboratory Response Network (LRN) provides for rapid diagnosis or screening. The LRN has procedures in place for law enforcement notification necessary to initiate threat assessment for criminal intent, and chain of custody procedures. Early involvement of both KDHE and law enforcement enhances the chance for successful preventative and investigative activities necessary to neutralize threats and attribute the source of the outbreak.

Test results from non-LRN facilities, such as the State Sentinel Laboratories, will be considered a “first pass,” “screening” or presumptive test. Any agency or organization that identifies an unusual or suspicious test result should contact KDHE to ensure coordination of testing at a CDC-certified LRN laboratory. Kansas Health and Environmental Laboratories (KHEL) are first receivers for samples. A determination will be made by CDC as to whether the samples will be tested at KHEL or sent to a higher level LRN laboratory.

Special Considerations for Bioterrorism

Detection of a BT act against the civilian population may occur in several different ways and involve several different modalities.

An attack may be surreptitious, in which case the first evidence of a dissemination of an agent may be the presentation of disease or death in humans or animals. This could manifest either in clinical case reports to public health authorities, in unusual patterns of symptoms, or encounters within domestic or international health surveillance systems.

A terrorist-induced infectious disease outbreak initially may be indistinguishable from a naturally occurring outbreak. Moreover, depending upon the particular agent and associated symptoms, several days or even weeks could pass before public health and medical authorities even suspect that terrorism may be the cause. In such a case, criminal intent may not be apparent until sometime after illnesses are recognized.

The U.S. Postal Service may detect certain biological agents within the U.S. Postal System. Detection of a biological agent in the mail stream will trigger specific response protocols outlined in agency-specific standard operating procedures. This should always include early reporting to public health locally, statewide, and nationally.

Response to disease outbreaks suspected of being deliberate in origin requires consideration of special law enforcement and homeland security requirements, as well as traditional outbreak management skills. All threat and public health assessments are provided to the KIFC.

Roles and Responsibilities

KDHE serves as the primary agency for the public health and medical preparation, planning for and response to a BT attack or naturally occurring outbreak that results from either a known or novel pathogen. In this role KDHE provides epidemiological support to local health and medical entities, provides microbiological subject matter expertise, provides patient sample collection guidance and provides state level incident coordination between local, state, and federal response agencies.

Local health departments are primarily responsible for detecting and responding to disease outbreaks and implementing measures to minimize the health, social, and economic consequences of such an outbreak. Included in these activities are primary epidemiological investigations, incident management activities with local

response organizations, conducting mass medication dispensing, and implementing community disease containment measures.

If there is an overt threat or any indications that any instance of disease may not be the result of natural causes, the KBI should be notified promptly through the KS CRIME (1-800-KS-CRIME) information line. The KBI will respond by conducting a threat assessment and initiating a criminal investigation, and arranging for the collection, transport, and forensic testing/examination of evidentiary samples. The LRN member, KHEL will be used to test samples for the presence of biological threat agents and may be used to characterize the pathogen or toxin as well. KHEL is a member of the LRN, a Food Emergency Response Network member, and is a level 2 clinical chemistry laboratory with an extensive list of confirmatory capabilities in each specialty. Decisions on where to perform any additional tests on samples will be made by CDC and KDHE, in coordination with the KBI. KBI acknowledges that public health is the lead agency and the KBI has a supporting role.

Other departments and agencies may be called upon to support KDHE during the various stages of a disease outbreak in the preparation, planning, and/or response processes.

Concept of Operations

Biological Agent Response

The key elements of an effective biological response include (in non-sequential order):

a. Rapid detection of the outbreak;
b. Swift agent identification and confirmation;
c. Identification of the population at risk;
d. Determination of how the agent is transmitted, including an assessment of the efficiency of transmission;
e. Determination of susceptibility of the pathogen to prevention and treatment;
f. Definition of the public health, medical, and mental health implications;
g. Control and containment of the outbreak;
h. Decontamination of individuals, if necessary;
i. Identification of law enforcement implications/assessment of the threat;
j. Augmentation of local health and medical resources;
k. Protection of the population through appropriate public health and medical actions;
l. Dissemination of information to enlist public support;
m. Assessment of environmental contamination and cleanup/decontamination of bioagents that persist in the environment; and,
n. Tracking and preventing secondary cases or additional disease outbreak.

Primary state functions include supporting local public health and medical capacities as detailed in the KRP and the ESF #8.

Suspicious Substances

Since there is no definitive/reliable field test for any biological agent, KDHE-screened samples will be transported to the KDHEL where expert analysis will be conducted using established CDC protocols and

reagents. A major component of this process is to establish and maintain the law enforcement chain of custody and arrange for transport.

The following actions will occur if the KHEL obtains a positive result:

a. KHEL will immediately notify the local FBI Field Office of the test result.
b. The FBI Field Office will make all notifications.
c. FBI Headquarters will convene a conference call with local FBI, HHS, and KDHE to review the results, assess the preliminary information, and arrange for additional testing.
d. Original specimens or isolates may be sent to the CDC or other national laboratory for additional confirmatory testing.
e. HHS will provide guidance on protective measures such as prophylactic treatment and continued facility operation.

Given the dynamic nature of a disease outbreak, thresholds for a comprehensive state response will be determined by KDHE based upon the specific event information rather than pre-determined risk levels.

Once notified of a credible threat or natural disease outbreak, KDHE will convene a meeting of key KDHE staff and appropriate partners to assess the situation and determine the appropriate public health and medical actions. The KDEM will coordinate overall non-medical support and response actions across all state departments and agencies. If there is potential for environmental contamination, KDHE develops sampling strategies and shares results.

KDHE will develop sampling strategies coordinated with the KBI for evidentiary chain of custody and share results with its partners associated with disease outbreaks suspected of being terrorist or criminal in nature.

Incident Management Actions

Outbreak Detection

Determination of a Disease Outbreak

The initial indication of a major disease outbreak, intentional or naturally occurring, may be the recognition by local public health and medical authorities that a significantly increased number of people are becoming ill and presenting to local health care providers. Therefore, the most critical decision-making support will require surveillance information, determination that an outbreak exists, a determination of whether the observations are or are not related to a naturally occurring outbreak, and identification of the population(s) at risk. Identification of the causative biological agent is desirable, but not critical in outbreak identification. To assist local and state personnel in the investigation and identification of various infectious diseases, the KDHE/Bureau of Surveillance and Epidemiology maintains reportable disease protocols. The protocols were written to provide technical assistance with local surveillance and disease investigation and can be located on the KDHE website at http://www.kdheks.gov/epi/diseaseprotocols.htm .

Field Screening of Laboratory Samples

All suspicious field samples (i.e. white powders) that will be delivered to a laboratory must be field screened prior to submission. Response agencies should field screen samples for explosivity, radioactivity, and corrosivity. KDHE has cooperated with the FBI, the CST, and KSFMO HazMat teams to ensure that appropriate field screening measures have been put in place for any submitted samples.

Laboratory Confirmation

During the evaluation of a suspected disease outbreak, specimens are distributed to appropriate laboratories. During a suspected terrorist event, specimen result information is provided to the FBI for investigative use and to public health and emergency response authorities for epidemiological use and agent characterization to facilitate and ensure timely public health and medical interventions. If the incident begins as an epidemic of unknown origin detected through federal, state, local or tribal health surveillance systems or networks, laboratory analysis is initiated through the health care sentinel laboratories. Samples that are unable to be confirmed by a sentinel laboratory are then sent to KHEL or another LRN laboratory as directed by CDC.

Identification (Analysis and Confirmation)

The samples being collected and the analyses being conducted must be sufficient to characterize the cause of the outbreak. LRN laboratories fulfill the federal responsibility for providing rapid analysis of biological agents. In a suspected terrorism event, sample collection activities and testing are coordinated with the FBI and KHEL.

Following initial notification of a suspected or identified BT-related outbreak to the state epidemiologist, the procedures detailed in ESF #8 will be followed, including follow-up notification to agencies and jurisdictions. Instances of disease that raise the “index of suspicion,” as determined by HHS will be reported to the FBI Field Office. In these instances, FBI, in conjunction with HHS, KIFC and KDHE, will examine available law enforcement and intelligence information, as well as the technical characteristics and epidemiology of the disease, to determine if there is a possibility of criminal intent. If the FBI, in conjunction with HHS and KDHE, determines that the information represents a potential credible terrorist threat, the FBI will communicate the situation to the DHS National Operations Center (NOC). If warranted, the FBI, HHS, tribal, state, and local public health officials will conduct a joint law enforcement and epidemiological investigation to determine the cause of the disease outbreak, the extent of the threat to public health and public safety, and the individual(s) responsible.

Activation

However caused and however detected, the immediate task following any notification will be to identify and characterize the outbreak. The initial public health and medical response will include some or all of the following modalities:

1) Targeted epidemiological investigation (e.g., contact tracing);
2) Active surveillance within health care settings for patients matching initial case definition;
3) Other supplemental surveillance and follow-up activities including collection and review of potentially related information (e.g., contacts with nurse call lines, laboratory test orders, and over-the-counter pharmacy sales); and

4) Organization of state and regional public health and medical response assets (in conjunction with local, federal, and tribal officials) to include personnel, medical supplies and materiel (e.g. SNS).

Controlling the Outbreak

The following steps are required to contain an outbreak affecting large populations:

1) KDHE will assist local public health and medical authorities with surveillance and coordination of related regional surveillance activities.
2) KDHE will determine the need for enhanced surveillance in localities not initially involved and will notify the appropriate public health officials with surveillance recommendations should increased surveillance in these localities be needed.
3) KDHE will coordinate with KDEM on the messages released to the public so that communications are consistent and accurate. Messages should aim to alleviate anxiety and encourage public adherence to recommended control measures.
4) The public health system, starting at the local level, is required to initiate appropriate protective and responsive intervention measures for the affected population. These measures may include mass vaccination or prophylaxis for unexposed high-risk populations and unexposed populations who are at risk of exposure from secondary or environmental transmission. It may also include mass treatment for diseased population. An overarching goal is to develop, as early as possible in the management of a BT incident, a dynamic, prioritized list of treatment and preventive recommendations based on epidemiologic risk assessment and the biology of the disease/microorganism in question, linked to the deployment of the SNS and communicated to the general public.
5) The secretary of KDHE evaluates the event with partner organizations and makes recommendations to the appropriate public health and medical authorities regarding the need for quarantine, shelter-in-place, isolation or other public health measures to prevent the spread of disease. KDHE coordinates with the Secretary's Emergency Response Team (SERT) from HHS to ensure all applicable federal resources are requested if needed.
6) The Secretary of KDHE implements isolation, social-distancing requirements, and other public health measures using state legal authorities. In order to prevent the interstate spread of disease, HHS may take appropriate federal actions using the authorities granted by U.S.C. title 42, 42 C.F.R. parts 70 and 71, and 21 C.F.R. 1240. State, local, and tribal assistance with the implementation and enforcement of isolation and/or quarantine actions is utilized if federal authorities are invoked.
7) Where the source of the outbreak has been identified as originating outside of the U.S., whether the result of terrorism or a natural outbreak, HHS works in a coordinated effort with DHS/ Customs and Border Protection to identify and isolate persons, cargo, mail, or conveyances entering the U.S. that may be contaminated.
8) The scope of the outbreak may require mass isolation or quarantine of affected or potentially affected persons. Depending on the type of event, food, animals, and other agricultural products may need to be isolated or quarantined to prevent further spread of the disease. In this instance HHS and, as appropriate, the USDA work with state, local, and tribal health and legal authorities to recommend the most feasible, effective, and legally enforceable methods of isolation and quarantine.
9) KDHE and KDEM will work with local health departments to ensure that all populations requiring special consideration will be planned for and assisted as needed. These populations

may include individuals with mobility issues, individuals with developmental disorders, elderly, homebound, transient, homeless, infants, children, pregnant women, and others. Populations requiring special assistance are dependent upon the event occurring, therefore, KDHE and KDEM will work with local health officials to ensure all populations are provided for equally.

Decontamination

For certain types of biological incidents (e.g., aerosolized anthrax), it may be necessary to assess the extent of contamination and decontaminate victims, responders, animals, equipment, buildings, critical infrastructure (e.g. water utilities), and large outdoor areas. Such decontamination and related activities take place consistent with the roles and responsibilities, resources and capabilities, and procedures contained in ESF #8 and ESF #10. (Note: Currently no decontamination chemicals are registered [under the Federal Insecticide, Fungicide, and Rodenticide Act] for use on biological agents, and responders must request an emergency exemption from the EPA before chemicals can be used for biological decontamination.)

Isolation and Quarantine Procedures

Isolation is defined as the separation, for the period of communicability, of infected persons or animals from others, in places and under conditions that prevent the direct or indirect conveyance of the infectious agents from those infected to those who are susceptible or who may spread the agent to others.

Quarantine is defined as the limitation of freedom of movement of well persons or domestic animals that have been exposed to a communicable disease.

Responding to an infectious disease emergency may require the use of a variety of emergency public health and containment measures, at both the individual and community or population level. These measures may include:

1) Monitoring of presumed infected individuals and their contacts,
2) Isolation,
3) Quarantine,
4) Suspension of large public gatherings, closing of public places, restriction of travel [air, rail, water, motor vehicle, and pedestrian], and/or “cordon sanitarian” [literally a “sanitary cord” or line around a quarantined area guarded to prevent spread of disease by restricting passage into and out of the area]. The use of voluntary procedures should always be the goal if the situation warrants it epidemiologically.
5) Active disease surveillance or other enhanced disease surveillance efforts.

During an infectious disease emergency, the secretary of KDHE or the secretary’s designee at KDHE will designate a person or persons to coordinate with federal authorities all activities related to isolation or quarantine and the care of specific persons or groups of people under those conditions. KDHE will also work with local health agencies to ensure that populations requiring additional attention such as the elderly, those with cognitive impairments, homeless, and others, receive appropriate care during quarantine or isolation periods. In the state, public health authorities (through the secretary of KDHE or the local public health officer) have the power to

quarantine individuals in order to control the spread of disease. The enforcement of such an order may be difficult and will be the responsibility of local, state, or federal law enforcement agents. The least ominous, least intrusive method is preferable since it would decrease the spread of panic and prevent the use of force.

When implementing the quarantine of an individual, community, or other population, requirements necessary to terminate quarantine measures must be considered. For individuals, ongoing monitoring for disease manifestations for the longest usual incubation or communicable period for the disease will determine the effectiveness of quarantine activities. For outbreaks of emerging diseases where the incubation period and communicable period is unknown, the secretary of KDHE or the secretary's designee at KDHE will coordinate efforts with HHS and others to be least restrictive and most effective using the most current data available. At the population level, continued surveillance for lack of new cases in the quarantined area, and no demonstrated spread to contiguous geographic areas for one to two incubation periods will be important measures of containment and control activities. The responsible local health officer or the secretary of KDHE or the secretary's designee will make these decisions (with input from appropriate medical professionals) based on appropriate evidence from epidemiological fieldwork.

Isolation of suspected infectious patients is necessary to prevent person-to-person transmission of the disease. State hospitals have identified the need to increase the state capability for negative pressure isolation through preparedness efforts since 2002. Currently, every community hospital in the state has the capability to maintain a minimum of one infectious patient in negative pressure isolation. Each state preparedness region has a minimum of one facility that can maintain a minimum of 10 patients in negative pressure isolation. In the case of a suspected infectious disease outbreak, hospitals will utilize these negative pressure isolation capabilities in concert with their own isolation procedures, including the use of respiratory and other protective equipment, to limit and eliminate the further transmission of the disease.

The first line of authority to activate legally enforced isolation and quarantine procedures in the state is at the local level, through the local health officer. KDHE will adopt isolation and quarantine orders if a local health officer fails to take appropriate action, or after a state emergency declaration.

Quarantine orders will likely require enforcement by local public health officers, local law enforcement, the KHP, and possibly the KSNG. Coordination between these officials will take place via the local command center and emergency management structure.

Expanded Surveillance

Under certain circumstances, such as an increased level of alert in the state or in the country, active or expanded surveillance activities will be initiated in the state. This will be implemented through a network of sentinel sites, through which information will be collected, that is more detailed than what is available through traditional passive surveillance mechanisms. Each metropolitan area in the state with a population of over 10,000 (in the state there are about 25 jurisdictions that meet this criterion) may include at least one sentinel site.

Sentinel surveillance sites will include hospital emergency rooms, laboratories, health care providers, and large childcare facilities. Possible sources to identify participants include the

influenza-like illness network, already in place for several years, and the clinical public health response network described above. These sites will report their information to KDHE through one of the KDHE information systems. If active surveillance is implemented, staff from KDHE or local health departments will contact each site regularly (e.g., daily or weekly) to collect information on the health events of interest at the site during the previous period.

Public Information Issues

When a disease outbreak appears in a community, there is often little or no information initially available regarding the outbreak or the agent causing it. Once an outbreak of an infectious disease is discovered and made public, there is a need for public information from a credible medical or public health source. The size of the affected area, the severity of the disease, and the speed that the disease is spread may correlate with media interest and involvement.

Bioterrorism-related or suspected BT-related outbreaks are certain to generate a very high level of public and media interest. The overt release of a biological agent affecting the public or its water and food supply will require the release of rapid, credible public health information. For the purpose of the control of public concern and panic, the ability to rule out the credibility of an announced attack that never took place (e.g., a hoax) is as critical as the ability to confirm that the attack was indeed perpetrated.

During a local emergency, the local public information officer has the primary responsibility to coordinate all public information functions. The identity of that local public information officer for BT events has been determined in the county's emergency operations plan, often by agreement of the local emergency management coordinator and the local public health administrator, but always with the approval of the county commission. If requested, the KDHE Office of Communications will assist with the coordination and dissemination of public information in a local public health emergency.

KDHE maintains a Crisis Emergency Risk Communications Plan that details the agency response to a BT crisis by relaying pertinent public health information to the public through various media outlets. The plan contains Job Action Sheets, lists of identified spokespersons, and roles and responsibilities for KDHE management and staff.

Any public announcement, statement, or press release related to a threat or actual BT event must be coordinated through the JIC or the KDHE director of communications, as outlined in ESF #15. Sentinel surveillance sites will include hospital emergency rooms, laboratories, health care providers, and large childcare facilities. Possible sources to identify participants include the influenza-like illness network, already in place for several years, and the clinical public health response network described above. These sites will report their information to KDHE through one of the KDHE information systems. If active surveillance is implemented, staff from KDHE or local health departments will contact each site regularly (e.g., daily or weekly) to collect information on the health events of interest at the site during the previous period.