KANSAS PANDEMIC INFLUENZA PREPAREDNESS AND RESPONSE PLAN
Version 2.3
January 2016

Kansas Response Plan
Biological Incident Annex
Attachment 1

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Introduction

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 a number of 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 by the use of 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.

Experts agree an influenza pandemic is inevitable. To prepare for the next pandemic, the Kansas Department of Health and Environment (KDHE) Bureau of Community Health Systems (BCHS), in cooperation with local and state partners, has developed this Kansas Pandemic Influenza Preparedness and Response Plan, which provides an overview of strategies to reduce pandemic influenza-related morbidity, mortality, and social disruption in the state.

Situation

Influenza 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 Influenza as an Emergency

Pandemic influenza is a unique public health emergency. No one knows when the next influenza pandemic will occur. However, when it does occur it will likely be with little warning. 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 influenza 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 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 and are summarized on the Flu.gov website (www.flu.gov) under the 'HHS Pandemic Influenza Plan' (http://www.flu.gov/planning-preparedness/federal/index.html). On the basis of 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.flu.gov/planning-preparedness/federal/mmwr-rr6306.pdf.

In addition, Kansas is continually integrating the use of federally defined Public Health Emergency Preparedness and 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.

Planning Assumptions and Considerations

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

- Pandemics 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.
- Influenza pandemics are expected but unpredictable and arrive with very little warning.
- 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 influenza 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 influenza 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 influenza 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 influenza preparedness and response:

- Disease surveillance in the U.S. and globally
- Epidemiological investigation in the U.S. and globally
- HHS and CDC will utilize the Influenza Risk Assessment Tool (IRAT) to make an assessment of 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
- Assessment of 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 anticipated state roles in pandemic influenza preparedness and response:

- Identification of statewide public and private sector partners needed for effective planning and response
- Development of key components of the pandemic influenza preparedness 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 influenza 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 influenza 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 influenza 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 influenza viruses and surveillance for influenza-like illness among laboratory personnel

The following compose the anticipated local roles in pandemic influenza 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 associatied implementation guides including the Mass Dispensing Standard Operating Guide (SOG), Public Information and Communication SOG and other guidance and policy documents, as appropriate
- Continue to emphasize the importance of annual influenza vaccination and the routine administration of pneumococcal vaccine 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 influenza vaccine during storage and delivery when it becomes available
- Plan for the potential of civil unrest due to resource scarcity
- Maintain the Public Information and Communication SOG and ensure coordination of information with local emergency management coordinators, hospitals and at-risk populations
- 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 an influenza 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 influenza testing
- Send selected specimens from possible pandemic influenza patients to KHEL
- Clinical laboratories that receive diagnostic specimens from patients with suspected novel influenza (based on clinical and epidemiologic data) should contact KDHE

Concept of Operations

Organization of the Kansas Pandemic Influenza Preparedness and Response Plan

This plan is organized according to the World Health Organization (WHO) Pandemic Phases along with the corresponding CDC Intervals. 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, pandemic influenza 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 influenza elements. Some of the issues addressed within a BIA include:

- Medical services and healthcare workers may be overwhelmed during an influenza 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 virus, 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 by influenza than the general public.
- An influenza 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-BCHS staff members have developed local SOG templates and state SOGs that address details of implementing local and state 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.

WHO Phases		CDC Intervals	
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

Community Resilience and Incident Management

The KDHE Director of the Division of Public Health, who serves as the State Health Officer, or his or her designee, will lead the state response to pandemic influenza or any other infectious disease emergency in Kansas. Local health departments are also encouraged to develop and implement a structured parallel system of pandemic influenza preparedness.

Community Preparedness

The KDHE Director of the Division of Public Health has designated a Pandemic Influenza Preparedness Committee (PIPC) to develop this Kansas Pandemic Influenza Preparedness and Response Plan and to provide guidance to local health departments regarding local plan development. The members of the PIPC will advise the KDHE Director of the Division of Public Health on issues related to their specific areas of expertise for implementation of the state's public health response to pandemic influenza. Members of the PIPC are listed in Table 1.

Table 1 Pandemic Influenza Preparedness Committee (PIPC) Members	
Director KDHE Division of Public Health	Director, Bureau of Epidemiology and Public Health Informatics
State Epidemiologist	KHEL Health Section Chief
Preparedness Director, Bureau of Community Health Systems	Director, Kansas Health and Environmental Laboratories (KHEL)
Director, Bureau of Community Health Systems	Kansas Medical Countermeasures Program Coordinator, Bureau of Community Health Systems
Director of Homeland Security Operations, Bureau of Community Health Systems	Section Chief, Kansas Immunization Program
Director, KDHE Office of Communications	Surveillance Director, Bureau of Epidemiology and Public Health Informatics

All of the members of the PIPC are housed within KDHE. Many other subject matter experts within and outside of KDHE are available to provide advice and support to the PIPC.

The PIPC will review this Kansas Pandemic Influenza Preparedness and Response Plan at least annually and recommend updates. The BCHS Director of Homeland Security Operations 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 PIPC are briefed at the Kansas Commission on Emergency Planning and Response, which meets quarterly. The Clinical Resource Network, a group of practicing physicians who are available for consultation during a public health emergency, may also review the plan and provide feedback as needed. 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 influenza response is described in local BIAs. The Kansas Pandemic Influenza Preparedness and Response 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 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) is currently writing EMS pandemic influenza operational procedures that define the role of EMS in preparing for, mitigating and responding to pandemic influenza. This plan will be a part of the overall all hazards response plan which forms the basis of the agency's internal and external operating procedures in a contingency environment for ensuring Emergency Medical Service systems' ability to respond to an emergency. 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 and other industries. Various outreach measures have occurred, including forums with industry leaders to discuss further cooperation efforts as well as providing pandemic influenza-specific information for industry on websites. BCHS has updated its website to include a section specifically targeting business and industry and preparedness efforts at www.kdheks.gov/cphp/business.htm. 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

Kansas has adopted the Incident Command System (ICS) and National Incident Management System (NIMS) for responding to disasters and emergencies (Executive Order 05-03). The NIMS was published in March 2004 and the National Response Framework (NRF) became finalized in January 2008. Local and state agencies have revised plans to include NIMS-

compliant activities and to align with the NRF. This is a challenging process that requires cross-agency and cross-jurisdictional coordination in order to be successful.

KDHE has established the current system of incident management based on the ICS to organize the response to public health and medical emergencies in Kansas. Throughout this plan, ICS titles are used to identify roles and responsibilities for responding to a pandemic influenza 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 Department Operations Center (DOC) and ICS. A chart outlining the IALs is provided in Appendix B. When conditions or criteria suggest a Level 3 activation, which is not expected to occur in the CDC Investigation or Recognition intervals, 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 the corresponding 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://hseep.dhs.gov/pages/HSEEP_Home.aspx). 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 will 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

Agencies of the State of Kansas participate in the Kansas Continuity of Operations (COOP) Committee. Through this committee, the Kansas Department of Administration has produced and released a reference guide to provide technical assistance on human resource topics to State of Kansas executive branch agencies. Executive branch agencies should use the information contained in the guide during the development of their agency-specific COOP plan to ensure the continuity of internal critical services should buildings/facilities and support infrastructure (staff, Information Technology, and business systems) become unusable or unavailable. In the event a COOP emergency is declared in the State of Kansas, the Office of Personnel Services representatives for each individual agency will be the central points of contact for state employees. State agency Office of Personnel Services offices will be required to determine which workers are essential, how payroll will be processed, what leave options will be granted, and how various staffing issues will be addressed. The reference guide provides material for agencies to evaluate against their own current COOP plan. This reference guide provides direction in the following areas: essential functions and staffing, telecommuting, human resource policies, and communication with employees.

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

- Identifying issues specific to pandemic influenza
- Meeting with the Commission on Emergency Planning and Response and other emergency planners
- Ensuring that specific challenges posed by an influenza 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 during a declared state of emergency

    - 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 – CDC Interval: Investigation		
Director of the Division of Public Health, KDHE	Convene state-level task force to review plan and provide input	✓
	Provide direction and leadership to KDHE PIPC	✓
	Work with KDHE Office of Legal Services to review legal authorities	✓
Medical Countermeasures Coordinator, KDHE-BCHS	Identify warehouse space to be used for antiviral and vaccine storage and distribution	✓
	Train and exercise the distribution plans	✓
Operations Specialist, KDHE-BCHS	Ensure the KDHE Department Operations Center is functional	✓
	Track NIMS compliance of plans and training of staff at KDHE	✓
Director of Homeland Security Operations, KDHE-BCHS	Coordinate distribution of pandemic influenza 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)	✓
Director, KDHE-BCHS	Lead the KDHE Continuity of Operations Planning group with the assistance of the BCHS Director of Homeland Security Operations	✓
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	✓
KBEMS	Develop local EMS planning guidelines and templates	✓

Biosurveillance

Influenza viruses have constantly changing antigenic properties. Surveillance for pandemic influenza must include both laboratory surveillance, in which influenza 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 influenza surveillance are to detect the earliest appearance of a novel influenza virus in Kansas and to describe the epidemiologic features of novel virus circulation.

When a novel influenza A 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): Approximately 2,700 outpatient clinics in all 50 states participate in the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet). 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 approximately 40 ILINet sites. These data are used to calculate and track the percentage of outpatient visits due to influenza-like illness. In addition, Kansas will be utilizing National Syndromic Surveillance Program (NSSP) to monitor ILI as chief complaint data in participating hospitals.

Surveillance for influenza and pneumonia deaths: The vital statistics offices of 122 U.S. cities report each week the total number of death certificates processed and the number of those for which pneumonia or influenza was listed as the underlying or contributing cause of death by age group. 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.

State and territorial epidemiologists assess influenza activity levels each week and report it as "widespread," "regional," "local," "sporadic," or "no activity" to the CDC.

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 specimens collected from patients with ILI at the beginning, middle and end of the normal season to the state laboratory for viral culture at no charge to the provider or patient. A map of counties with ILINet surveillance sites can be found in Attachment N.
- 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. Planners are currently working with vendors to integrate WebEOC and EMResource to reduce the need for data to be entered multiple times.

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 who use the web-based system complete the cause of death electronically and apply an electronic signature. Physicians who do not use the system complete the cause of death by hand and KDHE Office of Vital Statistics (OVS) staff members enter the cause of death upon submission by the local funeral director. 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. Epidemiology staff may utilize bridged estimates from the National Center for Health Statistics to calculate estimated rates of influenza-associated hospitalization.

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 managing and collecting patient and system data for pandemic influenza surveillance. If developed, an EMS and 9-1-1 data collection and reporting system could become an enhanced component of a comprehensive influenza surveillance system. This collaborative effort may also address and define EMS policies, procedures and legal authorities for sharing EMS and 9-1-1 data with public health agencies as part of the comprehensive surveillance system and address any legal and technological barriers to participating in the disease surveillance process. The system should include a mechanism for rapid modification of data elements and reporting mechanisms based upon updated information on an emerging pathogen (e.g., during the SARS epidemic, questions pertaining to foreign travel were pertinent).

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 influenza 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.

An initial phase of data collection software and hardware is being disseminated to EMS providers throughout the state (along with training in the use of the software) to facilitate acquisition of patient data and its documentation. Information acquired can be used for patient care report generation, individual system analysis and when submitted to KBEMS, specific casualty information such as monitoring of injuries and patient dispositions. Additional funding has been available from KBEMS to augment or enhance capabilities locally.

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 specimensto 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 – CDC Interval: Investigation		
Influenza Surveillance Coordinator, KDHE-BEPHI	Maintain the ILINet surveillance program with providers	✓
	Maintain a strong working relationship with the KHEL	✓
	Participate in CDC training regarding surveillance and adverse events reporting	✓
Director of Homeland Security Operations, KDHE-BCHS	Work with EMResource to improve 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	✓
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.

Since 2009, KDHE has considered the possibility that additional medical guidelines may be needed to provide recommendations to physicians, hospitals and communities to increase medical surge during a public health emergency. In May of 2013, an analysis of various reports from across the United States and previous work of the Kansas Health Institute was conducted by the KDHE Clinical Resource Network. This work produced "*Guidelines for the Use of Modified Health Care Protocols in Acute Care Hospitals During Public Health Emergencies*" which describe principles and practices health care providers, acute care hospitals, and communities can utilize for planning for the provision of care in the event resources become scarce during a disaster. These guidelines have been shared with hospitals and communities

throughout Kansas for incorporation into facility and community specific medical surge plans which would likely be considered during a pandemic influenza.

In planning for an influenza pandemic, it must be recognized persons with medical conditions unrelated to influenza will continue to require emergency, acute and chronic care. Alterations to an EMS system's practices during an influenza 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 influenza 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 an influenza 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 – CDC Interval: Investigation		
Director of the Division of Public Health, KDHE	Continue to engage physicians and healthcare providers in the planning and preparedness process	✓
	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 "*Guidelines for the Use of Modified Health Care Protocols in Acute Care Hospitals During Public Health Emergencies*" into facility and community medical surge plans	✓
Medical Countermeasures Program Manager, KDHE-BCHS	Ensure state antiviral cache is stored in accordance with manufacturers' recommendations	✓
		✓
All healthcare and pre-hospital agencies	Develop and test COOP plans and procedures	✓

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 pandemic influenza. 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 influenza 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 an influenza pandemic, including:

- Basic communication materials (such as question and answer sheets and fact sheets) on influenza, influenza vaccine, 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 influenza (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 influenza 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, ensuing 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 – 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 tpreparedness and influenza 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 BCHS Exercise Coordinator, develop just-in-time training for KDHE phone bank operators	✓
KS-HAN Administrator, KDHE-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	✓
Operations staff, KDHE-BCHS	Work with the BCHS Exercise Coordinator to implement actions identified in improvement plans as a result of exercise activities	✓
KDA	Maintain communication avenues with regulated entities for the provision of emergency information	✓
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 influenza educational system related questions	✓

Countermeasures and Mitigation

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

Medical Countermeasure Dispensing

During the initial months of an influenza 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 influenza 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. that.
- The pandemic vaccinee 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 influenza 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 Kansas Countermeasures Response Administration (KS-CRA) system. This system maximized the normal business practices of many entities and proved to be relatively easy to use. This, or a similar model, may be utilized during the next pandemic.

Recently, the CDC has implemented a new deployment strategy for influenza 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 (RDP). 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. KDHE's Vaccine Prioritization Workgroup continues to review the federal recommendations related to adopting a plan specific to Kansas.

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 influenza 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 influenza vaccine.

An influenza 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. The KDHE Vaccine Prioritization and Antiviral Distribution work groups are reviewing the guidelines and will make recommendations in the next iteration of this plan. 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 influenza 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 influenza 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 influenza 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 influenza 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 influenza 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 Kansas Countermeasure Response Administration (KS-CRA) system will be utilized by all providers who dispense state or federal antiviral medication resources. Tracking activity in KS-CRA may vary depending on provider type, but a thorough accounting of all medication doses from state and federal caches will be required. During the Interpandemic period, KDHE will continue to develop the KS-CRA system. Additional information regarding KS-CRA may be found at http://www.kdheks.gov/it_systems/index.htm.

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. The guidance document can be found on the www.flu.gov website. 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 influenza
- Voluntary home quarantine of members of households with confirmed or probable influenza cases
- Pre-emptive, coordinated school dismissals during a severe influenza pandemic
    - Guide to Community Preventive Services. Emergency preparedness and response: school dismissals to reduce transmission of pandemic influenza. 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 were exercised in 2006 and communities are now in the process of 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 pandemic influenza, 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 – 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 the pandemic occurs	✓
	Promote pneumococcal vaccination in traditional high-risk groups to reduce the incidence and severity of secondary bacterial pneumonia	✓
Medical Countermeasures Coordinator, KDHE-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 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) and to track adverse events	✓
	Educate the medical community and the public regarding appropriate vaccine information during a pandemic event	✓

WHO Phases		CDC Intervals	
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
		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 PIPC 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 Planthe 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 influenza 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 PIPC 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 – CDC Interval: Recognition		
Director of the Division of Public Health, KDHE	Convene the PIPC and the Pandemic Influenza Task Force to review major elements of the plan and assess preparedness level	✓
KDHE-PIPC	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	✓
PIO, KDHE	Activate PIC Plan	✓
KDHE Operations Section	Begin antiviral and vaccine distribution (if available)	✓
Liaison Officer, KDHE	Notify emergency management of response and needed support	✓
KDEM	Provide a Liaison Officer to KDHE 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 influenza 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 influenza including pneumonia, acute respiratory distress syndrome or other severe respiratory illness. Appropriate specimens will be collected to diagnose influenza 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. Influenza 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 suspect pandemic influenza 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 influenza cases to CDC, likely via an online CDC case reporting system.
- Ensuring all Interpandemic Period influenza 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 influenza surveillance if efficient person-to-person transmission of the novel virus is confirmed.

If efficient person-to-person transmission of a novel influenza 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 of influenza 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.

Biosurveillance – CDC Interval: Recognition		
KDHE-BEPHI	Increase case detection among persons who recently traveled to the outbreak area and present with clinical illness possibly caused by influenza; including pneumonia, acute respiratory distress syndrome, or other severe respiratory illness	✓
	Report early novel and pandemic influenza 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 influenza 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 suspect pandemic influenza 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 influenza 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 ILIs	✓
	Assess the completeness and timeliness of reports from all participating laboratories and ILINet providers and determine if improvement measures are necessary	✓
KDHE-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 of influenza, 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 PIPC 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 the Kansas Hospital Association, 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 – 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	✓
Planning and Outreach Specialist, KDHE-BCHS	Provide additional training opportunities for K-SERV for county volunteer coordinators	✓
KDHE Planning Section	Monitor Kansas HavBED system for bed availabilities in hospitals	✓

Kansas Hospital Association	Promote the twice daily update of the Kansas HavBED system by hospitals	✓
KDHE-PIPC	Review Kansas Pandemic Influenza Preparedness and Response Plan and corresponding 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 – 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 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 – CDC Interval: Recognition

Medical Countermeasures Coordinator, KDHE-BCHS	Meet with partners agencies and stakeholders to review state SNS plans and procedures	✓
Local health departments	Meet with partners agencies and stakeholders to review local mass dispensing plans and procedures	✓
KDHE-PIPC	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	✓
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	✓

WHO Phases		CDC Intervals	
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
		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 influenza 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 Influenza 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 influenza 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 influenza 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 – CDC Intervals: Initiation, Acceleration, and Deceleration		
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 influenza 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 influenza pandemic	✓
	The 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	✓

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, from influenza.

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.

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.

Biosurveillance – CDC Intervals: Initiation, Acceleration, and Deceleration		
KDHE Command	Recommend the implementation of COOPs to the Governor's Office through the Secretary of KDHE and The Adjutant General's Department for all state agencies	✓
KDHE-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 from influenza	✓
	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	✓

Surge Management

KDHE will implement generic elements of the response plans and specific plans for identified pandemic influenza 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 symptoms of pandemic influenza. 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.

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 estimatesthe reduction of services during this time. This reduction of services may have many effects onthe 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
- Availablilty 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. Hospitals may be requested by the Director of the Division of Public Health to institute modified health care protocols consistent with the recommendations in the *Guidelines for the Use of Modified Health Care Protocols in Acute Care Hospitals During Public Health Emergencies*. These guidelines are available to communities to enhance their medical surge planning at http://www.kdheks.gov/cphp/download/Crisis_Protocols.pdf.

Fatality Management

In the event of mass fatalities caused by pandemic influenza, 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 pandemic influenza is determined to be a cause of death.

Surge Management – CDC Intervals: Initiation, Acceleration, and Deceleration		
KDHE Disease Containment Branch	Provide infection control messages to healthcare personnel	✓
	Coordinate best practice recommendations and share this information with the State 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 influenza 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 – CDC Intervals: Initiation, Acceleration, and Deceleration		
State JIC	Provide updated information to appropriate agencies and the public at least weekly and as needed regarding virus and impact	✓
KDA	Provide all applicable nutrition assistance program information to stakeholders	✓

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 influenza 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 influenza 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 work load 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 influenza patients according to guidance and requirements set forth by the federal government.

Non-Pharmaceutical Interventions

Epidemiological Branch staff will monitor adverse reactions to influenza 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.

Countermeasures and Mitigation – CDC Intervals: Initiation, Acceleration, and Deceleration		
KDHE SNS and RSS Units	Distribute vaccine, supplies, antiviral medication, and other medical supplies	✓
KDHE Epidemiological Branch	Monitor adverse reactions to influenza vaccine	✓
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 VAERS	✓

WHO Phases		CDC Intervals	
Transition Phase	Reduction in global risk, reduction in response activities, or progression toward recovery actions	**Preparation:** Preparation for future pandemic waves	Low pandemic influenza activity but continued outbreaks possible in some jurisdictions

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 toInterpandemic Period activities.

Community Resilience and Incident Management

Community Preparedness

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.

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.

Public Health Laboratory Testing

Surge Management

Medical Surge

Return of SNS or other cache durable medical equipment.

Modified protocol use ceased.

Alternate Care Sites demobilized.

Fatality Management

Volunteer Management

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.

Non-Pharmaceutical Interventions

Responder Safety and Health

It is important to recognize that a severe influenza 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 work load.

Community Recovery – 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	✓

SEOC	Coordinate with critical resources and key assets to promote recovery and monitor degree of impact to operations	✓

Plan Development and Maintenance

The Pandemic Influenza Planning Committee reviews lessons learned, after action reports, improvement plans and new pandemic planning guidance to further develop this plan. The Kansas Pandemic Influenza 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 65-Articles 1 and 2 65-101 65-101	Duties of the Secretary of Health and Environment Public health system Powers and duties of the department (KDHE) (Powers of the secretary) Powers and duties of the department as public health authority
Local Health Officials	65-201 65-119 and 202	Local board of health; powers and duties Local health officer; qualifications and duties
Communicable Diseases	65-101 65-119 65-119, 126, and 128 65-118 65-127 and 129	Powers and duties of department (given as powers of the secretary) Duties of local health officers Isolation and quarantine Communicable diseases; suspected cases; protection of the public (reporting suspected case) 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 65-119 65-119	Reports of communicable diseases (protection against liability and the necessity of reporting) Investigation and control of communicable diseases 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° 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
BDCP	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
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
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
PIPC	Pandemic Influenza 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 – KDHE NIMS – Position Title Crosswalk

(First title listed is primary position; other position is the second shift/back-up)

Command Staff			
KDHE Commander	Dir Div of Health, KDHE Deputy Secretary, KDHE	Deputy KDHECommander	State Epidemiologist, KDHE Administrator, Division of Public Health
Political Liaison Officer	Deputy Secretary Environment, KDHE Dir Div. of Environment, KDHE	Departmental Liaison Officer	Director of Local Public Health, BCHS Health Facilities Program Director, BCHS
Safety Officer	KS TRAIN Administrator Workforce Development Coordinator	Public Information Officer	Director, Office of Communications KDHE Public Information Officer, KDHE
Operations Section Staff			
Operations Section Chief	Director of Homeland Security Operations, BCHS Preparedness Director, BCHS	Disease Containment Branch Director	Immunization Program Director, BDCP Bureau Director, BDCP
Epidemiological Branch Director	Director of Infectious Disease Epidemiology and Response, BEPHI Senior Epidemiologist, BEPHI	RSS Branch Director	Deputy Director, BEPHI
Laboratory Branch Director	KHEL Laboratory Director KHEL Deputy Director/Health Section Chief	Mass Fatality Branch Director	Asst. State Registrar, BEPHI Office of Vital Statistics Certification Chief, BEPHI Vital Statistics
Planning Section Staff			
Planning Section Chief	Bureau Director, BDCP Bureau Director, BHP	SNS Unit Leader	Medical Countermeasures Program Manager, BCHS Planning & Outreach Specialist, BCHS
Logistics Section Staff			
Logistics Section Chief	Trauma Registry Coordinator, BCHS Trauma/Preparedness PSA 1, BCHS	Communications Unit Leader	Operations Specialist, BCHS Response/Restoration Unit Manager, BER
Finance/Administration Section Staff			
Fin/Admin Section Chief	Preparedness Budget Manager, BCHS Director of Grants Administration, BCHS	Procurement Unit Leader	BCHS CAPS

Appendix B –Health Emergency Activation Levels

Health Emergency Activation Levels	
Level 1 – Normal Operations	• 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	• Passive and sentinel surveillance indicates that an usual 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	• Emergency Health Response is necessary • 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	• 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 • Biological Incident Annex is activated • 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 C – 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	PIPC 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 PIPC.	KDHE PIO conducts communication activities outlined in	KDHE PIO conducts communication activities outlined in	KDHE PIO reviews communication

	section of this plan.		the plan. Situation reports shared with responding organizations. Daily phone calls with health, medical and response community.	the PIC plan. Situation reports shared with responding organizations. Daily phone calls with health, medical and response community.	strategies used during the pandemic.

Appendix D – 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

Clinical Resource Network (Specialties)	
Dermatology Infectious Disease Internal Medicine	Pulmunology Family Medicine Toxicology Psychiatry

Appendix E – Coordination List

COORDINATION OF PANDEMIC INFLUENZA 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)

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
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
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

Appendix F – 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 G – 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.
http://www2.cdc.gov/od/fluaid/default.htm

Kansas State Statutes (index)
http://www.kslegislature.org/legsrv-legisportal/index.do

World Health Organization Pandemic Preparedness
http://www.who.int/csr/disease/influenza/pandemic/en/

Kansas Response Plan (KRP)
http://www.kansastag.gov/AdvHTML_doc_upload/2011%20Final%20Plan.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: **http://www.pandemicflu.gov/plan/states/antivirals.html**

State and Local Planning Checklist
http://www.pandemicflu.gov/plan/states/statelocalchecklist.html

National Strategy for Pandemic Influenza: Implementation Plan
http://www.whitehouse.gov/homeland/pandemic-influenza-implementation.html

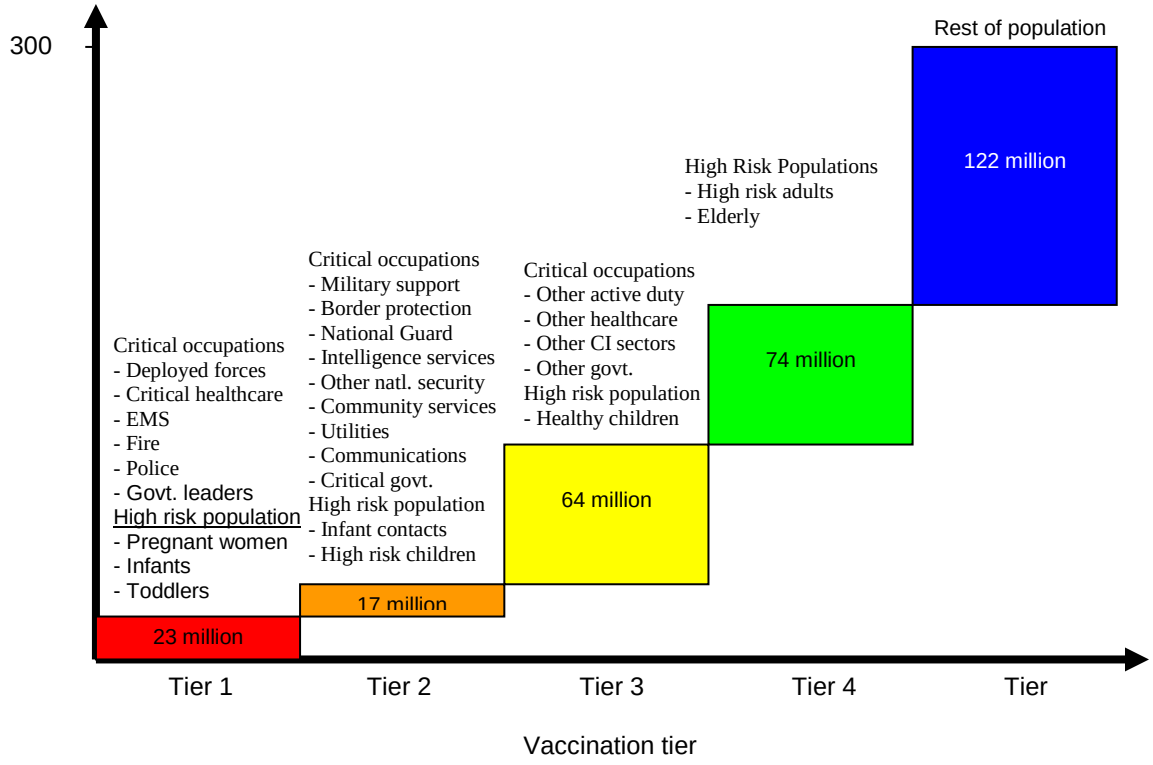
Appendix H – HHS Vaccine Priority Recommendations

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. Intelligence services Border protection personnel National Guard personnel Other domestic national security pers.	650,000 150,000 100,000 500,000 50,000			
	Other active duty & essential suppt.	1,500,000			
Healthcare and community support services	Public health personnel Inpatient healthcare providers Outpatient and home health providers Healthcare providers in LTCFs	300,000 3,200,000 2,000,000 800,000			
	Community suppt. & emergency mgt.	600,000			
	Other important healthcare personnel	500,000			
Critical infrastructure	Emergency Medical Service personnel Law enforcement personnel Fire services personnel Mfrs of pandemic vaccine & antivirals Key government leaders	2,000,000 50,000 50,000			
	Electricity sector personnel Natural gas personnel Communications personnel Water sector personnel Critical government personnel	1,900,000 to 4,400,000			
	Transportation sector personnel Food and agriculture sector personnel Banking and finance personnel Pharmaceutical sector personnel Chemical sector personnel Oil sector personnel Postal and shipping personnel Other important government personnel	1,400,000 to 3,500,000			
General population	Pregnant women Infants & toddlers 6–35 mo old	3,100,000 10,300,000			
	Household contacts of infants < 6 mo Children 3–18 yrs with high risk cond.	4,300,000 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 I – Local Pandemic Influenza Response Checklist

ACTION	☑
Interpandemic Period *Goals: Strengthen influenza pandemic preparedness, Minimize the risk of transmission to humans; detect and report such transmission rapidly if it occurs*	
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.	
Develop strategies to increase the demand for influenza vaccine among your county's residents and especially healthcare workers.	
Continue to develop and refine the local Mass Dispensing, Community Disease Containment and Public Information and Communication SOGs.	
Work with the local chamber of commerce and large employers to increase awareness in the community.	
Conduct training and exercises to ensure the local Mass Dispensing, Community Disease Containment and Public Information and Communication 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.	
Pandemic Alert Period *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*	
Review Local Response Plan, Emergency Support Function 8 – Health and Medical Annex.	
Review the Mass Dispensing, Community Disease Containment and Public Information and Communication SOGs, ensure contacts are updated and potential vaccination clinic facilities are available.	
Review local Point of Dispensing sites on Kansas Countermeasure Response Administration System and update, if necessary.	
Convene local 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.	
Ensure Mass Dispensing SOG addresses vaccine distribution to tribal entities, military installations, and correctional facilities, if applicable.	
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.	

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 *Goal: Minimize the impact of the pandemic*	
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 J – State Pandemic Influenza Checklist

ACTION	☑
Interpandemic Period *Goal: Strengthen influenza pandemic preparedness, Minimize the risk of transmission to humans; detect and report such transmission rapidly if it occurs*	
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 Influenza Preparedness Committee (PIPC) 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.	
Pandemic Alert Period *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*	
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 *Goal: Minimize the impact of the pandemic*	
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 K – 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 L – 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. Immunoflorescence 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.

Appendix M – KDHE ILINet Sites