

Missouri's
Pandemic
INFLUENZA RESPONSE
Plan

Missouri Department of Health and Senior Services
Emergency Response Plan

Updated September 2018

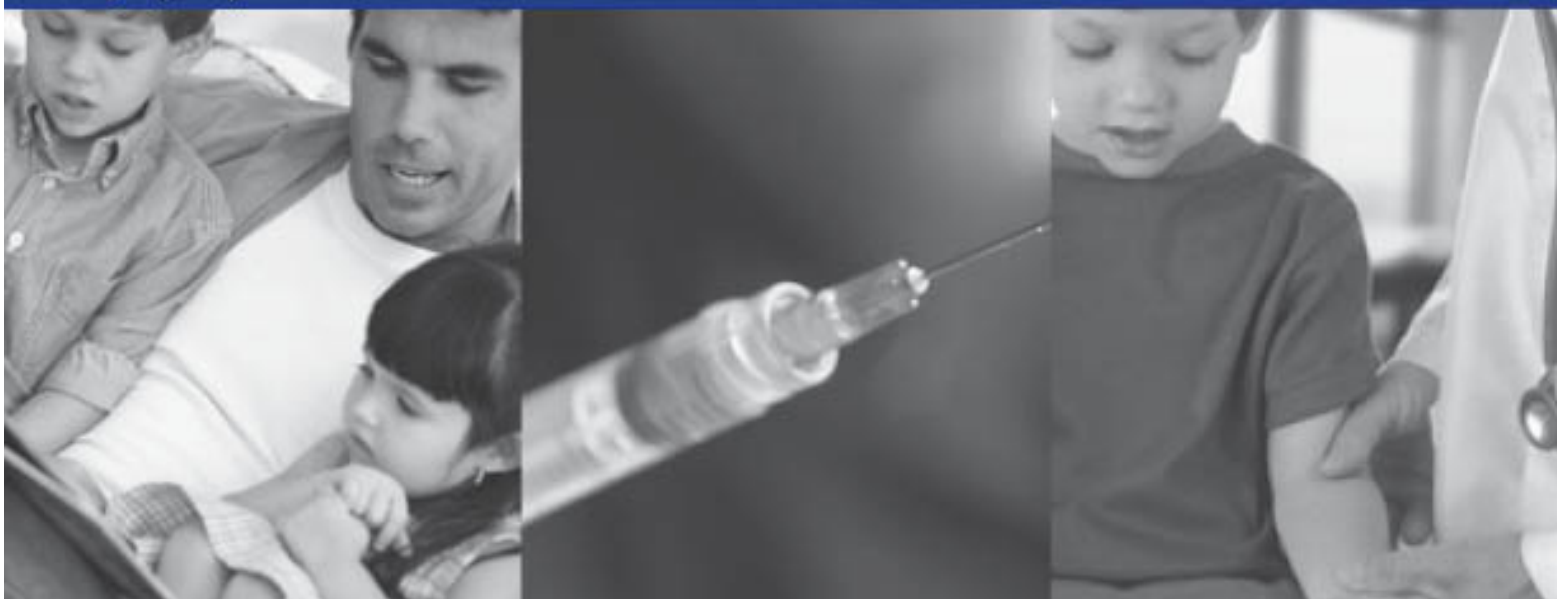


Table of Contents

Introduction	1
Purpose of the Plan and the Guiding Principles	3
Pandemic Phases and Stages.....	5
Pandemic H1N1 Experience.....	7
Assumptions in Planning	8
Assumptions Concerning Response to a Pandemic.....	10
Roles and Responsibilities of the Missouri Department of Health and Senior Services	17
Roles and Responsibilities of the Selected Programs Outside the Missouri Department of Health and Senior Services	33
Concept of Operations.....	36
Definitions.....	44
Selected Acronyms.....	46

*******Technical Support Annexes*******

Pandemic Influenza Surveillance
Laboratory Preparedness
Healthcare Systems Readiness
Vaccine Storage and Distribution
Antiviral Medication Distribution and Dispensing
Community Mitigation
Mass Fatality Management
Psychosocial Services Preparedness
Public Communications

Introduction

For more information contact Dr. George Turabelidze at George.Turabelidze@health.mo.gov or 314-877-2826

The Missouri Department of Health and Senior Services (DHSS) previously published pandemic preparedness plans in 2008 and 2011. Since 2011, the Centers for Disease Control and Prevention (CDC) has produced new pandemic guidance materials, including 2017 updates to CDC's Pandemic Influenza Plan¹ and pandemic influenza community mitigation guidelines.² These new materials are based on expanded knowledge of pandemic and related influenza viruses, and the components of an effective response to a pandemic, as well as on improvements in response capacities to pandemic incidents. In addition, in 2013 the World Health Organization (WHO) issued pandemic influenza risk management guidance that includes a revised approach to its global pandemic phases.

In order to incorporate this new guidance, as well as take into consideration lessons learned and new circumstances in Missouri since 2011, DHSS is updating its Pandemic Influenza Plan. This updated plan will build on the recognition, already apparent in 2011, that pandemic preparedness requires involvement of not only the public health and the health care sector, but the whole of society, including a variety of relevant agencies and the public.

Preparing for, responding to, and recovering from pandemic influenza will require a strategy with many similarities to other disease outbreaks, be they naturally occurring or resulting from terrorist action. The time-honored public health activities to lessen the impact on morbidity and mortality such as education, vaccination, prophylaxis, isolation/quarantine and the closure of public facilities are common to all, despite the particular disease of concern. In addition, clear, concise communication with the public, within DHSS, and with other agencies remains a critical component, as does the ability of the involved agencies to achieve collaboration and coordination. By its very nature, an influenza pandemic, once started, will not be stopped until it has run its course. This course can be shortened and weakened by many things, with vaccination being the gold standard for protecting the population. In addition, and especially before a vaccine becomes available, non-pharmaceutical interventions (NPIs) can be used in conjunction with available pharmaceutical interventions (antiviral medications) to help slow transmission of the virus in communities. This plan, therefore, is not intended to describe the processes for stopping a pandemic, but rather to describe strategies of preparedness, response, and recovery to attempt to decrease illnesses and deaths during the pandemic period to manageable levels (i.e., to levels that do not overwhelm the critical infrastructures of the state), and to promote community resiliency and rapid recovery.

DHSS has emergency response plans in place, internally, and as part of the state response through the Missouri State Emergency Operations Plan (SEOP) that have been tried, tested and exercised for all aspects of response and recovery, including those mentioned above relating to disease surveillance, investigation, and control. Where necessary, details or public information templates unique to pandemic influenza have been added. This plan gives background information related to pandemic influenza, outlines the DHSS concept of operations for response, lists primary and support functional areas, and provides technical support annexes outlining the available resources (i.e., "tools") available to temper the pandemic and promote community resiliency and recovery. A broad, diverse, and geographically dispersed group of agencies and organizations, representing the length, breadth, and interests of the state

collaborated with DHSS in completing the annexes of this plan. With committees organized under the umbrella of the Missouri Homeland Security Council, over four hundred representatives from hospitals, livestock corporations, local public health agencies (LPHAs), other state agencies, funeral homes, laboratories, financial institutions, fire departments, local and state governments, school boards, utility companies, universities, nursing homes and coroner's offices, among others, engaged with DHSS providing input and expertise to produce a meaningful plan.

DHSS has primary responsibility to safeguard the health of the people of the state and all its subdivisions, and will respond in the event of pandemic influenza to attempt to limit the impact on public health by reducing morbidity and mortality. These actions may also limit the impact on the social and economic infrastructure of the state. DHSS will serve to support the LPHAs in this effort, and lead the state-level response of a coordinated group of federal, state, and private organizations and agencies. DHSS reserves the flexibility to modify the plan during the pandemic in response to the actual behavior of the disease and the effectiveness of the ongoing response. Lessons learned from previous waves the pandemic will be incorporated going forward and modifications in planning may be made across all sectors to meet the key goals in public health and critical infrastructure support. Such changes will be rapidly and effectively communicated from DHSS to all partnered agencies and organizations according to the communications plan to ensure best practices are consistently implemented statewide.

The following pages outline the concept of operations that DHSS and coordinated agencies and organizations will employ during the pandemic response.

For an organizational chart of the DHSS, go to:

<https://health.mo.gov/about/pdf/orgchart.pdf>

For a description of the department's divisions, go to:

<https://health.mo.gov/about/divisions.php>

Purpose of the Plan and the Guiding Principles

The purpose of the DHSS pandemic influenza plan is to assist public health officials and health care providers in preparing for and responding rapidly and effectively to an influenza pandemic. The current plan has been updated in accordance with the federal guidance documents issued since 2011.

This plan is designed primarily to guide the operational portion of the state response to pandemic influenza in Missouri, though segments of information contained within the plan will prove useful to guide activities of planners at the local level and to the general public. The plan is intended to provide the processes and informational resources for an effective DHSS response to pandemic influenza. An effective response will reduce the impact on public health (i.e., reduce illness and save lives) and maintain essential services while minimizing economic loss.

The plan outlines general responsibilities for functional components and describes the concept of operations. The plan is intended to be further supplemented by other more detailed plans and guidance relative to the functional components, much of which is found in the technical support annexes, and can be deviated from as needed if better evidence and direction becomes apparent. This plan for pandemic influenza response integrates with the current DHSS Emergency Response Plan and the SEOP which would direct these activities into National Incident Management System (NIMS) compliant Incident Command System (ICS) as needed and as further described in the “Concept of Operations” section.

Guiding Principles

DHSS will be guided by the following principles in initiating and directing its response activities:

- 1) DHSS will follow the guidance and direction of the U.S. Department of Health and Human Services (HHS) Pandemic Influenza Response Plan.
- 2) DHSS will follow the concepts and principles of the National Response Plan and NIMS) in planning and response.
- 3) DHSS will work to build a flexible response system determined, in addition to the above, by the epidemiological features of the virus and the course of the pandemic.
- 4) DHSS will provide honest, accurate, and timely information to the public.
- 5) In advance of an influenza pandemic, DHSS will work with federal, state and local government partners, and the private sector to coordinate pandemic influenza preparedness activities to achieve interoperable response capabilities.
- 6) In advance of an influenza pandemic, DHSS will encourage all Missourians to be active partners in preparing local communities, workplaces, and homes for pandemic influenza, and will emphasize that a pandemic will require Missourians to make difficult choices.
- 7) DHSS will strive to ensure that preparations made for an influenza pandemic will benefit overall preparedness for any public health emergency or disease outbreak, and serve to build capability to protect the health of all Missourians.
- 8) In advance of an influenza pandemic, DHSS, in concert with federal, state, and local partners, will work to achieve statewide reliable, efficient, and rapid distribution mechanisms for vaccine and antiviral drugs through the Strategic National Stockpile (SNS) and local stockpiles.

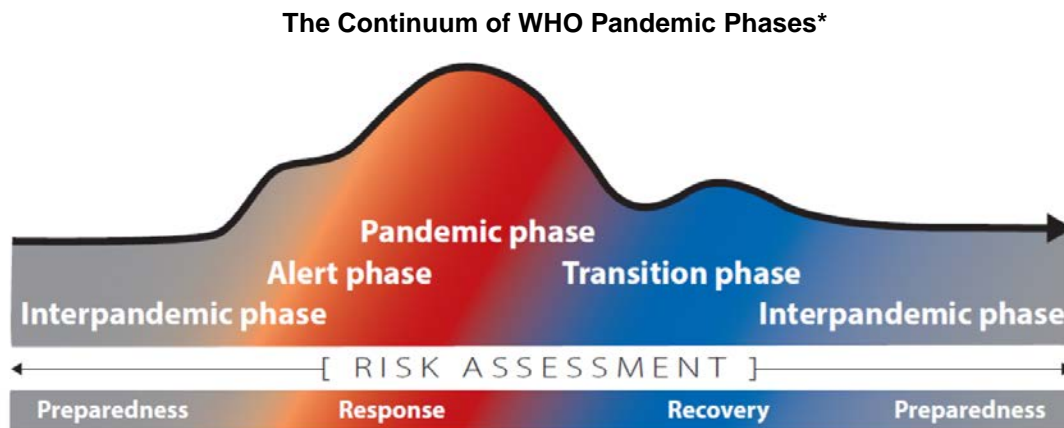
- 9) DHSS will work with the federal government to procure vaccine and distribute it to LPHAs for pre-determined priority groups, based on pre-approved local plans, or as the epidemiology of the pandemic dictates.
- 10) DHSS, in collaboration with federal and local partners, will begin to distribute and deliver antiviral drugs from public stockpiles to health care facilities and others with direct patient care responsibility for treatment of the ill from the novel influenza virus.

Pandemic Phases and Stages

A **pandemic** is a global disease outbreak. A **flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine.** The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in a very short time. In all previous pandemics, the outbreak spread throughout the world within a year of its initial detection. With the increase in global transport, as well as urbanization and overcrowded conditions in some areas, epidemics due to a new influenza virus are likely to take hold around the world, and become a pandemic faster than before. The spread of the 2009 pandemic (H1N1) was very rapid due to the high mobility and interconnectedness of modern societies. Within six weeks of first being described, it had affected all six WHO regions resulting in the declaration of a pandemic. Pandemics can be either mild or severe in the illness and death they cause, and the severity of a pandemic can change over the course of that pandemic.

WHO Pandemic Phases

In 2013 in response to lessons learned from the influenza A(H1N1) 2009 pandemic, WHO developed a revised approach to global phases for pandemic influenza.³ The phases, which are based on virological, epidemiological, and clinical data, are to be used for describing the spread of a new influenza subtype around the world, taking account of the disease it causes.



*This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

The pandemic influenza phases – interpandemic, alert, pandemic, and transition – reflect WHO’s risk assessment of the global situation regarding each influenza virus with pandemic potential that is infecting humans. These assessments are made initially when such viruses are identified and are updated based on evolving virological, epidemiological, and clinical data. The phases provide a high-level, global view of the evolving picture. They will be used by WHO to communicate the global situation.

Interpandemic phase: This is the period between influenza pandemics.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national, and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur.

Pandemic phase: This is the period of global spread of human influenza caused by a new subtype. Movement between the interpandemic, alert and pandemic phases may occur quickly or gradually as indicated by the global risk assessment, principally based on virological, epidemiological, and clinical data.

Transition phase: As the assessed global risk reduces, de-escalation of global actions may occur, and reduction in response activities or movement towards recovery actions by countries may be appropriate, according to their own risk assessments.

Seasonal influenza

Influenza is an acute respiratory disease caused by influenza type A or B viruses. The typical features of seasonal influenza include abrupt onset of fever and respiratory symptoms such as cough, sore throat, and coryza, as well as headache, muscle ache, and fatigue. For seasonal influenza, the incubation period ranges from 1 to 4 days. The clinical severity of infection can range from asymptomatic infection to primary viral pneumonia and death. The symptoms of pandemic (H1N1) 2009 influenza in people were similar to those of seasonal influenza. Illness in most cases was mild, but there were cases of severe disease requiring hospitalization and a number of deaths.

Yearly seasonal influenza remains a significant disease in the United States and Missouri, and seasonal epidemics can result in high morbidity and mortality, as well as create strains on the health care system and in communities. If a severe seasonal epidemic should occur, parts of the pandemic flu plan, if needed, would be implemented to minimize the outbreak. The parts implemented would depend upon the specifics of the outbreak and would be determined in consultation with CDC, DHSS experts, LPHAs and state elected officials.

Avian Influenza A (H5N1)

Unlike influenza viruses that have achieved ongoing transmission in humans, the sporadic human infections with avian A (H5N1) viruses are far more severe with high mortality. Initial symptoms include a high fever and other influenza-like symptoms. Diarrhea, vomiting, abdominal pain, chest pain, and bleeding from the nose and gums have also been reported. Watery diarrhea without blood appears to be more common in H5N1 influenza than in normal seasonal influenza. The disease often manifests as a rapid progression of pneumonia with respiratory failure ensuing over several days. It also appears that the incubation period in humans may be longer for avian (H5N1) viruses, ranging from 2 to 8 days, and possibly as long as 17 days.

Pandemic H1N1 Experience

The 2009 H1N1 pandemic in United States resulted in approximately 43 million to 89 million cases, 195,000 to 403,000 hospitalizations, and 8,900 to 18,300 deaths, including 910 to 1,880 deaths among children.

The pH1N1 influenza virus contained a combination of gene segments that had not been previously reported in animals or humans. The early serologic data suggested that many older adults had some cross-reactive immunity to the pH1N1 due to prior infection with antigenically related strains, while children and most young adults were immunologically naive.

In the United States, the pandemic was characterized by two distinct waves: first, April through July 2009, and the second, from August 2009 to February 2010. Within 1 week of the recognition of the nation's first case, 10 cases had been confirmed in 3 states signaling onset of a first wave. Consistent with early serological data, the majority of reported cases were in people ≤ 24 years of age, and only 1 % of cases were in individuals ≥ 65 years of age.

The signs and symptoms reported among the pH1N1 cases were similar to those observed in patients with seasonal influenza, with the exception of diarrhea which was more common in pandemic patients. Unlike seasonal influenza when hospitalizations are more common among persons over 65 years of age, the majority (>70%) of pH1N1 hospitalizations were in people younger than 50 years of age, with hospitalization rates highest in 0-4-year-old group. The majority of adults and children hospitalized with pH1N1 infections had at least 1 underlying medical condition, and 20-25% of all hospitalized people required intensive care unit (ICU) admission.

The age distribution of laboratory-confirmed pH1N1 influenza-associated death rate was also markedly different from that seen in typical influenza seasons. In contrast to typical influenza seasons, when 90% of deaths occur in the elderly population, over 80% of reported pH1N1 deaths were in persons younger than 65 years of age. Reported pediatric deaths from the pH1N1 were almost 4 times higher compared to death rate during the seasonal influenza. Pregnant women were more than 4 times more likely to be hospitalized with pH1N1; estimated 5.8% of all deaths from pH1N1 were in pregnant women even though they comprise only 1% of the total population.

Epidemiological studies indicated that the virus was at the low end of transmissibility, compared with the strains that caused the 1918 pandemic, and was comparable to or slightly less transmissible than the strains that caused the 1957 and 1968 pandemics. On average, there were 1.5 secondary cases per one person with pH1N1.

The CDC estimated that, from April 2009 through March 2010, pH1N1 virus was associated with about 60 million cases, 270,000 hospitalizations, and 12,270 deaths in the United States. This estimate represents a cumulative pH1N1 attack rate in the United States of approximately 20%.

In conclusion, the H1N1 pandemic experience showed that disease estimates were substantially lower than envisioned in the pandemic preparedness planning assumptions. Although the overall health impact was less than predicted in the elderly population, the impact of pH1N1 virus infection in children, young adults, and pregnant women was substantial.

Assumptions in Planning

Innate variability of influenza viruses and diverse features of the previous pandemics make pandemic planning assumptions destined to some degree of uncertainty. As pH1N1 experience showed, some assumptions made in the pre-pandemic planning, such as expected epidemiology of the pandemic virus, disease burden, and the vaccine development process, turned out not to be relevant to the pH1N1. The assumptions in the current plan are based on the synthesis of the previous and most recent pandemic experiences. The plan does not make predictions; rather, it reflects historical circumstances and current developments. These assumptions are necessary for scaling the plan to some workable format. However, adjustments may be made within the response if some of the assumptions prove to be false or otherwise inadequate.

Assumptions

- A new pandemic strain could emerge anywhere, including Missouri.
- If the pandemic starts outside the United States, the first United States cases are likely to occur within four weeks or less following recognition, assuming no effective intervention took place.
- Pandemic virus could be introduced to Missouri from a variety of sources.
- A new pandemic will be due to a new subtype of influenza A.
- The virulence and infectivity of a pandemic virus are likely to be uncertain in the initial stages.
- The incubation period of the pandemic infection is likely to be about 2 days, or more.
- The pandemic can start during any season of the year.
- Enhanced public health measures are likely to delay the appearance of a statewide epidemic by several weeks and reduce the overall rate of morbidity and mortality.
- More than one wave of pandemic influenza, each lasting from weeks to months, are likely to occur across the country.
- The population's susceptibility will depend on the origin of the pandemic virus, but is likely to be universal.
- Up to 30% of the general population could become ill with influenza, of which 60% will seek outpatient medical care.
- The proportion of ill people who die (case-fatality rate, CFR) may be up to 2%, or higher. (According to one estimate, the CFR among people with symptomatic pH1N1 infection was about 0.05%.)
- Some infected people will not have apparent symptoms but will develop immunity to subsequent infection; they will be able to transmit infection to others, but at rates probably lower than those for people with full symptoms.
- Illness rates will be highest among children.
- Highest risk groups for severe and fatal infection are likely to include infants, the elderly, pregnant women, and people with chronic medical conditions.
- In a severe pandemic, absenteeism attributable to illness, to the need to care for ill family members, and to fear of infection may reach 40% during the peak weeks of a community outbreak, with lower rates of absenteeism during the weeks before and after the peak.

- Community mitigation strategies, if implemented effectively, will reduce the infection attack rate.
- People who become ill will shed the virus and transmit infection briefly before the apparent onset of illness. Viral shedding and the risk of transmission will be greatest during the height of clinical symptoms. Children typically shed the greatest amount of virus, and therefore are likely to pose the greatest risk for disease transmission.
- Infection is likely to spread primarily by respiratory droplets, by hand-to-face contact with contaminated surfaces, and possibly with some generated aerosols.
- An infected person will transmit infection to approximately 1.3 to 2 other people during the initial period before sufficient immunity develops in the community.
- Increased public anxiety will cause increased psychogenic and stress-related illness.
- The initial responsibility for a pandemic response rests with state and local authorities.
- State, interstate, and federal assistance and resource support to communities will be limited or unavailable.
- A pandemic will increase the demand for public services.
- Social and economic disruption may limit public health's ability to provide services.
- Public health services will be reduced to those services determined to be life-saving, mission-essential, or life-sustaining.
- Antiviral drugs
 - Initially, antiviral drug availability will be limited to what has been stockpiled before the pandemic.
 - Missouri will receive additional pro rata treatment courses of antiviral medications from the SNS.
 - These antiviral medications will be designated for treatment of the sick based on priority groups established by federal guidelines from HHS.
- Vaccine
 - When the pandemic occurs, vaccine will not be available, or will be in short supply and will be allocated on a priority basis following federal guidelines from HHS.
 - Vaccine for pandemic influenza will be available approximately four to six months after the pandemic begins. Once the vaccine is produced, it will be available incrementally, based on United States production capability.
 - People identified for vaccination may need more than one dose of vaccine to achieve necessary antibody response.

Assumptions Concerning Response to a Pandemic

Pandemic Planning Guidance

The pandemic severity and measures of response needed will most likely be different in each and every political subdivision in the state. Local jurisdictions will lead the response and implement measures as needed to minimize morbidity and mortality, and maintain critical infrastructure services. DHSS will support this local response through established emergency protocols and systems. The following planning guidance outlines anticipated degrees of impact and response needed per level of pandemic severity based on historical evidence and modeling, but should in no way be construed as predictive of what will actually occur during a pandemic. Local jurisdictions should consider regional planning to assure a uniform response. Based on the pH1N1 experience, different local jurisdictions handled the distribution of vaccine differently. This caused confusion for citizens, especially those who lived in one jurisdiction, worked in another jurisdiction, and received health care in a third jurisdiction. The differing strategies for distribution lead to frustration for the citizens, and also harmed the credibility of the public health system.

(NOTE: The planning assumptions outlined below are for planning and informational purposes only as response activities will be dictated by on the ground information, and decisions on the level of response needed by DHSS will be made as per the Concept of Operations.)

Mild Pandemics:

Impacts and Response Structure:

Mild pandemics (mortality and morbidity rates about the same to one and a half times seasonal influenza) on the order of the 1968 pandemic, will likely mimic the effects and impacts of seasonal influenza, perhaps with the addition of targeting some population groups not normally as susceptible to seasonal influenza. Mild pandemics will likely be able to be managed much as seasonal influenza is managed. LPHAs and health care organizations will likely be able to continue to function and provide response without moving into emergency response mode (i.e., without the activation of Emergency Operations Centers (EOCs) and the utilization of ICS), though there may be some brief surge of activity in some areas of the state necessitating increased resource support and the activation of EOCs. Significant prolonged support from emergency response, public safety, and other support agencies and organizations will likely not be needed. Community functions and economic and social patterns should not be significantly disrupted, though there may be localized school closures and other interruptions of community social events due to isolated hotspots of disease. Public anxiety, with proper risk communications, should be able to be minimized. Without a good communication and marketing plan, public anxiety may run high and disrupt planning assumptions.

Goals in Response:

As critical infrastructure is not anticipated to be greatly impacted and essential services will continue, the goal of the response during a mild pandemic will be to reduce illnesses and deaths in those populations most at risk from the disease. Therefore, available resources, messaging, and response activities should be directed toward these targeted populations in order to prevent as many illnesses and save as many lives as possible.

Anticipated Activities:

- **Communications**
 - Basic public health messages - good handwashing, cough hygiene, sanitation, self-isolation if ill, etc. through routine distribution channels.
 - Some targeted messaging toward those most at risk.
 - Public communications on vaccination.
 - Information and messaging directed toward health care providers to provide them with relevant and correct information.

- **Community Containment**
 - **Non-pharmaceutical** - Intensive control efforts (such as case contact investigations, quarantine and isolation, and movement restrictions) may be utilized at the first emergence of the disease to slow rates of transmission, but become ineffective after the pandemic is widespread and should not continue to be utilized.
 - ❖ Basic public health measures widely encouraged (personal hygiene, sanitation, handwashing, etc.).
 - ❖ No emphasis on more widespread community containment messages (i.e., no call for school or childcare closures, restriction of public gatherings, etc.).
 - ❖ Strong emphasis on personal actions and accountability (stay home if ill messaging).

 - **Pharmaceutical**
 - ❖ Antivirals targeted toward treatment of those most likely to develop severe illness.
 - ❖ SNS supplies may or may not be needed depending on the time of year and the initial manifestation of the pandemic.

- **Vaccination**
 - Vaccine will be targeted toward, and prioritized for, the most susceptible populations for illness and death first, probably also the most critical front-line essential services personnel (health care, emergency medical services and public health) will be provided vaccine, with the eventual goal of providing it to all who desire to be vaccinated.

- **Surveillance**
 - Intensive use of available passive surveillance systems to ensure the pandemic is adequately monitored and characterized to provide situational awareness.
 - Targeted epidemiological studies done as needed to investigate unusual cases, clusters, or fatalities.
 - Laboratory support (Missouri State Public Health Laboratory [MSPHL]) essential to provide confirmation of the virus upon first emergence in the state, and to support Sentinel Providers and epidemiological investigations of unusual cases thereafter.

- **Health Care Systems Sustainment**
 - The majority of health care systems will be expected to have the capability and capacity to manage the medical surge of a mild pandemic.
 - Close monitoring of the healthcare system will occur through collaboration with the regional healthcare coalitions and respective members, as well as relevant healthcare

- associations (e.g., Missouri Hospital Association (MHA); Missouri Primary Care Association) and through EMResource queries designed to detect any areas with gaps in or loss of health care services.
- Close coordination with key partners such as the regional healthcare coalitions and MHA s is essential for information flow, situational awareness and the coordination of any mitigation strategies.
 - Priority will be to direct state resources to, and provide support to maintain these services in, the most impacted areas.
 - It is anticipated that the majority of shortages would be of a level that could be managed within the state without requesting federal resources or the assistance of the State Emergency Operations Center (SEOC).
 - It is not anticipated that emergency medical services or mortuary services would be compromised.

Moderate Pandemics:

Impacts and Response Structure:

Moderate pandemics on the order of the 1957-58 pandemic will be characterized by a two to three-fold increase in mortality over a typical seasonal influenza year and also have increases in the overall number of illnesses and hospitalizations. A pandemic of this magnitude will have increased likelihood of exceeding the surge capacity of health care and mortuary systems, and it is expected that there would be a number of communities that would need state and federal support, perhaps over a few weeks period, to sustain these essential services. 9-1-1 call centers (Public Safety Answering Points) and emergency medical services could likewise be temporarily past capacity in some areas. Jurisdictions not needing state or federal assistance would need to be very well prepared and be taking community mitigation and educational steps to slow transmission rates and increase the capacities of essential services. Broader impact on critical infrastructure (power, water, fire, law enforcement, etc.) is expected to be minor and these services would largely be expected to remain intact, though there could be some spot disruptions of services for short duration, depending on community preparedness and capacity levels and on the particular epidemiology of the disease (i.e., which age groups—for example working age adults—are most impacted). Public anxiety may be heightened during a moderate pandemic, and there would be increased concerns over public unrest in circumstances where the demand is high for certain services or products (such as vaccine, medications, and hospital beds) that may not be available in sufficient quantity to meet the public's expectations. Economic activity and social functions could see some disruptions, but these would be expected to be short-lived and occur only during the height of outbreaks in communities, and would be addressed through individual actions rather than comprehensive government actions. Health and medical EOCs and ICS processes would need to be utilized, on an as-needed basis, to effectively manage the response. The SEOC would most likely be at least partially activated to assist in the response, particularly if federal support is needed.

Goals in Response:

The goals in response to moderate pandemics are twofold. The primary objective remains to protect public health (i.e., reduce illness and death), but on occasion the primary objective may best be met through the sustainment of critical infrastructure, in particular the health care system. Efforts would therefore be focused on directing services and resources to those most impacted by the disease, and on assuring that the systems that care for the sick continue to function. This may mean prioritizing available medications and vaccine to health care and emergency medical services (EMS) workers so they can continue to provide services.

Anticipated Activities:

- **Communications**
 - Public health messaging to public, and information on vaccine.
 - Information provided to health care workers.
 - Increased need for calming and informative messages to the public as disruptions in services occur.
 - Messages may need to be further coordinated through emergency management organizations, with the possible formation of joint information centers (JICs).

- **Community Containment**
 - **Non-pharmaceutical**
 - ❖ Individual actions as stressed in activities for “mild” pandemics continue.
 - ❖ Greater emphasis and reliance on broad-scope community containment measures to slow the rate of spread including:
 - School and childcare closures.
 - Closure of places of public assembly.
 - Possible closures of events.
 - **Pharmaceutical**
 - ❖ Antivirals targeted towards treatment of those most ill.
 - ❖ Possible use of antivirals for post exposure prophylaxis for outbreak settings of high-risk populations.
 - ❖ Consideration of prophylactic antiviral usage in certain critical occupational settings for maintenance of essential functions.

- **Vaccination**
 - Vaccine targeted toward highest risk groups.
 - Vaccine targeted toward critical infrastructure personnel.

- **Surveillance**
 - Intensive use of available passive surveillance systems to ensure the pandemic is adequately monitored and characterized to provide situational awareness.
 - Targeted epidemiological studies done as needed to investigate unusual cases, clusters, or fatalities.
 - Laboratory support (MSPHL) essential to provide confirmation of the virus upon first emergence in the state, and to support Sentinel Providers and epidemiological investigations of unusual cases thereafter.
 - Active targeted surveillance conducted as needed to provide specific information on disease spread and virulence.

- **Health Care Systems Sustainment**
 - Many of the health care systems in the state will be beyond capacity for extended periods.
 - Health care systems may wish to consider strategies to manage surge to include cancellation of elective surgeries and discharging patients to their home or other healthcare environment.
 - There will likely be marked shortages in some areas, including ICU capacities for pediatrics, available ventilators, and some types of personal protective equipment (PPE).

- MHA may consider activation of the State-wide Hospital Mutual Aid agreement for sharing of resources including staff.
- The regional healthcare coalitions will be active in assuring communication and coordination of resources among healthcare partners, as well as with DHSS.
- Waiting times to primary care physicians, clinics, and hospital emergency departments may become very lengthy in some areas.
- The state and federal governments will be heavily relied upon to backfill shortages in resources and staff.
- Cooperation and communication with key partners will be essential to share resources and maintain continuity of operations.
- EOCs (federal, state, local and hospital-based) will likely need to be opened and maintained for lengthy periods to manage the response.
- EMS may be severely strained in some areas.
- Mortuary systems may have to make adjustments in operations to maintain services.

Severe Pandemics:

Impacts and Response Structure:

Severe pandemics (e.g., 1918) are marked by a several order increase in mortality over a typical seasonal influenza year, will see a significant escalation in overall illness and hospitalization, and will likely severely impact segments of the population (such as school-age children or young adults) not typically as affected by seasonal influenza. A severe influenza pandemic will likely affect all segments of society, and could overwhelm or disrupt health care and mortuary systems and other essential services. It would also have the potential to severely disrupt commerce and economic activity, breakdown normal societal patterns, and cause psychosocial trauma. With proper planning, and with strong public health, emergency management, and health care systems, pandemics that in the past would have been “severe” may be mitigated to the “moderate” or “mild” categories. Local, state, and federal EOCs would need to be activated, most likely for extended periods, to manage the response and to sustain critical services and functions.

Goals in Response:

The goals in response to a severe pandemic remain two-fold, first to protect public health, and second to maintain essential services. In a severe pandemic, with the degree of impact on critical infrastructure expected, the focus will likely be on the maintenance of essential services to best protect public health.

Anticipated Activities:

- **Communications**
 - Public health messaging to the public, including information on vaccine.
 - Information provided to health care workers.
 - Calming and informative messages to the public as disruptions in services occur.
 - Messages coordinated through emergency management organizations, expected formation of JICs.
 - Trusted state and community leaders used to deliver messages to the public and critical infrastructure service workers to maintain order.

- **Community Containment**
 - **Non-pharmaceutical**
 - ❖ Individual actions as stressed in activities for “mild” and “moderate” pandemics continue.
 - ❖ Broad-scope community containment measures utilized to slow the rate of spread including:
 - School and childcare closures.
 - Closure of places of public assembly.
 - Closures of events.
 - **Pharmaceutical**
 - ❖ Antivirals continue to be targeted to those ill and at highest risk for negative outcomes.
 - ❖ Some antiviral use, in particular if vaccine shortages occur, may need to be targeted to critical infrastructure workers for prophylaxis.
- **Vaccination**
 - Targeted to critical infrastructure workers first.
 - Protection of high-risk groups second.
 - Coverage for general population third.
- **Surveillance**
 - Intensive use of available passive surveillance systems to ensure the pandemic is adequately monitored and characterized to provide situational awareness.
 - Targeted epidemiological studies done as needed to investigate unusual cases, clusters, or fatalities.
 - Laboratory support (MSPHL) essential to provide confirmation of the virus upon first emergence in the state and to support Sentinel Providers and epidemiological investigations of unusual cases thereafter.
 - Active targeted surveillance conducted as needed to provide specific information on disease spread and virulence.
- **Health Care Systems Sustainment**
 - The demand for services from all aspects of the health care system (e.g., primary care, EMS, tertiary care, etc.) will exceed its capacity for an extended period of time.
 - There will be marked shortages of staff and resources in some areas of the state, including ICU capacities for pediatrics, available ventilators, and some types of PPE.
 - Access to primary care physicians, clinics, and hospital emergency departments may become impossible in some areas.
 - Health care systems should consider strategies to manage surge to include cancellation of elective surgeries and discharging patients to their home or other healthcare environment.
 - MHA may consider activation of the State-wide Hospital Mutual Aid agreement for sharing of resources including staff.
 - The regional healthcare coalitions will be active in assuring communication and coordination of resources among healthcare partners, as well as with DHSS.
 - The state and federal governments will be heavily relied upon to backfill shortages in resources and staff.

- Cooperation and communication with key partners will be essential to share resources and maintain continuity of operations.
- EOCs (federal, state, local and hospital-based) will need to be opened and maintained for lengthy periods to manage the response.
- EMS may be overwhelmed in some areas.
- Mortuary systems may be overwhelmed in some areas and rely on state and federal assistance.
- It will be essential for DHSS to
 - ❖ Monitor/track bed capacity of hospitals and long-term care facilities in the state.
 - ❖ Monitor/track ICU capacities in tertiary care centers statewide.
 - ❖ Monitor/track ventilator capacity and availability for effective distribution of state reserves.
 - ❖ Monitor/track primary care practitioners to evaluate populations' access to primary and preventive health care services, including immunizations.
 - ❖ Activate and deploy medical volunteers and medical reserve corps to alleviate severe health care practitioner shortages.
 - ❖ Request federal health care resources as available.
 - ❖ Activate and deploy state and (when available) federal emergency mortuary systems.
 - ❖ Assure communication and cooperation with key partners (health care providers, EMS, local and federal agencies) to control distribution of scarce resources and maintain continuity of operations.

Roles and Responsibilities of the Missouri Department of Health and Senior Services

The checklists below reflect broad categories of actions, roles, and responsibilities that may be needed during a pandemic, dependent on the severity. In a mild pandemic, many of these actions will never be needed. They serve as a reminder of possible activities, and of roles and responsibilities, for those engaged in the response, but do not replace specific job action sheets that may be needed nor dictate the response, which will be managed as outlined in the “Concept of Operations” section of this plan. If DHSS’ Emergency Response Center (ERC) and/or the SEOC are activated, these activities will be managed from within the ICS structure, with the listed subdivisions responsible for filling needed positions with persons of appropriate expertise.

Director’s Office – Department of Health and Senior Services

Throughout the Pandemic Period:

- Will be notified by the Director or Deputy Director of the Division of Community and Public Health (DCPH) of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Consult with key staff and direct appropriate actions (as necessary, directly or through delegation):
 - Notify Governor’s Office to provide awareness of the situation.
 - Notify LPHAs to:
 - Implement their pandemic influenza plans.
 - Communicate updates.
 - Communicate status and key recommendations to DHSS staff.
 - Determine need and consider activating the ERC in conjunction with key staff and the Office of Emergency Coordination (OEC).
 - Communicate with the Directors of other state agencies.
 - Communicate with the Region VII Federal Official in Charge, the Association of State and Territorial Health Officials, CDC, and other key federal partners.
 - Declare a public health emergency, if situation warrants.
 - Request Division Directors to identify staff not working on pandemic flu, reassign staff, and develop work schedule, if needed.
 - Have Division Directors reduce programmatic functions to maintenance operations and designate available staff to assist in data entry, surveillance, vaccinations, medication distribution, etc., if situation warrants.
 - Implement the DHSS Pandemic Continuity of Operations/Continuity of Government (COOP/COG) plan, when needed.
 - Request assistance through SEOC, when needed.
 - Request the Governor to provide waivers or declare a state of emergency, when needed.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Office of General Counsel

Throughout the Pandemic Period:

- Will be notified by the DCPH Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Provide legal counsel.
 - Assist in updating documents as needed.
 - Serve as a liaison to other agencies' legal staff.
 - Provide guidance and direction as needed.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Office of Public Information

Throughout the Pandemic Period:

- Will be notified by the DCPH Director or Deputy Director, of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Coordinate and manage public information.
 - Develop key messages for media and general public.
 - Key message development and release should be coordinated with local public health information officers.
 - Develop new messages in accordance with changes in the outbreak. This includes social media messages with graphics. DHSS currently has Facebook, Twitter, YouTube, and Flickr.
 - Coordinate messages with the Office of the Governor.
 - Coordinate messages with Missouri State Emergency Management Agency (SEMA) and be prepared for the activation of a JIC, if needed.
 - Reexamine prepared media releases. Update media releases if necessary.
 - Review and be prepared to use Public Information Emergency Communications Plan.
 - Check for availability of key spokespeople.
 - Brief key spokespeople as necessary.
 - Finalize communications strategy with key response staff.
 - Consult with DHSS subject matter experts if necessary.
 - Prepare for media and public inquiries.
 - Participate in/arrange media release and press briefings.
 - Ensure web site information is updated routinely.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Director's Office – Division of Community and Public Health

Throughout the Pandemic Period:

- Will be notified by the DCPH Director or Deputy Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing, the DCPH Director or Deputy Director will, as appropriate:
 - Direct DCPH staff to assess situation and prepare response.
 - Notify key response staff that includes: DHSS Director and Deputy Director, OEC, MSPHL, Division of Regulation and Licensure (DRL), Division of Senior and Disability Services (DSDS), Center for Local Public Health Services (CLPHS), Section for Disease Prevention (SDP), Section for Environmental Public Health (SEPH), Office of Public Information (OPI), Bureau of Immunizations (BI), Bureau of Communicable Disease Control and Prevention (BCDCP), Office of General Counsel, Medical Advisors, State Pandemic Influenza Coordinator, State Epidemiologist, and other experts and advisors as may be needed, both within the department and with other agencies.
 - Lead briefing discussions, as needed, to provide situational updates to key response staff. (*Briefing will be set up by ERC staff.*)
 - Provide overview of ongoing DHSS activities with key response staff.
 - Project effects of the novel influenza outbreak.
 - Discuss major elements of enhanced surveillance. Discuss vaccine/antiviral plan.
 - Recommend priority vaccination and antiviral distribution.
 - Discuss communication strategies for LPHAs, hospitals, and public.
 - Discuss situational reports, and provide recommendations for response strategies and actions to support local response and maintain critical infrastructure.

Program Coordinator, Health Care Systems Preparedness

- Provide consultation to the ERC Command Staff and work stations, as requested.
- Monitor healthcare systems capacity and continuity strategies, to include availability of resources through EMResource queries and communication with regional healthcare coalitions.
- Participate in briefings at the state and regional healthcare coalition levels.
- Participate on the DHSS team to evaluate requests for PPE and other supplies.
- Discuss situational awareness reports and provide recommendations for response strategies, as appropriate. (e.g., mobilization of mobile medical resources, SNS or Emergency Management Assistance Compact [EMAC] requests)

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Office of Emergency Coordination

Throughout the Pandemic Period:

- Will be notified by the DCPH Director or Deputy Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Set-up briefing of key staff, as needed, for DCPH Director.
 - Communicate with external organizations by issuing a Health Alert.
 - Maintain communications with the Missouri SEMA and other external public safety and emergency response agencies, as needed.
 - Stand-up ERC when directed by the DHSS Director.

ERC Coordinator

- If SEOC and or ERC is activated, refer to SEOC ERC flowchart to establish initial team roster and notify necessary internal and external partners.
- Make certain that all equipment and redundant communication systems are in working order at all times.
- Assist the ERC Safety Officer in monitoring fatigue of the Duty Officers and team members.
- Confirm that all emergency response teams and ERC staff have necessary resources.
- Coordinate activation of Poison Control Center Ready-Line.
- Notify the Central Registry Unit Hotline (CRU – Elderly Abuse/Neglect Hotline) that the ERC is being activated and guidelines will be sent as soon as possible for potential worried well calls from clients/providers.
- Forward approved Health Alerts, Advisories, and Updates to external organizations as requested.
- Assist the ERC Branch Director in determining if staffing in the ERC should be scaled up or down dependent upon the current needs of the event.
- Follow-up with the Finance/Administration team upon deactivation to determine cost of activation and potential for federal reimbursement.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Section of Epidemiology for Public Health Practice

Bureau of Vital Records

- Coordinate the management of death certificates related to pandemic influenza with the LPHAs and local coroners, medical examiners, and funeral directors.
- Provide information and updates as needed to LPHAs, local coroners, medical examiners, and funeral directors on pandemic influenza mortality information.
- In conjunction with the Bureau of Vital Statistics, track mortalities related to pandemic influenza and publish such results as needed.
- Coordinate the management of mass fatalities, if needed, with the State Pandemic Influenza Coordinator, SEMA, the Missouri Funeral Directors and Embalmers Association Disaster Response Team (MFDEA-DRT) and local authorities.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Section for Disease Prevention

Throughout the Pandemic Period:

In early pandemic phase when a novel influenza virus develops sustained human-to-human transmission, the Section for Disease Prevention (SDP) will be notified by CDC of the emergence of a potential pandemic virus.

- Notify the Division of Community and Public Health (DCPH) Director and other key response staff of the emergence of a pandemic virus, and provide updates (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- Activate Missouri Pandemic Influenza Plan
- Participate in briefings.
- Provide analysis and recommendations for the management of the pandemic related to the situational updates.
- Carry out normal duties as they apply to outbreaks.
- Monitor bulletins and events related to influenza and engage in vigorous proactive communications with CDC related to the novel influenza virus.
- Monitor bulletins from CDC regarding virologic, epidemiologic, and clinical findings associated with new influenza virus variants isolated within and/or outside of the United States.
- Monitor, in conjunction with the Bureau of Reportable Disease Informatics (BRDI), statewide surveillance systems to ensure that data is being analyzed properly and in a timely fashion.
- Work with the Bureau of Communicable Disease Control and Prevention (BCDCP) to assure coordinated effort among regional staff and with the local public health agencies (LPHAs) in monitoring, tracking, and studying the disease.
- Conduct epidemiological investigations of any outbreaks, cases, or fatalities from the novel virus, and collaborate with CDC as needed.
- Maintain communications and coordinate response to novel influenza cases with other states.
- After receiving instructions from the DCPH Director, will:
 - Instruct BCDCP to:
 - Coordinate response with the State Epidemiologist and the ERC.
 - Utilizing all available surveillance tools, provide a situational awareness report, as needed or on a regular basis, to the DCPH Director. Describe ongoing trends and impacts of the disease across the state, capturing such information as school closures, outbreaks, percentages of visits to emergency rooms for influenza like illnesses (ILI), percentage of hospitalizations for ILI, pediatric deaths, laboratory testing results, trends of over-the-counter drug utilization, and other information and data to assist key response staff in making informed decisions on response actions and resource allocations.
 - Evaluate resources and prioritize staffing for pandemic response.
 - Work with the ERC in the preparation of Health Alerts, Advisories, and Updates.
 - Coordinate with MSPHL on testing.
 - Coordinate with Bureau of Immunizations (BI).
 - Coordinate with BRDI.
 - Evaluate resources available to sustain operations during the pandemic.
 - Instruct BRDI to:
 - Analyze regional and state data from statewide surveillance systems in conjunction with the State Epidemiologist and the ERC.

- Utilizing all available surveillance tools, provide a situational awareness data, as needed or on a regular basis, to the BCDCP staff. Describe ongoing trends and impacts of the disease across the state, capturing such information such as percentages of visits to emergency rooms for influenza like illnesses (ILI), percentage of hospitalizations for ILI, pediatric deaths, laboratory testing results, and other information and data to assist key response staff in making informed decisions on response actions and resource allocations.
- Instruct BI to:
 - Coordinate with the Strategic National Stockpile (SNS) Manager.
 - Review vaccination plan.
 - Finalize establishment of priority groups in each community statewide.
 - Coordinate with LPHAs, hospitals, and BCDCP on vaccination sites.
 - Provide vaccination guidance and technical assistance to LPHAs.
 - Coordinate with US Department of Health and Human Services (HHS) on vaccine implementation strategies.
 - Monitor staffing/workload gaps.
- Brief the regional senior epidemiologists with instructions to:
 - Participate in briefings.
 - Carry out normal duties as they apply to outbreaks.
 - Monitor bulletins and events related to influenza.
 - Work with regional and county staff in assigned area to implement vaccine distribution and administration plans.
 - Work with Office of Emergency Coordination (OEC) to assure coordinated effort among regional staff.
 - Coordinate with state emergency response planners to evaluate resources available to manage the outbreak and provide vaccinations within assigned area.
 - Instruct the local epidemiologists to:
 - Review local plans (e.g., surveillance and vaccination/drug plans).
 - Meet with other regional staff to assure consistency in planning and message.
 - Initiate heightened surveillance. Include additional tools such as surveillance of intensive care admissions due to influenza, inpatient mortality from respiratory illness, etc.
 - Assure that all newly diagnosed cases are entered into the appropriate data surveillance system in a timely manner to provide current data for analysis.
 - Assist assigned counties as needed.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Missouri State Public Health Laboratory

Throughout the Pandemic Period (or until the virus is substantially characterized):

- Will be notified by the DCPH Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Enhance surveillance for the novel virus throughout the state by supplying such information on sample submission and protocols as necessary to Laboratory Response Network (LRN) laboratories using Health Alerts, Advisories, and Updates created in cooperation with BCDCP and OEC, and by other communication means if necessary.
 - Increase communications with CDC to ensure the best information regarding strain typing, reagent specifics, and other such information related to the novel virus is available to MSPHL and its associated network of partners.
 - Redirect laboratory staffing, inspect equipment, monitor supplies, and take other such steps as needed in preparation for testing the novel virus.
 - Communicate expeditiously to DCPH any confirmation of the novel virus within the state.
 - Coordinate with LPHAs in providing technical consultation, necessary sampling kits, and other assistance as may be needed for surveillance of the novel virus.
 - Update, in conjunction with SDP and OEC, Health Alerts, Advisories, and Updates modifying (by prioritization of regions, details of sample submission, etc.) the enhanced surveillance effort for the novel virus.
 - Communicate expeditiously to DCPH trends and movement of the novel virus within the state.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Center for Local Public Health Services

Throughout the Pandemic Period:

- Will be notified by the DCPH Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Maintain communication with the SDP Administrator.
 - Maintain communication with the ERC (once activated).
 - Maintain communication with LPHA Administrators.
 - Coordinate with the BI Chief and SNS Manager on vaccine and antiviral information.
 - Interpret DHSS guidance for LPHAs, provide advice, maintain relationships, answer questions, and make referrals.
 - Assist in the assessment of capacities and capabilities of LPHAs.
 - Serve as a conduit for information between DHSS and LPHAs.
 - Redirect staff and resources within CLPHS as necessary.
 - Maintain knowledge of the deployment level of the LPHA workforce.
 - Recommend LPHA representatives to provide local input.
 - Work with DCPH Director to consider easing routine contract work of LPHAs to free staff for the pandemic effort.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Division of Senior and Disability Services

Throughout the Pandemic period:

- Will be notified by the DCPH Director or Deputy Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing will, as appropriate:
 - Advise management staff of the situation, including all updates.
 - Facilitate ongoing communication with regional division staff.
 - Maintain ongoing communication with all partners, including Area Agencies on Aging, Home and Community Based Services (HCBS) providers, Centers for Independent Living, home care industry, and other entities.
 - Handle issues/problems encountered by HCBS providers/vendors implementing service plans for priority clients during periods of high or extended absenteeism.
 - Track incident impact to DSDS clients via the Central Registry Unit.
 - Redirect staff and resources as necessary to support DSDS and DHSS operations.
- Will coordinate response activities through the ERC when activated.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Division of Regulation and Licensure

Within the DRL, the Director's Office oversees the following:

- Section for Health Standards and Licensure (HSL)
- Section for Long Term Care (SLCR)
- Section for Child Care Regulation (SCCR)
- Certificate of Need (CON)
- Family Care Safety Registry (FCSR)
- The Board of Nursing Home Administrators (BNHA) staff liaison
- Financial Support Staff Unit (FSSU)

Throughout the Pandemic Period

- Will be notified by the DCPH Director or Deputy Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing, the DRL Director (or designee) will, as appropriate:
 - Communicate status of phase shifts and other updates/briefings with key division staff, including Section Administrators.
 - Consult with key DHSS staff, including DRL staff, and direct appropriate actions.
 - Monitor staffing/workload and continuously assess gaps and resources, and prioritize staffing for pandemic response.
 - Establish joint communication with the DHSS Director's office to:
 - Provide updated information to the DHSS Director's Office about status of licensees and division's current regulatory function capabilities.
 - Evaluate situational reports and provide recommendations for response strategies and actions to support local response and maintain essential functions.
 - Identify staff available who are not working on pandemic-related activities to support other DRL or DHSS functions, and redirect as necessary.
 - Report status of reassigned DRL personnel.
 - Provide situational awareness information about licensees/registrants.
 - Continue to refine the division's Pandemic COOP/COG plan based on emerging information and best practices.
 - Work with OPI to create and direct the release of communications and/or educational material with key messaging for both internal and external stakeholders.
 - Ensure that public website information related to DRL functions is routinely updated.
 - Ensure each program has a mechanism in place such that consultation and/or technical assistance for licensees is readily available.
 - Review and direct the implementation of the DHSS COOP/COG plan.
 - Direct staff concerning the receipt of priority prophylaxis based on DHSS guidance.
 - Issue directive that regulated entities be polled for assessment and capability.
 - Ensure that mental health-specific services can be accessed by deployed DRL staff.
 - Maintain a pre-designated telephone line for providing updated resources for DRL staff.
 - Maintain updated online resources for staff through dedicated SharePoint site for DRL staff.
 - Provide guidance to DRL staff for communicating with the media.

- Ensure DRL staff implement a method to capture information necessary to update desk reference handbooks that describe how to carry out DRL's essential functions.
- Will coordinate response activities through the ERC when activated.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Section for Health Standards and Licensure

Within the DRL, HSL oversees the following Bureaus:

- *Bureau of Hospital Standards (BHS)*
- *Bureau of Diagnostic Services (BDS)*
- *Bureau of Ambulatory Care (BAC)*
- *Home Care and Rehabilitative Standards (BHCRS)*
- *Bureau of Narcotics and Dangerous Drugs (BNDD)*
- *Bureau of Emergency Medical Services (BEMS)*

Throughout the Pandemic Period

- Will be notified by Director of DRL or designee of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing, the HSL Section Administrator or designee will:
 - Provide direction to subordinate staff to carry out assigned duties unique to the situation based on division priorities (e.g., provide consultation, disseminate educational materials, conduct investigations, handle media inquiries).
 - Approve the release of communication media to internal and external stakeholders.
 - Monitor staffing/workload and continuously assess gaps and resources, and prioritize staffing for pandemic response within HSL.
- Establish two-way communication with the DRL Director at regular intervals to:
 - Provide information about staffing and status of HSL's regulatory and licensure functions.
 - Provide situational awareness information about facilities, including availability of critical equipment, space, and medicines.
 - Recommend redirection of available specialized staff (such as nursing or clinical laboratory staff) to support patient care activities, including mass prophylaxis or other essential functions for DHSS.
 - Provide suggestions for updates to HSL's online information.
- Direct staff to capture information to use for updating desk reference handbooks post-pandemic.
- Issue a directive to activate local response plans.
- Brief new employees assigned to work in HSL during pandemic.
- Provide reassigned staff with a desk reference manual for any position required to handle an essential function.
- Assure that communications with key stakeholders (including points of dispensing [POD] sites) and staff occur regularly with the most up-to-date information available.
- Poll licensees to update availability of critical equipment, space, and medicines.
- Implement phases of reduced programmatic functions, and designate staff to participate in maintenance of essential functions, including adequate staffing levels for the medical surge desk.
- Encourage deployed staff in affected regions to take advantage of mental health services.
- Handle triaged complaints based on available staff.
- Implement altered standards.
- Provide specialized pandemic-related consultation and technical assistance to licensees/registrants.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Section for Long Term Care Regulation

Within the DRL, SLCR oversees the following Units:

- *Quality Assurance and Education*
- *Regulation and Compliance*
- *Licensure and Certification*
- *Regions 1–7*

Throughout the Pandemic Period:

- Will be notified by the Director of DRL or designee of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After each briefing, the SLCR Section Administrator or designee will, as appropriate:
 - Provide direction to subordinate staff to carry out assigned duties unique to the situation based on division priorities (e.g., provide consultation, disseminate educational materials, conduct investigations, handle media inquiries).
 - Approve the release of communication media to internal and external stakeholders.
 - Monitor staffing/workload and continuously assess gaps and resources, and prioritize staffing for pandemic response within SLTC.
- Establish two-way communication with the DRL Director at regular intervals to:
 - Provide information about staffing and status of SLCR's regulatory and licensure functions.
 - Provide situational awareness information about facilities, including location and number of high-risk residents, and locations for ancillary medical treatment.
 - Recommend redirection of available specialized staff, such as nurses to support patient care activities, including mass prophylaxis or other essential functions for the DHSS.
 - Provide suggestions for updates of SLCR's online information.
- Brief new employees assigned to work in SLCR during pandemic.
- Provide reassigned staff with a desk reference manual for any position required to handle an essential function.
- Assure communications with key stakeholders and staff occur regularly with the most up-to-date information available.
- Poll licensees to update availability of critical equipment, space, and medicines.
- Implement phases of reduced programmatic functions, and designate staff to participate in maintenance of essential functions, including adequate staffing levels for hotlines.
- Handle triaged complaints based on available staff.
- Provide specialized pandemic-related information to licensees/registrants.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Section for Child Care Regulation

Within DRL, SCCR oversees the staff in six districts.

Throughout the pandemic period:

- Will be notified by the DCPH Director of the emergence of a novel influenza virus and receive regular briefings (in person or through written situational reports) of subsequent significant changes in the status and spread of the virus.
- After briefing, SCCR Section Administrator or designee will:
 - Provide direction to subordinate staff to carry out assigned duties unique to the situation based on division priorities (e.g., provide consultation, disseminate educational materials, conduct investigations, handle media inquiries).
 - Approve the release of communication media to internal and external stakeholders.
 - Monitor staffing/workload, continuously assess gaps and resources, and prioritize staffing for pandemic response within SCCR.
 - Establish two-way communication with the DRL Director at regular intervals to:
 - Provide information about staffing and status of SCCR's regulatory and licensure functions.
 - Provide situational awareness information about facilities, including location, limitations, and capacity.
 - Recommend redirection of available staff to support other essential DHSS functions.
 - Provide suggestions for updates to SCCR's online information.
 - Direct staff to capture information to use for updating desk reference handbooks post- pandemic.
 - Brief new employees assigned to work in SCCR during the pandemic.
 - Provide reassigned staff with a desk reference manual for any position required to handle an essential function.
 - Assure that communications with key stakeholders and staff occur regularly with the most up-to-date information available.
 - Poll licensees to update availability of space and limitations.
 - Implement phases of reduced programmatic functions, and designate staff to participate in maintenance of essential functions.
 - Encourage deployed staff in affected regions to take advantage of mental health services.
 - Handle triaged complaints based on available staff.
 - Implement altered standards.
 - Provide specialized pandemic-related consultation and technical assistance to licensees.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Roles and Responsibilities of the Selected Programs Outside the Missouri Department of Health and Senior Services

Certain programs within other Missouri state agencies, whose activities impact the health of the public, would play crucial roles in the response to an influenza pandemic affecting the state. Listed below for each of these programs is a checklist (similar to the checklists in the previous section) setting out actions, roles, and responsibilities that these programs might perform during a pandemic, dependent on the severity. In a mild pandemic, many of these actions will never be needed. If DHSS' ERC and/or the SEOC are activated, these activities will be managed from within the ICS structure.

Medical Countermeasures Program –SEMA

- Activate the SNS distribution plan as needed.
- Coordinate inventory management of SNS assets held in receiving, staging and storage (RSS) sites.
- Develop and coordinate pro-rata allocation of SNS assets to LPHAs, hospitals, other health care partners, and state agencies.
- Develop and train local community partners on how to order SNS assets through WebEOC.
- Facilitate the ordering, picking, and shipping (Missouri is a pull state) of assets to local communities.
- Develop tracking mechanisms to quickly identify shortage areas and respond with needed assets. Use maps, prioritized algorithms, and criteria for ILI cases in decision-making.
- Use evidence-based decision making for requests for additional SNS assets. Assure intelligence data is available and current when reviewing/sending supporting documentation to CDC for additional asset requests.
- Ensure all state agencies have access to the SNS program personnel through contact with the ERC during a public health emergency.
- Monitor case infection rates, shortage areas, and pro-actively remain in contact with community members to meet needs.
- Activate SNS team members as needed to receive, store, and ship SNS assets from RSS sites.
- Communicate with the Missouri Board of Pharmacy so that it maintains situational awareness of SNS drugs.
- Assure latest Food and Drug Administration/CDC guidance on emergency use authorization (EUA) and patient fact sheets are available for SNS asset disposition.
- Maintain LPHA secure website with latest guidance documents, tools, and references.
- Assure DHSS leadership receives information in a timely manner regarding receipt and disposition of SNS assets.

Office of Disaster Services (ODS) – Missouri Department of Mental Health (DMH)

Throughout the pandemic period:

- Upon emergence of the novel influenza virus and notification by OEC:
 - Evaluate mental health assets and anticipated resources required to meet the current and anticipated future threats posed by the virus.

- Notify mental health experts and other partners to be ready for possible activation in response to a public health emergency.
 - Provide *ad hoc* training and orientation for those mental health professionals who may be deployed to support emergency-related public health response efforts (mass prophylaxis sites, local hospitals, alternate care facilities, etc.).
 - Provide consultation to local mental health providers in adapting their response for special populations (hospital and health care workers, children, older adults, ethnic communities, first responders, homebound persons, etc.).
 - Provide consultation and training for frontline public health workers, such as DHSS and LPHA staff, physicians, nurses, medical technicians, and others in anticipating and responding to pandemic-related mental health behaviors such as stress reactions, misattribution of normal arousal symptoms, and panic.
 - Disseminate to various populations disaster behavioral health educational materials addressing the mental health impact of the pandemic event, as well as information on strategies for coping with fear and anxiety, and how to access to mental health services. Information will be posted online to be downloaded as needed.
 - Conduct mental health-specific needs assessments and rapid identification of vulnerable populations and gaps in mental health services that may exacerbate the psychosocial response to the event.
- Upon sustained transmission of the novel virus in the state will, as needed:
- Be notified of the change in status by OEC.
 - Continue with the above. In addition, will:
 - Utilize existing relationships with Voluntary Organizations Active in Disasters and faith-based organizations in coordinating and unifying mental health messages and strategies.
 - Work with public information officers from DMH, DHSS, and/or SEMA or other PIOs to craft public service mental health messages in support of the overall emergency public health response.
 - Deploy DMH crisis counseling cadre staff, as needed, to provide community-based crisis counseling and psycho-education in rural and otherwise difficult to reach communities.
 - Update and modify online mental health/pandemic-related websites.
 - Deploy counselors to deliver multi-lingual, multi-cultural mental health support services directed at all critical outbreak-related functional areas (SNS RSS sites, POD sites, public health facilities, EMS bases of operation, etc.).
 - Provide stress management services and training for those public health personnel working in high-demand settings.
 - Deploy staff (life safety issues notwithstanding), to high-emotion locations (morgues, funeral homes, hospitals, pediatric units, pharmacies, etc.) to work to reduce agitation among individuals who are upset.
 - Coordinate with other crisis counseling programs (American Red Cross, county prosecutor's victims' advocates, etc.) to ensure the interoperability of counseling services at all points within the community.
 - Deliver (life safety issues notwithstanding) support services to schools and other institutions to assist staff, students/residents, etc., with grief and bereavement issues and the cumulative stresses related to a protracted health emergency.

- Offer ongoing stress management activities for crisis counselors and other mental health workers engaged in any outbreak-related efforts.
- Offer ongoing stress management services to personnel within the incident command and control structure of the emergency management system.
- Deliver specialized mental health support services to medical professionals, first responders, and public health workers to address stress management concerns to reduce the potential for adverse psychological reactions within their workforces.
- Between pandemic waves (and after the end of the pandemic) will, as needed:
 - Continue with the above. In addition will:
 - Provide ongoing support for clergy, morticians, and funeral workers.
 - Promote the development of grass roots, community self-help groups to address the long-term emotional consequences of the pandemic.
 - Promote and offer technical assistance and peer-support programs to first responders to address the potential long-term emotional impact of the event.
 - Deliver debriefing and other post-event psychological services for first responders, public health, and other professionals involved in the event.
 - Work with community mental health provider agencies, academic institutions, and other specialists to develop treatment models to address the lingering or long-term emotional consequences of the pandemic event.
 - Maintain a telephone help-line providing tele-counseling, updated resources, and facilitated referrals for behavioral health services, as well as online resources.
 - Maintain online disaster behavioral health educational and resource/referral websites developed during earlier phases.

DHSS will direct response per the Concept of Operations. These checklists serve as reminders of broad categories of roles and responsibilities for pandemic influenza response.

Concept of Operations

Objectives

1. Describe command structure and decision-making process.
2. Outline roles and responsibilities of DHSS and other agencies.

A. Command and Control

Response to pandemic influenza will use the same command and control system developed for other public health emergencies in Missouri. This section highlights activities specific to pandemic influenza response and the role of DHSS in this response.

1. Authority for Direction of Control

The overall authority for direction and control of the response to a pandemic influenza situation within Missouri rests with the Governor. The Missouri Constitution identifies the officers next in line of succession in the following order: Lieutenant Governor, President Pro Tempore of the Senate, Speaker of the House, Secretary of State, State Auditor, State Treasurer or the Attorney General.

The Governor is assisted in the exercise of direction and control activities by the staff of the Governor's office and in the coordination of response activities by the Missouri Department of Public Safety and SEMA.

SEMA coordinates federal, state, local, and private resources throughout the State during any disaster and emergency. SEMA maintains and operates the SEOC which monitors for emergencies statewide 24 hours a day, 7 days a week. The SEOC serves as the command and control center for the state during an emergency. Fully activated, the SEOC is staffed according to 16 Emergency Support Functions (ESFs). DHSS heads ESF #8 "Health and Medical".

Activation of the SEOC:

- a) improves communication between and among various agencies,
- b) facilitates communication with other states, the federal government, and local public and private entities, and
- c) enables the capacity to deploy assets, support operations to ESFs, and ensure timely and appropriate response to the emergency.

Outlined within the SEOP are policies, concepts of operations, organizational structures, and federal-state-local interfaces. The SEOP contains specific language pertaining to the provision of health and medical services (ESF #8, under the primary responsibility of DHSS) in response to emergencies and disasters. The ESF #8 section in the SEOP identifies roles and responsibilities of DHSS, and of all support agencies, should a disaster or emergency (including an influenza pandemic) overburden or overwhelm local capacities. This plan will be followed should the SEOP and SEOC require activation to support the local response.

DHSS is a lead agency in Missouri's response to pandemic influenza. Overall authority for direction and control of the resources of DHSS that respond to a pandemic influenza situation is the DHSS Director. The line of succession for the DHSS Director is the Deputy Department Director. The DHSS Director is assisted in the coordination of pandemic influenza response activities by the DCPH, OEC, and other designated staff. The DHSS Director will evaluate the need for activation of DHSS' ERC, or to request activation of the SEOC, based on situational information during the pandemic.

2. Command and Control Process

The strategic direction and control for Missouri's response to a public health emergency is a coordinated function of DHSS through the ERC and the SEOC, dependent upon the level of activation needed. During emergencies, DHSS will coordinate response activities using an incident management system (IMS), superimposed over the regular programmatic chain of command. The ERC will manage the traditional functions of ICS (Command, Planning, Operations, Logistics, Finance and Administration) within DHSS's existing systems to facilitate an integrated and comprehensive response.

Several staff may be identified for each incident command role for the anticipated length of the pandemic period.

It is expected that LPHAs will also direct their response activities using IMS, which is included in the locally-developed Emergency Operations Plan. If the magnitude of a pandemic influenza crisis exceeds the capabilities and resources of the local incident commander, or when the efforts of multiple jurisdictions are required in order to resolve a crisis situation, the ICS command function will likely evolve into a *Unified Command* (UC). Under UC, a multiagency command post will be established, incorporating officials from agencies with jurisdictional responsibility at the incident scene. Multiple agency resources and personnel will then be integrated into the ICS as the single overall response management structure at the incident scene.

At a local government's request and during the period of a large-scale pandemic influenza emergency, state agencies will mobilize and deploy resources to the affected area to assist local governments, and coordinate the delivery of services from the federal government. The affected local government(s) will be responsible for identifying and communicating response priorities and state resource requirements to the SEOC through the Unified Area Command (UAC), if activated. If the SEOC is not activated, LPHAs should direct resource requests through the ERC, and these requests should come through the local EOC, if activated.

For health care organizations, the standards of the Joint Commission on the Accreditation of Healthcare Organizations (EC.1.4 and EC.2.4) require accredited healthcare organizations to identify a community command structure and define an all-hazard command structure within their organization that links to the community structure.

3. DHSS' ERC

The ERC is located on the main DHSS campus in Jefferson City, and serves as the strategic coordination point for public health and medical operations.

The ERC has functional ability to operate as a command and control center in the event of a public health emergency. Routine situational status updates, and current information on the spread and impact of the pandemic influenza virus, will be provided for informed decision making. The DHSS Director will evaluate the situation and make a determination whether activation of the ERC should occur, and if so, what level of activation is recommended. Additionally, if SEOC is activated, the ERC will serve as the support coordination point for the ESF #8 (Health and Medical) team assigned to the SEOC. The ERC will distribute Health Alerts, Advisories, and Updates to medical providers, LPHAs, health care entities, and other partners, and will establish and maintain communications with these entities to address the public health needs of Missourians.

The ERC ICS organization chart is shown on the next page.

The ERC maintains a toll-free emergency number which is answered 24/7/365 (800-392-0272).

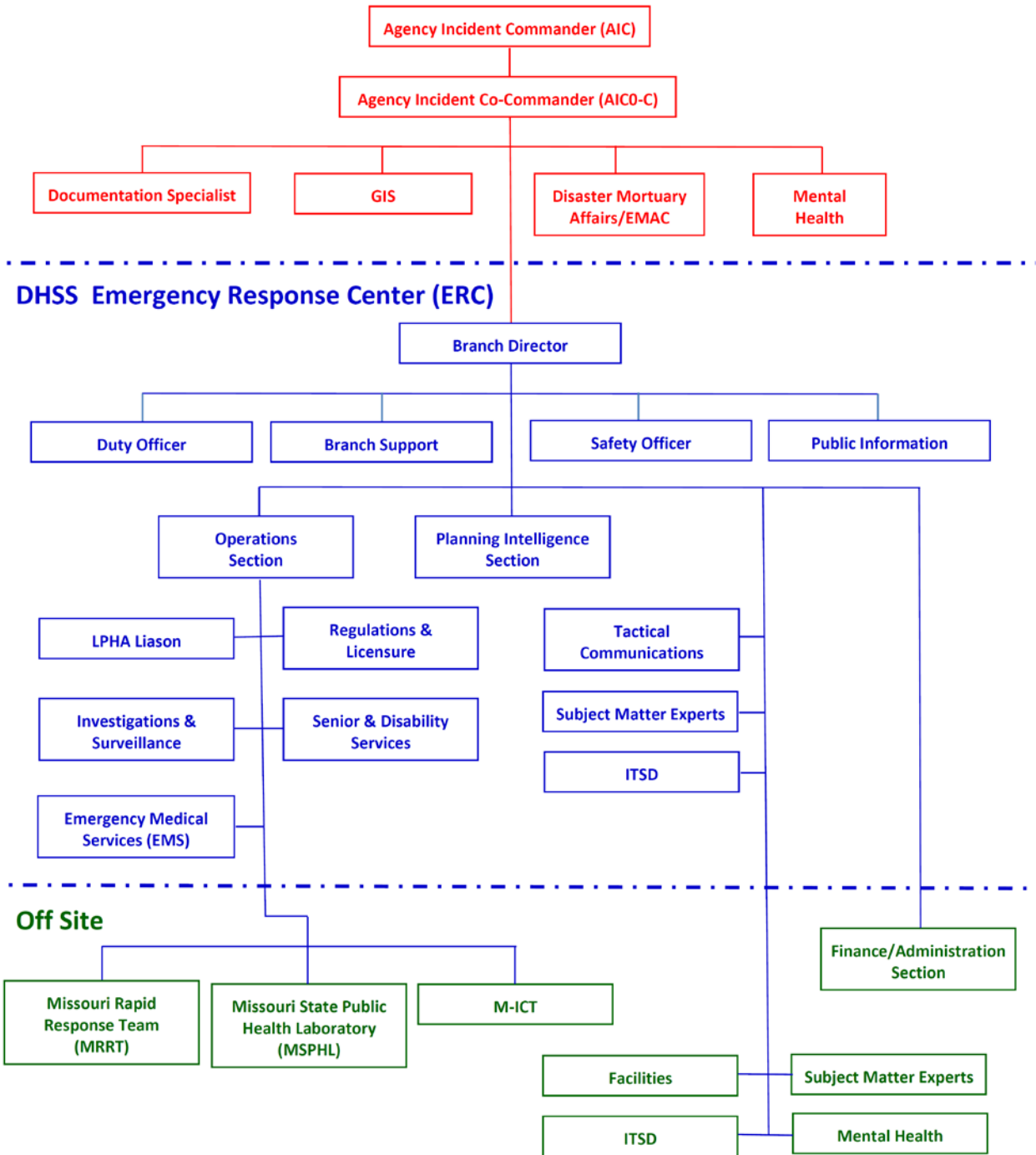
4. Joint Information Center (JIC)

The purpose of a JIC is to coordinate the flow of information about the pandemic and related response issues among agencies, and to provide a single information source for the media, business community, and general public. The JIC is an element of the SEOC (where the emergency response is coordinated). The establishment of a JIC will be necessary under one or more of the following circumstances:

- a) The DHSS Director in consultation with the Missouri Department of Public Safety and the Governor's Office determines the need exists for the activation of the SEOC and the JIC.
- b) Multiple local, state, and federal agencies are involved in information dissemination concerning the emergency situation (i.e., influenza pandemic) and the release and management of this information has become disjointed and fragmented, leading to public confusion and concern.
- c) The volume of media inquiries appears to overwhelm the capabilities of the public information officers within the ERC.

ERC ICS Organization Chart

State Emergency Operations Center (SEOC)



B. Agencies and Responsibilities

1. Primary Agency

Missouri DHSS:

- Serves as the lead agency for pandemic influenza preparedness and response. Once the Governor declares a public health emergency, DHSS oversees the uniform exercise of the Emergency Health Powers Act (EHPA). Local boards of health are subject to the department's exercise of this authority.
- Provides subject matter expertise (e.g., surveillance, laboratory diagnostics, infection control, clinical guidelines).
- Provides accurate and timely medical and health information to stakeholders and the public.
- Provides epidemiological guidance for response activities. Plans for statewide prophylaxis and vaccination.
- Works with LPHAs to guide coordinated planning and response.
- Provides planning guidance to healthcare entities (e.g., hospitals, long-term care facilities [LTCFs], home health agencies, hospice agencies, EMS, primary care centers, private health professionals, alternate care sites).

2. Support Agencies

LPHAs:

- Develop and implement plans in coordination with DHSS and acute care hospitals, LTCFs, and other health care entities in their jurisdictions.

Missouri Hospital Association (MHA)

- Works with its members, develops pandemic influenza response plans that include appropriate infection control, surge capacity, and cross-training of staff
- Complies with DHSS-issued guidance

Acute Care Hospitals

- Develop and implement pandemic influenza plans that include appropriate infection control and surge capacity.
- Train staff and exercise pandemic response plans.
- Comply with DHSS-issued guidance.

Long Term Care Facilities (LTCFs)

- Collaborate with their area hospitals' requests regarding surge capacity plans.
- Train staff and exercise pandemic response plans.
- Comply with DHSS guidance.

Rehabilitation hospitals, long-term acute care hospitals, and other specialty hospitals

- Collaborate with their area hospitals' requests regarding surge capacity plans.

- Train staff and exercise pandemic response plans.
- Comply with DHSS guidance.

Home Care Associations

- Provide pandemic influenza-related guidance (infection control, voluntary isolation and quarantine) to agency members.

Home Health Agencies and Hospice Agencies

- Provide information and education to staff.
- Provide pandemic influenza-related guidance (infection control, voluntary isolation and quarantine) to patients in the home.

Federally Qualified Health Centers (FQHCs)

- Plan to serve as screening, triage, and treatment centers.
- Train staff.
- Exercise pandemic response plans.

Professional Medical Associations in Missouri

- Provide pandemic influenza-related guidance to members.

C. Activities by Pandemic Interval

1. Pre-pandemic Intervals

DHSS activates Department's Pandemic Influenza Preparedness Committee.

DHSS and LPHAs

- Identify and establish relationships with partner organizations including regional healthcare coalitions and maintain lists of partners, resources, and facilities.
- Identify and resolve gaps in infrastructure and resources, and in laws and/or statutes, which may interfere with an effective pandemic response.
- Coordinate planning activities with bordering jurisdictions.
- Ensure that unique population and special care needs are addressed. Discuss plans with partner agencies.
- Review, exercise, and modify pandemic response plan on a periodic basis. Ensure that pandemic plans are developed, either as a supplement to the All Hazard Emergency Operations Plans, or as stand-alone plans.

2. Pandemic Intervals

DHSS

- Activate enhanced surveillance and communications plans. Review and modify pandemic plan as necessary.
- Fully activate pandemic influenza preparedness plan. Coordinate plan activation with partners and stakeholders.
- Communicate with appropriate counterparts at the national level (CDC, Council of State and Territorial Epidemiologists [CSTE], etc.). Participate in HHS/CDC public

- information briefings.
- Activate JIC.

DHSS and LPHAs

- Meet with partners and stakeholders including regional healthcare coalitions and review pandemic response plan. Make response plan modifications as needed.
- Coordinate with other counties, states, federal agencies, and bordering jurisdictions as appropriate.
- Confirm availability of facilities for mass vaccination, mass casualty, etc.
- Track and document expenses of pandemic response, and notify appropriate agencies and officials of need for additional resources, if necessary.
- Increase public awareness of pandemic influenza and educate about appropriate behaviors for infection risk reduction.
- Hold internal, partner, and media briefings as necessary to update information and discuss response activities.
- Activate call centers and implement targeted strategies to reach different audiences.
- Monitor staffing needs.

D. Legal Authorities

The Missouri Revised Statutes and the Code of State Regulations provides DHSS with the authority to safeguard the health of the people of the state and all its subdivisions. DHSS and local public health authorities are authorized to investigate the causes of dangerously contagious or infectious diseases, especially when existing in epidemic form, and to take measures to restrict and suppress the same. Whenever such disease becomes or threatens to become epidemic and the local public health authority neglects or refuses to perform these duties, DHSS is responsible to provide measures to control the outbreak. Moreover, DHSS is able to issue orders for the administration of vaccines, medications, or other treatments to persons as necessary to prevent the probable spread of a dangerously contagious or infectious disease. DHSS and local public health authorities also have the authority to request quarantine and isolation, and to close private and public schools and places of public assembly, to contain disease spread.

Under Section 192.020, RSMo, DHSS may make and enforce adequate orders, findings, rules, and regulations to prevent the entrance and spread of infectious, contagious, and communicable diseases and to determine the prevalence of such diseases within the state.

The county commissions and county health center boards may make and promulgate orders, ordinances, rules, or regulations, respectively, as will tend to enhance the public health and prevent the entrance of infectious, contagious, communicable, or dangerous diseases into such county (Section 192.300, RSMo).

The local health authority, the director of DHSS, or the director's designated representative may establish and maintain quarantine, isolation or other measures as required, which may include isolation, quarantine, disinfection, immunization, closure of establishments, and other measures considered appropriate by medical experts for the protection of public health. Control measures implemented by the local health authority must be at least as stringent as

those established by the director of DHSS and are subject to review and alteration by the director. If the local health authority fails to carry out appropriate control measures, the director or his/her designated representative shall take steps necessary to protect the public health (19 CSR 20-20.040).

Under 19 CSR 20-20.050, a local health authority, the director of DHSS or the director's designated representative may close any public or private school when necessary to protect the public health. During a statewide pandemic, only the director of DHSS or the director's designated representative may close any public or private school when necessary to protect the public health.

Definitions

Antigenic drift - The gradual alteration by point mutations of the haemagglutinin (HA) and neuraminidase (NA) proteins within a type or subtype which results in the inability of antibodies to previous strains to neutralize the mutant virus. Antigenic drift occurs in both influenza A and B viruses and causes periodic epidemics.

Antigenic shift - The appearance in the human population of an influenza A virus containing a novel HA protein with or without a novel NA protein that are immunologically different from those of isolates circulating previously. Antigenic shift is responsible for worldwide pandemics.

Antivirals - Drugs used for the treatment, and in some instances, prevention of viral infections including those caused by influenza viruses. Two classes of antiviral drugs have been used for treatment and prevention of influenza: the neuraminidase inhibitors (Tamiflu[®] and Relenza[®]) and the adamantanes (amantadine and rimantadine).

Avian Influenza - All known avian flu viruses belong to the species of virus called influenza A virus. All subtypes of influenza A virus are adapted to birds, which is why for many purposes avian flu virus *is* the influenza A virus.

Disease surveillance - The systematic, continuing assessment of the health of a community, based on the collection, interpretation and use of health data. Surveillance provides information necessary for public health decision-making.

Epidemiology - The study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems.

Influenza epidemic - An outbreak of influenza caused by influenza A or B viruses that have undergone antigenic drift. The terms “influenza epidemic” and “influenza outbreak” have the same meaning, and may occur locally or in many parts of the world during the same season.

Influenza pandemic - By convention, worldwide outbreaks of influenza caused by influenza A viruses that have undergone antigenic shift. However, as recently demonstrated, an antigenically novel virus of an existing subtype is capable of pandemic spread.

Health Alert - Notices provided by government and/or health-related organizations concerning **relevant** information related to the health and safety of the public. These may include notices of travel restrictions, information concerning sites of novel outbreaks around the world, notification of WHO phase shifts etc.

Influenza Like Illness (ILI) - ILI is defined as documented fever $>100.4^{\circ}\text{F}$ (38.0°C) **and** cough, sore throat or shortness of breath.

Isolation - The separation for the period of communicability of infected individuals from other individuals, in places and under conditions as will prevent the direct or indirect transmission of the infectious agent from infected individuals to other individuals who are susceptible or who may spread the agent to others. Isolation may be voluntary or enforced.

Novel Influenza Virus - Virus that has never been reported in the past to cause human illness or a virus that has not circulated in many years and therefore is novel to the human population and has inherent immune resistance.

Points of Dispensing - Sites used for dispensing prophylactic medications (e.g., antibiotics or antivirals) and/or vaccine to asymptomatic persons who potentially have been or will be exposed to an infectious agent.

Priority Groups - Those groups identified to be in the greatest need of a service, such as vaccination or antiviral treatment or scarce medical resources or care, in the event of a pandemic influenza outbreak.

Providers - Those individuals providing services directly to the community. Examples include physicians, nurses, hospitals, etc.

Public Health Emergency - Emergency health threats, including pandemic influenza, that require exercise of essential government functions to ensure the safety of their residents. By declaring an emergency, officials are enabled to enact plans that have been designed to best serve their people while acknowledging the threat of this event requires the attention of various state organizations.

Quarantine - A period of detention for persons who may have been exposed to a reportable disease. The period of time will not be longer than the longest period of communicability of the disease. The purpose of quarantine is to prevent effective contact with the general population. Quarantine may be voluntary or enforced.

Sentinel Providers - Missouri physicians of any specialty who, in agreement with DHSS, report the total number of patient ambulatory visits each week, as well as the number of patient visits for ILI.

Situational Awareness - The ability to generate actionable knowledge through the use of timely and accurate information. This ability is critical, to have and maintain, during a pandemic to create a “common operating picture” so important decisions on response actions and resource allocations can be quickly and correctly made.

Strain Typing - Laboratory analysis of isolates collected from infected individuals to determine the subtype of influenza virus responsible for the infection and resulting illness.

Strategic National Stockpile - CDC's SNS has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency severe enough to cause local supplies to run out. Once federal and local authorities agree that the SNS is needed, medicines will be delivered to any state in the United States within 12 hours

Virological surveillance - The ongoing and systematic collection and analysis of viruses in order to monitor their characteristics.

Selected Acronyms

AIC	Agency Incident Commander
AICO-C	Agency Incident Co-Commander
APHIS	Animal and Plant Health Inspection Service
APHL	Association of Public Health Laboratories
ARC	American Red Cross
ASPR	Office of the Assistant Secretary for Preparedness and Response
BAC	Bureau of Ambulatory Care
BCDCP	Bureau of Communicable Disease Control and Prevention
BDS	Bureau of Diagnostic Services
BEMS	Bureau of Emergency Medical Services
BHCRS	Bureau of Home Care and Rehabilitative Standards
BHPP	Bioterrorism Hospital Preparedness Program
BHS	Bureau of Hospital Standards
BI	Bureau of Immunizations
BNDD	Bureau of Narcotics and Dangerous Drugs
BNHA	Board of Nursing Home Administrators
BSL-3	Biosafety Level 3
CAP	College of American Pathologists
CBRN	Chemical, biological, radiological, and nuclear
CCP	Crisis Counseling Program
CDC	Centers of Disease Control and Prevention
CFR	Case-fatality rate
CFRP	Child Fatality Review Panel
CICP	Countermeasures Injury Compensation Program
CIDRAP	Center for Infectious Disease Research and Policy
CLIA	Clinical Laboratory Improvement Amendments
CLPHS	Center for Local Public Health Services
CMHC	Community Mental Health Centers
CMHS	Center for Mental Health Services
COG	Continuity of Government
CON	Certificate of Need
COOP	Continuity of Operations
CRU	Central Registry Unit Hotline
CSTE	Council of State and Territorial Epidemiologists
DCPH	Division of Community and Public Health
DESE	Missouri Department of Secondary and Elementary Education
DHSS	Missouri Department of Health and Senior Services
DMH	Missouri Department of Mental Health
DNHPP	Division of National Healthcare Preparedness Programs
DRL	Division of Regulation and Licensure
DSDS	Division of Senior and Disability Services
EAP	Employee Assistance Plan
EAS	Emergency Alert System
ED	Emergency Department
EDOCS	Expeditional Deployable Oxygen Concentration System
EHPA	Emergency Health Powers Act
EMAC	Emergency Management Assistance Compact

EMD.....Emergency Medical Departments
 EMS.....Emergency Medical Services
 EOC.....Emergency Operation Centers
 EPAU. S. Environmental Protection Agency
 ERCMissouri Department of Health and Senior Services’ Emergency Response Center
 ERIPEmergency Response and Information Plan
 ESAR-VHPMissouri’s Emergency System for Advance Registration of Volunteer Health Professionals
 (Show-Me Response)
 ESFEmergency Support Function
 ESSENCE.....Biosense and Electronic Surveillance System for the Early Notification of Community-
 Based Epidemics
 EUA.....Emergency Use Authorization
 FCSRFamily Care Safety Registry
 FDA.....U.S. Food and Drug Administration
 FEMA.....Federal Emergency Management Agency
 FERPAFamily Educational Rights and Privacy Act
 FMLA.....Family Medical Leave Act
 FQHCs.....Federally Qualified Health Centers
 FSSUFinancial Support Staff Unit
 GISGeographic Information System
 HAHaemagglutinin
 HANHealth Alert Network
 HCBSHome and Community Based Services
 HCFHealth Care Facility
 HEES.....Hospital Electronic Syndromic Surveillance
 HEOC.....Health Emergency Operations Centers
 HHS.....U.S. Department of Health and Human Services
 HPPHospital Preparedness Program
 HRSAHealth Resource Services Administration
 HSLSection for Health Standards and Licensure
 IBA.....Immediate Bed Availability
 ICS.....Incident Command System
 ICUIntensive Care Unit
 IFImmuno-fluorescence
 ILI.....Influenza-like illness
 ILINET.....Influenza-like illness Surveillance Network
 IMS.....Incident management system
 IRATInfluenza Risk Assessment Tool
 IRRInfluenza Reagent Resource
 ITSD.....Information Technology Services Division
 JICJoint Information Center
 LASSLocal Active Surveillance System
 LEOCLocal Emergency Operations Center
 LIMSLaboratory Information Management System
 LPHALocal Public Health Agency
 LRN.....Laboratory Response Network
 LTCF.....Long-term care facility
 M-ICTMedical Incident Coordination Team
 MAAMutual AID Agreement
 MARC.....Mid-America Regional Council
 MASNMissouri Association of School Nurses

MEMedical examiner
 MERCMortuary Enhanced Remains Cooling
 MFDEA-DRT.....Missouri Funeral Directors and Embalmers Association Disaster Response Team
 MHAMissouri Hospital Association
 MICAMissouri Information for Community Assessment
 MMH.....Mobile Medical Hospital
 MO DMAT-1Missouri-1 Disaster Medical Assistance Team
 MO MORT 1.....Missouri Mortuary Operations Response Team
 MOAMemorandum of Agreement
 MoEVRMissouri Electronic Vital Records
 MOLRNMissouri Laboratory Response Network
 MOSCOPE.....Missouri System Concept of Operational Planning for Emergencies
 MOSWINMissouri Statewide Wireless Interoperable Network
 MOU/AMemoranda of Understanding/Agreement
 MRC.....Medical Reserve Corps
 MRRTMissouri Rapid Response Team
 MSBAMissouri School Board Association
 MSCC.....Medical surge capacity and capability model
 MSHP.....Missouri State Highway Patrol
 MSPHLMissouri State Public Health Laboratory
 NANeuraminidase
 NIH.....National Institute of Health
 NIMS.....National Incident Management System
 NNDSS.....National Notifiable Disease Surveillance System
 NOVANational Organization of Victim Assistance
 NPINon-pharmaceutical intervention
 NREVSSNational Respiratory and Enteric Virus Surveillance System
 ODS.....Office of Disaster Services
 OEC.....Office of Emergency Coordination
 OPEOOffice of Preparedness and Emergency Operations
 OPIOffice of Public Information
 OSHA.....Occupational Safety and Health Administration
 P&LPneumonia and influenza
 PCRPolymerase chain reaction
 PFAPsychological first aid
 PHLIP.....Public Health Laboratory Interoperability Project
 PIOPublic Information Officer
 POD.....Points of dispensing
 PPE.....Personal Protective Equipment
 PREPPublic Readiness and Emergency Preparedness
 PSAFPandemic Severity Assessment Framework
 PSSPost-Secondary Schools
 PTSD.....Post Traumatic Stress Disorder
 rRT-PCR.....Real-time reverse transcriptase polymerase chain reaction
 RSS.....Receiving, staging and storage
 RT-PCR.....Real-time polymerase chain reaction
 SAMHSASubstance Abuse and Mental Health Services Administration
 SCCR.....Section for Child Care Regulation
 SDPSection for Disease Prevention
 SEMA.....Missouri State Emergency Management Agency
 SEOC.....State Emergency Operations Center

SEOPMissouri State Emergency Operations Plan
SEPHSection for Environmental Public Health
SLCR.....Section for Long Term Care
SNSStrategic National Stockpile
SOG.....Standard Operating Guideline
SPNSentinel Provider Network
STARRS.....St. Louis Area Regional Response System
TCAD.....Taney County Ambulance District
UACUnified Area Command
UCUnified Command
USDA.....U.S. Department of Agriculture
USDIU.S. Department of Interior
VIC.....Victim Information Center
VOADVolunteer Organizations Active in Disaster
WHOWorld Health Organization