

I. Pandemic Influenza definition and the World Health Organization (WHO) pandemic phases:

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 very short time.

WHO pandemic phases:

Inter-pandemic Period

Phase 1. No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low

Phase 2. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

Pandemic Alert Period

Phase 3. Human infection(s) with a new subtype but no human-to-human spread or at most rare instances of spread to a close contact

Phase 4. Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans

Phase 5. Larger cluster(s) but human-to-human spread is still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

Pandemic Period

Phase 6. Pandemic phase: increased and sustained transmission in the general population.

Postpandemic Period

Return to the Inter-pandemic Period (Phase 1).

II. Assumptions

The Sarpy Cass Dept of Health and Wellness (SCDHW) Pandemic Influenza Response Plan is written using a basis of assumptions:

- An Influenza Pandemic is inevitable.
- A novel influenza virus strain will **likely** emerge in a country other than the United States, although it could emerge first in the United States.
- Although there may be isolated pockets, the pandemic could affect all geographic areas of the state.
- With the emergence of a novel strain, it is likely that all persons will need two doses of vaccine to achieve optimal antibody response. However, when the pandemic occurs these vaccines and anti-virals will be in short supply, and will be allocated on a priority basis.
- Secondary bacterial infections following the influenza illness may stress antibiotic supplies.

- According to the Center for Disease Control and Prevention (CDC) guidelines, total vaccine supply will be under the control of the federal government, with states receiving an allotment.
- The public health emergency response element will require substantial interaction of agencies beyond health departments.
- Response to the demand for services will require non-standard approaches, including:
 - Expansion of hospital capacity by using all available space and equipment on the hospital campus.
 - Recruitment of volunteers who can provide custodial services under the general supervision of health and medical workers.
 - Relaxation of practitioner licensure requirements as deemed appropriate and approved by NEHSS.
 - Utilization of general and special needs shelters as temporary health facilities or quarantine shelters.
 - Expansion of mortuary services capacity.
- Preparation and Response to a pandemic influenza event are local responsibilities, with guidelines from the state and federal governments.

A. Response Activation

SCDHW will, with cooperation of local elected officials and emergency management, activate, or increase the level of response outlined in the Pandemic Influenza Response Plan. If the Pandemic Flu Response Plan is activated in surrounding counties, or the State Medical Director declares a pandemic emergency, then that will also determine activation of the local jurisdiction plan.

B. Response Communication

Depending on which level of government declares activation of the response plan first communication will follow:

- Federal > State > Local Health Depts. > LECC members > Pandemic Flu Preparedness Committee members.
- State > Federal
- Local Health Department > NEHSS, with approval LECC, Pandemic Flu Preparedness Committee members.

C. Legal Authorities

Controlling the spread of a pandemic in a community requires a coordinated approach that includes epidemiology, education of medical providers and the public and provision of treatment and prophylaxis, if available.

- **Isolation** refers to the separation of persons who have a specific infectious illness from those who are healthy. It involves the restriction of their movement to stop the spread of that illness.
- **Quarantine** refers to the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and therefore may become infectious.
- Both isolation and quarantine restrict the movement of individuals. Either or both of these containment methods may be implemented in a pandemic situation. Ideally, isolation and quarantine would be voluntary and can also be quite successful. However, involuntary restriction may be required in some circumstances or with particular groups of individuals. In this instance, public health and law enforcement will work together in implementing local and/or state statutes.
- **Social Distancing** - Another concept is that of social distancing, which are focused measures to increase social distance, or activity restrictions. An example of increasing social distance is to cancel events and close or restrict access to certain buildings. Depending on the situation, this may include cancellation of public events (concerts, sports events, movies, plays) and closure of recreational facilities (community swimming pools, youth clubs, gymnasiums) and even schools.
- **Closure** of office buildings, stores, schools, and public transportation systems may be feasible community containment measures during a pandemic. All of these have significant impact on the community and workforce, however, and careful consideration would be focused on their potential effectiveness, how they can most effectively be implemented, and how to maintain critical supplies and infrastructure while limiting community interaction.
- **Enforcement** of these measures will require close coordination with law enforcement and other key partners in the community.