

KANSAS HIGHLY INFECTIOUS DISEASE AND PANDEMIC PLAN

Version 3.0
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Kansas Response Plan
Biological Incident Annex
Attachment 1

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Introduction

Experts agree a pandemic is inevitable. To prepare for the next pandemic, the Kansas Department of Health and Environment (KDHE), in cooperation with local and state partners, has developed this Kansas Highly Infectious Disease and Pandemic Plan, which provides an overview of strategies to reduce highly infectious disease or pandemic related morbidity, mortality, and social disruption in the state. This plan consists of a combination of the former Kansas Ebola Preparedness and Response Plan, Kansas Pandemic Influenza Plan, and other pandemic disease planning concerns.

Influenza viruses are unique in their ability to cause sudden illness among humans in all age groups on a global scale. The importance of influenza viruses as biologic threats is due to several factors including the high degree of transmissibility, the presence of a vast reservoir of novel variants (primarily aquatic birds) and the unusual properties of the viral genome. The infamous “Spanish flu” of 1918-19 was responsible for more than 20 million deaths worldwide, primarily among young adults. Mortality rates associated with recent pandemics of 1957 and 1968 were reduced in part using antibiotic therapy for secondary bacterial infections and aggressive supportive care of infected patients. However, these later pandemics were associated with high rates of morbidity and social disruption. Although the 2009 influenza A H1N1 pandemic influenza virus had a low pathogenicity, mortality was reduced in part due to national implementation of community disease mitigation measures developed as part of pandemic influenza planning. The Centers for Disease Control and Prevention (CDC) estimates the economic loss associated with the next severe pandemic will be in the billions of dollars.

Coronaviruses vary significantly in risk factor. Some can kill more than 30% of those infected, such as MERS-CoV, and some are relatively harmless, such as the common cold. Coronaviruses can cause colds with major symptoms, such as fever, and a sore throat from swollen adenoids. Coronaviruses can cause pneumonia (either direct viral pneumonia or secondary bacterial pneumonia) and bronchitis (either direct viral bronchitis or secondary bacterial bronchitis). The human coronavirus discovered in 2003, SARS-CoV, which causes severe acute respiratory syndrome (SARS), has a unique pathogenesis because it causes both upper and lower respiratory tract infections.

Six species of human coronaviruses are known, with one species subdivided into two different strains, making seven strains of human coronaviruses altogether. Four human coronaviruses produce symptoms that are generally mild, even though it is contended they might have been more aggressive in the past:

- Human coronavirus OC43 (HCoV-OC43), β -CoV
- Human coronavirus HKU1 (HCoV-HKU1), β -CoV
- Human coronavirus 229E (HCoV-229E), α -CoV
- Human coronavirus NL63 (HCoV-NL63), α -CoV

Three human coronaviruses produce potentially severe symptoms:

- Severe acute respiratory syndrome coronavirus (SARS-CoV), β -CoV (identified in 2003)
- Middle East respiratory syndrome-related coronavirus (MERS-CoV), β -CoV (identified in 2012)

- Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), β -CoV (identified in 2019)

These cause the diseases commonly called SARS, MERS, and COVID-19 respectively.

Viral hemorrhagic fever viruses may also impact multiple countries at a same time or become a pandemic agent. Ebola virus causes Ebola hemorrhagic fever (Ebola HF), one of numerous viral hemorrhagic fevers. Ebola HF is a severe, often fatal disease in humans and nonhuman primates (such as monkeys, gorillas, and chimpanzees) that is caused by infection with a virus of the family Filoviridae, genus Ebolavirus. The first Ebolavirus species was discovered in 1976 in what is now the Democratic Republic of the Congo near the Ebola River. Since first being discovered in 1976, there have been more than 30 events of cases and outbreaks of Ebola virus disease (range: 1 human case to 425 human cases prior to the outbreaks in West Africa that began in 2014).

There are five identified subspecies of Ebolavirus. Four of the five have caused disease in humans: Ebola virus (Zaire ebolavirus); Sudan virus (Sudan ebolavirus); Taï Forest virus (Taï Forest ebolavirus, formerly Côte d'Ivoire ebolavirus); and Bundibugyo virus (Bundibugyo ebolavirus). The fifth, Reston virus (Reston ebolavirus), has caused disease in nonhuman primates, but not in humans.

The natural reservoir host of Ebola virus remains unknown. However, based on available evidence and the nature of similar viruses, researchers believe that the virus is zoonotic (animal-borne) with bats being the most likely reservoir. Four of the five subtypes occur in an animal host native to Africa.

A host of similar species is probably associated with Reston virus, which was isolated from infected cynomolgus monkeys imported to the United States and Italy from the Philippines. Several workers in the Philippines and in U.S. holding facility outbreaks became infected with the virus, but did not become ill.

Situation

Respiratory Disease Background

Influenza is an illness caused by viruses that infect the respiratory tract of humans. Signs and symptoms of influenza infection include rapid onset of high fever, chills, sore throat, runny nose, severe headache, nonproductive cough, and intense body aches followed by extreme fatigue. Influenza is a highly contagious illness and can be spread easily from one person to another. It is spread through contact with droplets from the nose and throat of an infected person during coughing and sneezing. The period between exposure to the virus and the onset of illness is usually about two days, although it can range from 1-5 days. Patients are most infectious during the 24 hours before the onset of symptoms and for 3-5 days after onset of illness. Influenza is highly contagious and persons who are sub-clinically infected (show no signs of illness) can transmit the virus. Influenza is not an endemic disease, but in the northern hemisphere annual epidemics usually occur from December through April.

There are two types of influenza viruses that cause significant disease in humans: type A and type B. Only influenza A has been known to cause pandemics. Influenza A viruses are composed of two major antigenic structures essential to the production of influenza vaccines and the induction of immunity: hemagglutinin (H) and neuraminidase (N). Influenza A viruses are unique because they can infect both humans and animals; most influenza A viruses are considered to be avian in origin. Worldwide avian influenza control efforts are coordinated by the World Organization for Animal Health (OIE). The state animal agency (i.e., Kansas Department of Agriculture, Division of Animal Health (KDA)) would play a role in these efforts.

Pandemic as an Emergency

Pandemic diseases are a unique public health emergency. Since the novel virus may be identified in any region of the world, experts believe that no more than 1-6 months would pass from the identification of a novel virus to widespread outbreaks in the United States. Outbreaks are expected to occur simultaneously throughout much of the nation, so re-allocation of human and material resources is not a practical option.

Historically, influenza pandemics and the COVID-19 pandemic have occurred in ‘waves’ and it is expected this will happen with future pandemics. A pandemic wave (a time period during a pandemic when increased numbers of people are becoming sick) can last as long as 6-8 weeks. As a result of this, the World Health Organization (WHO) and the CDC have defined phases of a pandemic in order to facilitate coordinated plans. These actions are described throughout this plan. Based on experience from recent influenza responses, CDC has updated the framework to provide greater detail and clarity regarding pandemic influenza planning. The document, *Updated Preparedness and Response Framework for Influenza Pandemics*, is available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6306a1.htm>.

In addition, Kansas is continually integrating the use of federally defined Public Health Emergency Preparedness, Healthcare Emergency Capabilities and the influenza planning ‘intervals.’ Tied to surveillance, this integration will allow for a timelier response at the local and state levels. This “trigger” system further sensitizes the response infrastructures and ties actions directly to those already linked to the Pandemic Severity Assessment Framework (PSAF). Decision process algorithms may be utilized in conjunction with both local and state standard operating guidelines to better orient the state response to a pandemic.

Viral Hemorrhagic Fever as an Emergency

On 30 September 2014, the CDC confirmed the first imported case of Ebola Virus Disease (EVD) in the United States in a person in Dallas, Texas who had traveled from Liberia. This patient was hospitalized at Texas Presbyterian Hospital, and died on Wednesday, 08 October 2014. On 12 October 2014, a health care worker at Texas Presbyterian Hospital who provided care for the index patient tested positive for EVD. On 15 October 2014, a second health care provider who had provided care to the same index patient tested positive for EVD.

Although Ebolavirus transmission from an infected patient to two health care providers was

documented in the Texas case, sustained transmission of EVD in Kansas or the United States is highly unlikely. However, in the event of future outbreaks of EVD, cases among persons with recent travel to EVD-affected countries is possible.

Health care workers are advised when evaluating any patient with signs and symptoms compatible with an infectious disease to obtain a thorough travel and exposure history and ensure that such history is communicated to the entire care team to assist with clinical decision-making. If a patient meets the case definition for EVD, has signs and symptoms compatible with EVD, and traveled to affected countries in the preceding 21 days, they should be immediately be isolated with appropriate protections put in place to protect public and personal health.

Examples of viral hemorrhagic fever outbreaks that involved multiple countries include:

- Cocoliztli Epidemic (1545-1548)
- Democratic Republic of the Congo Ebola Outbreak (Oct 2021-current)
- Guinea Ebola Outbreak (Feb 2021-June 2021)
- West Africa Ebola Outbreak (2014-2016)

Influenza, Coronavirus, Respiratory Disease Planning Assumptions and Considerations

The following are assumptions to provide a basis for preparedness activities pertaining to pandemics:

- Pandemics and highly infectious diseases may have very mild or very severe morbidity, mortality, and economic impacts to individuals and society. Authorities should be ready with a scalable response system to address this spectrum. This plan intends to address a severe pandemic scenario and allows for such scalable response implementation based upon the specifics of the pandemic.
- Outbreaks can be expected to occur simultaneously throughout much of the U.S., making shifts in human and material resources that usually occur in response to other disasters untenable.
 - Localities should be prepared to rely on their own resources to respond.
 - As with many public health emergencies, the effect of pandemics on individual communities will be relatively prolonged (weeks to months) in comparison with other types of disasters.
- Anticipating a high attack rate associated with severe pandemic viruses, the number of persons affected in the U.S. is expected to be similarly high and it is estimated that:
 - Up to 200 million people will become infected
 - Between 38 million and 89 million may be clinically ill
 - Between 18 million and 42 million may require outpatient care
 - Between 314,000 and 734,000 may require hospitalization
 - Between 89,000 and 207,000 may die
 - The national estimates for pandemic infections, illnesses, outpatient visits, hospitalizations, and deaths are taken from Meltzer MI, Cox NJ, Fukuda K. The economic impact of pandemic influenza in the United States. *Emerging Infectious*

Diseases 1999;5:659-71. Available at http://wwwnc.cdc.gov/eid/article/5/5/99-0507_article.htm.

- In Kansas it is estimated that, in a severe pandemic:
 - Between 229,000 and 535,000 persons may require outpatient care
 - Between 5,000 and 11,700 may require hospitalization
 - Between 1,200 and 2,700 individuals may die
 - Kansas estimates are taken from a software program that uses 2010 census figures to calculate state-specific numbers. Meltzer MI, Shoemaker HA, Kownaski M, Crosby R, 2000. FluAid 2.0: A manual to aid state and local-level public health officials plan, prepare and practice for the next influenza pandemic (Beta test version). Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. Though a new model is not available, KDHE anticipates that the current numbers will be higher especially in a severe pandemic.
- Healthcare workers and other first responders may be at higher risk of exposure and illness than the general population, further straining the healthcare system.
- Effective prevention and therapeutic measures, including vaccine and antiviral medications, will likely be delayed and in short supply.
- Widespread illness in the community could increase the likelihood of sudden and potentially significant shortages of personnel in other sectors that provide critical public safety services.
- Public and private partners have been brought into the planning process and systems for communications among the partners are in place.
- Pandemic and highly infectious disease planning will be integrated into all-hazards preparedness activities.
- Influenza-like illness (ILI) surveillance is already in place.
- Mass prophylaxis clinic protocols are developed.

The following compose the anticipated federal roles in pandemic and highly infectious disease preparedness and response:

- Disease surveillance in the U.S. and globally
- Epidemiological investigation in the U.S. and globally
- HHS and CDC will assess potential pandemic risk for a novel virus on the basis of the likelihood of an emergency and the public health impact if it were to emerge.
- After a novel virus has achieved efficient and sustained transmission, HHS and CDC will utilize the Pandemic Severity Assessment Framework (PSAF) to characterize the potential impact of a pandemic relative to previous influenza epidemic and pandemic experiences and share those conclusions with state health officials.
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains and reagents for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for national vaccination and antiviral medication use
- Recommendations on measures to decrease transmission (such as travel restrictions, isolation and quarantine)

- Purchase and deployment of federal cache of antiviral medication and vaccine
- Evaluation of the efficacy of response measures
- Deployment of the Commissioned Corps Readiness Force and Epidemic Intelligence Service officers
- Medical and public health communications to the public and health and medical sector organizations
- Identification and training of Principal Federal Officers (PFO) and Federal Coordinating Officers (FCO) to work with State Coordinating Officers (SCO) during pandemic response
- Provision of federal guidance and expectations for exercises

The following compose the state roles in highly infectious disease and pandemic preparedness and response:

- Identification of statewide public and private sector partners needed for effective planning and response
- Development of key components of this plan; planning and coordination, situation monitoring and assessment, prevention and containment, health system response, and communications
- Epidemiologic investigations and analysis statewide
- Identification of priority groups for vaccination based on federal recommendations
- Maintenance of surveillance system, and development and implementation of enhancements as appropriate
- Maintenance and storage of state purchased antiviral medication and equipment cache
- Logistics planning for distribution of antiviral medications and vaccine
- Integration of pandemic planning with other planning activities conducted at the local and state levels
- Coordination with local jurisdictions to ensure development of local plans and guides as outlined by the state plan and provision of resources, such as templates to assist in the planning process
- Development of data management systems needed to implement components of the plan
- Participation with local jurisdictions in developing, exercising, and evaluating their plans
- Coordination with adjoining jurisdictions and states
- Training state staff on roles and responsibilities identified in this plan
- Evaluating exercises and developing improvement plans to maximize state response coordination
- Cooperation with federal partners to enhance laboratory monitoring of seasonal viruses
- Conducting year-round surveillance activities, seasonal influenza analysis, and testing to detect novel subtypes of influenza viruses
- Education of laboratory staff on safe handling of specimens suspected to contain novel viruses and surveillance for influenza-like illness among laboratory personnel

The following compose the anticipated local roles in highly infectious disease and pandemic preparedness and response:

- Identification of local public and private sector partners needed for effective planning and response
- Coordination with adjoining jurisdictions
- Maintenance and exercise of the Emergency Support Function (ESF) 8 component of the County Emergency Operations Plan (EOP), the Biological Incident Annex (BIA), and associated implementation guides including the Mass Dispensing Standard Operating Guide (SOG), Public Information and Communication SOG and other guidance and policy documents, as appropriate and ensure coordination of information with local emergency management coordinators, hospitals and at-risk populations
- Continue to emphasize the importance of annual influenza, pneumococcal, and other vaccines for recommended risk groups during the preparation phases of the pandemic
- Administer a system to estimate the number of persons in priority groups for vaccination and deliver vaccine
- Assure the security of vaccine during storage and delivery when it becomes available
- Plan for the potential of civil unrest due to resource scarcity
- Maintain media relations at the local Joint Information Center (JIC)
- Maintain a 24/7 contact list of key health department staff, local partners and media contacts
- Work with the Kansas Health and Environmental Laboratories (KHEL) to address local laboratory surge capacity issues
- Train personnel in the management of respiratory specimens during a pandemic
- Institute surveillance for influenza-like illness among laboratory personnel working with influenza virus
- Plan for and implement laboratory surge capacity to manage increased numbers of requests for testing
- Send selected specimens from possible pandemic patients to KHEL
- Clinical laboratories that receive diagnostic specimens from patients with suspected novel viruses (based on clinical and epidemiologic data) should contact KDHE

Ebola/VHF Planning Assumptions and Considerations

Symptoms of Ebola HF typically include fever, headache, joint and muscle aches, weakness, diarrhea, vomiting, stomach pain, and loss of appetite. Some patients may also experience a rash, red eyes, hiccups, cough, sore throat, chest pain, difficulty breathing, difficulty swallowing, and bleeding inside and outside of the body.

The typical incubation period (time between exposure and onset of symptoms) is eight to 10 days, though the range is two days to 21 days. Infection(s) occur at the beginning of an outbreak have not been definitively determined. The prevailing hypothesis is that human infections first occur through contact with an infected animal. Ebola virus is not transmitted from person to person through the air, water, or food.

Ebola virus can be transmitted from person to person by:

- Direct contact with the blood or secretions of an infected person

- Exposure to objects (such as needles) that have been contaminated with infected secretions

Diagnosis of EVD during the early course of illness may be difficult because the symptoms are not specific to EVD. If EVD is suspected, several laboratory tests are available to confirm the diagnosis. Additional details regarding laboratory testing are presented in the “Evaluation and Management of Suspected EVD Cases: Information for Health Care Providers, Emergency Medical Services Personnel, and Public Health Officials” section below.

Standard treatment for EVD is still limited to supportive therapy. This consists of:

- Balancing the patient’s fluids and electrolytes
- Maintaining their oxygen status and blood pressure
- Treating them for any complicating infections

Concept of Operations

Organization of the Kansas Highly Infectious Disease and Pandemic Plan

This plan is organized according to the four phases of emergency management and integrates the World Health Organization (WHO) Pandemic Phases along with the corresponding CDC Intervals for influenza and Ebola Virus Disease Phases for Ebola.

Pandemic Phase	Influenza Phase	Ebola Virus Phase
Preparedness Phase	Interpandemic Phase	EVD Preparedness Phase
Planning Phase	Alert Phase	Person Under Investigation Phase
Response Phase	Pandemic Phase	Confirmed Case Phase
Recovery Phase	Transition Phase	

The following preparedness domains are described in each applicable phase/interval: community resilience and incident management, biosurveillance, surge management, information management, and countermeasures and mitigation. This plan has been developed in such a manner as to be scalable to the pandemic incident as it presents. While the plan primarily addresses a scenario of a severe pandemic, the activities and functions may be activated at a lower capacity to address more mild pandemics.

All state and local governments are required to have an emergency operations plan, which addresses all hazards. However, a pandemic is likely to pose unique challenges that may not be addressed in current emergency management plans. To address these challenges, emergency management plans should incorporate a Biological Incident Annex (BIA) maintained by local and state health agencies that include specific pandemic elements. Some of the issues addressed within a BIA include:

- Medical services and healthcare workers may be overwhelmed during a pandemic, and medical supplies may be insufficient.
- Healthcare workers may not be able to provide essential care to all patients in need.

- Unlike the typical disaster, because of increased exposure to the infectious agent, essential community services personnel such as healthcare personnel, law enforcement officers, firefighters, emergency medical technicians and other first responders may be more likely to be affected than the general public.
- A pandemic may also pose significant threats to the human infrastructure responsible for critical community services. This threat will be due in part to widespread absenteeism in the workforce. Significant decreases in the workforce could impact distribution of food, home meal deliveries, day care, garbage collection, utilities, and other critical services.
- Physical infrastructure may be threatened or destroyed if there is civil disorder.

KDHE Bureau of Community Health Systems (BCHS) staff members have developed local SOG templates that address details of implementing local response plans, including contact lists for partner organizations and resource owners, step-by-step operational guidelines, job action sheets for key staff and notification procedures. Local health departments have completed the Mass Dispensing SOG, which describes how mass vaccination and pharmaceutical dispensing clinics will be conducted. They have also completed SOGs that describe specific actions regarding community disease containment, public information and continuity of operations.

Pandemic Phase	World Health Organization (WHO) Phases		Centers for Disease Control & Prevention (CDC) Intervals		Ebola Virus Phase	
Preparedness Phase	Interpandemic Phase	Period between influenza pandemics	Investigation: Investigation of novel influenza A infection in humans or animals	Identification of novel influenza A infection in humans or animals anywhere in the world with potential implications for human health	EVD Preparedness Phase	Period between multi-national Ebola disease outbreaks

Community Resilience and Incident Management

The KDHE Secretary or their designee, will lead the state response to a pandemic or any other highly infectious disease emergency in Kansas. Local health departments are also encouraged to develop and implement a structured parallel system of pandemic and highly infectious disease preparedness.

Community Preparedness

The KDHE Secretary has designated a Pandemic Preparedness Committee (PPC) to develop this Kansas Highly Infectious Disease and Pandemic Plan and to provide guidance to local health departments regarding local plan development. The members of the PPC will advise the KDHE Secretary on issues related to their specific areas of expertise for implementation of the state’s public health response to a pandemic. Members of the PPC are listed in Table 1.

Table 1 Pandemic Preparedness Committee (PPC) Members
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KDHE Secretary	Deputy Secretary for Public Health
State Epidemiologist	KHEL Health Section Chief
Preparedness Director, Bureau of Community Health Systems	Director, Kansas Health and Environmental Laboratories (KHEL)
State Health Officer	Kansas Medical Countermeasures Program Coordinator, Bureau of Community Health Systems
Deputy State Epidemiologist	Section Chief, Kansas Immunization Program
Communications Director	Emergency Management Director, Office of the Secretary
Director, Bureau of Disease Control and Prevention	Other subject matter experts as needed

All of the members of the PPC are housed within KDHE. Many other subject matter experts within and outside of KDHE are available to provide advice and support to the PPC. By serving as the state’s health authority, KDHE provides direction, guidance, technical assistance, and other support to communities to mitigate, prepare for, respond to, and recover from infectious disease emergencies. Novel diseases, such as Ebola virus disease, coronaviruses, and influenzas, require KDHE to promote sound scientifically based public health preparedness measures for all health and medical sector entities and the general population.

The PPC will review this Kansas Highly Infectious Disease and Pandemic Plan at least annually and recommend updates. The KDHE Emergency Management Director will be responsible for updating the plan document. Annual plan updates are posted to the KDHE website (http://www.kdheks.gov/cphp/download/KS_PF_Plan.pdf) each January.

Activities of the PPC are briefed at the Kansas Commission on Emergency Planning and Response, which meets quarterly. The agencies represented for each of these committees are listed in [Appendix D](#).

The Kansas Division of Emergency Management (KDEM) is responsible for promulgating standards for local emergency planning. Staff from KDHE and KDEM collaborated to develop the standards for Emergency Support Function (ESF) 8 – Health and Medical and for the local BIA template. Local pandemic response is described in local BIAs. The Kansas Highly Infectious Disease and Pandemic Plan is housed within the state BIA as Attachment 1.

Kansas has a decentralized system of 117 enhanced 9-1-1 centers, which serve as the Public Safety Answering Points (PSAPs) for Kansas communities. To facilitate local preparedness, the U.S. Department of Transportation has released the document “Preparing for Pandemic Influenza: Recommendations for Protocol Development for 9-1-1 Personnel and Public Safety Answering Points (PSAPs)” which may be accessed at <http://www.nhtsa.gov/people/injury/ems/PandemicInfluenza/>. The Kansas Highway Patrol has a central communication center that conducts activities similar to PSAPs (with respect to dispatching emergency responders) and may serve as a beneficial guide to local entities.

The Kansas Board of Emergency Medical Services (KBEMS) has written EMS resources that define the role of EMS in preparing for, mitigating and responding to Ebola, COVID-19, and pandemic influenzas. This information is available at https://www.ksbems.org/ems/?page_id=37. A key mission of the agency is to ensure the provision of expedient, effective and efficient assessment, treatment, transport and accountability of casualties of natural or manmade disasters while ensuring employee health and safety.

The State of Kansas continues to build relationships with the private sector, including hospitals, pharmacies and other industries. Various outreach measures have occurred, including forums with industry leaders to discuss further cooperation efforts as well as providing infectious disease-specific information for industry on websites. KDHE will continue to work with KDEM and the U.S. Department of Homeland Security Protective Security Advisor to share information relevant to protecting critical infrastructure, key resources, and industry in general, and to promote preparedness efforts to increase response cooperation and coordination.

Emergency Operations Coordination

KDHE has established the current system of incident management based on the ICS to organize the response to public health, medical and environmental emergencies in Kansas. Throughout this plan, ICS titles are used to identify roles and responsibilities for responding to a highly infectious disease or pandemic incident. Day-to-day position titles are used in the preparation phases of the plan to clearly indicate planning responsibilities.

The KDHE utilizes Incident Activation Levels (IALs) to determine and iterate the proper levels of activation of the KDHE ICS and Department Operations Center (DOC). A chart outlining the IALs is provided in [Appendix B](#). When conditions or criteria suggest a Level 3 activation, KDHE will activate its ICS. This process will be further described later in this plan. KDHE has developed job action sheets and training materials for the Command and General Staff roles.

Local health departments are required to maintain and update plans and SOGs regarding response to emergencies. These plans and SOGs contain specific information regarding mass vaccination clinic activities, communications, and community disease containment. The local SOG templates can be found on the KDHE public website: www.kdheks.gov/cphp/operating_guides.htm.

Components of this plan and implementing SOGs will be exercised at least annually. Evaluations of the exercises will be conducted, and improvement plans will be developed in accordance with the Homeland Security Exercise Evaluation Program (<https://www.fema.gov/hseep>). The Public Health and Healthcare Preparedness Capabilities (<http://www.cdc.gov/phpr/capabilities/>) (<http://www.phe.gov/Preparedness/planning/hpp/reports/Documents/capabilities.pdf>) will be used to evaluate health and medical aspects of the exercises. The recommended updates should be made to this plan and the corresponding SOGs upon completion of after-action reviews.

The Kansas Department of Agriculture (KDA) is responsible for food safety regulation in Kansas, and risk-based inspections are designated as a Priority 1 Essential Service in the KDA Continuity of Operations (COOP) plan. Staff from a variety of programs outside of food safety

may be utilized to conduct inspections and ensure compliance with federal statutes administered by the United States Department of Agriculture (USDA), the HHS Food and Drug Administration (FDA) and KDA.

The point of contact for food safety issues in the event of a pandemic is the Emergency Management Coordinator, Office of the Secretary, Kansas Department of Agriculture. The KDA COOP plan includes an influenza pandemic as a possible threat. This plan ensures that each position designated as critical will be backed up with at least three trained individuals. Currently, the KDA Legislative Researcher and the KDA Public Information Officer (PIO) serve as backup should the KDA Emergency Management Coordinator be unavailable during a food safety emergency. The KDA also works closely with KDHE Bureau of Epidemiology and Public Health Informatics (BEPHI). The BEPHI will most likely receive initial notification of foodborne illness activity and will be a critical component to an effective response to a food safety emergency during a pandemic or any other time. These responsibilities occur on a day-to-day basis and are outlined in statute, the Kansas Response Plan, and agency protocols and procedures.

The KDA COOP plan ensures that two additional personnel are trained and identified for each position currently charged with essential food safety functions. A just-in-time training program is under development that can be used if more than twice the number of staff would be needed in the event of a pandemic.

Food Safety Reporting

In all emergencies in Kansas, local entities report problems and request resources through the county Emergency Operations Center (EOC). This process would not change in a pandemic. Issues are first resolved at the local level, and then mutual aid is utilized if available. Problems and resource requests that cannot be handled at the local level are reported to the Response Section in the State EOC (SEOC). Issues with food safety specifically will be tasked to the ESF 11 desk.

Strategic Goal – Food Safety

Operating objectives for the Kansas Department of Agriculture:

- Ensure all food producers, transporters, retailers and consumers are aware of information and educational resources before, during and after a pandemic.
- Assist farm-to-fork operators with planning for the human resource challenges that may affect their businesses during a pandemic.
- Serve as a source of information for stakeholders regarding state and local actions and resources available to producers.
- Engage in vigorous continuity of operations planning to ensure that the department can continue to provide the necessary services in order to maintain the integrity and safety of the food supply.

The KDA Emergency Management Coordinator serves as the coordinator assigned to prepare the state to carry out critical agriculture programs (ESF 11). The operating objectives for this goal are:

- Ensure that the KDA COOP plans are trained and tested on an annual basis.
- Ensure that USDA nutrition assistance programs are identified as priority programs within each responsible agency.
- Ensure that all COOPs relating to ESF 11 include the identification of backup personnel, cross-training, checklists and notification rosters.
- Ensure that local units of government, the public and agricultural producers are aware of assistance that will and will not be available from the state during a pandemic.

Many Kansans depend on nutritional assistance programs. These programs are managed by a variety of governmental and nongovernmental organizations. In the event of a severe pandemic, many people may be unable to report to work and this may have a major impact on the ability to carry out state-administered programs. The KDA Emergency Management Coordinator is working with the various state program managers to develop and expand on alternate models of delivering these services. Agency COOP plans are currently in development and these nutritional assistance programs will be a priority for each agency responsible for implementing these programs. Local guidance will be developed that describes alternate ways to implement nutritional assistance at the local level. Waivers and executive orders will be drafted that may be utilized to streamline some processes in the event of a pandemic.

Nutritional assistance program status will be reported on a weekly basis to the ESF 11 desk in the SEOC. If there are problems or needs, program managers will also report these to the ESF 11 desk as they occur. In the event of an agriculture emergency, the producers will notify their local EOC. Animal disease emergencies are reported to the local veterinarian and are reported to the Animal Health Commissioner based on signs and symptoms. Animal disease incidents will be also be coordinated through the SEOC; staff from the Division of Animal Health will respond to support the ESF 11 function. Requests for assistance will be routed to the ESF 11 desk in the SEOC.

Community Recovery

The State of Kansas has a Continuity of Government Annex to the Kansas Response Plan that includes Continuity of Operations (COOP) activities and state mission essential functions for state government organizations.

Community resilience and incident management activities during the Interpandemic Period include:

- Identifying issues specific to pandemics
- Meeting with the Commission on Emergency Planning and Response and other emergency planners
- Ensuring that specific challenges posed by a pandemic are addressed in hospital response plans
- Reviewing pertinent legal authorities including:
 - Isolation and quarantine laws

- Laws and procedures for closing businesses or schools and suspending public meetings
- Medical volunteer licensure and liability
- Compensation laws for in-state, out-of-state, and returning retired medical and non-medical volunteers.
- Conducting and participating in exercises with hospitals, local communities, EMS, industry, volunteer groups, state agencies, federal agencies and private businesses.
- Incorporating lessons learned from exercises into improvement plans that are tracked and implemented.

Community Resilience and Incident Management – Centers for Disease Control & Prevention CDC Interval: Investigation		
Deputy Secretary for Public Health, Kansas Department of Health & Environment (KDHE)	Convene state-level task force to review plan and provide input	✓
	Provide direction and leadership to KDHE Pandemic Planning Committee (PPC)	✓
	Work with KDHE Office of Legal Services to review legal authorities	✓
Medical Countermeasures Coordinator, KDHE-Bureau of Community Health Systems (BCHS)	Identify warehouse space to be used for antiviral and vaccine storage and distribution	✓
	Train and exercise the distribution plans	✓
Systems and Outreach Specialist, KDHE-BCHS	Ensure the KDHE Department Operations Center is functional	✓
Emergency Management Director, KDHE-OOS	Coordinate distribution of highly infectious disease and pandemic related planning information to critical infrastructure with Kansas Division of Emergency Management (KDEM) and U.S. Department of Homeland Security (DHS) Protective Security Advisor	✓
	Revise this plan on an annual basis (January)	✓
	Work with state and local agencies to ensure all are aware of various roles and responsibilities identified in this plan and the Kansas Response Plan (KRP)	✓
	Lead the KDHE Continuity of Operations Planning (COOP) group	✓
Immunization Section Chief, KDHE-Bureau of Disease Control & Prevention (BDPC)	Liaison for messaging to ensure it is consistent with CDC and the most recent guidelines associated with immunization	✓
Influenza Surveillance Coordinator, KDHE-Bureau of Epidemiology & Public	Liaison for surveillance data between local, state and federal partners	✓

Health Informatics (BEPHI)		
Kansas Department of Agriculture (KDA)	Ensure all food producers, transporters, retailers and consumers are aware of information and educational resources before, during, and after a pandemic	✓
	Assist farm-to-fork operators with planning for the human resource challenges that may affect their businesses during a pandemic	✓
	Serve as a source of information for stakeholders regarding local and state actions and resources available to producers	✓
	Engage in vigorous continuity of operations planning to ensure that KDA can continue to provide the services necessary to maintain the integrity and safety of the food supply	✓
	Ensure that the KDA COOPs are trained and tested on an annual basis	✓
	Ensure that USDA nutrition assistance programs are identified as priority programs within each responsible agency	✓
	Ensure that all COOPs relating to ESF 11 include the identification of backup personnel, cross-training, checklists and notification rosters	✓
	Ensure that local units of government, the public and agricultural producers are aware of what assistance will and will not be available from the state in a pandemic	✓
All local and state agencies	Continue continuity of operations planning efforts including training staff and exercising of COOPs	✓
Kansas Board of Emergency Medical Services (KBEMS)	Develop local EMS planning guidelines and templates	✓

Biosurveillance

Viruses have constantly changing antigenic properties. Surveillance for highly infectious disease and pandemic viruses must include both laboratory surveillance, in which viruses are isolated for antigenic and genetic analysis, and disease surveillance, in which the epidemiologic features and clinical impact of new variants are assessed. The goals of surveillance are to detect the earliest appearance of a novel virus in Kansas and to describe the epidemiologic features of novel virus circulation.

When a novel virus is identified in humans but is not circulating widely in the human population, it is important to evaluate 1) the risk that the virus will develop efficient and sustained human-to-human transmission and 2) the risk that the virus will substantially affect public health. The Influenza Risk Assessment Tool (IRAT) was developed to facilitate such an assessment. IRAT is used by the U.S. government and the World Health Organization (WHO) Global Influenza Surveillance and Response System as a risk assessment process that involves data gathering,

discussion, and consensus building among subject-matter experts to assign a risk score. Ten predefined risk elements are given a risk score. These 10 elements fall into three categories: 1) attributes that pertain to the biologic properties of the virus (four elements), 2) attributes of the population (three elements), and 3) attributes of the ecology and epidemiology of the virus (three elements). The results of this assessment can be used to decide whether and how to act and communicate concerns regarding both emergency and potential public health impact. As new information becomes available, the scoring can be repeated.

Since most influenza A viruses are avian in origin, it is essential that KDHE work with Kansas Department of Agriculture and USDA in monitoring circulating animal viruses, especially highly pathogenic avian influenza. KDA has developed a plan to cull poultry in response to detection of highly pathogenic avian influenza. Plans include the provision of personal protective equipment (PPE) and prophylaxis of workers at risk for exposure to the viruses. KDHE will work with KDA to ensure that workers who have been exposed and become symptomatic are treated, to decrease the risk of producing a pandemic strain of influenza by re-assortment of virus.

Public Health Surveillance and Epidemiological Investigation

The BEPHI, in cooperation with the Kansas Health and Environmental Laboratories (KHEL), maintains Kansas' involvement in year-round national influenza surveillance coordinated by the CDC. The BEPHI and KHEL assume primary responsibility for implementing and coordinating virologic morbidity and mortality surveillance components in Kansas and compliance with future recommendations for surveillance enhancement. Current national influenza surveillance activities include:

Virologic surveillance: The Global Influenza Surveillance and Response System (GISRS), formerly known as the Global Influenza Surveillance Network, was established in 1952 by the World Health Organization to monitor the evolution of influenza viruses and serves as a global alert mechanism for the emergence of influenza viruses with the potential to cause pandemics. Approximately 85 U.S. World Health Organization (WHO) Collaborating Laboratories and 60 National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories located throughout the United States participate in virologic surveillance for influenza. All state public health laboratories participate as U.S. WHO collaborating laboratories. Each week the WHO collaborating laboratories report the number of clinical specimens tested for influenza and the number of positive results by virus type (A or B); most also report influenza A subtype (H1 or H3). A subset of the influenza viruses collected by U.S. WHO collaborating laboratories are sent to CDC for further characterization, including gene sequencing, antiviral resistance testing and antigenic characterization.

Surveillance for influenza-like illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) consists of more than 2,800 enrolled outpatient healthcare providers in all 50 states, Puerto Rico, the District of Columbia, and the U.S. Virgin Islands reporting more than 39 million patient visits each year. The Influenza like Illness Surveillance Network (ILINet) providers regularly report the number of patient visits for ILI by age group and the total number of patient visits each week during the normal influenza season. Kansas has 37 ILINet sites. These data are used to calculate and track the percentage of outpatient visits due to

influenza-like illness. In addition, Kansas utilizes the National Syndromic Surveillance Program (NSSP) to monitor ILI as within the chief complaint data received from participating emergency departments. Currently, Kansas' syndromic surveillance system covers approximately 85% of all emergency departments in the state.

Surveillance for influenza and pneumonia deaths: The percentage of deaths due to pneumonia and influenza (P&I) are compared with a seasonal baseline and epidemic threshold value calculated for each week. The updated numbers are posted on the KDHE influenza website weekly during the regular flu season.

Surveillance for influenza immunization coverage: The Kansas Immunization Program maintains a birth to death electronic immunization registry (KS-WebIZ). This web-based system tracks administration of influenza vaccine as well as all other vaccines provided by a network of over 1,000 public and private provider offices statewide. KS-WebIZ holds records for over 2,000,000 individuals for which current immunization status may be accessed to determine community level immunization coverage rates.

State and territorial epidemiologists assess influenza activity levels each week and report it as “widespread,” “regional,” “local,” “sporadic,” or “no activity” to the CDC. In addition, CDC analyzes influenza activity intensity levels and displays this information on their website geographically.

During the Interpandemic Period, KDHE will maintain Kansas' current influenza surveillance activities, which include:

- An ILINet provider program with at least the minimum number of healthcare providers (1 per 250,000 persons) that report their weekly data to KDHE or directly to CDC via the Internet year-round. These providers are encouraged to send at least two specimens per week to KHEL for molecular analysis. This testing is provided at no charge to the patient. A map of counties with ILINet surveillance sites can be found in Attachment M.
- A disease reporting hotline that is available and is staffed at all times by an epidemiologist, including nights and weekends at 877-427-7317.
- Information on the Kansas Board of Healing Arts list of physicians.
- The Kansas Health Alert Network system.
- An active State Influenza Surveillance Coordinator in BEPHI who:
 - Monitors ILINet provider data weekly for completeness and/or errors.
 - Provides feedback and maintains contact with ILINet providers weekly to encourage reporting and follow-up on unusual reports.
 - Contributes to state pandemic planning issues and activities.
 - Maintains a strong working relationship with the KHEL.
 - Encourages ILINet providers to submit specimens for viral culture to the state laboratory.
 - Conducts a weekly assessment of overall influenza activity level in the state during the normal flu season and reports the data to the CDC.

Kansas uses WebEOC, a web-based system to manage information. Hospital bed availability and other emergency related data are collected in EMResource, which can collect the following statewide data:

- Available (or needed) staffed beds (specifies adult or pediatric):
 - ICU/CCU beds
 - Medical beds
 - Emergency Department (monitored and unmonitored)
- Available number of ventilators
- Available negative-pressure air isolation rooms
- Number of healthcare professionals affected
- Morgue capacity
- Available or needed medical supplies, equipment, and personal isolation equipment
- Number of hospitals on Emergency Department Diversion
- Number of patients waiting for inpatient beds (to include average wait time)

The electronic screens used to collect this data will be based on forms that will be available in paper format if the Internet-based system fails.

KDHE currently has a secure Web-based death certificate registration system that was enhanced as of July 2009. It is used by funeral directors and physicians across the state. Funeral directors enter the demographic information of the deceased. Physicians use the web-based system, through traditional or mobile devices, to complete the cause of death electronically and apply an electronic signature. The system will be made available to Infectious Disease Epidemiology and Response (IDER), the Bureau of Community Health Systems (BCHS), and OVS staff regarding deaths from specific causes, such as influenza or pneumonia. In the event that the electronic death reporting system is not operational, influenza-associated deaths will be tabulated manually, using traditional, paper-based methods.

In the event of a suspect or confirmed case of pathogenic avian influenza, the Kansas Animal Health Commissioner will contact the State Epidemiologist or designee directly or via the Epidemiology Hotline, in addition to contacting the Adjutant General's Department via email. This connection between the Animal Health Commissioner and KDHE seeks to maintain a continuous and coordinated connection between animal and human health surveillance systems.

During this period, KDHE, KBEMS and Public Safety Answering Point (PSAP) representatives will discuss the utility of alerting, as well as any changes in criterion necessary to identify a specific pathogen, based upon patient care data for pandemic influenza surveillance. Utilizing the Kansas EMS Information System (KEMSIS), KBEMS has a method to monitor and detect not only patients with influenza-like illness, as defined by the CDC, but also has the ability to monitor and alert upon any specific criterion that may be present for any type of pandemic situation utilizing prehospital care data.

Improved situational awareness through information sharing regarding both patients and resources will enable better management of assets during a pandemic and provide for real time epidemiological analysis. KDHE will utilize the Kansas Health Alert Network (KS-HAN) to

communicate relevant pandemic information to health and medical providers. The need for a statewide patient tracking system continues to be demonstrated through many emergency incidents. KDHE continues to work on a patient tracking system that can be utilized at all levels of the medical system to track an individual from first contact with professional medical care through eventual dismissal from care. As part of this effort and as identified in the 2009 Kansas Homeland Security Strategy, KDHE has formed a multi-disciplinary, multi-agency work group to develop a statewide patient tracking system and recommend minimum requirements for electronic applications to support that statewide system.

KEMSIS has been operational since 2008 and contains nearly real-time patient care data from approximately 90% of the ambulance services within Kansas. Information within this system can be used for patient care report generation, individual system analysis and monitoring of injuries, patient dispositions, and patient transfer patterns.

Public Health Laboratory Testing

The Kansas Health and Environmental Laboratories (KHEL) play a pivotal role in the detection and identification of influenza viruses. To promote a complete influenza surveillance system, KDHE will maintain:

- A state public health laboratory that:
 - Continues to perform real time polymerase chain reaction RT-PCR analysis while providing guidance and interpretation on the increasing use of rapid influenza diagnostic tests in private and public healthcare settings.
 - Detects and subtypes influenza viruses during the influenza season.
 - Maintains the capability to detect and sub-type influenza viruses year-round and submits specimens to CDC for antiviral resistance analysis.
 - Transmits influenza data (positives and negatives) electronically to CDC via the CDC/WHO Influenza Surveillance System Reporting website (a secured site).
 - Provides regular updates on respiratory specimen testing status to the Influenza Coordinator throughout the influenza season.
 - Conducts RT-PCR testing for novel subtypes of influenza viruses within Biosafety Level 2 (BSL-2) conditions.
 - Ensures prompt reporting of unusual or novel influenza specimens to in order to facilitate control and management of local outbreaks contact:
 - BEPHI, via Epidemiology Hotline (877-427-7317).
 - LRN Results Messenger for confirmed A/H5 strain.
 - CDC/WHO Influenza Surveillance System Reporting website.
 - Submits increased numbers of influenza specimens from positive patients as requested to CDC for enhanced monitoring for antiviral resistance.
 - Is actively involved in contingency planning for surge capacity (staffing and reporting) and safety issues.
 - Implements enhanced cross-training of existing laboratory staff in RT-PCR methods.
 - Educates clinical laboratorians on the safety and handling of specimens suspected to contain novel influenza viruses.
 - Institutes an influenza vaccination policy for influenza-like illness among laboratory personnel.

To protect the health of laboratory workers during a pandemic, public health, clinical, and hospital laboratories should maintain enhanced safety practices. These include:

- Conducting laboratory procedures under appropriate biocontainment conditions.
 - Commercial antigen detection testing for influenza should be conducted using BioSafety Level 2 (BSL-2) work practices.
 - If new or re-emergent human influenza strains with pandemic potential are suspected, laboratories should establish separate BSL-2 containment conditions utilizing BioSafety Level 3 (BSL-3) components, such as enhanced personal protective equipment as recommended by CDC, before RT-PCR testing.
 - As a consequence of the danger that highly pathogenic avian influenza (HPAI) strains present to the U.S. agricultural industry, USDA regulations require that HPAI strains such as H5N1 (which are classified as select agents) must be cultured using BSL-3 biocontainment conditions with enhancements.
- Strongly encouraging routine vaccination of all eligible laboratory personnel who are exposed to specimens from patients with respiratory infections.
- Staffing and training laboratories for increased staffing needs.
 - Cross-training personnel during the regular influenza season in the use of rapid diagnostic tests and RT-PCR protocols and in reporting results through existing surveillance systems.
 - Recruiting and training temporary staff for employment during a pandemic.
- Supplies and equipment.
 - Laboratories are likely to require additional diagnostic supplies and equipment to process large numbers of samples during the initial stages of a pandemic. Some preparedness strategies include:
 - Establishing the current level of diagnostic supplies, including personal protective equipment for laboratorians (e.g., gloves, lab coats).
 - Assessing anticipated equipment and supply needs, and determining a trigger point for ordering extra resources.
- Specimen management.
 - State and local health departments should inform and educate public health staff (including laboratorians), local physicians, and hospital workers on safe and effective methods for specimen collection and management, making use of the guidelines detailed on KHEL’s website, packaging and shipping section, under virus shipper guide (www.kdheks.gov/labs/packaging_and_shipping.html).
 - Procedures for specimen collection, handling, and shipping during a pandemic will be the same as those used for seasonal disease surveillance. However, laboratory staff should anticipate shipping of much larger numbers of specimens in a very short time, especially during the early stages of a pandemic.

Biosurveillance – Centers for Disease Control & Prevention (CDC) Interval: Investigation		
	Maintain the ILINet surveillance program with providers	✓

Influenza Surveillance Coordinator, KDHE-Bureau of Epidemiology & Public Health Informatics (BEPHI)	Maintain a strong working relationship with the Kansas Health and Environmental Laboratories (KHEL)	✓
	Participate in CDC training regarding surveillance and adverse events reporting	✓
EMResource Administrator, KDHE-Bureau of Community Health Systems (BCHS)	Work with EMResource to improve Hospital Available Beds for Emergency Disasters (HAVBED) and other tools to promote situational awareness	✓
KDHE-KHEL	Continue to isolate and sub-type influenza viruses year-round including reporting during influenza season to CDC	✓
Kansas Board of Emergency Medical Services (KBEMS)	Continue development of the statewide patient care report system for use by local EMS agencies	✓
Surveillance Coordinator, KDHE-BEPHI	Development of a secure system for managing and collecting patient and system data	✓
	Development of a just-in-time training for use of surveillance system and associated tools	✓

Surge Management

Emergency response, including maintenance of critical services and surge capacity issues in the healthcare system, is addressed in the state, local, and medical facility response plans and SOGs.

Medical Surge

There are 127 community hospitals in Kansas and the staffed beds in these facilities range from 10 to 1,451. The average daily census indicates there are approximately 1,000 available beds in Kansas on any given day. It is estimated during a pandemic influenza event; approximately 5,000 to 10,000 beds would be needed to provide care for influenza patients.

Hospitals in Kansas use a regional planning process to prepare for an increase in acutely ill patients. The state is divided into seven regions and each region has designated a regional planning hospital. The regional plans for increasing available bed capacity at each hospital to accommodate a regional surge of 500 acutely ill infectious patients per 1 million population over a short period of time may consider the following approaches:

- Hospitals will cancel non-emergency surgeries and other elective procedures.
- Hospitals will discharge non-infected patients to other acute care facilities out of the affected geographical area, or to long-term care or home care while assuring that the level of care required by these patients can be met.
- Hospitals will transfer patients to other hospitals in the region with available beds. Hospitals may need to send patients to several other hospitals depending on bed

availability. Hospitals will start by transferring patients to hospitals in nearby counties, then to other hospitals in the region.

- If all hospital beds in the region are at capacity, then hospitals will transfer patients to hospitals in other regions.
- Finally, if hospitals in other regions are full, the hospital will send patients to alternate locations based upon their partnerships (long term care facilities, schools, etc.).

Hospital and county emergency planners have identified and continue to identify alternate care sites. KDHE BCHS has developed a template alternate care site plan that may be utilized to assist community planners. The template plan is located at http://www.kdheks.gov/cphp/operating_guides.htm. For an alternate care site to be successful, the entire community and all agencies must work together bringing their own strengths and available resources to bear. Alternate care sites will likely be considered the option of last resort, so all health and medical partners in the community should be engaged in pre-pandemic planning. For example, home healthcare agencies will likely play an important role, given the potentially high number of ill persons. In addition, during a severe pandemic it is expected family members will likely need to provide care to family members who are unable to be hospitalized. Instructions for home (family) care can be found in **Appendix F**. Healthcare and hospital personnel will also need to stay informed related to the best practices for infection control for pandemic influenza from the CDC. Those guides may be located <http://www.cdc.gov/flu/pandemic/healthprofessional.htm>.

In planning for a pandemic, it must be recognized persons with unrelated medical conditions will continue to require emergency, acute and chronic care. Alterations to an EMS system's practices during a pandemic will likely impact all EMS patients, regardless of the nature of their illness. Planners should consider modifying PSAP call-taker and dispatch protocols and developing pandemic-specific pre-hospital triage and treatment protocols. It is important to keep the EMS system functioning as effectively as possible and to deliver optimal care to both these patients (e.g. motor vehicle crashes and cardiac events) as well as to patients with pandemic related symptoms. Illness and absenteeism during a pandemic may impact an EMS agency's ability to satisfy demand for services.

The most serious challenge the medical system (including hospitals and EMS) will likely face during a pandemic is to keep operations functioning despite increases in call volume, workforce shortages and absenteeism, supply chain disruptions and other threats to continued operations. The foundation of a viable COOP program is the development and documentation of a COOP plan that provides for the continued performance of an organization's essential functions under all circumstances. Agencies should continue to develop, refine and test their COOP plans based on guidance from federal, state and local government. COOP plans should be coordinated with emergency management agencies. Pre-established delegations of authority are vital to ensuring all organizational personnel know who has the authority to make key decisions in a COOP situation. An order of succession is essential to an organization's COOP. Personnel should know who has authority and responsibility if the leadership is incapacitated or unavailable. COOP plans should address workforce health protection. Health agencies should establish policies for flexible worksite (e.g. telecommuting) and flexible work hours (e.g. staggered shifts) whenever

possible. Agencies should establish policies for employee compensation and sick-leave absences unique to a pandemic (e.g. non-punitive liberal leave).

Volunteer Management

Healthcare and pre-hospital systems should consider a variety of mechanisms to augment their workforce including:

- Communications with licensing agencies to explore mechanisms for temporary licensure of medical or EMS providers from other jurisdictions
- Communications with licensing agencies to explore innovative mechanisms to rapidly recruit, train and license new providers
- Consider non-traditional system configurations and alternate staffing configurations
- Utilization of retired EMS and healthcare personnel
- Coordination with local Medical Reserve Corps (MRC)
- Community Emergency Response Teams (CERT), or cross staffing between EMS, healthcare and other sectors
- Proactively determine competencies and bridge courses from other professions and levels of EMS licensure
- Engaging temporary workers, contractors, qualified veterans and recent retirees, and/or cross-training the existing workforce
- Support telecommuting and telemedicine when feasible.

Surge Management – Centers for Disease Control & Prevention (CDC) Interval: Investigation		
Director of the Division of Public Health, KDHE	Continue to engage physicians and healthcare providers in the <u>planning and preparedness process</u>	✓
	Convene workgroups to make recommendations regarding prioritization of scarce medical resources	✓
Kansas hospitals	Continue to update individual hospital plans regarding medical surge, evacuation, transport and isolation precautions	✓
	Update EMResource daily with bed information, participate in Kansas Hospital Bed Availability (HAvBED) system drills and exercises	✓
	Identify and coordinate planning with community partners of alternate care sites that may be used in the event of a pandemic	✓
	Review and incorporate the “ <i>Guidelines for the Use of Modified Health Care Protocols in Acute Care Hospitals During Public Health Emergencies</i> ” into facility and community medical surge plans	✓
Medical Countermeasures Program Manager, KDHE-Bureau of Community Health Systems (BCHS)	Ensure state antiviral cache is stored in accordance with manufacturers’ recommendations	✓

All healthcare and pre-hospital agencies	Develop and test Continuity of Operations (COOP) plans and procedures	✓
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Information Management

In an emergency, accurate, consistent and timely messages are key in notifying and educating the public, notifying and facilitating movement of emergency staff to their assigned duties and stations, and in activating the emergency plan as intended. The following delineates communication-related issues that pertain to a pandemic. Assuring adequate communication systems will be a joint responsibility of federal, state, and local agencies.

- During a pandemic, the public will likely encounter some unreliable and possibly false information in the media and on the Internet. KDHE and local health departments will communicate accurate, reliable information regarding the pandemic.
- Mechanisms for communication with the public will vary depending on the phase of the pandemic and its impact on Kansas communities.
- KDHE will continually strive to communicate with all essential partners.

Emergency Public Information and Warning

CDC will make a number of materials available before and during a pandemic, including:

- Basic communication materials (such as question and answer sheets and fact sheets) on the virus, vaccines, antiviral medication and other relevant topics in various languages.
- General preventive measures such as “dos and don’ts” for the general public.
- Information and guidelines for healthcare providers.
- Training modules (web-based, printed and video).
- Presentations, slide sets, videos and documentaries.
- Symposia on surveillance, treatment and prophylaxis.

Due to anticipated shortages of vaccine and antiviral medication, messages to inform the population about availability, the rationale for priority groups and measures to be taken will be critical. Other important topics include:

- Basic information about the virus (including prevention, symptoms and transmission).
- Information about the course of the pandemic (contagiousness, geographic spread, confirmed and estimated case counts and deaths).
- Information about which symptoms should prompt seeking medical attention and which symptoms should be managed at home.
- Information about the availability and proper use of vaccines and antiviral medications.
- Information about school and business closures and suspended public meetings.
- Information about travel restrictions as well as isolation and quarantine laws.

Information Sharing

The KDHE Director of the Division of Public Health, or representative, participates on the Kansas Commission on Emergency Planning and Response (CEPR) which serves as the state emergency planning committee. This committee consists of representatives from various state departments, disabled populations, Tribal Nations, hospitals, local health departments, local law enforcement, local emergency medical services, local fire, cities and counties. A list of

represented disciplines and organizations is located in [Appendix D](#). Pandemic and general influenza planning activities, including this plan, are briefed to the CEPR annually.

The Kansas Department of Agriculture (KDA) is a regulatory agency mandated by law to ensure a safe food supply, responsible and judicious use of pesticides and nutrients, the protection of Kansas' natural and cultivated plants, integrity of weighing and measuring devices in commerce, and that the state's waters are put to beneficial use. Communication with all of the regulated entities occurs on a regular basis. Regulated entities include: meat and poultry processors, grocery and convenience stores, restaurants, food manufacturers, food wholesalers, lodging facilities, wineries, bottlers, dairies, milk haulers, fuel stations, grain elevators, pesticide and fertilizer products, pesticide applicators, feed manufacturers, seed dealers, nurseries, feedlots, and plant wholesalers and retailers. The department is also responsible for managing the state's water resources and for regulating manmade activities that impact the flow of rivers and streams. In the event of a pandemic, KDA will share information provided by KDHE with all appropriate stakeholders. The process for reporting status of facilities and resource requests will be clearly communicated to stakeholders during all phases of the pandemic. KDA also coordinates with the Kansas Department of Wildlife, Parks and Tourism (KDWPT) regarding animal health (domestic and wild).

The Kansas State Department of Education (KSDE) communicates with local educational agencies in the event of an emergency using the KSDE website, email listservs, automated phone trees, fax, print media and commercial broadcasts. This communication takes place primarily with public schools and school districts, though some private schools can be contacted through the automated phone tree and listservs. KSDE's Communications & Recognition Team handles message creation and distribution, ensuring consistency and quality control of messages. The Director of KSDE's Communications & Recognition Team is the state-level education spokesperson for media relations and communication with local educational agencies.

KDHE will:

- Maintain KS-HAN to effectively communicate with public health officials, healthcare professionals and other target audiences.
- Establish lines of communication and define KDHE staff roles and responsibilities clearly to facilitate the best possible communication with partners.
- Regularly distribute informational updates to all appropriate partners.
- In collaboration with state-level partners, provide community mitigation guidance to facilities such as daycares, K-12 schools, colleges, universities, long-term care facilities and correctional institutions.
- Maintain the list of media spokespersons and contact information from each state agency.
- Coordinate with KDEM to provide information to the media via the state JIC when activated.
- Develop an operational plan to distribute communications and educational messages to the public.
- Educate public health officials, elected officials and the media about what information will and will not be available during a pandemic.
- Review CDC materials and adapt and revise as needed.

Information Management – Centers for Disease Control & Prevention (CDC) Interval: Investigation		
Director of the Division of Public Health, KDHE	Review materials developed by staff to ensure medical accuracy	✓
	Provide informational presentations to stakeholders	✓
Director of Communications, KDHE	Develop educational materials to be distributed in later stages. Materials may include: (1) Family (Home) care of symptomatic individuals, when to go to the hospital, infection control in the home, when to call the hotline (2) Information for businesses: Social distancing recommendations in the workplace, how to manage increased absenteeism. (3) Information regarding handling of human remains, hotline numbers, process for burial, death certificates, what to expect	✓
	Provide training and resources to local health and medical staff who may be called to speak to the media during a pandemic	✓
	Monitor the KDHE website to ensure preparedness and pandemic information is up-to-date and accurate	✓
	Prepare message maps for anticipated questions	✓
	Continue to update the KDHE Public Information and Communication (PIC) Plan	✓
	Establish a mechanism to activate KDHE phone bank capabilities during a pandemic response	✓
	In conjunction with the Bureau of Community Health Systems (BCHS) Exercise Coordinator, develop just-in-time training for KDHE phone bank operators	✓
Kansas Health Alert Network (KS-HAN) Administrator, KDHE-Bureau of Community Health Systems (BCHS)	Assist KDHE Director of Communications with development and implementation of systems to facilitate communications with the public and key stakeholders	✓
	Conduct monthly tests of KS-HAN	✓
Exercise Coordinator, KDHE-BCHS	Develop and conduct exercises to test the state's ability to use the systems developed to enhance communications. Monitor progress on improvement plans and retest capabilities and tasks that are not completed to standard	✓
Kansas Department of Agriculture (KDA)	Maintain communication avenues with regulated entities for the provision of emergency information	✓
Kansas State Department of Education (KSDE)	Maintain communication systems with school districts and private schools	✓
Communications & Recognition Team, KSDE	Prepare message maps for anticipated questions regarding school dismissal and other pandemic educational system related questions	✓

Countermeasures and Mitigation

There are three actions that can be taken to prevent and contain outbreaks of a pandemic: non-pharmaceutical interventions (NPI), use of antiviral medication, and vaccination.

Medical Countermeasure Dispensing

During the initial months of a pandemic, no vaccine will be available because it is not possible to produce a vaccine without knowing the characteristics of the novel virus. Unlike annual production of influenza vaccine, wherein strains are selected in the spring leading to vaccine distribution in the late summer, a pandemic strain could be detected at any time. Current manufacturing procedures require at least 6-8 months before large amounts of vaccine are available for distribution. Nevertheless, vaccine administration will likely become an important preventive strategy during the next pandemic, once an effective vaccine is developed.

Contrasts between delivery of pandemic vaccine and the annual influenza vaccine include the following:

- The target population will be modified, possibly to include sub-populations most likely to acquire or transmit influenza or most likely to develop complications.
- Demand for the vaccine will be greater than the supply early in the course of the pandemic due to the minimum 6-8 month period to produce a vaccine; it is also possible no vaccine will be available. It is impossible to predict how quickly the novel virus would arrive in the U.S.
- The pandemic vaccine will need to be distributed as quickly as possible once available.
- The emergence of a pandemic strain with new hemagglutinin and or neuraminidase antigens will likely require a second (booster) dose of vaccine to be administered 2-4 weeks after the first dose is given; since immunologic responses following initial vaccination of serologically negative individuals is poor and represents a priming of the immune system.

A final decision regarding the degree of federal vaccine purchase during a pandemic may not be made until the pandemic vaccine is being produced. Kansas' plan for delivery and administration of vaccine addresses many possible scenarios, including complete federal purchase and distribution to states, partial federal purchase with distribution to states, and minimal federal purchase (similar to the current annual influenza vaccination program). Currently influenza vaccine is primarily administered through the private sector. Coordination with and education of the private sector is a key aspect of local and state-level pandemic planning. During the 2009-2010 H1N1 pandemic, KDHE utilized a public-private partnership model for vaccine administration. Through this partnership, KDHE served as the centralized vaccine ordering point for all pandemic H1N1 vaccine. Private providers registered via a KDHE website to indicate their interest in providing vaccine. Those interested parties were then vetted by their local health department and entered into the system. To order vaccine, those private providers would submit an order through the local health department that would prioritize, validate and approve the order. All county orders were then submitted by KDHE utilizing the normal business mechanisms of CDC for the vaccine program. Vaccine was then delivered to and administered by the private provider who then reported the doses administered using the ASPR Inventory

Management and Tracking System (IMATS). This, or a similar model, may be utilized during the next pandemic.

Recently, the CDC has implemented a new deployment strategy for pandemics. According to the guidance the CDC will deploy medical countermeasures to all jurisdictions. This deployment will be completed by using a population-based distribution plan which will push the medical countermeasures to the jurisdictions rather than states making individual requests. As part of the Strategic National Stockpile Managed Inventory, the CDC maintains medical countermeasures to deploy to the states, including: antiviral drugs, PPE (including face shields, gloves and gowns) and respiratory protection devices (RPD). The SNS will deploy the jurisdiction’s allocated medical countermeasures in three parts: parts 1 and 2 will take approximately 7 days for each delivery and part 3 will take approximately 14 days for delivery, see table 1.

Part 1 ~7 Days for Delivery	Part 2 ~7 Days for Delivery	Part 3 ~14 Days for Delivery
25 % Antiviral Drugs	25% Antiviral Drugs	50% Antiviral Drugs
25% PPE	25% PPE	50% PPE
25% RPD	25% RPD	50% RPD
25% Antimicrobials	25% Antimicrobials	50% Antimicrobials

Table 1. Division of Strategic National Stockpile Influenza Pandemic Asset Deployment Strategy. Describes the amount of allotted medical countermeasures deployed by the SNS in each part.

Due to a relative shortage of vaccine expected early in the pandemic, vaccine recipients will be prioritized. Recommendations for priority groups will be made at the national level, which will be adapted by KDHE. The CDC released guidance on allocating and targeting of pandemic influenza vaccine in July 2008. The Federal Vaccine Priority Recommendations are provided as Appendix H.

Eventually, it is assumed sufficient vaccine will be available for mass vaccination of the total population. Local health departments have conducted detailed planning activities culminating in the creation of the local mass dispensing SOG. This guide explains the specific operations of large-scale clinic management and how to develop various functions of mass dispensing related to smallpox, chemo-prophylaxis, and vaccination clinics.

KDHE is upgrading its immunization registration, inventory management and smallpox vaccination reporting infrastructures. KDHE will utilize the Vaccine Adverse Event Reporting System (VAERS) to monitor adverse events related to the pandemic vaccine.

A pandemic may pose significant threats to the human infrastructure responsible for critical community services due to widespread absenteeism and exhaustion in the workforce. Examples include highly specialized workers in the public safety, utility, transportation and food service industries, and will likely vary from jurisdiction to jurisdiction. The CDC has issued guidelines recommending certain priority groups to receive vaccine and antiviral medication. The CDC priority group recommendations can be found in Appendix H. Based on the severity, target population, Advisory Committee on Immunization Practices (ACIP) recommendations and availability of vaccine it is anticipated the vaccine will be targeted to those at higher risk of

severe morbidity or mortality issues irrespective of employment. However, some planning scenarios have a mixture of prioritization groups that include employment classes and medically at-risk criteria.

The success of the pandemic vaccination program will be determined in large part by the strength of local and state vaccination programs during the Interpandemic Period for three main reasons: (1) increased acceptance of and public confidence in the vaccine; (2) stimulation of vaccine production by manufacturers to meet demand; and (3) strengthening of distribution channels.

During the Interpandemic Period, efforts to increase pneumococcal polysaccharide vaccination (which can reduce the incidence of invasive pneumococcal disease secondary to influenza) is recommended and emphasized. Since large-scale pneumococcal vaccination may not be feasible once a pandemic alert has occurred, the Interpandemic Period is the ideal time to deliver this preventive measure.

Medical Materiel Management and Distribution

Vaccine will not be available when the novel virus first affects communities. Therefore, the role of antiviral medications becomes especially significant during this period for the control of influenza. Existing production capacity for antiviral medication is less than would be needed to provide prophylaxis or treatment for the entire population. Current federal guidance requires antiviral medications in this program are to be used for treatment only.

During a novel virus outbreak, there may be a need for special legal or regulatory mechanisms for the emergency use of medical countermeasures, including vaccines and antivirals. Special legal protections under the Public Readiness Emergency Preparedness (PREP) Act allows for the use of medical countermeasures in an otherwise unapproved way during a public health emergency. The 2013 enactment of Pandemic All Hazards Preparedness Reauthorization Act (PAHPRA) enhanced the FDA's statutory authority of their process to issue Emergency Use Authorization (EUA) and to expanded access to investigational drugs devices including investigational new drug application (IND) and investigation device exemption (IDE).

Typically, therapy is effective at decreasing severe complications and reducing hospitalizations only if offered within two days of developing symptoms. Distribution of antiviral medications for therapy will be challenging, given the limited amount available, the large number of points of care and the need to initiate the course of treatment within 48 hours of onset of symptoms in order for the medications to be effective.

Antiviral medication from the SNS will be distributed to points of care utilizing the distribution system that is detailed in the Kansas SNS Plan. The KDHE Director of the Division of Public Health will determine whether controls for dispensing (such as positive rapid test) will be required. He or she will also provide guidelines on appropriate use of antiviral medications that are distributed. Antiviral resistance characteristics of the pandemic virus strain will be a major factor in such determinations. Public education will be very important given the scarcity of this resource.

Prioritizing within priority groups will be necessary given the limited supply. For antiviral medication purchased with public funds, the state will be responsible for local distribution of the antiviral medication in collaboration with the private sector. As with vaccine, it will be critical to clearly communicate with the public about the rationale for priority groups. Coordination with and education of the private sector is a key component of the plan. The ASPR Inventory Management and Tracking System (IMATS) will be utilized by all providers who dispense state or federal antiviral medication resources. Tracking activity in IMATS may vary depending on provider type, but a thorough accounting of all medication doses from state and federal caches will be required.

Non-Pharmaceutical Interventions

The CDC has recommended an early, targeted, layered use of non-pharmaceutical interventions as a key strategy to mitigate the effects of a pandemic on a community. KDHE staff prepared a guidance document for local community planners called the Community Disease Containment Standard Operating Guide which was provided in 2014. This guidance document is located at http://www.kdheks.gov/cphp/operating_guides.htm. The interventions recommended by the CDC are:

- Isolation and treatment (as appropriate) with antiviral medication of all persons with confirmed or probable pandemic symptoms
- Voluntary home quarantine of members of households with confirmed or probable pandemic cases
- Pre-emptive, coordinated school dismissals during a severe pandemic
 - Guide to Community Preventive Services. Emergency preparedness and response: school dismissals to reduce transmission of a pandemic virus. www.thecommunityguide.org/emergencypreparedness/schooldismissals.html. Last updated: 08/2012.
 - Kansas recognizes that there are challenges implementing this strategy and the potential benefits and consequences will need to be carefully considered.
- Use of social distancing measures in the workplace and in the community

Kansas planners recognize community containment measures must be implemented at the local level. Local health department personnel worked with their community partners to develop guides and processes specific to their communities. These SOGs are exercised and communities are now refining their plans and procedures based on improvement plans written as a part of the exercise evaluation process. This comprehensive community mitigation strategy is intended to slow the spread of a pandemic, ultimately saving lives and reducing demand on healthcare resources, including EMS.

KDHE has worked closely with the Kansas State Department of Education (KSDE) and the Kansas Association of School Boards (KASB) to develop a Pandemic Action Kit for local school districts. The kit contains sample parent letters, checklists for schools, media material, fact sheets, guidance documents, and other useful materials.

KSDE anticipates families will need to focus on basic, immediate physical and emotional needs during times of crisis, rather than on educational needs. Once a decision is made to dismiss a school, recommended actions for school districts to take might include:

1. Students should take library books, textbooks, journals, content notebooks, etc., for use during the time of a school closing.
2. Distributing course materials via the Internet is an option for an extended period of time. Each district could post items in the content areas by grade level on their website. KSDE resources could also be accessed at www.ksde.org. During a time of extended school closing, areas may be operating with limited availability of many things. Educational content could be made available through the state website and/or respective district websites.

Responder Safety and Health

Health and medical sector organizations will maintain appropriate respiratory protection programs in an effort to protect employees from infectious diseases. Organizations will continue to maintain appropriate stocks of respiratory and other infection control equipment. Appropriate training, fit testing and vaccinations should be provided to employees to promote a ready workforce.

Countermeasures and Mitigation – Centers for Disease Control & Prevention (CDC) Interval: Investigation		
Director of the Division of Public Health, KDHE	Lead work group efforts to define and recommend containment activities to local communities	✓
	Promote influenza vaccination in traditional high-risk groups, especially subgroups in which coverage levels are historically low (e.g. minorities and persons younger than 65 years of age with chronic underlying medical conditions). Increasing routine, annual vaccination coverage levels in these groups will further reduce the annual toll of influenza and will facilitate access to these populations when a pandemic occurs	✓
	Promote pneumococcal vaccination in traditional high-risk groups to reduce the incidence and severity of secondary bacterial pneumonia	✓
Medical Countermeasures Coordinator, KDHE-Bureau of Community Health Systems (BCHS)	Ensure vaccine distribution plans are coordinated with the bordering states of Missouri, Nebraska, Colorado, and Oklahoma, as well as the Kansas City Metropolitan Statistical Area	✓
	Continue to review, modify and exercise the SNS Standard Operating Guides (SOGs) at the state level and Mass Dispensing SOGs at the local level	✓
	Ensure contingency plans have been considered for emergency distribution of unlicensed vaccines using emergency Investigational New Drug Application (IND) provisions	✓
	Train and exercise state and community partners on the antiviral distribution plan	✓

Attorney, KDHE	Review and provide counsel regarding application of state laws for vaccination planning	✓
Immunization Section Chief, KDHE	Maintain the Kansas Immunization Registry to track vaccine and facilitate reminder notification to track the administration of two doses per person (if recommended)	✓
	Educate the medical community and the public regarding appropriate vaccine information during a pandemic event	✓
	Use VAERS to track adverse events	✓

Pandemic Phase	World Health Organization (WHO) Phases		Centers for Disease Control & Prevention (CDC) Intervals		Ebola Virus Phase	
Planning Phase	Alert Phase	Influenza caused by a new subtype has been identified in humans	Investigation: Investigation of novel influenza A infection in humans or animals	Identification of novel influenza A infection in humans or animals anywhere in the world with potential implications for human health	EVD Person(s) Under Investigation Phase	Person(s) meeting the CDC Person Under Investigation (PUI) definition identified in the United States
			Recognition: Recognition of increased potential for ongoing transmission of a novel influenza A virus	Increasing number of human cases or clusters of novel influenza A infection anywhere in the world with virus characteristics, indicating increased potential for ongoing human-to-human transmission		

During WHO Alert Phase, the U.S. Government may be at the Investigation or the Recognition Interval. The assumption for the actions detailed below is that the federal government has moved into the Investigation or Recognition Interval.

Community Resilience and Incident Management

The KDHE Director of the Division of Public Health will meet with the PPC to review major elements of the plan and assess and evaluate state and local levels of preparedness. Changes to the plan will be made as needed. Communication with the border states of Missouri, Oklahoma, Colorado, and Nebraska, as well as the Kansas City Metro Area, should be maintained. Internal operating guides will be continually reviewed and updated to ensure staff members are available and contact information is current.

Community Preparedness

According to the “Implementation Plan for the National Strategy for Pandemic Influenza,” the federal government will be utilizing the National Response Framework as the primary mechanism for coordinating the federal response to a pandemic. Roles of key federal agencies

are described in the implementation plan; the roles of the U.S. Department of Health and Human Services (HHS) and U.S. Department of Homeland Security (DHS) are repeated here.

The U.S. Secretary of Health and Human Services will be responsible for the overall coordination of the public health and medical response during a pandemic, to include coordination of all federal medical support to communities; provision of guidance on infection control and treatment strategies to local, state and tribal entities, and the public; maintenance prioritization, and distribution of countermeasures from the SNS; ongoing epidemiologic assessment, modeling of the outbreak, and research into the influenza virus, novel countermeasures, and rapid diagnostics.

The U.S. Secretary of Homeland Security will be responsible for coordination of the federal response as provided by the National Strategy for Pandemic Influenza Implementation Plan the Homeland Security Act of 2002, and Homeland Security Presidential Directive #5, and will support the Secretary of Health and Human Services’ coordination of overall public health and medical emergency response efforts. The Secretary of Homeland Security will be responsible for coordination of the overall response to the pandemic, implementation of the policies that facilitate compliance with recommended social distancing measures, the provision of a common operating picture for all departments and agencies of the federal government, and ensuring the integrity of the nation’s infrastructure, domestic security, and entry and exit screening for influenza at the borders.

Emergency Operations Coordination

KDHE will initiate ICS at ‘Level 2 – Watch’ in preparation for pandemic response. When this occurs, Operations and Logistics Section staff will begin activities to verify facilities identified in this plan are ready to start response operations. Finance and Administration staff will prepare to begin documenting expenses related to pandemic response. Notification of a possible biological emergency will be communicated to KDEM and a Liaison Officer will be requested.

The KDHE Incident Commander will convene the PPC and review the plan and corresponding SOGs.

- Initiate KDHE Emergency Operations Guidelines (EOG).
- Maintain ILI disease surveillance.
- Activate the Public Information and Communication (PIC) Plan.
- Begin vaccine and antiviral medication distribution (if available).
- Notify KDEM of the need for additional resources.
- Activate SOGs for operational priorities.
- Arrange for facilities (DOC, SNS, as needed) use.
- Document expenses of pandemic response.

Community Resilience and Incident Management – Centers for Disease Control & Prevention (CDC) Interval: Recognition		
Director of the Division of Public Health, KDHE	Convene the Pandemic Planning Committee (PPC) to review major elements of the plan and assess preparedness level	✓

KDHE-Pandemic Planning Committee (PPC)	Review and revise KDHE operating guides and procedures including contact information	✓
KDHE Operations and Logistics Section	Ensure that facilities are ready and available	✓
KDHE Epidemiology Branch	Maintain surveillance	✓
Public Information Officer (PIO), KDHE	Activate Public Information & Communication (PIC) Plan	✓
KDHE Operations Section	Begin antiviral and vaccine distribution (if available)	✓
Liaison Officer, KDHE	Notify emergency management of response and needed support	✓
Kansas Division of Emergency Management (KDEM)	Provide a Liaison Officer to KDHE Incident Command System (ICS)	✓

Biosurveillance

The CDC continuously monitors surveillance data reported nationally, and frequently communicates with public health colleagues around the world so that novel viruses are detected and investigated as quickly as possible. If Kansas is notified by CDC that a novel virus has been identified, but efficient transmission of the virus from person-to-person is not yet established (indicating a novel virus alert), Kansas will enhance Interpandemic Period surveillance activities by:

- Increasing case detection among persons who recently traveled to the outbreak area and present with clinical illness possibly caused by a novel virus including pneumonia, acute respiratory distress syndrome or other severe respiratory illness. Appropriate specimens will be collected to diagnose infection. In some situations, if the novel influenza virus is a highly pathogenic avian strain, such as with the 2004 H5N1 influenza virus in Asia, local hospital laboratories should not attempt viral isolation because of the risk the strain could spread. Specimens will be sent to KHEL for sub-typing or to CDC for sub-typing and isolation. Infection can be diagnosed locally using antigen detection, immunofluorescence, or PCR. CDC will provide guidance appropriate to each specific novel virus alert.
- Investigating early cases and clusters of a suspected pandemic identified through ILINet or passive surveillance. BEPHI will be responsible for forwarding case reports to the local health department, and for specifying which CDC form (e.g. the Pandemic Influenza Case Investigation Form, the Novel Human Influenza Case Report Form, or an alternative form suggested by the CDC) to use for case investigations, and for timely reporting. Local health departments will be responsible for collecting patient histories as rapidly as possible, and for immediately forwarding complete case investigation forms to

KDHE via fax, secure (encrypted) email, or Kansas' electronic disease reporting system, EpiTrax.

- Reporting of early novel and pandemic cases to CDC, likely via an online CDC case reporting system.
- Ensuring all Interpandemic Period surveillance activities are underway regardless of the time of year and that all participating laboratories and ILINet providers are reporting data to CDC each week.
- Sub-typing all influenza A viruses identified in clinical specimens and immediately reporting to CDC any influenza A viruses that cannot be sub-typed. CDC will provide instructions on the safe handling of a potential novel influenza virus.
- Obtaining reagents from CDC (as these become available) to detect and identify the novel strain.
- Reviewing contingency plans for further enhancement of surveillance if efficient person-to-person transmission of the novel virus is confirmed.

If efficient person-to-person transmission of a novel virus is confirmed, the following additional surveillance enhancements will be made by BEPHI:

- In collaboration with the KDHE Office of Communications reinforcing the need to screen travelers arriving in the U.S. from affected countries.
- Investigating the epidemiology of all early cases either originating in the U.S. or that are imported into the country.
- Promoting increased laboratory diagnosis at hospitals and emergency departments, including use of rapid antigen detection tests, for persons with compatible clinical syndromes, particularly those who may have had recent exposure at the site of an outbreak. CDC will provide guidance to assist with triage of specimens for testing and for choosing which isolates to send to CDC.
- Assessing the completeness and timeliness of reports from all participating laboratories and ILINet providers will be assessed, and non-reporters will be contacted to improve their performance as necessary.
- Investigating outbreaks and increases in ILI cases, including those detected through the ILINet surveillance system and those reported through traditional passive surveillance.

Kansas has requested to continue receiving notifications for travelers undergoing any enhanced screening process and will relay this information to the appropriate local health department. Depending on the circumstances in novel virus-affected countries, travelers will either be subject to public health monitoring or self-observation for a period of 21 days. KDHE will communicate recommendations to local health departments, hospitals, and other stakeholders via the Kansas Health Alert Network (KS-HAN).

KDHE recommends that local health departments make initial contact with travelers entering the United States and undergoing enhanced entry screening to establish a line of communication and to reinforce the need to contact them if fever or other symptoms of concern develop during the 21-day public health monitoring or self-observation period.

For persons arriving in Kansas with known travel to or residence in a country with current novel virus transmission within the previous 21 days, KDHE or the local health department will conduct a risk assessment. The risk assessment will focus on persons with known or suspected to have contact, including visiting or working in health care facilities, household contact with or providing in-home care to persons with potential novel virus, or other activities that could pose a risk of transmission.

Persons undergoing a risk assessment will be classified into one of four exposure categories:

- 1) high risk;
- 2) some risk of exposure;
- 3) low (but not zero) risk; and
- 4) no identifiable risk.

Depending on the circumstances in novel virus-affected countries, travelers will either be subject to public health monitoring or self-observation for a period of 21 days. KDHE will communicate recommendations to local health departments, hospitals, and other stakeholders via KS-HAN.

Any person undergoing either active monitoring or self-monitoring who develops symptoms of a novel virus shall immediately contact their local health department or the KDHE Epidemiology Hotline at 877-427-7317. If such persons contact a health care provider or local health department worker first, then the health care provider or local health department worker shall have the responsibility for contacting KDHE.

Biosurveillance – Centers for Disease Control & Prevention (CDC) Interval: Recognition		
KDHE-Bureau of Epidemiology & Public Health Informatics (BEPHI)	Increase case detection among persons who recently traveled to the outbreak area and present with clinical illness; including pneumonia, acute respiratory distress syndrome, or other severe respiratory illness	✓
	Report early novel and pandemic cases to CDC	✓
	Monitor and institute recommendations from CDC for any additional surveillance activities that should be undertaken given the specific circumstances	✓
	Review contingency plans for further enhancing surveillance if efficient person-to-person transmission of the novel virus is confirmed	✓
	Assess the need to screen travelers arriving in the U.S. from affected countries	✓
	Investigate the epidemiology of all early cases either originating in the U.S. or imported into the country	✓
	Investigate early cases and clusters of a suspected pandemic identified through ILINet or passive surveillance	✓
	Forward case reports to the local health department, and specify which CDC form to use for case investigations and timely reporting	✓

	Ensure that all Interpandemic Period surveillance activities are underway regardless of the time of year and that all participating laboratories and ILINet providers are reporting data to CDC each week	✓
	Investigate outbreaks and increases in Influenza-like Illnesses (ILIs)	✓
	Assess the completeness and timeliness of reports from all participating laboratories and ILINet providers and determine if improvement measures are necessary	✓
KDHE-Kansas Health & Environmental Laboratories (KHEL)	Subtype novel viruses	✓
	Subtype all influenza A viruses identified in clinical specimens and reporting any influenza A viruses that cannot be subtyped to CDC immediately	✓
	Obtain reagents from CDC (as reagents become available) to detect and identify the novel strain	✓
Kansas hospitals	At hospitals and emergency departments, increase laboratory diagnosis, including use of rapid antigen detection tests for persons with compatible clinical syndromes, particularly those who may have had recent exposure at the site of an outbreak	✓

Surge Management

The PPC will review this plan and the corresponding SOGs. Procedures and equipment in the KDHE Department Operations Center will be tested to ensure operational readiness.

Medical Surge

Healthcare system providers will review their emergency plans and procedures to ensure they are current and workable. Medical surge portions of the plan may be exercised and improvement plans will be developed and implemented. Isolation procedures will be reviewed and communicated to all staff. The importance of infection control procedures will be emphasized to staff, patients and visitors.

The Planning Section within the KDHE ICS will monitor the Kansas Hospital Bed Availability (HAvBED) system. KDHE, in cooperation with Kansas Health Care Coalitions, will increase promoting use of this system by Kansas hospitals. Procedures for HAvBED use are in place and additional training will be made available to local hospital staff. Hospital bed availability, in concert with other situational data, will help planners at the local and state levels determine the need for additional care sites and supplies.

Volunteer Management

Additional training will be made available related to the Kansas System for the Early Registration of Volunteers (K-SERV). This system coordinates the deployment and tracking of volunteer medical and other professionals during an emergency and provides primary source verification for these professionals. The K-SERV system has been developed in accordance with the federal Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) standards. Requests for additional volunteers will be coordinated through the

local EOCs, like other requests for additional support. Local volunteer coordinators have access to K-SERV and will be able to utilize the system according to procedures already developed and disseminated.

Surge Management – Centers for Disease Control & Prevention (CDC) Interval: Recognition		
Kansas hospitals	Review emergency plans and procedures and ensure all facets are current and workable	✓
	Exercise and improve medical surge portions of hospital emergency plans and corresponding procedures	✓
	Inventory personal protective equipment and order additional supplies as identified	✓
	Provide additional infection control procedure training to staff, patients, and visitors	✓
KSERV Administrator, KDHE-Bureau of Community Health Systems (BCHS)	Provide additional training opportunities for Kansas System for the Early Registration of Volunteers (K-SERV) for county volunteer coordinators	✓
KDHE Planning Section	Monitor Kansas Hospital Available Beds for Emergency Disaster HAVBED system for bed availabilities in hospitals	✓
Kansas Health Care Coalitions	Promote the twice daily update of the Kansas HavBED system by hospitals	✓
KDHE-Pandemic Planning Committee (PPC)	Review Kansas Pandemic Preparedness and Response Plan and corresponding Standard Operating Guides (SOGs)	✓
KDHE Logistics and Operations Sections	Review procedures and equipment in the KDHE Emergency Operations Procedures for operational readiness	✓

Information Management

Once sustained human-to-human transmission is confirmed anywhere in the world, KDHE Public Information staff will:

- Review major elements of the PIC Plan with partners and stakeholders.
- Disseminate information to public, partners, and the media on an ongoing basis.
- Monitor media coverage and address misinformation.
- Coordinate with bordering jurisdictions.

Emergency Public Information and Warning

The KDHE Director of Communications serves as the Public Information Officer (PIO) under the KDHE ICS. The PIO and their staff maintain a system to effectively communicate with public health officials, healthcare professionals, and other targeted audiences. This system is described in the KDHE PIC Plan, and describes the following activities that would be conducted by the PIO and their staff:

- Review communication materials and revise as needed
- Activate public hotline, if needed

- Disseminate information to public and partners on an ongoing basis
- Educate public health officials, elected officials, community leaders, and the media about what information will and will not be available during a pandemic
- Prepare spokespersons
- Coordinate information sharing with bordering jurisdictions.

Information Sharing

Kansas Health Alert Network notifications will be sent to all appropriate state and local response partners informing them of preparedness activities.

Information Management – Centers for Disease Control & Prevention (CDC) Interval: Recognition		
Director of Communications, KDHE	Review materials and revise as needed	✓
	Activate public hotline	✓
	Disseminate information to public and partners on an ongoing basis	✓
	Educate public health officials, elected officials, community leaders, and the media about what information will and will not be available during a pandemic	✓
	Prepare spokespersons	✓
	Coordinate communications plan with bordering jurisdictions	✓
	Review major elements of the Public Information & Communication (PIC) plan with partners and stakeholders	✓
	Monitor media coverage and address misinformation	✓
	Coordinate with the Community Mitigation Branch regarding messages related to non-pharmaceutical interventions	✓
	Respond to media requests for interviews as needed	✓

Countermeasures and Mitigation

Plans and SOGs will be reviewed and updated with incident information including updated contact lists.

Medical Countermeasure Dispensing

Once human transmission is confirmed, local public health agencies will ensure human resources and logistics are in place to begin vaccination, taking into account the need for additional staff due to illness and relief for workers. Just-in-time-training should be implemented for relevant agencies and partner groups regarding vaccine delivery protocols and procedures. Activities will be coordinated with border states and the Kansas City Metro Area.

Medical Materiel Management and Distribution

Local and state health authorities will meet with appropriate partners and stakeholders and review major elements of SNS plans and SOGs. Plans will be modified to account for any updates on recommended target groups, projected vaccine supply and human resources.

Once a novel virus has been identified, KDHE staff will review the distribution and priority prophylaxis and treatment plans to ensure they are updated. The medical community will be notified of the status of the plans and the availability of antiviral medications. KDHE will distribute guidelines to the medical community and conduct training for public health staff involved in antiviral distribution protocols and procedures.

HHS will deploy the antiviral stockpile to state and tribal entities and to federal departments and agencies, along with prioritization and treatment recommendations. HHS will notify the Kansas Medical Countermeasure Program Manager to coordinate receipt.

Non-Pharmaceutical Interventions

Containment plans and SOGs will be reviewed and updated. State and local public health departments will continue to stress prevention messages and provide social distancing education to businesses, schools and community leaders.

Responder Safety and Health

All health and medical sector organizations will be advised of the importance of infection control as an overall mitigation strategy. Organizations should inventory personal protective equipment (PPE) and additional stocks may be ordered.

Countermeasures and Mitigation – Centers for Disease Control & Prevention (CDC) Interval: Recognition		
Medical Countermeasures Coordinator, KDHE- Bureau of Community Health Systems (BCHS)	Meet with partners agencies and stakeholders to review state Strategic National Stockpile (SNS) plans and procedures	✓
Local health departments	Meet with partners agencies and stakeholders to review local mass dispensing plans and procedures	✓
KDHE-Pandemic Planning Committee (PPC)	Recommend target groups based upon projected vaccine supply and available resources	✓
Director of the Division of Public Health, KDHE	Develop communications to the medical community convening the availability of antiviral medication and treatment protocols	✓
Public Information Officer (PIO), KDHE	Develop and release stress prevention messages included in the social distancing education to target areas	✓
Local health departments	Provide just-in-time refresher training to volunteers and assisting agencies for vaccination campaigns	✓

Pandemic Phase	World Health Organization (WHO) Phases		Centers for Disease Control & Prevention (CDC) Intervals		Ebola Virus Phase	
Response Phase	Pandemic Phase	Global spread of human influenza caused by a new subtype	Initiation: Initiation of a pandemic wave	Confirmation of human cases of a pandemic influenza virus anywhere in the world with demonstrated efficient and sustained human-to-human transmission	EVD Confirmed Case Phase	Person(s) meeting the CDC Confirmed Case definition identified in the United States
			Acceleration: Acceleration of a pandemic wave	Consistently increasing rate of pandemic influenza cases identified in the United States, indicating established transmission		
			Deceleration: Deceleration of a pandemic wave	Consistently decreasing rate of pandemic influenza cases in the United States		

Community Resilience and Incident Management

KDHE will activate ICS and organize incident management activities in the DOC. The KDHE Emergency Readiness Initiative would likely be activated which allows for the use of all KDHE staff to be available to assist with incident management and response activities.

Emergency Operations Coordination

KDHE has developed pandemic triggers that delineate staffing and appropriate actions for various trigger points during the pandemic alert period. Those trigger points are as follows:

1. World Health Organization declares Pandemic Phase, U.S. Government moves to the Initiation, Acceleration and Deceleration Interval and identifies the Pandemic Severity Index (PSI) for the particular causative virus. HHS notifies Medical Countermeasure Program Manager they will implement the Pandemic Asset Deployment Strategy. Kansas identifies itself as Interval Initiation.
2. The Kansas Receipt, Staging, and Storage (RSS) Warehouse is activated to receive assets.
3. The U.S. Government declares Interval Acceleration - Consistently increasing rate of pandemic cases identified in the United States, indicating established transmission – First

case in Kansas. Actions based upon federal guidance for respective stage, PSI and respective intervals.

- a. Kansas asynchronously identifies affected geographic area as Acceleration Interval with concomitant actions surrounding the initiation element.
 - b. Kansas detects secondary clusters. Kansas continues asynchronous local and regional interval designations.
 - c. Kansas activates community mitigation interventions for affected communities.
4. The U.S. Government declares Interval Deceleration and preparation for subsequent waves.
- a. Asynchronously within the state, evident signs of infection rate reductions become apparent and affected areas are identified as Interval Deceleration.
 - b. As cases become more sporadic, interval designations of resolution are declared for areas and communities of the state where surveillance supports the identified interval.

Complexity and variability of actions surrounding WHO Phases and CDC Intervals will require coordinated incident management activities between KDHE programs and other local, state and federal response partners. Trigger points were used for deciding staffing of the KDHE ICS. Since the antiviral medication shipment will necessitate activating an RSS Warehouse, KDHE will activate the Departmental Operations Center and additionally staff the ICS.

The KDA is responsible for all food safety programs in Kansas. Food safety has been identified as the number one priority for KDA in the event of any crisis that would affect the ability of the agency to carry out essential functions, which would include a pandemic. Personnel assigned to food safety responsibilities are located throughout the state and cross-training has occurred with all staff. These staff will be used in place of current staff if they are unavailable to provide inspections. Inspections will be conducted during all phases of a pandemic.

All state-inspected slaughter/processing establishments will be directed to communicate problems and resource requests to their local EOCs. It is anticipated that many of these facilities will still contact their assigned inspector or the KDA directly, and that information will be shared with the local EOC. The ESF 11 coordinator in the SEOC will coordinate resource requests with other ESF Coordinators and the logistics personnel, as needed. Status of food producers will be maintained by the ESF 11 Coordinator and provided to the planning section in the SEOC as requested. Due to the large number of regulated facilities, only those experiencing problems will be included in the status reports. Facilities able to continue business as usual will not be tracked or reported on.

It is unlikely that state-level response teams would be needed (or available) to carry out state-administered nutritional assistance and agriculture emergency response support responsibilities during a pandemic. The nutritional assistance programs are managed by a handful of state-level managers on a day-to-day basis. The overwhelming majority of program implementation activity is done at the local level. School districts administer school nutrition programs, the local and state health departments manage the Women, Infants and Children (WIC) program, hundreds of nongovernmental entities implement commodities programs, and the Supplemental Nutrition Assistance Program is administered by the Kansas Department for Children and Families. If the

local agencies have not prioritized these programs in their continuity of operations planning, there is little that can be done from the state level. As mentioned previously, the newly formed group will be working to develop some guidance, but there are few regulatory avenues that would be available to require local entities to administer these programs during a pandemic, with the exception of the Supplemental Nutrition Assistance Program. The state agency is required to accept and process applications, even in the event of a pandemic. Kansas Department for Children and Families (DCF) field staff would carry out these functions with alternative methods as deemed necessary in a pandemic.

Agriculture emergency response support would be provided the same way in a pandemic as it is for other disasters and emergencies in Kansas. Critical response activities are prioritized in all state agency COOPs. It is anticipated that state agencies will be able to provide very little additional support to local jurisdictions during a severe pandemic. Plans are being developed to ensure that essential public safety and public health programs can continue, even with a potential 50 percent reduction in staff. It would not be prudent to assume that resources above and beyond that would be available.

The newly formed Nutritional Assistance Group is developing procedures for alternative approaches for carrying out state-administered nutritional assistance during a pandemic. The KDA will serve as the ESF 11 coordinating agency in the event of a pandemic. Nutritional assistance program status will be reported on a weekly basis to the ESF 11 desk in the SEOC. If there are problems or needs, program managers will also report these to the ESF 11 desk as they occur. In the event of an agriculture or animal disease emergency, the producers will notify their local EOC. Requests for assistance will be routed to the ESF 11 desk in the SEOC.

The KDHE Commander with the approval of the Secretary of KDHE may choose to advise the Governor through The Adjutant General of the State of Disaster Emergency for the pandemic.

If a State of Disaster Emergency is declared by the Governor a recommendation that all state government agencies implement their COOPs may be made. A major focus of these COOPs shall include limiting work hours to personnel who perform priority COOP functions. This limiting of state workers is expected to have the effect of limiting the disease spread among the workforce and be part of the state's overall layered disease mitigation strategy.

In an effort to reduce and delay the spread of infection through the state workforce, the KDHE Commander may recommend the implementation of COOP measures to the Governor's Office, through the Secretary of KDHE and The Adjutant General's Department, for all state agencies. The implementation of these measures may be dictated by the PSI and result in the reductions of state functions corresponding to that severity. When there is a COOP event (a significant disruption of state government or agency business operations) then all affected agencies shall promptly:

1. Follow established notification and decision making procedures, as specified in the respective agency COOP.
2. Notify the governor (or their designated representative) about the situation and extent of plan activation.

3. Notify KDEM, who will subsequently notify the appropriate county’s office of emergency management

The JIC will coordinate the release of this information with the Governor’s Office to the citizens of Kansas.

Community Recovery

Recovery items related to the Pandemic Phase are addressed in CDC Interval: Preparation.

Community Resilience and Incident Management – Centers for Disease Control & Prevention (CDC) Intervals: Initiation, Acceleration, and Deceleration		
Kansas Department of Agriculture (KDA)	Ensure all food producers, transporters, retailers, and consumers are aware of information and educational resources prior to, during, and after a pandemic	✓
	Assist farm-to-fork operators with planning for the human resource challenges that may affect their businesses during a pandemic	✓
	Serve as a source of information for stakeholders regarding state and local actions and resources available to producers during a pandemic	✓
	Engage in vigorous continuity of operations planning to ensure that the department can continue to provide the services necessary to maintain the integrity and safety of the food supply	✓
KDHE Command	The KDHE Commander will activate the KDHE Department Operations Center and fully activate the response plan	✓
	The Planning Section Chief will monitor staffing needs and recruit additional staff, if necessary	✓
	The Liaison Officer will ensure activities are coordinated with the bordering states of Missouri, Nebraska, Oklahoma and Colorado, as well as the Kansas City Metro Area	✓
	The KDHE Commander will ensure that CDC is briefed on the actions occurring in Kansas	✓
	The Finance Section Chief will document the expenses related to responding to a pandemic virus outbreak	✓
	The Operations Section Chief will ensure coordination of BEPHI response activities with those of the local health departments and the medical community	✓
	The KDHE Commander, in coordination with the KDHE Secretary and The Adjutant General of Kansas, will determine when to advise the Governor to declare a State of Disaster Emergency in response to the pandemic	✓
	The Kansas Health & Environmental Laboratories (KHEL) will provide testing and technical support to the pandemic response, coordinate the response of the Kansas Laboratory Response Network, and provide guidance to clinical laboratories statewide	✓

	The Planning Section Chief will monitor staffing needs at the KDHE	✓
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Biosurveillance

The Epidemiological Branch Director in the KDHE ICS will ensure that studies are in place to monitor vaccine effectiveness as well as assess the quality of surveillance and make recommendations for improvement during the period between pandemic waves and after the pandemic. In addition, the Epidemiological Branch will be responsible for tracking adverse events to vaccine and treatment. The Epidemiological Branch Director will also coordinate the monitoring of health impacts, including deaths and hospitalizations.

Public Health Surveillance and Epidemiological Investigation

KDHE–OVS has implemented an electronic death reporting system. Personnel within the OVS and BEPHI can access the system, and build queries regarding deaths from specific causes, such as influenza or pneumonia. In the event that the electronic death reporting system is not operational, influenza-associated deaths will be tabulated manually, using traditional, paper-based methods.

During the early period of the pandemic, the Epidemiological Branch will use information gathered from local health departments’ case investigations, WebEOC, and the OVS electronic death reporting system to determine the disease’s attack and case-fatality rates, the number and rate of pandemic-associated hospitalizations, the number of pandemic-associated deaths, and the numbers of newly isolated and quarantined individuals. Tabulated data may be transmitted to the CDC as requested. For persons with potential exposure, monitoring for symptoms with daily follow-up and reporting to the local health department or KDHE may be indicated. Persons undergoing public health monitoring shall be given information and an instruction sheet for self-monitoring.

The Epidemiological Branch, with assistance from OVS, may utilize bridged estimates from the National Center for Health Statistics to calculate estimated rates of influenza-associated hospitalization.

The Planning Section, in cooperation with the Kansas Division of Emergency Management, will measure absenteeism in key industries. The Kansas Division of Emergency Management, which regularly partners with key industries and critical infrastructure in Kansas, may reach out to the many organizations and sectors that may suffer from reduced workforces. Collecting information on the number of ill workers, as well as possible impacts to critical business functions, may help provide a more complete understanding of the disease’s impact to Kansas communities.

In the event of a suspect or confirmed case of pathogenic avian influenza, the Animal Health Commissioner will contact the State Epidemiologist or designee via the Epidemiology Hotline, in addition to contacting The Adjutant General’s Department via email.

Public Health Laboratory Testing

Studies have demonstrated a dramatic increase in antiviral medication resistance in some commonly circulating influenza strains to certain antiviral medications. The technology required to perform antiviral resistance testing is not available to most laboratories, including KHEL. In response, CDC has implemented an enhanced antiviral resistance testing and surveillance program. Each of the CDC Collaborating Laboratories is asked to submit a certain portion of influenza isolates to CDC. KHEL is participating in this surveillance program and will submit an increased number of specimens for antiviral resistance monitoring.

Provision of laboratory analysis is critical to effective patient care and disease control. The following table presents some applicable diagnostic tests available by time of infection to aid medical, public health and laboratory personnel in patient management.

Timeline of Infection	Diagnostic tests available
Within a few days after symptoms begin	Antigen-capture enzyme-linked immunosorbent assay (ELISA) testing IgM ELISA Polymerase chain reaction (PCR) Virus isolation
Later in disease course or after recovery	IgM and IgG antibodies
Retrospectively in deceased patients	Immunohistochemistry testing PCR Virus isolation

Biosurveillance – Centers for Disease Control & Prevention (CDC) Intervals: Initiation, Acceleration, and Deceleration		
KDHE Command	Recommend the implementation of Continuity of Operations (COOPs) to the Governor’s Office through the Secretary of KDHE and The Adjutant General’s Department for all state agencies	✓
KDHE-Kansas Health & Environmental Laboratories (KHEL)	Assist CDC with monitoring for antiviral resistance	✓
KDHE Epidemiological Branch	Ensure that studies are in place to monitor vaccine effectiveness	✓
	Coordinate monitoring of health impacts including deaths and hospitalizations	✓
	Determine the disease’s attack and case-fatality rates	✓
	Assess the quality of surveillance and make recommendations for improvement	✓
	Track adverse events to vaccine and treatment	✓

KDHE Planning Section and Kansas Division of Emergency Management	Measure absenteeism in key industries	✓
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Surge Management

KDHE will implement generic elements of the response plans and specific plans for identified pandemic issues, including continuous collection of data concerning medical and material supplies and their allocation, in order to rapidly identify changing patterns of need and modify or redirect policy.

Medical Surge

Depending upon the severity of the pandemic, communities may choose to utilize alternate care facilities for patients presenting with pandemic-related symptoms. These alternate care sites may be utilized to facilitate congregate care of similarly symptomatic patients that do not require intensive medical treatments. The use of these facilities by communities could prove effective in maintaining hospital availability for those with severe complications or other non-pandemic related medical emergencies such as labor and delivery, traumas, and normal daily emergency room situations.

If a suspected or confirmed case of EVD is identified in Kansas, the ability for medical facilities and state systems to surge to control the spread of the disease and provide safe patient care is of utmost importance. The University of Nebraska Medical Center (UNMC) serves as the multi-state regional treatment facility for confirmed EVD patients. Safely transporting the patients to the treatment facility will require coordination between healthcare, public health, emergency medical services, and law enforcement officials. Should transfer to UNMC or other Ebola Treatment Center not be available, the Kansas hospitals identified as Centers of Excellence for Infectious Disease Preparedness need to have the capability to treat the patient.

The Disease Containment Branch will coordinate the provision of infection control measure messages to healthcare delivery personnel as well as the general public. KDHE will coordinate best practice recommendations from the CDC, HHS, and Association for Professionals in Infection Control and Epidemiology (APIC). This information will be shared via a variety of avenues including the JIC and KS-HAN, in partnership with the Kansas Hospital Association, the Kansas APIC chapters and the Kansas Board of Emergency Medical Services (KBEMS).

The role of behavioral health professionals in pandemic response is important for the health of Kansans. Continuity of operations plans estimates the reduction of services during this time. This reduction of services may have many effects on the employment status of Kansans. Behavioral health providers will have a role in drafting messages and providing services to established clients and the general population during this time. These messages may also address the expectation of deaths at places other than medical care facilities, depending on the severity of the pandemic.

Once the pandemic is underway and healthcare providers rely on clinical criteria rapid test kits, more diagnostic activities may be conducted locally, and fewer shipments may be needed. Public health laboratories should continue to build partnerships with healthcare providers in their jurisdictions, including physicians who participate in the ILINet during the regular influenza season.

Additional durable medical equipment and supplies, including mechanical ventilators, may be available from the SNS. Normal requesting procedures will be followed for medical facilities, alternate care sites, and other appropriate locations to request this equipment. Requests for mechanical ventilator equipment must include:

- Make
- Model number
- Amount requested
- Number of ventilators already in service
- Number of available trained and qualified staff to operate additional ventilator(s)
- Available space to accommodate additional ventilated patients
- Additional supply needs

The state EOC in consultation with KDHE will evaluate the requests for mechanical ventilators based on:

- Proportion of jurisdictional population in relation to Kansas total population
- Disease incidence proportional to jurisdictional population
- Number of intensive care unit beds in the requesting facility
- Order in which the request was made
- Availability of trained and qualified staff to operate additional ventilator(s)
- Availability of space to accommodate additional ventilated patients
- Additional equipment/supply requests to support additional ventilators

During an extremely severe pandemic, the circumstances of the pandemic may be so dire, when all medical resources have been allocated or are in extremely short supply and are insufficient to address the healthcare needs of all the victims.

Fatality Management

In the event of mass fatalities caused by pandemic, it may be necessary to establish a virtual Family Assistance Center where information can be received and disseminated by means other than personal contact, in order to reduce potential exposure to virus. Additional information concerning the manner in which Kansas will address a mass fatality incident may be located in the Kansas Mass Fatality Plan attached to the Kansas Response Plan. KDHE may request coroners and other physicians certifying cause of death to explicitly indicate if a pandemic is determined to be a cause of death.

Surge Management – Centers for Disease Control & Prevention (CDC) Intervals: Initiation, Acceleration, and Deceleration		
	Provide infection control messages to healthcare personnel	✓

KDHE Disease Containment Branch	Coordinate best practice recommendations and share this information with the State Joint Information Center (JIC) and local partners	✓
Kansas communities	Activate and staff alternate care sites, if applicable	✓

Information Management

Using the communication systems identified during the Interpandemic Period, public information staff will update appropriate agencies and the public at least weekly and as needed regarding any new information regarding the novel virus and its impact. Materials and messages will be reviewed and modified as needed with information from the CDC, HHS, and infection control specialists.

Emergency Public Information and Warning

When the SEOC is activated, the state JIC will also be activated. KDHE’s PIO will serve with the JIC to ensure consistency of information from the State of Kansas. JIC activities will be coordinated with bordering states and the Kansas City Metro Region. In addition to the messages provided by KDHE, KDA will coordinate with the nutritional assistance program managers and advise the public regarding availability of nutritional assistance programs. In addition to the messages provided by KDHE, KDA will advise the public regarding food product recalls, safe food handling procedures, and any issues regarding shortages, substitutions, etc.

Information Management

KDHE public information staff may conduct scheduled conference calls with interested local health departments, hospitals, and other medical providers to increase information sharing and provide briefings prior to the release of pandemic message campaigns.

KDA will coordinate with partner agencies to ensure that all applicable nutrition assistance program information is provided to stakeholders during the Pandemic Period. KDA will assume the role as the ESF 11 coordinating agency during the pandemic response. A key component of this role is to coordinate the response to agricultural emergencies. KDA will continue to monitor the agriculture sector and provide necessary information and resources, if available, to ensure the continuity of food production in Kansas.

KDA will ensure that all applicable food safety information is provided to stakeholders during the pandemic period. KDA will also communicate with agricultural producers and other regulated entities to help KDHE provide messages regarding disease containment in the workplace and updates on the status of the pandemic.

Information Management – Centers for Disease Control & Prevention (CDC) Intervals: Initiation, Acceleration, and Deceleration		
State Joint Information Center (JIC)	Provide updated information to appropriate agencies and the public at least weekly and as needed regarding virus and impact	✓

Kansas Department of Agriculture (KDA)	Provide all applicable nutrition assistance program information to stakeholders	✓
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Countermeasures and Mitigation

The timely and appropriate application of mitigation activities and countermeasure strategies could have the effect of reducing the impact of the pandemic on Kansas.

Medical Countermeasure Dispensing

KDHE may activate the Department Operations Center and distribute vaccine and supplies necessary for vaccine administration (e.g., needles and syringes) through a centralized distribution system to local health departments using SNS infrastructure or utilize the federal vaccine distribution system. Utilization of the federal vaccine distribution system in this instance will be preferable to better ensure the viability and stability of the vaccine. In addition, the federal vaccine distribution system already has mechanisms in place to maintain cold chain custody of the material. As part of ongoing pandemic planning efforts, KDHE may work with vaccine distributors to develop a state-controlled distribution system. This system may be utilized in a situation where total vaccine distribution is the responsibility of the state or in a situation where distribution below a required threshold determined by the federal government is needed. In either instance, distribution of a specified number of doses of vaccine and medical supplies is based upon population and distribution of prioritized at-risk or essential services personnel and request of the county. Supplies to support vaccination efforts may be shipped separately from vaccine, depending on the availability of supplies.

A state-controlled distribution of vaccine will be in-place during pandemic response. KDHE will focus distribution of vaccine and vaccine administration supplies to local health departments and hospitals within the state of Kansas. Utilizing vaccination rate data supplied by local health departments and hospitals to KDHE’s Planning Section, KDHE will determine the appropriate time and manner to begin providing state-controlled vaccine to other health and medical sector partners including commercial pharmacies. This determination will include the adequacy of vaccine and supplies, hospital, and health department pandemic response workload factors, and trends in vaccination rates.

Medical Materiel Management and Distribution

If needed, KDHE will consult with KDEM and SEOC staff to help coordinate the storage, security, and transportation of vaccine and supplies. As previously mentioned, this distribution effort may be in accordance with previously planned and exercised SNS infrastructure. It will be crucial to continue close coordination with local, state, and federal partners.

The Disease Containment Branch may also assist in the distribution of pneumococcal vaccine for high-risk individuals in the event of supply shortage. Those high-risk individuals will be identified and prioritized at the local level in much the same way as the influenza vaccine. The SNS infrastructure may be utilized for distributing these measures.

Once the onset of a pandemic is confirmed, KDHE will fully activate the antiviral medication distribution plan. These medications will be provided to healthcare facilities for the treatment of pandemic-related patients according to guidance and requirements set forth by the federal government.

Non-Pharmaceutical Interventions

Epidemiological Branch staff will monitor adverse reactions to vaccine using the VAERS. This effort will be in coordination with the monitoring of infection and fatality rates associated with the virus. Epidemiological studies of cases, adverse reactions, trends, and effectiveness of containment measures will be conducted using standard epidemiological techniques and methodologies. This information will assist state planners and response staff in determining the effectiveness of the vaccine and the need for additional disease containment measures. To promote accurate epidemiological investigations at all levels of government, it is important for local health departments, hospitals, physicians, and other health and medical professionals to be alert for any reactions or trends and report them via VAERS.

Responder Health and Safety

In a severe pandemic, KDHE may promote vaccination of those state government officials and state and federal personnel deemed as priority for maintaining essential services. Utilizing similar methodologies as local jurisdictions, the State of Kansas will identify these personnel. KDHE will coordinate the provision of vaccine to these individuals to promote continuity of government.

United States-based health care workers, broadly defined as any person working in a health care setting (including laboratory workers and emergency responders), and other workers who are potentially exposed while caring for a patient or during environmental cleanup activities will be subject to the same requirements for active monitoring and restricted movement as any other person, with some exceptions as defined by the CDC or health department.

Countermeasures and Mitigation – Centers for Disease Control & Prevention (CDC) Intervals: Initiation, Acceleration, and Deceleration		
KDHE Strategic National Stockpile (SNS) and Receipt, Staging & Storage (RSS) Units	Distribute vaccine, supplies, antiviral medication, and other medical supplies	✓
KDHE Epidemiological Branch	Monitor adverse reactions to vaccine in VAERS	✓
KDHE Disease Containment Branch	Assist in distribution of pneumococcal vaccine for high-risk individuals	✓
Local health and medical professionals	Report any adverse reactions to vaccinations or trends to KDHE Epi Hotline	✓

Pandemic Phase	World Health Organization (WHO) Phases	Centers for Disease Control & Prevention (CDC) Intervals	Ebola Virus Phase
Recovery Phase	Transition Phase	Reduction in global risk, reduction in response activities, or progression toward recovery actions	Preparation: Preparation for future pandemic waves

As the pandemic impacts in Kansas begin to wane, response activities will reduce and cease as appropriate for the conditions. When the pandemic has been declared ‘over,’ local and state response will return to Interpandemic Period activities.

Community Resilience and Incident Management

Community Recovery

State ESFs will continue activities into the recovery phase as outlined in the base Kansas Response Plan. Restoration of services for the health and medical community, including congregate living services, behavioral health, healthcare, public health, EMS, and laboratory services, will be coordinated by KDHE. The focus will be on returning local communities to Interpandemic Period capabilities as quickly and efficiently as possible. KDHE will work with licensure entities in Kansas to restore applicable levels of oversight to those disciplines. Within the KDHE ICS is a Health Recovery Branch, which promotes coordinated community restoration efforts by working with the KDHE Division of Public Health. Regulatory inspections of hospitals and other KDHE-regulated entities will resume as scheduled and defined in procedure. Recommendations concerning standards of care for both medical care and pre-hospital care arenas will continue to be revised and released as information related to infection and best practices becomes available.

The food supply system will be assessed as needed. Inspections will be conducted on the same schedule as the Interpandemic Period unless problems or issues are reported to KDA in accordance with current procedures. In the final stages of the pandemic, KDA will ensure that all applicable food safety, agriculture, and nutritional assistance information is provided to the public and regulated entities to continue the precautions identified in previous phases.

Local health departments and other local agencies are advised to discuss and plan for how local resources will be identified and utilized to address any potential needs for environmental decontamination of a confirmed case-patient’s residence or other structures. Such resources might include local or regional hazardous materials response teams or private contractors. These units are primarily present to isolate a threat and monitor the environmental decontamination and not for clean-up.

Emergency Operations Coordination

The SEOC will continue to monitor and coordinate with identified critical infrastructure and key assets. Recovery of these assets will promote recovery of the entire state. As assets begin to return to Interpandemic Period operations, the interaction with the SEOC will decrease. Termination of COOP and return to normal operations.

The State of Kansas utilizes the Homeland Security Exercise Evaluation Program (HSEEP) to evaluate response and recovery tasks associated with exercises and emergency incidents. Utilizing HSEEP, KDHE will work with appropriate partners at the state, local and federal level to develop improvement plans for the KDHE Department Operations Center, RSS Warehouse and SEOC based on the after-action reviews for each of those venues. Specific modification of the response plans and operating guides or procedures will be implemented as needed.

Biosurveillance

Public Health Surveillance and Epidemiological Investigation

In addition to HSEEP evaluation methodology, epidemiological studies and reports will identify strengths and weaknesses of response measures, those particularly related to community disease containment, vaccination, and healthcare efforts.

Surge Management

Medical Surge

Return of SNS or other cache durable medical equipment.
Modified protocol use ceased.
Alternate Care Sites demobilized.

Information Management

Return to Interpandemic activities related to disease prevention habits and include appropriate sharing of lessons learned with varied audiences both public and professional.

Emergency Public Information and Warning

Work with the public to remain vigilant for following waves and to continue good disease prevention habits.

Information Sharing

Focus on communication of lessons learned and recovery activities.

Countermeasures and Mitigation

Accountability for used and unused medications, vaccines, and medical supplies.

Medical Countermeasure Dispensing

Return of antiviral medication and/or unused vaccine.

Medical Materiel Management and Distribution

Recovery of state and SNS durable medical equipment.

Responder Safety and Health

It is important to recognize that a severe pandemic will likely have a significant mental health effect on people living in Kansas, responders and government officials. During the times between pandemic waves, behavioral health professionals may be needed across all sectors of society to promote resiliency and provide crisis counseling and stress management opportunities for individuals. Considering the likely economic impact workers will face as a result of a severe

pandemic, behavioral health providers will potentially be called upon by industry to assist with individuals being returned to work, or with workers displaced because of reductions in workload.

Community Recovery – Centers for Disease Control & Prevention (CDC) Interval: Preparation		
All responding organizations	Perform after action reviews and implement improvement plan action items	✓
Regulating agencies	Restoration of regulating activities to pre-pandemic schedule and procedure	✓
KDHE	Coordination of restoration of health and medical services	✓
	Continue to revise and release recommendation concerning standards of care	✓
State Emergency Operations Center (SEOC)	Coordinate with critical resources and key assets to promote recovery and monitor degree of impact to operations	✓

Plan Development and Maintenance

The Pandemic Planning Committee reviews lessons learned, after action reports, improvement plans and new pandemic planning guidance to further develop this plan. The Kansas Pandemic Preparedness and Response Plan is reviewed and updated during the fall of each calendar year. A revised plan is scheduled for release during the month of January of each year.

Authorities and References

State Legal Authority

Statute	Section	Authority
Disposition of Human Remains	65-123	Disposal of human remains during state of emergency relating to public health
Health, Administration and Supervision	65-101	Duties of the Secretary of Health and Environment
	65-Articles 1 and 2	Public health system
	65-101	Powers and duties of the department (KDHE) (Powers of the secretary)
	65-101	Powers and duties of the department as public health authority
Local Health Officials	65-201	Local board of health; powers and duties
	65-119 and 202	Local health officer; qualifications and duties
Communicable Diseases	65-101	Powers and duties of department (given as powers of the secretary)
	65-119	Duties of local health officers
	65-119, 126, and 128	Isolation and quarantine
	65-118	Communicable diseases; suspected cases; protection of the public (reporting suspected case)
	65-127 and 129	Violation of law relating to health
Investigation of Deaths	65-123	Funeral for someone who dies of communicable disease
Control of Communicable Diseases	65-118	Reports of communicable diseases (protection against liability and the necessity of reporting)
	65-119	Investigation and control of communicable diseases
	65-119	General statement of powers for control of communicable diseases

	65-128	Isolation and quarantine
Disasters, responsibilities of the Governor, state of disaster emergency	48-924	Issuance of proclamation of emergency

Glossary

Characterization	Identification of the strain of an influenza virus such as A/Panama
DMORT	A coordinated effort of forensic experts and mortuary personnel to effectively handle a mass fatality disaster
Endemic	A disease that is continually present in a community or a region
Enzootic	Affecting or peculiar to animals of a specific geographic area.
Epidemic	The occurrence of a disease in a community or region clearly in excess of normal expectations
Epizootic	Affecting a large number of animals at the same time within a particular region or geographic area.
Health Alert Network	An Internet-based service used to communicate health and emergency messages
Influenza-like illness (ILI)	The presence of fever $\geq 100^{\circ}$ F, with a cough or sore throat
JIC	A Joint Information Center is a central location for involved agencies to coordinate public information activities and a forum for news media representatives to receive disaster or emergency information
Novel virus	A virus rarely or not previously known to infect humans
Pandemic	The occurrence of a disease in excess of normal expectations in extensive regions, countries and continents
PCR	Polymerase chain reaction is a laboratory method used to isolate and amplify a fragment or sequence of DNA. The technique allows for the rapid identification of organisms such as bacteria, fungi, and viruses.
Strategic National Stockpile (SNS)	A federal cache of medical supplies and equipment to be used in emergency and disaster situations
Subtype	Identification of influenza A viruses according to the hemagglutinin (H) and neuraminidase (N) components of the virus, such as H1N1 or H3N2
Surveillance	The collection, analysis and dissemination of data
Syndromic	Occurring as part of a complex of signs and symptoms suggesting the existence of an undesirable condition or disease

Acronyms and Abbreviations

ACIP	Advisory Committee on Immunization Practices
BDPCP	Bureau of Disease Control and Prevention
BIA	Biological Incident Annex
BCHS	Bureau of Community Health Systems
BEPHI	Bureau of Epidemiology and Public Health Informatics
CDC	U.S. Centers for Disease Control and Prevention
COOP	Continuity of Operations
DHS	U.S. Department of Homeland Security
DMORT	Disaster Mortuary Operational Response Team
DOPH	Division of Public Health
EIS	Epidemic Intelligence Service
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
EVD	Ebola Virus Disease
FDA	U.S. Food and Drug Administration
FEMA	U.S. Federal Emergency Management Agency
HAvBED	Kansas Hospital Bed Availability System
HHS	U.S. Department of Health and Human Services
HSEEP	Homeland Security Exercise Evaluation Program
IAL	Incident Action Level
ICP	Infection Control Professional
ICS	Incident Command System
IDER	BEPHI Infectious Disease Epidemiology and Emergency Response Section
ILI	Influenza-like illness
IMATS	Inventory Management and Tracking System
IND	Investigational New Drug Application
JIC	Joint Information Center
KBEMS	Kansas Board of Emergency Medical Services
KDA	Kansas Department of Agriculture
KDEM	Kansas Division of Emergency Management
KDHE	Kansas Department of Health and Environment
KHEL	Kansas Health and Environmental Laboratories
KS-HAN	Kansas Health Alert Network
LHD	Local Health Department
LIN	Laboratory Information Network
NIMS	National Incident Management System
NREVSS	National Respiratory and Enteric Virus Surveillance System
NRF	National Response Framework
OIE	World Organization for Animal Health

OVS	Office of Vital Statistics
PCR	Polymerase Chain Reaction
PIC	Public Information and Communication
PIO	Public Information Officer
PPC	Pandemic Preparedness Committee
PPE	Personal Protective Equipment
PSAF	Pandemic Severity Assessment Framework
PSAP	Public Safety Answering Point
RSS	Receipt, Staging and Storage
RT-PCR	Real Time Polymerase Chain Reaction
SEOC	State Emergency Operations Center
SNS	Strategic National Stockpile
SOG	Standard Operating Guide
USDA	U.S. Department of Agriculture
USG	United States Government
VAERS	Vaccine Adverse Events Reporting System
VIS	Vaccine Information Statement
VOAD	Voluntary Organizations Active in Disasters
WHO	World Health Organization

Appendices

Appendix A –Health Emergency Activation Levels

Health Emergency Activation Levels	
Level 1 – Normal Operations	<ul style="list-style-type: none"> • Day-to-day operations • IDER monitors surveillance systems statewide • Epidemiologist on-call is notified of reportable diseases or unusual events • Contact with the Epidemiologist on-call is made 24/7 via the Epi Hotline (1-877-427-7317) • Influenza surveillance coordinator gathers information on ILI activity in the state on a weekly basis
Level 2 – Watch	<ul style="list-style-type: none"> • Passive and sentinel surveillance indicates that an unusual event or outbreak has occurred and further case ascertainment is needed • Active and enhanced surveillance initiated at the State and/or Local levels • Decision makers are able to mobilize internal resources to identify and contain diseases • KS-HAN notifications sent to appropriate health departments, physicians, hospitals, and sentinel sites • Epidemiological investigation is conducted by state and local health department staff • Law enforcement may be notified if the event has potential law enforcement implications
Level 3 – Response	<ul style="list-style-type: none"> • Emergency Health Response is necessary • Biological Incident Annex is activated • KDHE Department Operations Center is activated • Limited outside resources needed • Decision makers are able to mobilize internal resources to identify, contain, or mitigate the disease • Public Information is handled through the KDHE Office of Communications • KDHE Public Information Phone Bank may be activated
Level 4 – Full-Scale Activation	<ul style="list-style-type: none"> • Resources outside of public health and medical agencies are needed • State Emergency Operations Center is activated • KDHE Department Operations Center is activated • Kansas State Emergency Operations Center (SEOC) Team is notified and activated as necessary • Governor may issue a proclamation declaring a state of disaster emergency • Federal resources may be requested (e.g., SNS, NDMS) • Joint Information Center is staffed and operational

Appendix B – Crosswalk of Activities

Response Phases	I Normal Operations	II Watch	III Response	IV Full-Scale Activation	V Recovery
WHO Pandemic Phases	Interpandemic Phase	Alert Phase	Pandemic Phase	Pandemic Phase	Transition Phase
CDC Interval	Investigation	Recognition	Initiation, Acceleration, Deceleration	Initiation, Acceleration, Deceleration	Preparation
Community Resilience and Incident Management	Planning with state agencies and task forces. Training and exercising of plan.	Notify KDEM and other partners. Activate Plan.	Minimal or Extended Response. DOH Resources. DOC and activated to Level 3, request KDEM Liaison	Ask for Governor’s Declaration of Emergency	Demobilization and conduct AAR.
Biosurveillance	Normal operation	Broad dissemination of case definition for active case finding of novel virus in KS resident.	Case finding of pandemic strain in KS residents	Case investigation limited to determining age-specific attack rates, morbidity and mortality	Epidemiological studies as outlined in the plan Return to normal case investigation.
Surge Management	Review and revise hospital emergency operations plans. Train and exercise surge portions of plan. Community planning for alternate care sites.	Review applicable surge sections of plan. Revise as necessary with community partners. Increase frequency of HAvBED updates by Kansas hospitals	Incorporate best practices from CDC, KDHE, HHS and APIC. Initiate behavioral health response community.	Use of Alternate Care facilities considered. Use of Modified Protocols for Emergencies considered	Continues until patient load normalizes and disease transmission is interrupted. Close Alternate Care Sites. Cease Modified Protocols for Emergencies.
Countermeasures and Mitigation	PPC review and update the Vaccine and Antiviral Delivery section of the plan as needed. Prepare and distribute Isolation and Quarantine Order Templates to LHD.	Initiate vaccine and antiviral acquisition Verify federal material distribution plans. Advise hospitals and clinicians of control measures, including quarantine and isolation orders for novel virus cases.	Continue to identify high-risk groups for possible treatment with antivirals and prepare for mass vaccination. Review community control measures. Consider group isolation measures.	Conduct mass immunizations when vaccine is available. Continue treatment with antivirals if available. Implement community control measures including group isolation.	Assess the effectiveness of vaccine and antivirals. Review effectiveness of control. Return of durable medical supplies.
Information Management	Review and update PIC plan and the communications	KDHE PIO will review PIC Plan with PPC.	KDHE PIO conducts communication	KDHE PIO conducts communication	KDHE PIO reviews communication

	section of this plan.		activities outlined in the plan.	activities outlined in the PIC plan.	strategies used during the pandemic.
			<p>Situation reports shared with responding organizations.</p> <p>Daily phone calls with health, medical and response community.</p>	<p>Situation reports shared with responding organizations.</p> <p>Daily phone calls with health, medical and response community.</p>	

Appendix C – State Preparedness Committees

Commission on Emergency Planning and Response	
Office of the State Fire Marshal Kansas Department of Health and Environment: Division of Environment Kansas Department of Health and Environment: Division of Public Health Kansas Department of Transportation Kansas Highway Patrol Kansas Adjutant General’s Department Kansas Department of Commerce Kansas Bureau of Investigation Kansas Department of Agriculture	Representative of: Counties Cities Businesses and Industries Broadcasting Agriculture, crop or livestock Transportation, trucking or rail Energy Law enforcement officers Fire fighters County emergency managers Emergency medical services Public works services hospitals Public health Tribes of Kansas individuals with disabilities Kansas Homeland Security Councils

Appendix D – Coordination List

COORDINATION OF PANDEMIC PREPAREDNESS WITH STATE AND FEDERAL AGENCIES

State Agencies

- Kansas Department of Health and Environment (KDHE)
- Kansas Department of Transportation (KDOT)
- Kansas Department of Aging and Disability Services (KDADS)
- The Kansas National Guard (KSNG)
- The Kansas Division of Emergency Management (KDEM)
- The Kansas Board of Emergency Medical Services (KBEMS)
- Kansas Department of Corrections (KDOC)

Kansas Highway Patrol (KHP)
Kansas Department of Agriculture (KDA)
Kansas Board of Pharmacy

Divisions and bureaus within the Kansas Department of Health and Environment

The Office of the Secretary
The Division of Public Health
The Kansas Health and Environmental Laboratories (KHEL)
The Bureau of Epidemiology and Public Health Informatics (BEPHI)
The Bureau of Disease Control and Prevention (BDCP)
The Bureau of Family Health (BFH)
The Bureau of Health Promotion (BHP)
The Bureau of Community Health Systems (BCHS)

Federal Agencies

The Department of Health and Human Services (HHS)
The Centers for Disease Control and Prevention (CDC)
The Federal Emergency Management Agency (FEMA)
The Food and Drug Administration (FDA)
The Department of Homeland Security (DHS)
The United States Department of Agriculture (USDA)

Other Agencies and Organizations

Other State Health Departments
Kansas Veterinary Diagnostic Laboratory
Kansas Hospital Association
Kansas Medical Society
Salvation Army
American Red Cross
Kansas Association of Local Health Departments
Kansas Pharmacists Association

Appendix E – Family (Home) Care for Symptomatic Individuals

Home care will be the predominant mode of care for most people infected with influenza. During the Pandemic Alert Period, individuals should discuss with their healthcare provider specific recommendations for both vaccination and chemoprophylaxis.

The single best way to prevent influenza is to get vaccinated each fall. In the absence of vaccine, however, there are other ways to protect against influenza. Only oseltamivir and zanamivir are currently recommended for seasonal influenza because of high levels of resistance to amantidine and rimantidine among currently circulating influenza A viruses. Adamantine (amantidine and rimantidine) have limited use in the prevention of influenza. Zanamivir is also used for chemoprophylaxis. All of these drugs are prescription drugs, and a doctor should be consulted before their use.

The public should receive frequent and repetitive health communications that emphasize the simple steps that individuals and families may take to prevent the spread of respiratory illnesses like influenza:

- Avoid close contact with people who are sick.
- Wash hands often. If sick, stay at home and keep at least three feet away from others.
- Cover mouth and nose with a tissue when coughing or sneezing.

Individuals who are cared for at home should:

- Get plenty of rest.
- Drink a lot of fluids.
- Avoid using alcohol and tobacco.
- Consider taking over-the-counter medications to relieve the symptoms of influenza (but never give aspirin to children or teenagers who have influenza-like symptoms).
- Stay home and avoid contact with other people.
- Cover nose and mouth with a tissue when you coughing or sneezing.

In a pandemic influenza, some individuals who are cared for at home may develop complications. Should complications develop, these individuals should seek medical care immediately, either by calling the doctor or going to an emergency room. Upon arrival, the receptionist or nurse should be told about the symptoms so that precautions can be taken (providing a mask and or separate area for triage and evaluation).

Warning signs to seek urgent medical care:

In children, these include:

- High or prolonged fever
- Fast breathing or trouble breathing
- Bluish skin color
- Not drinking enough fluids
- Changes in mental status, somnolence, irritability
- Seizures
- Influenza-like symptoms improve but then return with fever and worse cough

- Worsening of underlying chronic medical conditions (for example, heart or lung disease, diabetes)

In adults, these include:

- High or prolonged fever
- Difficulty breathing or shortness of breath
- Pain or pressure in the chest
- Near-fainting or fainting
- Confusion
- Severe or persistent vomiting

Appendix F – Internet Sites Referenced

CDC FluAid

FluAid is a test version of software created by programmers at the Centers for Disease Control and Prevention (CDC). It is designed to assist state and local level planners in preparing for the next influenza pandemic by providing estimates of potential impact specific to their locality.

<https://www.cdc.gov/flu/pandemic-resources/tools/fluaid.htm>

Kansas State Statutes (index)

http://www.kslegislature.org/li_2016/b2015_16/statute/

World Health Organization Pandemic Preparedness

<https://www.who.int/influenza/preparedness/pandemic/en/>

Kansas Response Plan (KRP)

http://www.kansastag.gov/AdvHTML_doc_upload/2017%20KRP%20FINAL.pdf

Mass Clinic (SNS) Standard Operating Guide Template for Local Health Departments

http://www.kdheks.gov/cphp/operating_guides.htm

Federal website with Pandemic Influenza planning tools and resources

<http://www.pandemicflu.gov/>

Valuable Links from pandemicflu.gov

Antiviral Allocations for each state: <https://www.cdc.gov/flu/pandemic-resources/national-strategy/planning-guidance/>

National Strategy for Pandemic Influenza: Implementation Plan

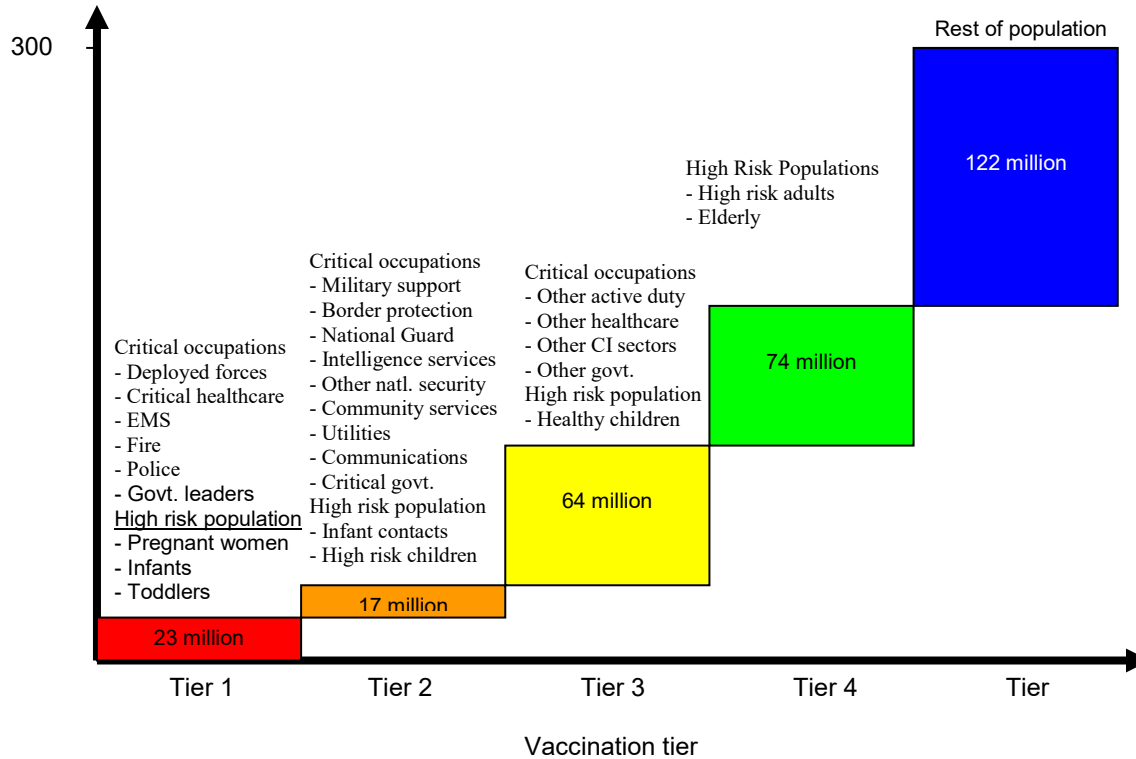
<https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-implementation.pdf>

Appendix G – HHS Vaccine Priority Recommendations

Table 2. Vaccination target groups, estimated populations, and tiers for severe, moderate and less severe pandemics as defined by the Pandemic Severity Index (PSI)

Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Not targeted
Category	Target group	Estimated number	Severe	Moderate	Less severe
Homeland and national security	Deployed and mission critical pers.	700,000			
	Essential support & sustainment pers.	650,000			
	Intelligence services	150,000			
	Border protection personnel	100,000			
	National Guard personnel	500,000			
	Other domestic national security pers.	50,000			
	Other active duty & essential suppt.	1,500,000			
Healthcare and community support services	Public health personnel	300,000			
	Inpatient healthcare providers	3,200,000			
	Outpatient and home health providers	2,000,000			
	Healthcare providers in LTCFs	800,000			
	Community suppt. & emergency mgt.	600,000			
	Other important healthcare personnel	500,000			
Critical infrastructure	Emergency Medical Service personnel	2,000,000			
	Law enforcement personnel				
	Fire services personnel				
	Mfrs of pandemic vaccine & antivirals	50,000			
	Key government leaders	50,000			
	Electricity sector personnel	1,900,000 to 4,400,000			
	Natural gas personnel				
	Communications personnel				
	Water sector personnel				
	Critical government personnel				
General population	Pregnant women	3,100,000			
	Infants & toddlers 6–35 mo old	10,300,000			
	Household contacts of infants < 6 mo	4,300,000			
	Children 3–18 yrs with high risk cond.	6,500,000			
	Children 3–18 yrs without high risk	58,500,000			
	Persons 19–64 with high risk cond.	36,000,000			
	Persons ≥65 yrs old	38,000,000			
	Healthy adults 19–64 yrs old	121,800,000			

Figure 1. Vaccination tiers and target groups for a severe pandemic. This figure illustrates how vaccination is administered by tiers until the entire U.S. population has had the opportunity to be vaccinated, and how tiers integrate target groups across the four categories balancing vaccine allocation to occupationally defined groups and the general population.



Appendix H – Local Pandemic Influenza Response Checklist

ACTION	☑
<p>Interpandemic Period <i>Goals: Strengthen influenza pandemic preparedness, Minimize the risk of transmission to humans; detect and report such transmission rapidly if it occurs</i></p>	
<p>Establish a local healthcare task force as a focus for planning, preparedness and coordinated response. The task force should include representatives from hospitals, physician and nursing organizations, home healthcare, long-term care facilities, pharmacists, EMS and local public health officials.</p>	
<p>Develop strategies to increase the demand for influenza vaccine among your county’s residents and especially healthcare workers.</p>	
<p>Continue to develop and refine the local Mass Dispensing, Community Disease Containment and Public Information and Communication SOGs.</p>	
<p>Work with the local chamber of commerce and large employers to increase awareness in the community.</p>	
<p>Conduct training and exercises to ensure the local Mass Dispensing, Community Disease Containment and Public Information and Communication SOGs are operational.</p>	
<p>Educate health department staff and healthcare providers about pandemic influenza.</p>	
<p>Estimate target populations (priority groups) of essential personnel, including healthcare workers, first responders and public safety workers.</p>	
<p>Pandemic Alert Period <i>Goal: Ensure rapid characterization of the new virus subtype and early detection, notification and response to additional cases. Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccine development Maximize efforts to contain or delay spread, to possibly avert a pandemic, and to gain time to implement pandemic response measures</i></p>	
<p>Review Local Response Plan, Emergency Support Function 8 – Health and Medical Annex.</p>	
<p>Review the Mass Dispensing, Community Disease Containment and Public Information and Communication SOGs, ensure contacts are updated and potential vaccination clinic facilities are available.</p>	
<p>Review local Point of Dispensing sites on Kansas Countermeasure Response Administration System and update, if necessary.</p>	
<p>Convene local health task force and brief on the status of the Pandemic Alert and local preparedness efforts.</p>	
<p>Review message maps relating to pandemic influenza and make sure they are current.</p>	
<p>Review priority group estimates.</p>	
<p>Ensure Mass Dispensing SOG addresses vaccine distribution to tribal entities, military installations, and correctional facilities, if applicable.</p>	
<p>Ensure city police departments and the county sheriff’s offices are aware of the potential for civil unrest to occur in the event of a pandemic.</p>	

Meet with adjoining jurisdictions to ensure actions will be coordinated in Phase 6. Special considerations include: priority group recommendations, vaccination clinic operations (hours of operation, locations, policies, and forms).	
Local health task force reviews the priority group recommendation of the KDHE and provides guidance to local health officer on any changes.	
Once priority groups are identified, estimate the number of local citizens in each group.	
Health department ensures that all agencies and volunteers tasked in the plan are aware of the Pandemic Alert Phase and the potential for escalation.	
Ensure all personnel who may have contact with the media are trained on the message maps.	
Ensure all media contacts are up to date.	
Log into WebEOC and familiarize staff with the system.	
Review security component of the Mass Dispensing SOG and ensure security assets are available and briefed.	
Pandemic Alert Period <i>Goal: Minimize the impact of the pandemic</i>	
Activate local Emergency Operations Plan (EOP), Emergency Support Function 8.	
Activate local Emergency Operations Center (EOC) and the local Joint Information Center (JIC).	
Administer influenza vaccine as it becomes available. Ensure a second dose of vaccine is administered if necessary.	
Assist KDHE with obtaining data to determine age-specific attack rates, morbidity and mortality.	
Work with KDHE to determine vaccine efficacy.	

Appendix I – State Pandemic Influenza Checklist

ACTION	<input checked="" type="checkbox"/>
Interpandemic Period <i>Goal: Strengthen influenza pandemic preparedness, Minimize the risk of transmission to humans; detect and report such transmission rapidly if it occurs</i>	
Establish a state task force as a focus for planning, preparedness and coordinated response. The task force should include representatives from hospitals, physician and nursing organizations, home healthcare, long-term care facilities, pharmacists, EMS and local public health officials.	
Develop strategies to increase the demand for influenza vaccine among state residents; especially healthcare workers.	
Continue to develop and test the KDHE Internal Operating Guides.	

Ensure all KDHE – Division of Public Health staff with response roles are trained on the National Incident Management system. (Complete IS-700 through KS TRAIN or provide certificate to training staff)	
Establish the Pandemic Preparedness Committee (PPC) to draft and maintain the plan for a coordinated state response to an occurrence of pandemic influenza.	
Conduct exercises to test the state’s ability to respond to large-scale outbreaks at least annually.	
Continue passive surveillance of influenza-like illness using the ILINet Surveillance System.	
KHEL will continue to isolate and sub-type influenza viruses year round.	
Continue to transmit information on influenza-like illness and influenza viruses isolated to CDC.	
Continue to conduct training and exercises to ensure the plan and corresponding SOGs are operational.	
Educate health department staff and healthcare providers about pandemic influenza.	
Estimate target populations (priority groups) of essential personnel, including healthcare workers, first responders and public safety workers.	
Continue to conduct laboratory and disease surveillance activities described in Phase 1.	
<p>Pandemic Alert Period <i>Goal: Ensure rapid characterization of the new virus subtype and early detection, notification and response to additional cases. Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccine development Maximize efforts to contain or delay spread, to possibly avert a pandemic, and to gain time to implement pandemic response measures</i></p>	
Review the Kansas Response Plan to include: Emergency Support Function 8 – Health and Medical Annex and the Biological Incident Annex.	
Review Mass Dispensing SOG, ensure contacts are updated and potential vaccination clinic facilities and state warehouses are available.	
Review local Point of Dispensing sites on Kansas Countermeasure Response Administration System and ensure local entities have updated, if necessary.	
Convene state health task force and brief on the status of the Pandemic Alert and local preparedness efforts.	
Review message maps relating to pandemic influenza and make sure they are current.	
Review priority group estimates.	
Make contact with state health departments in Missouri, Nebraska, Oklahoma and Colorado to update on status of planning and preparedness efforts. Ensure contact numbers are updated.	
Continue to conduct laboratory and disease surveillance activities described in Phase 1. Monitor and institute recommendations from CDC for any additional surveillance activities that should be undertaken given the specific circumstances.	
Ensure state law enforcement agencies (KBI and KHP) are aware of the potential for civil unrest to occur in the event of a pandemic.	

Test the functionality of the health and medical boards in WebEOC and update if needed.	
Ensure pandemic influenza information is available on the KDHE website.	
Activate public hotline if needed.	
Begin case detection among people who have recently traveled to the outbreak area and present with influenza-like illness or pneumonia.	
Continue disease surveillance activities described in Phase 1 regardless of the time of year.	
Meet with adjoining jurisdictions to ensure actions will be coordinated in Phase 6. Special considerations include: priority group recommendations, vaccination clinic operations (hours of operation, locations, policies, and forms).	
State health task force provides the priority group recommendation to the local health officers.	
KDHE collects information from the local agencies regarding the estimated numbers of people in the various priority groups.	
KDHE ensures that all agencies tasked in the plan are aware of the Pandemic Alert Phase and the potential for escalation.	
Ensure all personnel who may have contact with the media are trained on message maps.	
Ensure all media contacts are up to date.	
Log into WebEOC and familiarize staff with the system.	
Review security component of the Mass Dispensing SOG and ensure security assets are available and briefed.	
Educate public health officials, elected officials and the media about what information will and will not be available during a pandemic.	
Assess the need to screen travelers arriving in the U.S. from affected countries.	
Investigate the epidemiology of all early cases either originating in the U.S. or that are imported into the country.	
Recommend that hospitals and emergency departments increase laboratory testing of influenza, particularly those who may have had recent exposure at the site of an outbreak.	
The Bureau of Epidemiology & Public Health Informatics will investigate outbreaks and increases in ILIs.	
Pandemic Alert Period – Phase 6 <i>Goal: Minimize the impact of the pandemic</i>	
Activate Kansas Response Plan (KRP), Biological Incident Annex.	
Activate State Emergency Operations Center (SEOC) and the Joint Information Center (JIC).	
Distribute or administer influenza vaccine as it becomes available. Ensure a second dose of vaccine is administered if necessary.	

Assist local health departments with data collection to determine age-specific attack rates, morbidity and mortality rates.	
Work with CDC to determine vaccine efficacy.	
Monitor health impacts of the pandemic including deaths and hospitalizations from influenza.	
Assess the quality of surveillance and make recommendations for improvement during the period between pandemic waves and after the pandemic.	

Appendix J – Community Disease Containment Standard Operating Guide

http://www.kdheks.gov/cphp/operating_guides.htm

The link provided directs the user to the Community Disease Containment Standard Operating Guide template developed by KDHE. Included on this website is a template Standard Operating Guide (SOG) for local health department and community use in planning for any disease outbreak, including pandemic influenza.

Appendix K – Diagnostic Assays during Pandemic Influenza

Rapid Diagnostic Tests

1. Several rapid diagnostic test kits based on antigen detection are commercially available for Influenza. Laboratories in outpatient settings and hospitals can use these tests to detect Influenza viruses within 30 minutes. Some tests can detect influenza A viruses (including avian strains); others can detect influenza A and B viruses without distinguishing between them and some can distinguish between influenza A and B viruses. The type of specimens used in these tests (i.e., nasopharyngeal swabs, nasal swab, throat swab, or nasal aspirate,) may also vary. RT-PCR and rapid diagnostic tests do not require in vitro growth or isolation of virus. During a pandemic, rapid diagnostic tests will be widely used to distinguish influenza A from other respiratory illnesses.
 - a. Biocontainment level: BSL-2
2. RT-PCR Subtyping
 - a. Influenza specimens may also be typed and subtyped using real-time RT-PCR, which does not require in vitro growth or isolation of virus. CDC has trained scientists from all 50 states to use RT-PCR subtyping to identify human and avian HA subtypes of public health concern. These methods are in place for year-round surveillance of influenza-like-illness (ILI) and can be ramped up for surge capacity during an outbreak or pandemic event. Currently only nasopharyngeal and nasal swabs are accepted for testing with this method; additional specimen types may be added on an emergency use basis according to the discretion of the CDC.
 - b. Biocontainment level: BSL-2
3. Virus Isolation
 - a. Virus isolation—growing the viral strain in cell culture for Influenza diagnostics is considered to be a best practice because it confirms that the virus is infectious. During a pandemic, virus isolation followed by antigenic and genetic (sequencing) analysis will be used to characterize the earliest pandemic isolates, as well as to monitor their evolution during the pandemic. Laboratories that participate in the WHO Global Influenza Surveillance Network typically use virus isolation followed by hemagglutination inhibition (HAI), IFA staining, or RT-PCR to monitor circulating seasonal strains of Influenza. If clinical and epidemiologic data suggest that a human case of influenza might be due to infection with avian influenza A (H5N1) or another highly pathogenic avian influenza strain (see Box 3), the virus should not be cultured except under BSL-3 conditions with enhancements. Laboratories that lack BSL-3 enhanced facilities

- may either perform RT-PCR subtyping using BSL-2 containment procedures or send the specimen to CDC for isolation and characterization.
- b. Biocontainment level: Inter-pandemic and Pandemic Alert Periods – BSL-3 with enhancements; Pandemic Period – BSL-2
 - c. KHEL does not perform these tests
4. Immunofluorescence Antibody Staining
- a. IFA staining following virus isolation can be used to identify influenza types (A, B) and influenza A HA subtypes using a panel of specific antisera. In some cases, IFA can be used for direct testing of cells pelleted from original clinical samples. CDC's Influenza Branch produces and distributes a reagent kit to WHO-collaborating laboratories that includes conjugated monoclonal antibodies for typing and subtyping currently circulating influenza viruses by IFA. Many laboratories use commercially available reagents to type influenza viruses by direct immunofluorescence tests (DFA).
 - b. Immunofluorescence Assays
Biocontainment level: BSL-2 when performed directly on clinical specimens; if used on cultures for earlier detection of virus, biocontainment recommendations for viral culture apply
5. Serological Tests
- a. Tests based on detection of antibodies in patient sera—e.g., enzyme-linked immunosorbent assay (ELISA), HAI, and microneutralization assay—can be used to retrospectively confirm influenza infection. Although microneutralization assay is the most comprehensive test for detection in humans of antibodies to avian influenza viruses, it is available in only a few state public health laboratories.
 - b. Hemagglutination Inhibition (HAI)
Biocontainment level: BSL-2
 - c. KHEL does not perform these tests.