



IAEMSC Recommended Planning and Response Activities for Pandemic Influenza Readiness

Sunday April 26, 2009 22:00 hours

In late March and early April 2009, cases of human infection with swine influenza A (H1N1) viruses were first reported in Southern California and near San Antonio, Texas. Other U.S. states including New York, Kansas and Ohio have reported cases of swine flu infection in humans and cases have been reported internationally as well. Based upon a series of conference calls today with leaders of the Public Health community and the government agencies, the IAEMSC expects that the number of jurisdictions who experience patients with this influenza will increase as will the numbers of patients affected.

An updated case count of confirmed swine flu infections in the United States is kept at <http://www.cdc.gov/swineflu/> CDC and local and state health agencies are working together to investigate this situation and have determined that this swine influenza A (H1N1) virus is contagious and is spreading from human to human. However, at this time, it not known how easily the virus spreads between people.

According to the US Centers for Disease Control and Prevention and the World Health Organization, there are reported 20 laboratory confirmed human cases of swine influenza A/H1N1 (8 in New York, 7 in California, 2 in Texas, 2 in Kansas and 1 in Ohio). All 20 cases have had mild Influenza-Like Illness with only one requiring brief hospitalization. No deaths have been reported. All 20 viruses have the same genetic pattern based on preliminary testing. The virus is being described as a new subtype of A/H1N1 not previously detected in swine or humans.

Also as of 26 April, the Government of Mexico has reported 18 laboratory confirmed cases of swine influenza A/H1N1. Investigation is continuing to clarify the spread and severity of the disease in Mexico. Suspect clinical cases have been reported in 19 of the country's 32 states.

World Health Organization Global Influenza Preparedness Plan Phases of Alert

IAEMSC understands that in many instances the EMS Chief might not be familiar with some of the lexicon being used to describe various aspects of pandemic planning and the requisite response actions to each category. In order to assist with familiarization of this process and comprehension of some of the terms being used with respect to the World Health Organization Global Influenza Preparedness Plan - Phases of Alert IAEMSC is providing the following information for your review and use. The WHO reports:

In the 2009 revision of the phase descriptions, WHO has retained the use of a six-phased approach for easy incorporation of new recommendations and approaches into existing national preparedness and response plans. The grouping and description of pandemic phases have been revised to make them easier to understand, more precise, and based upon observable phenomena. Phases 1–3 correlate with preparedness, including capacity development and response planning activities, while Phases 4–6 clearly signal the need for response and mitigation efforts. Furthermore, periods after the first pandemic wave are elaborated to facilitate post pandemic recovery activities¹

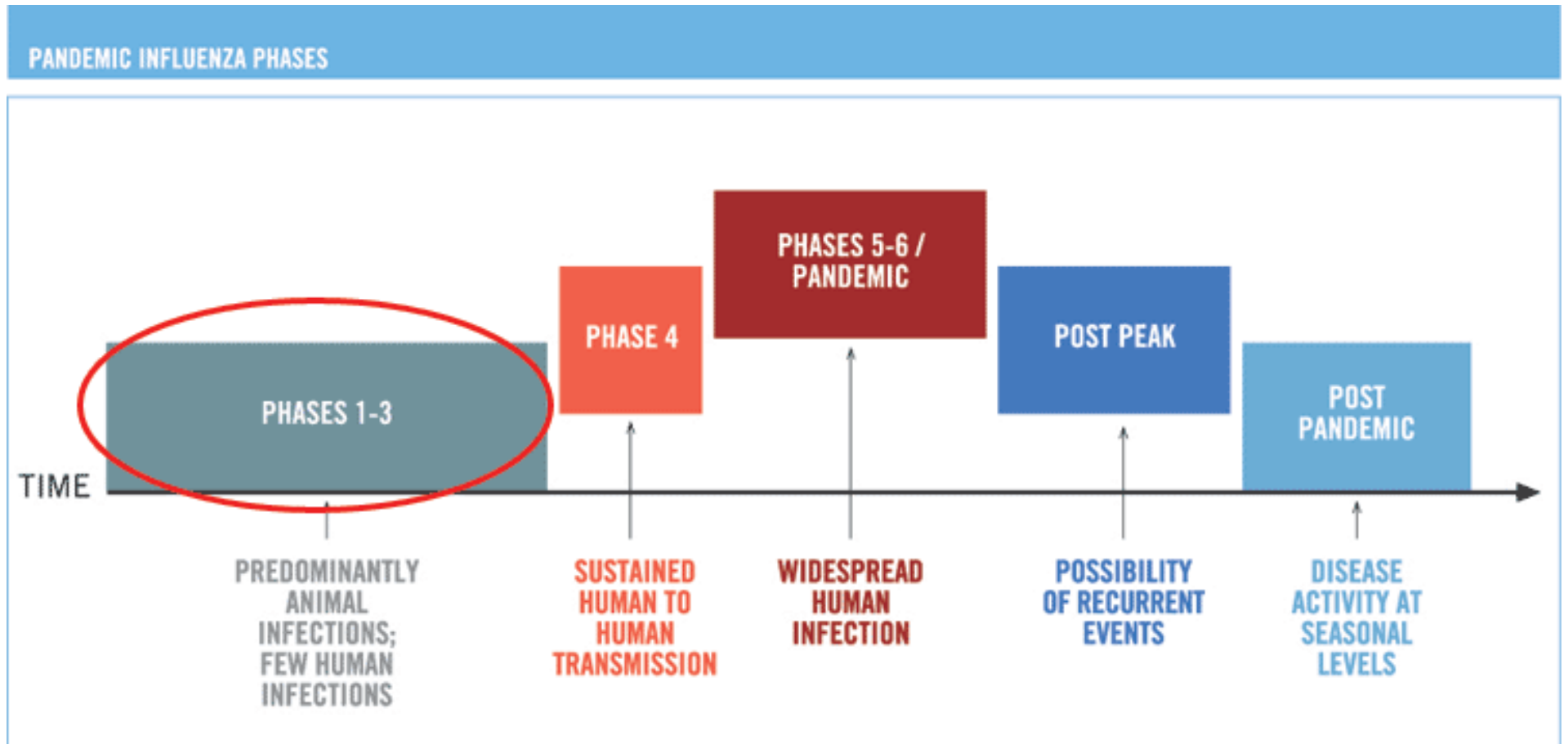
The illustration of these Phases of Alert categories and the description details & supporting rationale can be found in Tables #1 and #2 on the following pages. These tables provide an explanatory narrative and visual illustration of the system activation progression.

¹ World Health Organization Global Influenza Preparedness Plan - Phases of Alert (2009)
http://www.who.int/csr/disease/avian_influenza/phase/en/index.html [last accessed April 26, 2009]

Table #1 The World Health Organization Global Influenza Preparedness Plan - Phases of Alert consist of the following eight (8) categories and supporting rationale / details for the classification assignment:

Phase Category	Description Details	Rationale
Phase #1	No viruses circulating among animals have been reported to cause infections in humans.	It is likely that influenza subtypes that have caused human infection and/or disease will always be present in wild birds or other animal species. Lack of recognized animal or human infections does not mean that no action is needed. Preparedness requires planning and action in advance.
Phase #2	An animal influenza virus circulating among domesticated or wild animals is known to have caused infection in humans, and is therefore considered a potential pandemic threat.	The presence of animal infection caused by a virus of known human pathogenicity may pose a substantial risk to human health and justify public health measures to protect persons at risk.
Phase #3	An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.	The occurrence of cases of human disease increases the chance that the virus may adapt or reassort to become transmissible from human to human, especially if coinciding with a seasonal outbreak of influenza. Measures are needed to detect and prevent spread of disease. Rare instances of transmission to a close contact – for example, in a household or health-care setting – may occur, but do not alter the main attribute of this phase, i.e. that the virus is essentially not transmissible from human to human.
Phase #4	Is characterized by verified human-to-human transmission of an animal or human-animal influenza reassortant virus able to cause “community-level outbreaks.” The ability to cause sustained disease outbreaks in a community marks a significant upwards shift in the risk for a pandemic. Any country that suspects or has verified such an event should urgently consult with WHO so that the situation can be jointly assessed and a decision made by the affected country if implementation of a rapid pandemic containment operation is warranted. Phase 4 indicates a significant increase in risk of a pandemic but does not necessarily mean that a pandemic is a foregone conclusion.	Virus has increased human-to-human transmissibility but is not well adapted to humans and remains highly localized, so that its spread may possibly be delayed or contained.
Phase #5	Is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.	Virus is more adapted to humans, and therefore more easily transmissible among humans. It spreads in larger clusters, but spread is localized. This is likely to be the last chance for massive coordinated global intervention, targeted to one or more foci, to delay or contain spread. In view of possible delays in documenting spread of infection during pandemic <i>Phase 4</i> , it is anticipated that there would be a low threshold for progressing to <i>Phase 5</i> .
Phase #6	The pandemic phase is characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in <i>Phase 5</i> . Designation of this phase will indicate that a global pandemic is under way.	Major change in global surveillance and response strategy, since pandemic risk is imminent for all countries. The national response is determined primarily by the disease impact within the country.
Post Peak	Pandemic disease levels in most countries with adequate surveillance will have dropped below peak observed levels. Previous pandemics have been characterized by waves of activity spread over months. Once the level of disease activity drops, a critical communications task will be to balance this information with the possibility of another wave. Pandemic waves can be separated by months and an immediate “at-ease” signal may be premature.	The post-peak period signifies that pandemic activity appears to be decreasing; however, it is uncertain if additional waves will occur and countries will need to be prepared for a second wave.
Post Pandemic	Influenza disease activity will have returned to levels normally seen for seasonal influenza. It is expected that the pandemic virus will behave as a seasonal influenza A virus. At this stage, it is important to maintain surveillance and update pandemic preparedness and response plans accordingly. An intensive phase of recovery and evaluation may be required.	A return to the interpandemic period (the expected levels of disease with a seasonal strain) follows, with continued need to maintain surveillance and regularly update planning. An intensive phase of recovery and evaluation may be required

Table .2 WHO Pandemic Influenza Phases





IAEMSC Recommended Planning and Response Activities for Pandemic Influenza Readiness

W.H.O. Pandemic Phase	IAEMSC EMS Organization Recommended Actions
<p><i>Phase #3: An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks</i></p> <p><i>*EMS Strategy should be focused upon IF / WHEN pandemic influenza arrives in your jurisdiction and the steps needed to prepare.</i></p>	<ul style="list-style-type: none"> • Implement active EMS system and community surveillance activities based upon patient contact and dispatch center data coordinate actions with the public health liaison.
	<ul style="list-style-type: none"> • Monitor health department and CDC communiqués to stay current upon current infections and emerging disease in your community and region.
	<ul style="list-style-type: none"> • Determine how your EMS agency will collaborate and assist public health (PH) officials, Emergency Management Agency (EMA) & Public Safety Answering Points (PSAP), to monitor and prepare for a pandemic influenza. Be prepared to staff positions in the EOC.
	<ul style="list-style-type: none"> • Have the CDC Emergency Medical Services and Non-Emergency Medical Operations Check List completed to assess readiness. Sheet can be found at: http://www.pandemicflu.gov/plan/healthcare/emgncymedical.html
	<ul style="list-style-type: none"> • Reacquaint staff with guidelines, policies and protocols on influenza, infection control and infectious disease protection. Emphasis on protections and prevention strategies should be given.
	<ul style="list-style-type: none"> • Review Continuity of Operations Plans (COOP) to determine when confronting a significant number of staff being ill or they cannot report to duty due to taking care of family members – focus on how to sustain operations.
	<ul style="list-style-type: none"> • Anticipate supply chain disruption including identification of necessary logistics to support EMS response and how to sustain operations should an interruption be experienced. Regular acquisition procedures will not be functional in a large scale event. Coordinate activities with existing suppliers to determine the extent of their pandemic and COOP planning and how that might be an asset or deficit towards your efforts.
	<ul style="list-style-type: none"> • Identify sources of billeting, food stuffs and water for staff who must remain close to work – concurrently consider vaccination and/or prophylaxis of personnel and their families as appropriate for the etiological agent being faced
	<ul style="list-style-type: none"> • Coordinate modification of agency protocols for triage and transport with your medical director with consideration of alternative care site utility & modified protocols.
	<ul style="list-style-type: none"> • Prepare amended protocols for dispatch procedural modifications and 911 PSAP call taker interviewers interactions with callers. Additionally assess the role and prepare the operators who staff 211 and 311 positions for call overflow and non-emergent questions.
	<ul style="list-style-type: none"> • Assess & evaluate mutual aid compacts (MAC's) and your reliance upon them. Take necessary steps to resolve any strategic / procedural conflicts – confirming continued support of the agreement from all participating parties in the event of a broader impacting event. Resources will be consumed quickly and frequently in a large event and dependency upon MAC's for response augmentation may not be a sustainable strategy.
	<ul style="list-style-type: none"> • Collaborate with local and state health officials to determine the extent of EMS agency involvement in supporting people who have to implement "Community Shielding" strategies. Community shielding is an extended form of shelter in place where the affected are required to implement social distancing strategies remaining in the residences. These individuals will need medical services, social services as well as possibly food, water and routine prescriptions.
	<ul style="list-style-type: none"> • Collaborate across functional disciplines, jurisdictional boundaries and regional lines to take resources, available beds, specialty referral centers and patients.
	<ul style="list-style-type: none"> • Review diversion policies and make operational determination regarding the viability of honoring requests during an event.
	<ul style="list-style-type: none"> • Engage in table top exercises involving cross function and jurisdictional representatives to challenge your planning conventions and implement policy modification as required.
	<ul style="list-style-type: none"> • Review & update protocols and procedures for mass fatality management. Coordinate and collaborate with law enforcement, coroner's office and medical examiners from local, regional and state offices.
<ul style="list-style-type: none"> • Review agency communication plan for crisis communication. Determine if current messaging content is appropriate. If not work with PIO or communication specialist to update content including pro forma messages for release to community regarding actions and interventions being taken by the agency. 	

W.H.O. Pandemic Phase

IAEMSC EMS Organization Recommended Actions

Phases #4 & #5

Phase #4: Verified human-to-animal transmission of an influenza reassortant virus able to cause “community-level outbreaks.” The ability to cause sustained disease outbreaks in a community marks a significant upwards shift in the risk for a pandemic.

Phase #5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

*EMS Strategy should be focused upon WHEN pandemic influenza arrives in your jurisdiction and the steps needed to prepare.

- Implement and sustain active EMS system community health surveillance activities 24/7 based upon patient contact and dispatch center data coordinate actions with the public health liaison and regional EMS Chiefs.
- Frequently monitor health department and CDC communiqués to stay current upon current infections and emerging disease in your community and region. Participate on public health conference calls and meetings. Distribute findings to agency planning chief to take requisite steps with the Operations Chief based upon findings and reports.
- Collaborate and assist public health (PH) officials, Emergency Management Agency (EMA) & Public Safety Answering Points (PSAP), with achieving an effective and coordinated response to the event.
- Reacquaint staff with policies and protocols on influenza, infection control and infectious disease protection – especially newly implemented doctrine such as alternate care facility reception of patients or “assess and leave at residence” policies. Emphasis on protections and prevention strategies should be given.
- Aggressively monitor hospital availability, turnaround times at Emergency Departments and revisit diversion policies based upon findings. Make operational determination regarding the viability of honoring requests during an event – notify hospital leadership of the decision reached.
- Identify sources of billeting, food stuffs and water for staff who must remain close to work – concurrently consider vaccination and/or prophylaxis of personnel and their families as appropriate for the etiological agent being faced based upon direction of medical director or public health department
- Examine Continuity of Operations Plans (COOP) to determine if still appropriate for sustaining operations with this event. Make changes as required.
- Monitor supply chain activities and anticipate disruption if the incident continues to expand in the community. Identification of alternate supply sources should be achieved as necessary logistics to support EMS response and sustain operations may be required Coordinate activities with existing suppliers to determine the extent of the event impact to their enterprise. Monitor fuel, oxygen and vital maintenance supply par levels refresh par levels to sustain sufficient logistics capacity to support operational mission.
- If situations indicate, consider implementing modified agency protocols for triage and transport with consideration of alternative care site utility (See agency protocol developed under Phase #3 as the work product / policy for this operational edict).
- Enforce aggressive infection control procedures for all members
 - Gloves
 - Eye Protection
 - Respiratory Protection (N95/N100/N100)
 - Frequent hand washing - before and after patient contact especially.
- Evaluate appropriateness of clinical procedures that increase the risk of dissemination of droplets or sputum.
- Agencies with free air exchange between the cab and patient compartment should consider securing this opening when transporting high risk patients.
- In order to limit the potential exposure of first response personnel, agencies should consider limiting initial contact by first response personnel to high risk patients. The option of sending either one or two first responders to initiate patient contact should be considered unless patient condition requires additional manpower due to call type.
- Personnel should practice aggressive hand washing/hand sanitization after all patient contacts and prior to any contact with mucous membranes (e.g. eating, drinking)
- Establish and implement a family check effort for members. Also coordinate actions with agency Employee Assistance Unit and Mental Health professionals to monitor members for stress events and intervene as necessary to support their care.
- Agency communication plan for crisis communication should be used as a prevention tool for messaging the community and coordinating prevention messages with public health and hospitals. Messaging may direct patients to alternate care facilities’ if established and as required – helping to manage call load and conserve resources for high level emergencies
- Coordinate financial transaction tracking of all costs associated with response to this incident with Finance Chief for possible cost recovery under Stafford Act should it be activated.