

United States Fire Administration

Pandemic Influenza

Planning and Preparation Best Practices Model

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**Homeland
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United States Fire Administration

Emergency Responder and Pandemic Influenza: Model Best Practices

The H5N1 influenza virus (commonly referred to as the Avian Flu) presents new challenges to the emergency response environment if it becomes a pandemic influenza in the United States. Common approaches to securing mutual aid assistance and furthering the ability to protect communities will be compounded by an anticipated loss of 30 to 40% of the local workforce and neighboring communities. With that in mind, it is essential that all communities coordinate with other planning groups in preparation of a pandemic outbreak, and to establish operational protocols to help guide an agency through common best practices.

These best practices are designed to promote the development of community specific guidelines and operational protocols to meet the challenge of a pandemic outbreak while not affecting normal daily response activities. The response community will be the front line providers of emergency medical care.

It is important to always work directly with health medical care providers, emergency management and local public health and regulatory officials when constructing protocols and practices that venture away from standard acceptable practices in emergency medical care. All protocols that exceed the normal practice must be properly reviewed, validated, and approved. It is then necessary to train all emergency medical responders in the emergency protocols so that they know how to properly implement the new tactics to provide patient care.

Planning for the Pandemic Influenza Outbreak

First and foremost is the education of communities. The community must be aware that the impact of the pandemic will be affecting the response agency the same as it is in their home or workplace. While the message should not incite panic within any community, the community should be aware of anticipated limitations in normal service and resources during a pandemic.

The following planning guidelines, with consultation through the local public health affiliates, will promote an agency's ability to meet the challenge of a pandemic:

- Integrate the plan with the existing plans in a community and state. Be sure to include Public Health, Emergency Management, Health Care, and Emergency Medicine in your meetings. Ensure that all plans interface with each other, and that legal aspects are considered, so that unexpected conflicts do not occur during an outbreak.

- Establish and implement a department infection control plan, and monitor for compliance within the department. Establish an occupational health plan for department personnel.
- Determine in advance the level of responder PPE needed for infection control and stockpile these items pre-need.
- Establish guidelines for food preparation during a pandemic for the response workplace and emergency responders' homes. Stockpile essential items, as the commodity distribution system may be disrupted due to the outbreak.
- Anticipate a reduced workforce during the outbreak. It is anticipated that up to 30-40% of the workforce will not be able to report to work, either because they have the influenza virus, or they are tending to the needs of a loved one. This may require you to establish alternative scheduling of the workplace, identify substitute workers to supplement the response effort, or establish official protocol to address changes in the emergency service response.
- Anticipate not having access to mutual aid or state/federal support during an outbreak. Local, state, and national response communities may be directly affected by the pandemic and not have the resources to send support to your community.
- Establish emergency protocols for responders and trigger points for implementing these emergency protocols. Examples of emergency or alternative protocols may include:
 - Use of EMT's and Paramedics as auxiliary health care workers in doctor's offices, hospitals, vaccine inoculation centers, and treat at home events.
 - Actions to be taken in the event that a hospital emergency department must close, thereby diverting transports to other hospitals, alternative care centers, or not being able to transport the ill to definitive care.
 - Use of protective or surgical masks by patients to reduce the spread of the influenza virus (if it does not compromise respiratory efforts).
 - Triage of those affected by the influenza virus, and decisions regarding treat at home or transport to medical facility. It is essential that response agencies work directly with local health providers to construct the proper guidance for effectively triaging influenza patients in the field, and that a training plan is developed and implemented.
 - Declaration of death in the event of mass fatality situations. It may be necessary to empower EMS personnel to pronounce death and arrange for collection of the deceased.
- Establish and practice disinfecting/decontamination guidelines for ambulances and other transport vehicles. Isolating vehicle ventilation systems between patient and driver compartments, establishing protective measures for patient compartment to minimize contamination potentials, and minimizing exposure potentials of attending EMS personnel through proper use of PPE.

Preparing for a Pandemic Influenza Outbreak

Once a plan has been established and approved by the relevant public health providers, it is essential that steps are taken to prepare the response agency's ability to meet the

challenge of a pandemic. With the anticipated shortages of supplies and limitations of the distribution systems during a pandemic, the only resources that may be available for protecting the responders is what was obtained prior to the pandemic.

The following are some practices to guide your preparedness for operations under austere conditions to meet a Pandemic Influenza outbreak in your community:

- Provide seasonal influenza vaccines to the emergency responders and their immediate family members. It is believed that cross-over immunity may provide some level of protection from the H5N1 virus.
- Provide Pneumovax II or Pneumococcal Vaccine to medical high risk emergency responders and their families. As the influenza often progresses to respiratory complications, this vaccine may further protect those that have a history or existing respiratory illnesses.
- Initiate cross-training with other professions to allow the use of non-EMS trained personnel to support your operations. Suggestions would be to use professional drivers (UPS, FedEx, etc) to drive ambulances, allowing your concentration of your EMS trained resources to work the patient compartment.
- Consider alternative response strategies and tactics due to reduced manpower and even closure of a station. (See Appendix for alternative strategies (under development))
- Train responders to identify and monitor signs/symptoms of influenza in themselves and fellow workers. Those that present the signs or have the symptoms should be removed from service and isolated for treatment at home or in a hospital to prevent infecting others with the virus. Encourage voluntary home quarantine/isolation of symptomatic responders. Also, clarify who in your area is qualified to declare a mass quarantine and for how long.
- Establish a communication process for responders to minimize the effect of rumors and non-factual information being circulated; this has the potential to demoralize the workforce.
- Establish a resource stockpile prior to the pandemic outbreak. Some suggested items include:
 - N-95 masks
 - Surgical masks for responders without direct patient care responsibilities.
 - Disposable gloves
 - Alcohol-based hand cleanser
 - Eye shields/safety glasses
 - Disposable gowns
 - Compressed oxygen
 - Tamiflu or Relenza
 - enough to provide doses for up to two weeks following infection or showing signs of illness
 - may also have benefit as a prophylaxis for personnel
- Be able to meet normal response requirements as well as the pandemic response. With more people being home with the illness, and commercial/industrial

business attempting to remain in operation with a reduced workforce, your normal response potential may actually increase.

Summary

The potential of a pandemic outbreak of the H5N1 Influenza Virus is real, but there are many other viruses and organisms that may initiate a chain of events leading to the next pandemic. Regardless of whether it is Avian Flu, or another biological agent, the key to successfully meeting the challenge is to plan for the event, prepare to work the plan, and implement the plan when the event occurs.

Planning and preparedness performed for an influenza pandemic is also applicable to other emerging infectious disease outbreaks (i.e. SARS) or an act of bioterrorism.