DEPARTMENT OF HEALTH AND HOSPITALS

Louisiana Department of Health & Hospital Pandemic Influenza Plan

2011

DRAFT

ESF-8 Health & Medical Section

Table of Contents

1.0 Introduction

1.1 Background and Overview of State Hospital Plan

An influenza pandemic will place a huge burden on the U.S. healthcare system. Published estimates based on extrapolation of the 1957 and 1968 pandemics suggest that there could be 839,000 to 9,625,000 hospitalizations and 18-42 million outpatient visits nationally depending on the illness rate and case fatality ratio of infection during the pandemic. Estimates based on extrapolation from the more severe 1918 pandemic suggest that substantially more hospitalizations and deaths could occur. The demand for inpatient and intensive-care unit (ICU) beds and assisted ventilation services could increase by more than 25% under the less severe scenario.

Pre-pandemic planning by healthcare facilities is therefore essential to provide quality, uninterrupted care to ill persons and to prevent further spread of infection. Effective planning and implementation will depend on close collaboration among state and local health departments, community partners, and neighboring and regional healthcare facilities. Despite planning and preparedness, however, in a severe pandemic it is possible that shortages, for example of mechanical ventilators, will occur and medical care standards may need to be adjusted to most effectively provide care and save as many lives as possible.

HHS has established "a framework for developing a unified comprehensive system of response that provides the most good for the greatest number of people while using limited resources and integrates easily into the Federal Response plan". This document provides guidance to hospitals on those critical planning elements needed to manage such an event. In addition, this document includes sections developed by the Louisiana Department of Health and Hospitals Pandemic Flu Clinical Forum intended to further assist Louisiana Hospitals in responding to a pandemic by providing guidance in other areas including but not limited to surge capacity, healthcare education and training, resource tracking, and mortuary needs. As additional guidance is developed at the state or the federal level, relevant sections of this document shall be updated.

The ability to provide detailed guidance on all aspects of a pandemic is limited because of uncertainty about how the pandemic will evolve and variation and uncertainty of local factors that will influence decisions at various stages. These planning activities are intended to be synergistic with those of other pandemic influenza planning efforts, including state preparedness plans.

While sections of this document focuses on guidelines for individual hospitals, it is imperative that all hospitals understand their role and responsibilities as part of a larger, regional and state response process. Refer to the Louisiana Statewide Draft Pandemic Influenza Plan for additional guidance.

1.2 Planning Assumptions

1. High attack rates will place overwhelming demands on the healthcare system.
2. The number of individuals seeking healthcare (inpatient and outpatient) is likely to exceed normal capacity.
3. Healthcare providers, emergency response personnel, and public safety personnel will be equally or more likely to become infected than the general public.

4. Staffing shortages among healthcare and other responding personnel are likely to occur due to illness or self or family, exhaustion, and fear of contagion.
5. Staffing concerns are also likely among other essential industries, including utilities, transportation, telecommunications and information technology, mortuary services, food services, and public safety.
6. Due to the expected widespread nature of an influenza pandemic, it is unlikely that resources will be diverted from other areas.
7. The first wave of disease will likely occur during the fall with community outbreaks lasting 6-8 weeks.
8. Attack rates will likely range between 20-40% and case fatality rates may be 1% or higher. At least 10% of infected individuals may require hospitalization.
9. Hospital care will include a combination of respiratory support, including mechanical ventilation, and treatment of secondary bacterial pneumonia.
10. A second pandemic wave will likely occur approximately 3 months after the first wave.

2.0 Roles and Responsibilities

Roles and responsibilities have been delineated by the U.S. Department of Health & Human Services (DHHS) based on planning tasks during the interpandemic and pandemic alert periods.

Interpandemic Period

DHHS responsibilities:

- Provide ongoing public health guidance on healthcare preparedness for an influenza pandemic.
- Provide healthcare facilities with model protocols for early detection and treatment of influenza among patients and staff; these protocols can be piloted during routine influenza seasons.

State and local responsibilities:

- Develop statewide and local or regional plans to manage an influenza pandemic.
- Develop regional task forces to facilitate planning efforts.
- Assist healthcare facilities in conducting exercises and drills to test healthcare response issues and build partnerships among healthcare and public health officials, community leaders, and emergency response workers.
- Develop a communications, infrastructure to facilitate and ensure the timely dissemination and transfer of information between the healthcare and public health sectors.
- Address legal issues that can affect staffing and patient care.

Healthcare facility responsibilities:

- Develop planning and decision-making structures for responding to pandemic influenza.
- Develop written plans that address: disease surveillance, hospital communications, education and training, triage and clinical evaluation, facility access, occupational health, use and administration of vaccines and antiviral drugs, scope and altered standards of care, surge capacity, supply chain and access to critical inventory needs, and mortuary issues.

- Participate in pandemic influenza exercises and drills, and incorporate lessons learned into response plans.

Pandemic Alert Period
If an influenza pandemic begins in another country:

DHHS responsibilities:

- MISSING FROM HHS INFO

State and local responsibilities:

- Work with HHS to provide local physicians and hospital administrators with updated information and guidance as the situation unfolds.

Healthcare facility responsibilities:

- Heighten institutional surveillance for influenza and prepare to activate institutional pandemic influenza plans, as necessary.

Pandemic Alert Period (con't)
If an influenza epidemic begins in or enters the United States

DHHS responsibilities:

- Assist state and local healthcare and public health partners on issues related to hospital infection control, occupational health, antiviral drug use and clinical management, vaccination, and medical surge capacity.
- Provide state with materials from the Strategic National Stockpile for further distribution to healthcare facilities.

State and local health responsibilities:

- Provide healthcare facilities with information on the global, national, and local situation.
- Work with HHS to provide guidance (as needed) on infection control measures for healthcare and non-healthcare settings.
- Work with healthcare facilities to address surge capacity needs.

Healthcare facility responsibilities:

- Activate institutional pandemic influenza plans, in accordance with the "Hospital Pandemic Influenza Triggers" (See *Appendix E*).
- Identify and isolate all potential patients with pandemic influenza.
    - Implement infection control practices to prevent influenza transmission.
    - Ensure rapid and frequent communication with healthcare facilities and between healthcare facilities and health departments.
- Implement surge-capacity plans to sustain healthcare delivery.

3.0 ESF-8 System Organization

3.1 Overview

To facilitate the State's Emergency System Function (ESF) 8 Health and Medical response, nine planning regions for private and public hospitals were identified. These regions correspond with those used by Louisiana Department of Health and Hospitals. While planning begins at the local level, each individual hospital works within its region, each region reports to the state, and the state in-turn interfaces with the federal government. See *Appendix A* (Map of Louisiana DHH/OPH Regions).

3.2 Local Level

All hospitals "belong" to a region including Veterans Administration hospitals and may participate in the development of regional plans.

Hospitals are responsible for developing and identifying their Incident Command Structure (ICS) depending on the nature of the incident. Hospitals have also been asked to identify a point of contact, known as the Hospital Emergency Preparedness Coordinator. This member of the Hospital ICS or his/her designee is responsible for maintaining ongoing communications with the regional response. See *Appendix B* (Region VII Hospital Emergency Preparedness Coordinators)

Louisiana's hospitals provide various levels of care. A classification system of hospitals was identified based on capabilities. Hospitals serve voluntarily as one of three levels:

1. **Designated Regional Hospitals (DRH):** These hospitals are large acute care facilities with emergency room capabilities and many subspecialty services. They serve voluntarily and have agreed to provide additional capacity and resources in the initial emergency response of a mass casualty or event.
2. **Tier 1 Hospitals:** These hospitals have emergency department capabilities 24/7.
3. **Tier 2 Hospitals:** Hospitals that do not provide emergency room capabilities and are more single service in nature such as psychiatric, rehabilitation, and/or long term acute service.

3.3 Regional Level

Leadership for Hospital Emergency Preparedness and Response in each region is provided through hospital volunteers/representatives known as Hospital Designated Regional Coordinators (DRCs). See *Appendix C* (Designated Regional Coordinators)

The primary responsibilities for the Hospital DRCs are:

- To serve as the liaison for hospitals with other health-related entities (i.e. Office of Pubic Health, Bureau of Emergency Medical Services) and on behalf of hospitals with non-health related entities (i.e. Office of Emergency Preparedness);
- To support the patient transfer process during a declared state of emergency;
- To facilitate the identification of a medical evacuation queue during a declared state of emergency;

- To facilitate the development and implementation of regional and Inter-hospital emergency preparedness plans for designated regions in the State of Louisiana;
- To lead the region's process for development of, testing of, continuous improvement of and management of regional hospital response to emergency situation;
- To be the leader for the region during a statewide emergency in which hospitals are tasked to respond.

Hospital Designated Regional Coordinators work within their Regional Unified Medical Command Structure. Members of the Regional Unified Medical Command include: Office of Public Health (OPH) Regional Personnel, Hospital DRC, Emergency Medical Services DRC, Nursing Home DRC, and Office of Public Health – ESF 8 liaison and other members as requested by the Structure. The OPH Medical Director serves as the Regional Unified Medical Command Chief.

3.4 State Level

The Regional Unified Medical Command reports to the State ESF 8 Health and Medical Section to forward needed information and assist in response activities. The State Health Officer or his designee serves as the Incident Commander for ESF 8 activities and interfaces directly with other state emergency support functions and federal agencies. The State ESF 8 coordinates the response for requests with other ESFs and federal agencies. See *Appendix D* (Louisiana ESF 8 Structure).

3.5 State and Federal Interface

The Louisiana Department of Health and Hospitals, Office of Emergency Preparedness provides coordination on behalf of the State of Louisiana and all other state agencies, to the federal government through Emergency Support Function (ESF) 8 – Health and Medical Services, and the Louisiana Hospital Emergency Preparedness and Response.

4.0 Emergency Plan Activation

4.1 Overview

Plan implementation begins with the receipt of information that an incident has occurred or a situation exists that may require full or partial implementation/ intervention by the State ESF-8 Health and Medical response. The avenues through which the State ESF 8 may receive initial notification of a routine incident or an emergency/disaster event may include, but is not limited to:

State Epidemiologist identifies and/or confirms a case from the medical community.
The State Health Officer and/or Assistant Secretary of Public Health have information that would require full or partial intervention.

4.2 Level One Activation

Level One Activation is in response to an event that is limited in scope or requires only a limited resource response. State Emergency Operations Center (EOC) staffing may include

the ESF-8 Public Health Incident Commander and his/her general command staff. ESF-8 Hospital Liaison also reports to the State EOC.

ESF 8 Hospital Liaison communicates the activation status to Regional Unified Command. Regional Unified Command notifies hospitals of the Level One Activation status. Activation of the Regional Unified Command Center is determined by the State ESF 8 Incident Commander.

4.3 Level Two Activation

Level Two Activation is intended to be used in response to most state declared disasters or public health emergencies. The ESF-8 Incident Commander (State Health Officer) and/or DHH Emergency Preparedness Director, general command staff, and all ESF-8 Liaisons report to the State EOC.

State ESF 8 Hospital Liaison communicates the activation status to Regional Unified Command. Regional Unified Command will notify hospitals of the Level Two Activation status. Activation of the Regional Unified Command Center will be determined by the State ESF 8 Incident Commander.

4.4 Level Three Activation

Level Three Activation is intended to be used in response to a major event such as a bioterrorist incident, pandemic flu or a major natural hazard event such as an earthquake. The ESF-8 Incident Commander requests the Governor's Office of Emergency Preparedness (GOHSEP) for all ESFs to be activated at the State EOC. In this scenario, GOHSEP would be the primary agency coordinating ESF activities with input/ consultation from ESF-8.

5.0 Demographics

The state has a population of 4,164,119 in 64 parishes and is divided into nine (9) public health regions.

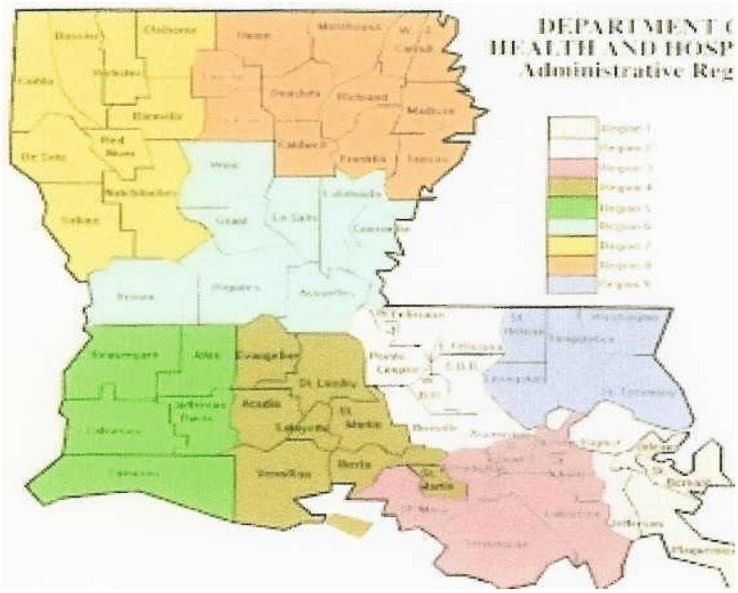


Table 1: State Population by Region

Regions	Population
Region 1	682,470
Region 2	620,212
Region 3	396,745
Region 4	534,375
Region 5	283,403
Region 6	298,458
Region 7	532,060
Region 8	347,173
Region 9	469,223
Total	**4,164,119**

Each region has a large metropolitan area.

There are a total of 236 hospitals in the state of which, 117 are Tier 1 Hospitals and 119 are Tier 2 Hospitals.

Table 2: Hospitals by Region

State Regions	Tier 1	Tier 2	Total
Region 1	11	18	29
Region 2	11	22	33
Region 3	11	4	15
Region 4	18	23	41
Region 5	11	11	22
Region 6	12	13	25
Region 7	17	13	30
Region 8	17	14	31
Region 9	11	17	28
Total	**119**	**135**	**254**

6.0 Planning

Planning for a pandemic influenza event can be divided into two sections, the inter-pandemic period and the pandemic period. Assumptions noted in the Introduction of this document should be taken into account as state plans are developed.

The focus on planning during the inter-pandemic period should include the following sections which are detailed later in this document: pandemic influenza surveillance, decision-making structures for responding to a pandemic, hospital communications, education and training, patient triage, clinical evaluation and admission, scope and altered standards of care, facility

access, occupational health, distribution of vaccines and antiviral drugs, surge capacity, and mortuary issues.

Planning for the pandemic period should focus on activation of the institutional pandemic influenza response plans. The ability to provide detailed guidance on this aspect of the pandemic is limited because of uncertainty about how the pandemic will evolve and variation and uncertainty of local factors that will influence decisions at various stages. These planning activities are intended to be synergistic with those of other pandemic influenza planning efforts, including state preparedness plans. Refer to the Statewide Draft Pandemic Influenza Plan for additional information. *Appendix F* is a checklist to help healthcare facilities assess their current level of readiness to deal with a influenza pandemic.

All hospitals should be equipped and ready to care for: 1) a limited number of patients infected with a pandemic influenza virus as part of normal operations during the initial phase of a pandemic; and 2) a large number of patients in the event of escalating transmission of a pandemic influenza virus. Hospital response plans for pandemic influenza should:

- Outline administrative measures for detecting the introduction of pandemic influenza, preventing its spread, and managing its impact on the facility and the staff.
- Build on existing preparedness and response plans for bioterrorism events, SARS, and other infectious disease emergencies.
- Incorporate planning suggestions from state and local health departments and other local and regional healthcare facilities and response partners.
- Identify criteria and methods for measuring compliance with response measures (e.g., infection control practices, case reporting, patient placement, healthcare worker illness surveillance).
- Review and update inventories of supplies that will be in high demand during an influenza pandemic.
- Review procedures for the receipt, storage, and distribution of assets received from federal stockpiles.
- Include mechanisms for periodic reviews and updates.
- Identify methods to manage possible mass fatality issues (supplies, storage, transport).

Hospitals should use an "all-hazards" incident command structure for responding to pandemic influenza and will need to incorporate the relevant aspects of communicable disease control that are included in these guidelines. Hospitals should consider using "tabletop" simulations or other exercises to test response capabilities.

6.1 Planning Process

Groups and individuals involved in the hospital planning process should include:

- An internal, multidisciplinary planning committee with responsibility for pandemic influenza preparedness and response. The committee should include technical experts, persons with decision-making authority, and representatives from a range of response partners (see *Appendix G*, "Healthcare Facility Pandemic Influenza Planning Committee"). A pre-existing all-hazards preparedness team (e.g., established for bioterrorism or SARS response) might assume this role.
- A response coordinator/incident commander to direct the facility's planning and response efforts.

- A core group from the multidisciplinary planning committee to work with the response coordinator and assist with decision-making during the pandemic.

The pandemic influenza response team should plan to remain active throughout the pandemic period, which could be several weeks or months.

Hospital planning for pandemic influenza should consider concurrent public health, community, and healthcare planning efforts at the local, state, and regional levels. Some possible mechanisms for collaboration and coordination are to:

- Include a state or local health department representative as an ex-officio member on the hospital planning committee (see *Appendix G).*
- Obtain copies of draft pandemic influenza plans from other local or regional hospitals to use as models.
- Work with other local hospitals, community organizations (e.g., social service groups), and the state or local health department to coordinate healthcare activities in the community and define responsibilities for each entity during a pandemic.
- Collaborate with HHS hospital preparedness programs in the state or region.
- Include a hospital representative in local or regional planning efforts.
- Include representatives from safety-net providers in the local community (e.g., FQHCs and rural community or rural health clinics).

The elements of a hospital influenza preparedness plan discussed below are listed in the Hospital Preparedness Checklist provided in *Appendix F2*.

Hospitals have planned for an influenza pandemic for several years, but thus far the characteristics of the 2009 H1N1 pandemic are different than the high-severity pandemic that had been anticipated. The Centers for Disease Control and Prevention (CDC) and the Office of the Assistant Secretary for Preparedness and Response (ASPR) have developed a Readiness Review Checklist (see *Appendix F2*) as a supplement to existing hospital emergency management plans. This list focuses on information hospitals can use in response to a surge in H1N1 and seasonal flu patients rather than the basic planning and regulatory considerations included in earlier checklists (Appendix F1). Hospital plans should include the following areas in order to maintain a state of readiness for each wave of patient surge that occurs: protecting and preparing hospital staff, implementing plans to address patient care issues and hospital operations, addressing equipment and supply needs, and providing for security.

An effective plan should incorporate information from state, regional, tribal and local health departments, emergency management agencies/authorities, hospital associations, and suppliers of resources. In addition, hospitals should ensure that their pandemic influenza plans comply with applicable state and federal regulations and with standards set by accreditation organizations such as the Joint Commission.

7.0 Patient Movement Process

The Louisiana Hospital Emergency Preparedness and Response has facilitated the development of regional and statewide patient movement processes.

There are three components to the patient movement: resource availability, patient transfer process, and patient tracking.

7.1 Resource Availability

The Designated Regional Coordinator (DRC) from each region serves to support the process by identifying available resources in their region. Hospitals are asked to contact and work through the DRCs to identify hospital-based resources available in regions throughout the state. The Designated Regional Coordinator "match" patient care needs with available resources in the state and facilitate the arrangement of a hospital-to-hospital transfer. Hospitals report resources available on an as needed base, to DRCs through a resource-tracking tool, EM Systems. Such a system allows Louisiana to maximize existing resources.

7.2 Patient Transfer

Patient transfer includes the movement of patients from one region to another during a declared state of emergency. Hospitals are encouraged to exhaust all local resources before requesting support through the statewide patient transfer process. The Administrator/Medical Director on call from the hospital that has patients that need to be transferred outside the region should contact their Designated Regional Coordinator. The transferring hospital should have the specific information available regarding patient needs. The "transferring" DRC will contact an "accepting" DRC with a referral request. The "accepting" DRC will contact hospitals in their region to identify available resources. If resources are not available, the accepting DRC will contact the HRSA Coordinator to advise that another alternative region must be identified. An "accepting" hospital will contact the transferring hospital regarding transfer resources. Transfer will be arranged per procedures of the transferring and receiving hospitals. Refer to *Appendix H* (Emergency Patient Transfer Process).

7.3 Patient Tracking

An interim patient tracking system (*Appendix I*, Patient Tracking Plan) has been established by the Louisiana Hospital Association (LHA) to facilitate the identification of patients moved during a declared state of emergency. LHA has established a website for data collection and a second site for patient query.

8.0 Hospital Communications

8.1 Overview

In a pandemic influenza event, communications between hospitals within each region, with the state, and with local communities will be of paramount importance. Hospital should work with public health officials, other government officials, neighboring healthcare facilities, and the press to ensure rapid and ongoing information-sharing and those messages to the public remain uniform and consistent at any given time.

8.2 ESF-8 Communications

The Louisiana ESF-8 Hospital Network has identified several communication systems for redundancy:

- Primary system – Internet email
- Secondary system – Telephone and fax
- Tertiary system – Two-way radios

All Tier 1 hospitals have at least one emergency two-way radio. A regional decision was made regarding the two-way radio. Hospitals in Regions 2 and 4 have HEARs radios. Hospitals in Regions 1, 3, 5, 6, 7, 8 and 9 have 700/800 MHz radios. The Louisiana Department of Health and Hospitals, Office of Emergency Preparedness, Designated Regional Coordinators and Designated Regional Hospitals are equipped with 700/800 MHz radios for statewide communications. Additional information may be provided via the HAN (Health Alert Network) by blast fax.

8.3 External Communications

Considerations for external communication should also be made in advance of a pandemic. Each hospital and each region should assign responsibility for external communication about pandemic influenza. With guidance from state or local health departments, determine the methods, frequency, and scope of external communications In addition, identifying a person responsible for updating public health reporting (e.g., infection control), a clinical spokesperson (e.g., medical director), and a media spokesperson (e.g., public information officer) within each hospital may be necessary. The following are further recommendations that should be considered:

- Identification of points of contact among local media (e.g., newspaper, radio, television) representatives and public officials and community leaders
- Determination of how communications between local and regional healthcare facilities will be handled.
    - Consult with state or local health departments on plans for coordinating or facilitating communication among healthcare facilities. In the absence of such a plan, consider organizing a meeting of local healthcare facilities to determine an optimal communications strategy
    - Identify key topics for ongoing communication (e.g., staffing needs, bed capacity, durable and consumable medical equipment and device needs and supplies of influenza vaccine and antiviral drugs).
    - Assign responsibility within the hospital for communications with other healthcare facilities.
    - Consult with local or state public health officials regarding the hospital's role in communicating with the media and the public
- Determine the type of hospital-specific communications (e.g., press releases, community bulletin board) that might be needed, and develop templates for these materials
- Consult with local or state health departments on plans for a pandemic influenza hotline and/or website for public inquiries.

- Determine how public inquiries will be handled (e.g., refer callers to the health department; provide technical support for handling calls)
- Identify the types of information that will be provided by the hospital and the types of inquires that will be referred to state or local health departments.

8.4 Intra-Facility Communications

Communications within facilities should also include redundancy options. These lines of communications may be tested during other types of emergencies, but it is important that hospital rosters, call lists, and necessary systems to support communications lines are reviewed and updated. Planning considerations for a pandemic should include how to keep administrators, personnel (including infection control staff and intake and triage staff), patients, and visitors informed of the ongoing impact of pandemic influenza on the facility and on the community.

9.0 Education and Training

9.1 Overview

Each Region should consider developing an education and training plan that addresses the needs of staff, patients, family members, and visitors. This can be done by accessing educational resources for clinicians, including federally sponsored teleconferences, state and local health department programs, web-based training materials, and locally prepared presentations.

Hospitals should assign responsibility for coordination of the pandemic influenza education and training program and identify training materials—in different languages and at different reading levels, as needed—from HHS agencies, state and local health departments, and professional associations.

9.2 Hospital Staff

Pandemic influenza training and education should have a consistent focus (the messages should be the same throughout the state). Training for pandemic influenza may be tier specific, providing a general overview for all employees and a more detailed or disciplined-based technical training for other selected staff and providers delivering direct patient care.

In order to assure some consistency in educational information and a level of competency regarding pandemic influenza, the Louisiana Pandemic Influenza Clinical Forum, Education Subcommittee, in collaboration with the University of North Carolina has developed a web-based educational training course. Free CMEs and CEUs are available. The course consists of three 20-minute modules that will allow the participant to complete the training around his/her busy schedules. A certificate verifying the CME/CEU credits will be available for printing following the successful completion of the on-line course, posttest, and evaluation form.

This training course is designed for physicians, nurse practitioners, registered nurses, respiratory therapists, allied health professionals and emergency preparedness professionals.

The course will:

- Provide a general overview of influenza, including the history of influenza and basic biology
- Provide an overview of avian influenza epidemiology
- Discuss the threat of pandemic influenza
- Provide a general overview of the effects influenza cases in North Carolina, Louisiana and across the U.S.
- Examine the Avian Influenza recommendations made by the ISDA (Infectious Disease Society of America)
- Discuss the development of vaccines for avian influenza
- Provide an overview of the proposed avian influenza vaccine response
- Explain antiviral therapies currently available
- Examine lessons learned for the SARS pandemic
- Discuss federal, state, and local pandemic influenza preparedness
- Understand the role local hospitals play in pandemic influenza preparedness

Faculty members are Dr. Frank Welch, MD, MSPH, Louisiana Pandemic Influenza Medical Director and Dr. David Weber, MD< MPH, MHA, Professor of Medicine, Pediatrics and Epidemiology, University of North Carolina at Chapel Hill. This 3-part series offers a total of 1.5 Continuing Education Unites and 1.0 CMEs, FREE to Louisiana healthcare providers.

To take the course, go to: http://nccphp.sph.unc.edu/training/HEP_LFLUP/certificate.php.

Additional training items:
Hospitals should consider cross-training of staff wherever possible in order to increase the capacity for staff to manage critical care patients during a pandemic event. Accordingly, educational tools that provide "just in-time training" may also need to be developed.

The Louisiana Pandemic Influenza Clinical Forum also developed regional pandemic influenza tabletop drill exercises that were designed to build upon lessons learned from previous exercises and to "push back" the patients past the emergency rooms and into the hospital setting. This allowed the hospitals to test their current pandemic influenza plans while working alongside of various emergency response agencies in the state. If hospitals wish to conduct functional pan flu drills, a set of case patients was developed that can be used to move patients through a "live" drill.

9.2.1 General Staff Training

General pandemic influenza education can be provided during orientation of new employees. Institution-wide meetings or trainings may be held for existing staff. The use of multiple media presentation including presentations on-line, CDs/DVDs, handouts & brochures may be considered to ensure compliance with education guidelines and requirements within a facility.

General topics for staff education should include at a minimum:

- Prevention and control of influenza
- Individual and societal implications of pandemic influenza

- Benefits of seasonal flu vaccinations and the pandemic strain when available
- Role of antiviral drugs in preventing disease and reducing rates of severe influenza,
- Infection control strategies for the control of influenza, including respiratory hygiene/cough etiquette, hand hygiene, standard precautions, droplet precautions, and as appropriate airborne and/or contact precautions.
- Measures to protect family and other close contacts from secondary occupational exposure

Other topics for staff education may include:

- Pandemic staffing contingency plans, including how the facility will deal with illness in personnel and high rates of absenteeism
- Policies for restricting visitors and mechanisms for enforcing these policies
- Trainings for triage or non-clinical intake staff in recognizing patients with influenza symptoms and to implement immediate containment measures to prevent transmission
- Community resources and referrals
- Changes in standard operations or care delivery in light of increased surge at the peak of a pandemic

9.2.2 Clinical / Allied Health Staff Training

Establish a schedule for training/education of clinical staff and a mechanism for documenting participation. Consider using annual infection control updates/meetings, medical Grand Rounds, and other educational venues as opportunities for training on pandemic influenza. Hospitals are encouraged to provide annual continuing education credits/units for appropriate disciplines.

Cross-train clinical personnel, including outpatient healthcare providers, who can provide support for essential patient-care areas (e.g., emergency department, ICU, medical units)

Supply social workers, psychologists, psychiatrists, and nurses with guidance for providing psychological support to patients and hospitals personnel during an influenza pandemic. If feasible, hospitals should also provide psychological-support training to appropriate individuals who are not mental health professionals (e.g., primary-care clinicians, leaders of community and faith-based organizations)

9.2.3 Volunteer Training

Training for volunteers, similar to that for general staff, may be considered. Roles for volunteers including those utilized from outside of the hospital setting during an event should be discussed and determined to the extent possible prior to an event.

9.2.4 Patients and Visitors

Patients and visitors should also be informed of hospital policies in the setting of a pandemic and what they can do to prevent disease transmission within the hospital or back to their communities.

The information presented should be language-specific and reading-level appropriate where possible. If language-specific materials are not available for the population(s) being served, arrangement for translations should be made.

A plan should be developed that outlines how this information shall be presented to all persons entering the hospital. Identify staff that can answer questions procedures for preventing influenza transmission.

The Department of Health and Hospitals, Office of Public Health has compiled several short educational materials (handouts) that can be utilized to help provide education to patients, family members, visitors, and telephone contacts. Examples include; "Influenza Self-Care Guide", "Preventing the Spread of Influenza", and "Flu Self Diagnosis" and "Caring for Someone with influenza" (See Appendix J). Check with your local or regional health department for copies and for additional educational materials.

10.0 Hospital Surveillance

10.1 Hospital Surveillance for Novel Strains of Influenza

During the inter-pandemic and pandemic alert periods, healthcare providers and healthcare facilities play an essential role in surveillance for suspected cases of infection with novel strains of influenza and should be on alert for such cases. Novel strains may include avian or animal influenza strains that can infect humans (like avian influenza A [H5N1]) and new or re-emergent human viruses that cause cases or clusters of human disease (H1N1). Case identification will be based on the Centers for Disease Control and Prevention and/or the Department of Health & Hospitals, Office of Public Health surveillance criteria for suspect/confirmed cases (based on symptoms, laboratory results and risk exposure histories). The types of variables that might be collected include: number of individuals in the emergency department, proportion of ED visits attributable to influenza; proportion of cases who normally live with high-risk individuals or who have no support at home and cannot care for themselves; available/limited resources in the facility; ambulance re-routing to other acute care setting due to full emergency rooms (which may serve as another trigger for further implementation of plans for non-traditional triage sites). See Appendix K EMSystem Data Elements.

For detection of cases during the inter-pandemic and pandemic alert periods, hospitals should have:

- Procedures in place to facilitate laboratory testing on-site using proper biosafety levels and reporting of unusual influenza isolates through local and state health department channels (see Louisiana Statewide Draft Pandemic Influenza Plan). If appropriate methods or biosafety levels do not exist at the hospital, specimens should be shipped to the state health department.
- Predetermined thresholds for activating pandemic influenza surveillance plans.

10.2 Hospital Surveillance for Pandemic Influenza

During the pandemic period, healthcare providers and healthcare facilities will play an essential role in pandemic influenza surveillance. For detection of cases during the pandemic period, hospitals should have:

- Mechanisms for conducting surveillance in emergency departments to detect any increases in influenza-like illness during the early stages of the pandemic
- Mechanisms for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza
- Mechanisms for tracking emergency department visits and hospital admissions and discharge/death of suspected or laboratory-confirmed influenza patients. This information will be needed to: 1) support local public health personnel in monitoring the progress and impact of the pandemic, b) assess bed capacity and staffing needs, and c) detect a resurgence in pandemic influenza that might follow the first wave of cases.
- Updated information on the types of data that should be reported to state or local health departments (e.g., admissions; discharges/deaths; patient characteristics such as age, underlying disease, and secondary complications; illnesses in healthcare personnel) and plans for how these data will be collected during a pandemic. State and local health departments will provide guidance on the scope and mechanism of reporting.
- Criteria for distinguishing pandemic influenza from other respiratory diseases.

In addition to the current public health emergency reporting system (ERS), the additional data elements will be developed and added to the hospital EM System of reporting (*Appendix K* EMSystem Data Elements).

10.3 Influenza Surveillance Activities

In the event of an influenza pandemic, surveillance systems shall be flexible and be rapidly adapted to respond to the challenges of a pandemic in order to assess and monitor the pertinent epidemiology of the pandemic influenza virus. Surveillance activities described below are distributed among 3 levels of awareness: routine, enhanced, and pandemic and will be conducted by the Louisiana Office of Public Health (OPH) Infectious Disease Epidemiology Section (ID Epi) and Regional Epidemiology Teams, Hospitals, and Sentinel Providers. Surveillance systems will need to have the sensitivity to detect and characterize circulating strains of influenza virus, as well as, early human cases of a novel virus in the state. Routine hospital surveillance activities will need to be greatly enhanced during a suspected or confirmed pandemic influenza outbreak. Additional information will become critical for maintaining hospital functions. Information on specific variables will need to be tracked on a frequent basis.

10.3.1 Routine Influenza Surveillance

Hospitals:

- Report all deaths associated with laboratory-confirmed influenza every time they occur
- Report outbreaks of influenza-like illness (ILI) any time they occur

- Report any unusual cases of severe illness and death associated with influenza

Sentinel Providers:

- Report weekly ILI numbers and population data to OPH State Influenza Surveillance Coordinator
- Report outbreaks of ILI any time they occur
- Collect specimens early, midway, and late during flu season, as well as, from unusually severe clinical cases

Office of Public Health:

- State Influenza Coordinator administers active surveillance of ILI by sentinel providers
- Compile ILI data including all deaths, outbreaks, and sentinel provider reports for weekly summary report

10.3.2 Enhanced Influenza Surveillance

Hospitals:

- Continue activities listed under routine surveillance
- Identify and report cases to OPH, ID Epi based on CDC guidance for epidemiologic and clinical characteristics such as: severity of illness, travel history to an area with pandemic influenza activity, exposure to infected population groups, or ILI despite adequate prior immunization
- Reporting of cases will be done electronically using the Infectious Disease Reporting Information System (IDRIS), or by phone or fax
- Collect specimens if recommended by OPH

Sentinel Providers:

- Continue activities listed under routine surveillance
- Identify and report cases to OPH ID Epi based on CDC guidance for epidemiologic and clinical characteristics such as: severity of illness, travel history to an area with pandemic influenza activity, exposure to infected population groups, or ILI despite adequate prior immunization
- Reporting of cases will be done electronically using the Infectious Disease Reporting Information System (IDRIS), or by phone or fax

Office of Public Health

- Continue activities listed under routine surveillance
- Review reports of ILI and make recommendations on influenza testing
- Notify hospitals and sentinel providers of current recommendations for clinical and epidemiological criteria through the Health Alert Network (HAN)
- Investigate lab confirmed cases and if necessary make recommendation for prevention

10.3.3 Pandemic Influenza Surveillance

Hospitals:

- Report aggregate data weekly to OPH ID Epi
  - Number of ILI ER visits
  - Total number of ER visits
  - Number of ILI hospital admissions
- Report individual cases of mortality due to ILI weekly to OPH ID Epi

Sentinel Providers:

- Continue activities listed under routine surveillance

Office of Public Health:

- Epidemiologic surveillance will shift to an community-based model and will focus on
  - Identification of population groups at risk of transmitting infections
  - Quantification of health care needs, severe morbidity
  - Quantification of mortality
- Analyze data to determine age-specific, population specific attack rates, morbidity, and mortality
- Provide data to identify priorities in immunization strategies

11.0 Laboratory Diagnostics

11.1 Overview

In the event that pandemic influenza does enter the United States, surveillance and laboratory support will become key public health issues. Routine seasonal influenza testing performed by the Louisiana Office of Public Health Laboratory will have to be modified to accommodate the expected surge in testing requests. Detection of the novel strain of influenza will become a priority for the public health laboratory. Clinical laboratories are to submit specimens from patients suspected of having a novel strain of influenza to the Public Health Laboratory for confirmatory testing.

A second key component in the public health laboratory plan is response to a pandemic. The expected increase in the volume of specimens that the laboratory will receive must be addressed. Issues such as case reporting, specimen management and occupational health of laboratory workers provide special challenges.

During a pandemic, one of the most important issues facing the Public Health Laboratory will be communications. A primary role of the state public health laboratory will be to distribute information provided by the Centers for Disease Control and Prevention to clinical laboratories, as well as, providing them with test results and testing recommendations from

the public health laboratory. Forming a solid working relationship with the clinical laboratories throughout the state will be a priority during the interpandemic period.

11.2 Laboratory Roles

Effective planning and preparation for clinical and OPH laboratories will need to begin in advance of the pandemic. Building on current standards of practice, the response and methodologies used by laboratories will be modified as needed to in accordance with the pandemic threat periods.

11.2.1 Laboratory Activities during the Interpandemic Period

Clinical Laboratories:

- Conduct sample collection, specimen testing and result reporting in support of the state seasonal influenza surveillance program
- Conduct laboratory planning to support the response to an influenza pandemic in the following areas:
  - Detection and characterization of novel influenza strains
  - Laboratory reporting
  - Diagnostic reagents and test information
  - Laboratory surge capacity planning for specimen load, reagent use and general supply consumption

Office of Public Health Laboratory:

- Conduct testing and support for national seasonal influenza surveillance
- Conduct laboratory testing for novel influenza subtypes and forward specimens to the CDC
- Conduct laboratory planning to support the response to an influenza pandemic by:
  - Detection and characterization of novel influenza strains
  - Laboratory reporting
  - Distribution of test information to clinical laboratories
  - Laboratory surge capacity planning for specimen load, reagent use and general supply consumption
  - Create partnerships with healthcare providers and clinical laboratories

11.2.2 Laboratory Activities during the Pandemic Alert Period

Clinical Laboratories:

- Laboratories should adjust to the CDC's recommended biosafety recommendations.

- Laboratories should modify their testing methods and criteria according to the CDC's recommendations.

Office of Public Health:

- Keep laboratories informed of CDC recommendations for updating biosafety precautions and risk assessments
- Assist in helping laboratories with resource management to address the increased numbers of requests for influenza testing
- Maintain lines of communication with clinical laboratories in order to disseminate necessary information quickly
- Provide guidance to physicians about interpretation and limitations of influenza tests

11.2.3 Laboratory Activities during the Pandemic Period

Clinical Laboratories:

- Conduct laboratory support for influenza surveillance
- Conduct laboratory support for clinicians.
- Implement proper bio containment practices to ensure worker safety
- Address occupational health issues for laboratory workers.

Office of Public Health:

- Keep laboratories informed of the CDC recommendations for updating biosafety precautions and risk assessments.
- Assist in helping laboratories with resource management to address the increased numbers of requests for influenza testing.
- Maintain lines of communication with clinical laboratories in order to disseminate necessary information quickly.
- Provide guidance to physicians about interpretation and limitations of influenza tests.

11.3 Specimen Collection and Submission Guidelines

11.3.1 Types of Acceptable Specimens

- Nasopharyngeal swab
- Nasal swab

11.3.2 Collection Procedures

Dacron swabs with a plastic or metal shaft should be used. Do not use calcium alginate or wooden shafted swabs as they may contain substances that inactivate some viruses and/or inhibit PCR amplification.

- Nasopharyngeal swab: Carefully insert a dry sterile Dacron swab through external nares to obtain access to posterior nasopharyngeal area. Vigorously rub the area and gently retrieve the swab. Break off the swab tip into a sterile vial containing viral transport medium. Screw the cap on tightly to avoid contamination and leakage. Label vial with the patient's name and time and date of collection.
- Nasal swab: Insert a dry sterile Dacron swab into nasal passage. Allow it to absorb secretion. Break off the swab tip into a sterile vial containing viral transport medium. Screw the cap on tightly to avoid contamination and leakage. Label vial with the patient's name and time and date of collection.

11.3.3 Requesting Influenza Testing

The patient health care provider must complete the specimen submission form (lab 96) to request influenza testing. The Lab 96 form is available on the OPH Laboratory website (www.lab.dhh.louisiana.gov) or by calling 504-219-4676 to have a copy of the form faxed to you. Please fill out all forms as completely as possible with the following information or the specimen may be considered UNSATISFACTORY for testing:

- Name of the patient
- Time and Date of collection
- Date of onset of symptoms
- Submitter's address
- Unique ID or Hospital ID
- Epidemiologic risk factor
- Travel history
- Specify on the form that Influenza testing is requested by selecting the Influenza Real Time RT-PCR box.

11.3.4 Shipping Instructions

Any suspect influenza specimen should be shipped with ice packs as a diagnostic specimen. The shipper (hospital, clinic, or parish health unit) – not the transport company – is responsible for the shipment until the specimen reaches the consignee (LA Office of Public Health Laboratory). The specimen can be shipped overnight via FedEx, United State Postal Service (USPS) or UPS. Transportation time of less than 24 hours will optimize virus detection and amplification.

All specimens should be shipped to the OPH Central Laboratory.

OPH Central Laboratory
3101 W. Napoleon Ave.
Metairie, LA 70001
Phone # 504-219-4676
Fax # 504-219-4677

When submitting a routine influenza specimen that meets the current OPH Infectious Disease Epidemiology's testing criteria, there is no need of prior notification. However, the LA Office of Public Health Laboratory must be notified in advance when a specimen from a suspected novel or avian influenza will be arriving at the Laboratory.

12.0 Triage and Clinical Evaluation

12.1 Overview

During the peak of a pandemic, hospital emergency departments and outpatient office might be overwhelmed with patients seeking care. Efficient and effective care delivery will thus be paramount. Therefore, triage should be conducted to: 1) identify persons who might have pandemic influenza, 2) separate them from others to reduce the risk of disease transmission, and 3) identify the type of care they require (i.e., home care or hospitalizations).

The Louisiana Pandemic Flu Clinical Forum has devised a potential means of triage to be used in the peak phases of a pandemic intended to separate the worried well and those with minor flu illnesses from others patients seeking care at a medical facility. In conjunction with Clinical Evaluation guidelines developed by the Office of Public based on HHS and CDC recommendations, these tools can assist providers in making the appropriate clinical decisions for patients.

Review of triage protocols and clinical evaluation criteria with nearby outpatient medical offices may further facilitate efficient and appropriate disposition of patients.

12.2 Triage

12.2.1 Overview

The goals of triage in a pandemic are to: 1) identify persons who might have pandemic influenza, 2) separate them from others to reduce the risk of disease transmission, and 3) identify the type of care they require (i.e., home care or hospitalizations).

The triage strategy outlined below should be reviewed with appropriate clinical staff and ED directors for approval for your institution and/or for opportunities to make modifications to better meet the needs of the healthcare staff and the community.

The triage process is envisioned as tiered, with high-risk influenza patients fast-tracked to a higher level of triage and diagnosis as their symptoms or medical history dictates. Patients may be referred to additional diagnostic levels with increasing levels of resources (i.e., nurse practitioner, physician and diagnostic capabilities) depending on symptoms and medical history. The guidelines are designed to be the diagnostic tool to facilitate patient movement through the system of triage.

12.2.2 Pandemic Influenza Triage Schematic / Algorithm

An algorithm developed by the Louisiana Pandemic Flu Clinical Forum Triage Subcommittee that identifies the potential triage pathway for influenza/non-influenza patients can be found in *Appendix L1-L4.*

The algorithm presented was designed to alleviate surge needs for hospitals/ED at the height of the pandemic flu or as a Hospital ED becomes overwhelmed. It is intended to separate the worried-well and those with minor flu illnesses from the rest of the patient population who may need more acute care.

The decision pathways during the triage process generally should be "two-way", meaning a patient may return to a previous level of care and/or triage depending on symptoms or care requirements. Following triage, members of the public may be sent home for home care. Hospitals will have to identify resources needed based on the types of patients that present for care. The particular flow and mechanisms of implementation of the triage pathway may differ based on the size and resources of a facility, but the general flow and concept can likely be preserved to maximize the use of limited resources in hospitals as a "surge within the walls" strategy is employed.

An overview and a schematic are described in the section below. In addition, detailed instructions on the use of various forms associated with each step are again provided in the appendices.

The process begins with a **screening triage**. This individual who may be the first greeting staff physically located outside of the ED, even at the entrance of hospital property will perform a quick visual assessment of the presenting patient. If patient looks critically ill or has obvious injury/ailment that is not flu related, the patient would be directed to the main ED for standard triage. If patient is not critical and may have flu like illness, the greeting hospital staff member would ask the patient if they have any of the following: fever, cough, sore throat, shortness of breath, runny nose, etc. (as noted on the tool). If the answer is yes to any or some of these questions and clinical picture looks like an influenza-like illness, the patient is diverted to the **rapid triage**.

It would be ideal to have a nurse or an EMT performing the **screening triage** as some element of medical experience is necessary even in the quick visual assessment of the patient. In a worst case scenario with extremely limited staffing, a non- medical staff (i.e. security guard or volunteer) may be considered for conducting the screening triage, but this should be avoided if possible.

Please see below for next steps if a patient is diverted to rapid triage. If the patient however presents with a non-flu related complaint and is directly sent to the main ED, this should be noted at the bottom of the screening triage tool.

For patients that display flu-like symptoms at the screening triage and are sent to the **rapid triage**, they are to be greeted by a rapid triage nurse who then completes the left hand side of the next form titled "Pandemic Flu Triage Template", (see *Appendix L4*). The rest of the information provided in each of the patient cases (social history, physical exams, etc.) should be used here to complete this part of the rapid triage.

The goal of the rapid triage nurse is to quickly evaluate and separate patients who have minor flu illnesses and thus can wait (potentially hours) in a **flu holding area** from those whose flu symptoms need more immediate attention and need to be directed to the **main ED**.

The separation of patients to go either to a **flu holding area** or **main ED** will occur based on the rapid triage nurse's assessment and interpretations of the clinical presentation of the paper patients. To guide each nurse, the "Pandemic Flu Triage Template" includes concerning abnormal findings (made bold-faced) both in the history and physical exam of the patient. If one or several of these items are noted in the patient case, it may signify that a patient cannot wait very long for care and thus should be diverted to the main ED rather than the flu holding area.

For other patients that come to the rapid triage nurse, the nurse may note that the patient does not actually exhibit influenza-like illness (perhaps mistakenly sent by screening triage to rapid triage rather than main ED) or based on her exam she notes that what may have sounded like a flu symptom at screening triage may be a result of another medical condition. If so, the nurse would redirect these patients to the main ED and would note this disposition at the end of her section on the Pandemic Flu Triage Template.

The decision as to where a patient may be sent (either the flu holding area or Main ED) may reflect the level of care provided at each site, the proximity of the flu holding area to other acute patient care areas of the hospital, or other institution specific variables. Certain hospitals may set-up a flu holding area in their auditorium where no clinical care can be provided, while others may have a dedicated patient care area where basic monitoring can be done, labs can be obtained, or other medical procedures can be accommodated. Accordingly, the final distribution of patients into the flu holding area vs. main ED may differ for each hospital.

Once the rapid triage nurse finishes her section and notes whether the patient goes to a flu holding area or main ED, you can consider the triage process finished. The form used by the rapid triage nurse ("Pandemic Flu Triage Template") can be used to document care for the patient that will be diverted to the **flu holding area *only***. If the patient is diverted to the Main ED following screening or rapid triage, your own hospital specific forms should be used to document any additional care or activity.

The **flu holding area** may be a large waiting room, hospital auditorium, or other designated spots that may not traditionally be a patient care area. Ideally, this area is in close proximity to the main ED while still clearly separated and delineated to avoid patient mixing. This area would house patients requiring minimal/low intensity clinical supervision who may need to wait for some time before they are evaluated by a physician, APRN, or other advanced degree clinician constituting and meeting the requirements of the medical screening exam to satisfy EMTALA and /or hospital requirements for evaluation and potential discharge. This assessment will be completed on the right hand side of the "Pandemic Flu Triage Template" and will lead the clinician to decide whether the patient can be discharged, held for observation, or will need further work-up or potential admission to the hospital.

Depending on the staffing at your flu holding area, you may have someone there fill in other pertinent medical information for the patient as denoted in the box at the bottom left hand side of the form. This includes, medications, allergies, LMP, social history. This information may be filled out by an LPN or a tech in the flu holding area while the patient waits for an advanced degree health care provider to complete their evaluation. This information was not included in the triage nurse's assessment to streamline her activity but is amenable to future discussion and change.

For the final disposition on the "Pandemic Flu Triage Template" as determined by the advanced degree provider, you will note that the provider may choose to hold the patient in the flu holding area either to observe, do basic work-up (w/u=work-up), extended work-up, or admit. Similar choices are also provided if the patient is routed to the Main ED. The ability to do any sort of work-up in the flu holding area will depend again on what resources are made available for your specific hospital. If no clinical care can be provided in the flu holding area, (i.e. patients are just sitting in auditorium chairs) the only possible option may be that the patient can be observed in that area and for even a basic work-up which may include (labs and oxygen saturation monitoring) that patient would be diverted to the main ED. For hospitals that can set-up a flu holding area with more advanced care, they may choose not only to observe patients there, but to also provide a more comprehensive or "extended work-up" for that patient (such as labs, pulse ox, cardiac monitoring, chest x-ray, IVF administration, etc.) depending on the overall set-up within that hospital. Again, there will be some expected variability as to the final destination of your patients depending on your hospitals' specific layout and resources.

As stated previously, the triage process is envisioned as tiered, with high-risk influenza patients fast-tracked to a higher level of triage and diagnosis as their symptoms or medical history dictates. Patients may be referred to additional diagnostic levels with increasing levels of resources (i.e., nurse practitioner, physician and diagnostic capabilities) depending on symptoms and medical history. If there is an overwhelming increase in the number of patients being diverted to the Main ED following screening or rapid triage such that the existing infrastructure (beds, supplies, staff) can no longer provide the standard level of care, it may be necessary to institute a Crisis Standard of Care Plan. See *Appendix N* for guidelines on Crisis Standards of Care.

12.3 Clinical Evaluation and Management

12.3.1 Overview

The clinical guidelines provide guidance for the initial screening, assessment, and management of patients with suspected influenza during the interpandemic, pandemic alert period and the pandemic period. During the interpandemic and pandemic alert periods, early recognition of illness caused by a novel influenza A virus strain will rely on a combination of clinical and epidemiologic features. During the Pandemic period (in a setting of high community prevalence), diagnosis will likely be more clinically oriented because the likelihood will be high that any severe febrile respiratory illness is pandemic influenza.

12.3.2 Clinical Criteria

Any suspected cases of human infection with a novel influenza virus must first meet the criteria for influenza-like illness (ILI), defined as temperature of >38 C plus either sore throat or cough. Since lower respiratory tract involvement might result in dyspnea, dyspnea should be considered as an additional criterion.

Given the large number of influenza-like illnesses that clinicians encounter during a typical influenza season, laboratory evaluation for novel influenza A viruses during the Interpandemic and pandemic alert periods is recommended only for: hospitalized patients with severe ILI, including pneumonia, who meet the epidemiologic criteria, or non-hospitalized patients with ILI and with strong epidemiologic suspicion of novel influenza virus exposure such as direct contact with ill poultry in an affected area or close contact with a known or suspected human case of novel influenza.

Exceptions to the current clinical criteria:

- For persons with a high risk of exposure (e.g., poultry worker from an affected area, caregiver of a patient with lab-confirmed novel influenza, employee in a laboratory that works with live novel influenza viruses), epidemiologic evidence might be enough to initiate further measures, even if clinical criteria are not fully met. In these persons, early signs and symptoms such as rhinorrhea, conjunctivitis, chills, rigors, myalgia, headache, and diarrhea, in addition to cough or sore throat, may be used to fulfill the clinical criteria for evaluation.
- Young children, elderly patients, patients in long-term care facilities, and persons with underlying chronic illnesses might not have typical influenza-like symptoms, such as fever. When such patients have a strong epidemiologic risk factor, novel influenza should be considered with almost any change in health status, even in the absences of typical features. Conjunctivitis has been reported in patients with influenza A (H7N7) and (H7N3) infections. In young children, gastrointestinal manifestations such as vomiting and diarrhea might be present. Infants may present with fever or apnea alone, without other respiratory symptoms, and should be evaluated if there is an otherwise increased suspicion of novel influenza.

Epidemiologic criteria for evaluation of patients with possible novel influenza focus on the risk of exposure to a novel influenza virus with pandemic potential. Although the incubation period for seasonal influenza ranges from 1 to 4 days, the incubation periods for novel types of influenza are currently unknown and might be longer. Therefore, the maximum interval between potential exposure and symptom onset is set conservatively at 10 days.

Exposure falls into two categories: travel and occupational. Persons have a travel risk if they have: 1) recently visited or lived in an area affected by highly pathogenic avian influenza A outbreaks in domestic poultry or where a human case of novel influenza has been confirmed, *and either* 2) had direct contact with poultry, or 3) had close contact with a person with confirmed or suspected novel influenza. Persons with occupational risk for infection with a novel strain of influenza include persons who work on farms or live poultry markets or who process or handle poultry infected with known or suspected avian influenza viruses, workers in laboratories that contain live animal or novel influenza

viruses, and healthcare workers in direct contact with a suspected or confirmed novel influenza case.

12.3.3 Case Detection/Clinical Management

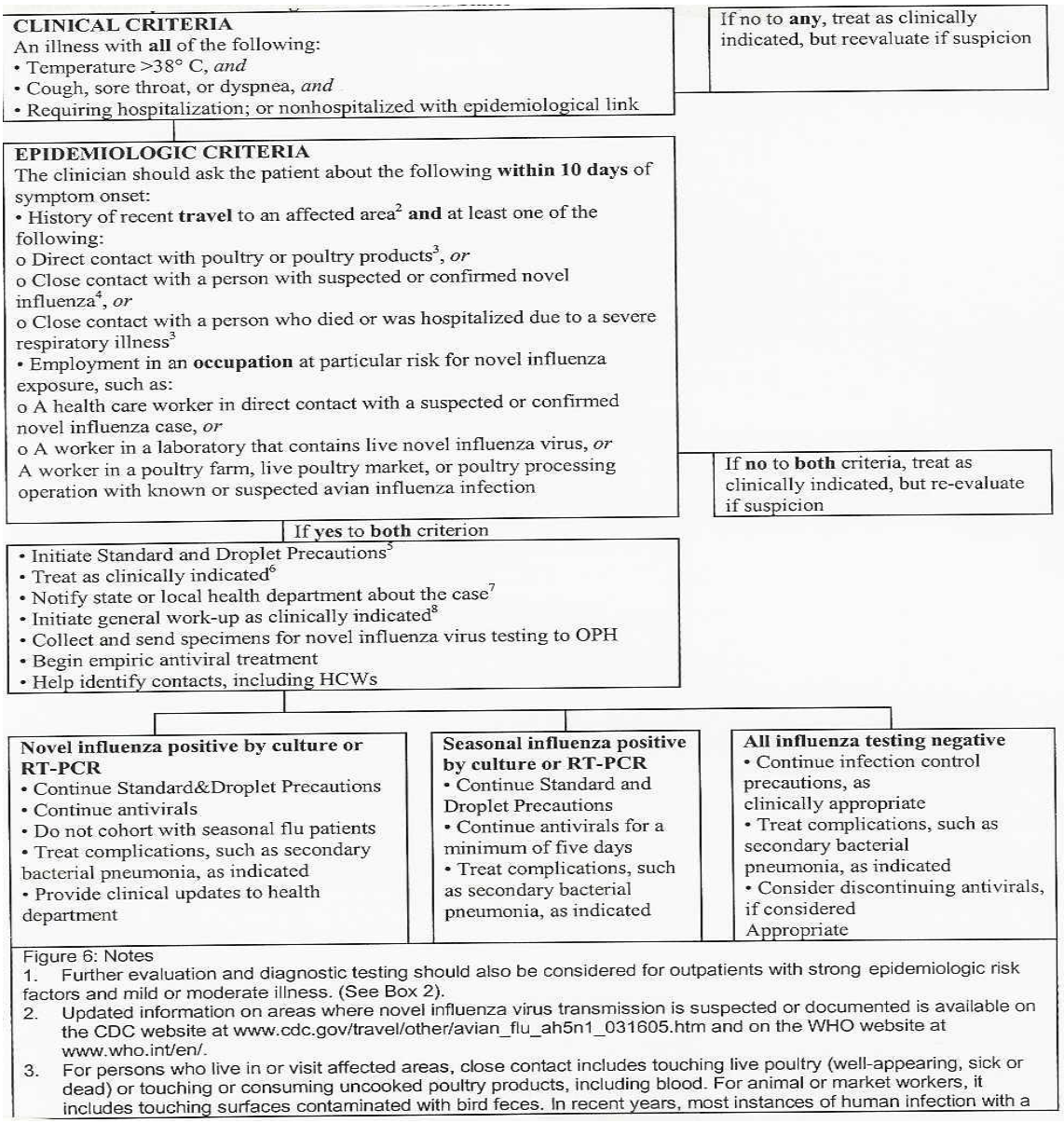
A. Inter-pandemic and Pandemic Alert Periods

When a patient meets both the clinical and epidemiologic criteria for a suspected case of pandemic influenza, healthcare personnel should initiate the following activities:

- Implement infection control precautions for influenza, including Respiratory / Cough Etiquette.
- Notify the Office of Public Health
- Obtain clinical specimens for influenza A virus testing and notify the Office of Public Health to arrange testing (RT-PCR or virus isolation from tissue cell culture with sub typing)
- Acute and convalescent serum samples and other available clinical specimens (respiratory, blood, and stool) should be saved and refrigerated or frozen for additional testing until a specific diagnosis is made
- Evaluate alternative diagnosis
- Decide on inpatient or outpatient management
- Initiate antiviral treatment as soon as possible, even if laboratory results are not yet available
- Assist public health officials with the identification of potentially exposed contacts

Figure 1 Case detection and clinical management during the interpandemic and pandemic alert periods

Situation: No human cases of novel influenza are present in the community. Human cases might be present in another country or another region of the United States.



novel influenza A virus having pandemic potential, including influenza A (H5N1), are thought to have occurred through direct transmission from domestic poultry. A small number of cases are also thought to have occurred through limited person-to-person transmission or consumption of uncooked poultry products. Transmission of novel influenza viruses from other infected animal populations or by contact with fecally contaminated surfaces remains a possibility. These guidelines will be updated as needed if alternate sources of novel influenza viruses are suspected or confirmed.

4. Close contact includes direct physical contact, or approach within 3 feet (1 meter) of a person with suspected or confirmed novel influenza.
5. Standard and Droplet Precautions should be used when caring for patients with novel influenza or seasonal influenza. Information on infection precautions that should be implemented for all respiratory illnesses (i.e., Respiratory Hygiene/Cough Etiquette) is provided at: www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm
6. Hospitalization should be based on all clinical factors, including the potential for infectiousness and the ability to practice adequate infection control. If hospitalization is not clinically warranted, and treatment and infection control is feasible in the home, the patient may be managed as an outpatient. The patient and his or her household should be provided with information on infection control procedures to follow at home. The patient and close contacts should be monitored for illness by local public health department staff.
7. Guidance on how to report suspected cases of novel influenza is provided in **Supplement 1**.
8. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient's underlying health status, initial diagnostic testing might include:
    - Pulse oximetry
    - Chest radiograph
    - Complete blood count (CBC) with differential
    - Blood cultures
    - Sputum (in adults), tracheal aspirate, pleural effusion aspirate (if pleural effusion is present) Gram stain and culture
    - Antibiotic susceptibility testing (encouraged for all bacterial isolates)
    - Multivalent immunofluorescent antibody testing or PCR of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children
    - In adults with radiographic evidence of pneumonia, *Legionella* and pneumococcal urinary antigen testing
    - If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children <5 yrs with radiographic pneumonia should be tested.
    - Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected
9. Guidelines for novel influenza virus testing can be found in the Laboratory section of the plan. All of the following respiratory specimens should be collected for novel influenza A virus testing: nasopharyngeal swab; nasal swab, wash, or aspirate; throat swab; and tracheal aspirate (for intubated patients), stored at 4°C in viral transport media; and acute and convalescent serum samples.
10. Strategies for the use of antiviral drugs are provided in Antiviral section of the plan.
11. Guidelines for the management of contacts in a healthcare setting are provided in the Infection Control section of the plan.
12. Given the unknown sensitivity of tests for novel influenza viruses, interpretation of negative results should be tailored to the individual patient in consultation with the local health department. Novel influenza directed management may need to be continued, depending on the strength of clinical and epidemiologic suspicion. Antiviral therapy and isolation precautions for novel influenza may be discontinued on the basis of an alternative diagnosis. The following criteria may be considered for this evaluation:

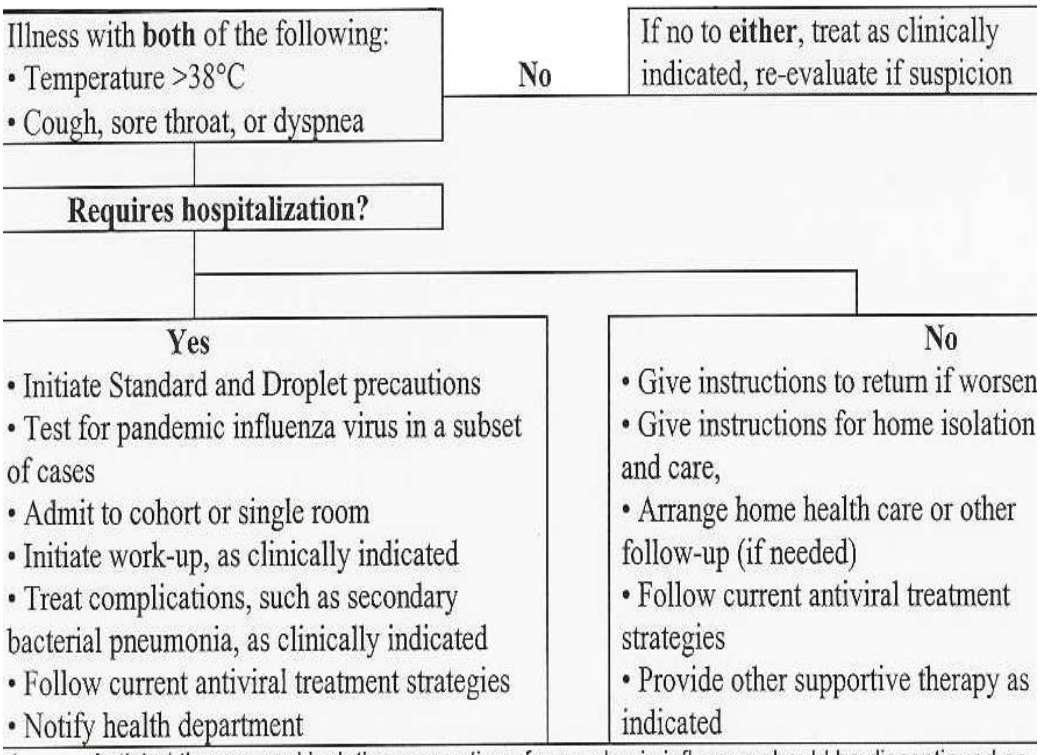
    - Absence of strong epidemiologic link to known cases of novel influenza
    - Alternative diagnosis confirmed using a test with a high positive-predictive value
    - Clinical manifestations explained by the alternative diagnosis

B. Case Detection/Clinical Management during Pandemic Period

During the pandemic period, the primary goal of rapid detection is to appropriately identify and triage cases of pandemic influenza. Evaluation will therefore focus predominantly on clinical and basic laboratory findings, with less emphasis on laboratory diagnostic testing and epidemiologic criteria. The main

features of clinical management during the pandemic period are outlined in Figure 2.

Figure 2. Case detection and clinical management during the pandemic period



1. Antiviral therapy and isolation precautions for pandemic influenza should be discontinued on the basis of an alternative diagnosis only when both the following criteria are met:
   - Alternative diagnosis confirmed using a test with a high positive-predictive value, and
   - Clinical manifestations entirely explained by the alternative diagnosis
2. Standard and Droplet Precautions should be used when caring for patients with novel influenza or seasonal influenza (see Infection Control section of the plan). Information on infection precautions that should be implemented for all respiratory illnesses (i.e., Respiratory Hygiene/Cough Etiquette) is provided at: www.cdc.gov/flu/ professionals/infectioncontrol/ resphygiene.htm
3. Guidance on laboratory testing during the Pandemic Period can be found in **Supplement 2**. Generally, specimens should include respiratory samples (e.g., nasopharyngeal wash/aspirate; nasopharyngeal, nasal or oropharyngeal swabs, or tracheal aspirates) stored at 4°C in viral transport media. Routine laboratory confirmation of clinical diagnoses will be unnecessary as pandemic activity becomes widespread in a community. CDC will continue to

work with state health laboratories to conduct virologic surveillance to monitor antigenic changes and antiviral resistance in the pandemic virus strains throughout the Pandemic Period.

4. The decision to hospitalize should be based on a clinical assessment of the patient and the availability of hospital beds and personnel.
5. Guidelines on cohorting can be found the Infection Control section of the plan Laboratory confirmation of influenza infection is recommended when possible before cohorting patients.
6. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient's underlying health status, initial diagnostic testing might include:
   - Pulse oximetry
   - Chest radiograph
   - Complete blood count (CBC) with differential
   - Blood cultures
   - Sputum (in adults) or tracheal aspirate Gram stain and culture
   - Antibiotic susceptibility testing (encouraged for all bacterial isolates)
   - Multivalent immunofluorescent antibody testing of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children
   - In adults with radiographic evidence of pneumonia, *Legionella* and pneumococcal urinary antigen testing
   - If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children <5 yrs with radiographic pneumonia should be tested.
   - Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected (see Appendix 2 for additional details).
7. Guidance on the evaluation and treatment of community acquired pneumonia and suspected post-influenza community-acquired bacterial pneumonia are provided in Appendix 3.
8. Strategies for the use of antiviral drugs are provided in the Antiviral Drug section of this plan.
9. Guidance on the reporting of pandemic influenza cases is provided in the Surveillance section of the plan.
10. Patients with mild disease should be provided with standardized instructions on home management of fever and dehydration, pain relief, and recognition of deterioration in status. Patients should also receive information on infection control measures to follow at home (Appendix 4). Patients cared for at home should be separated from other household members as much as possible. All household members should carefully follow recommendations for hand hygiene, and tissues used by the ill patient should be placed in a bag and disposed of with other household waste. Infection within the household may be minimized if a primary caregiver is designated; ideally, someone who does not have an underlying condition that places them at increased risk of severe influenza disease. Although no studies have assessed the use of masks at home to decrease the spread of infection, using a surgical or procedure mask by the patient or caregiver during interactions may be beneficial. Separation of eating utensils for use by a patient with influenza is not necessary, as long as they are washed with warm water and soap.

Although often quite characteristic, the clinical picture of seasonal influenza can be indistinguishable from illness caused by other respiratory infections. The frequent use of non-specific terms such as "flu" and "influenza-like illness" makes the clinical diagnosis of influenza

even more indefinite. Even when the diagnosis of influenza is confirmed, management can be challenging, as influenza virus infection can result in subclinical infection, mild illness, uncomplicated influenza, or exacerbation of underlying chronic conditions to fulminant deterioration, and can result in a wide variety of complications see the Louisiana Statewide Draft Pandemic Influenza Plan, Chapter VII, pages 86-96 for additional information on differential diagnosis and complications on influenza.

12.4 Palliative Care

Hospital checklists include action items on palliative care. During an influenza pandemic there will be limited resources for caring for sick individuals. Priority for limited medical resources must be based upon the allocation of scarce resources to maximize the number of lives saved ("the greatest good for the greatest number"). In some instances, decisions will need to be made to withdraw or withhold resources from those not likely to survive and shunt those resources to others. There should be a goal to provide the greatest comfort and minimize the suffering of those whose lives may be shortened as a result of a influenza pandemic. The application of palliative care principles in a healthcare emergency would include: recognizing that initial prognostication may change if additional resources become available or if the situation deteriorates; and honoring the humanity of the dying and those who serve them (whether loved ones, professionals, or strangers) by providing comfort through medical, social, psychological, and spiritual support. For more information on palliative care, see *Appendix N*, "State Hospital Crisis Standards of Care Guidelines in Disasters".

13.0 Infection Control/Disease Prevention

Disease prevention is an important aspect of managing any influenza outbreak. Keeping healthcare professionals healthy and/or minimizing the complications of influenza is a key element of keeping the hospitals staffed during a pandemic event. Therefore, it is strongly encouraged that hospitals establish annual influenza immunizations and pneumococcal vaccine as appropriate.

During the initial stage of a pandemic influenza outbreak, a vaccine may not yet be widely available and the supply of antiviral drugs may be limited. The ability to limit transmission in health care settings will, therefore, rely heavily on the appropriate and thorough application of infection control measures.

Infection control practices both in the community and in healthcare settings will present special challenges in the event of a pandemic. Influenza virus is highly contagious and persons who are clinically or subclinically infected can transmit virus to persons at high risk for influenza complications. Preventing and controlling healthcare associated infections will be an important factor in reducing the spread of influenza in a pandemic. Measures other than vaccination and chemo-prophylaxis are recommended for controlling healthcare associated influenza outbreaks. These measures include interventions for preventing and controlling healthcare associated influenza through prompt recognition, detection, isolation and cohorting of confirmed and suspect cases, and implementation of droplet precautions.

The Society for Healthcare Epidemiology of America (SHEA) states three goals for infection control and prevention programs: 1) protect patients; 2) protect healthcare workers; and 3) protect visitors, and others in the healthcare environment.

The Centers for Disease Control and Prevention (CDC) and the Healthcare Infection Control Practices Advisory Committee (HICPAC) have developed guidelines on prevention of nosocomial/healthcare associated infections that are based on the latest epidemiologic information on transmission of infection in hospitals. These guidelines include "Standard Precautions" that are to be followed when caring for all patients, regardless of their diagnosis, and "Transmission Based Precautions" to be followed when a patient is known or suspected to be infected or colonized with an epidemiologically important pathogen, such as influenza virus.

Strategies for the prevention of influenza outbreaks should include:

- routine infection control practices: use of appropriate barrier precautions during patient care, as recommended for Standard and Droplet Precautions
- early detection of influenza cases in a facility
- isolation of infectious patients in private rooms or cohort units
- vaccination of patients and healthcare personnel (when available)
- use of antiviral to treat ill persons, and if recommended (and available), as prophylaxis
- restricting visitors
- education of patients and staff
- cohorting healthcare workers assigned to an outbreak unit

Additional infection control guidance can be found in the Louisiana Statewide Draft Pandemic Influenza Plan, Chapter 5, pages 33-60.

14.0 Facility Access

Healthcare facilities should plan for additional security. This may be required given the increased demand for services and possibility of long wait times for care, and because triage or treatment decisions may lead to people not receiving the care they think they require.

Hospitals should determine in advance the criteria and procedures they will use to limit access to the facility if pandemic influenza spreads through the community.

- Define "essential" and "non-essential" visitors with regard to the hospital and the population served. Develop protocols for limiting non-essential visitors.
- Develop criteria or "triggers" for temporary closing of the hospital to new admissions and transfers. The criteria should consider staffing ratios, isolation capacity, and risks to non-influenza patients. As part of this effort, hospital administrators should: 1) determine who will make decisions about temporary closings and how and to whom these decisions will be communicated; and 2) consult with state and local health departments on their roles in determining policies for hospital admissions and transfers.
- Determine how to involve hospital security services in enforcing access controls. Consider meeting with local law enforcement officials in advance to determine what assistance, if any, they can provide. Note that local law enforcement might be

overburdened during a pandemic and have limited ability to assist healthcare facilities with security services.

15.0 Occupational Health

15.1 Overview

The ability to deliver quality health care is dependent on adequate staffing and optimum health and welfare of staff. During a pandemic, the healthcare workforce will be stressed physically and psychologically. Like others in the community, many healthcare workers will become ill.

Healthcare facilities must be prepared to: 1) protect healthy workers from exposures in the healthcare setting through the use of recommended infection control measures; 2) evaluate and manage symptomatic and ill healthcare personnel; 3) distribute and administer antiviral drugs and/or vaccines to healthcare personnel, as recommended by HHS and state health departments; and 4) provide psychosocial services to healthcare workers and their families to help sustain the workforce.

15.2 Managing Ill Workers

- Establish a plan for detecting signs and symptoms of influenza in healthcare personnel before they report for duty
- Develop policies for managing healthcare workers with respiratory symptoms that take into account HHS recommendations for healthcare workers with influenza
- Consider assigning staff who are recovering from influenza to care for influenza patients

15.3 Administrative Considerations

- Time-off policies - Ensure that time-off policies and procedures consider staffing needs during periods of clinical crisis
- Reassignment of high-risk personnel - Establish a plan to protect personnel at high risk for complications of influenza (e.g., pregnant women, immunocompromised persons) by reassigning them to low-risk duties (e.g., non-influenza patient care, administrative duties that do not involve patient care) or placing them on furlough.
    - Psychosocial health service provisions
    - Identify mental health and faith-based resources for counseling of healthcare personnel during a pandemic. Counseling should include measures to maximize professional performance and personal resilience by addressing management of grief, exhaustion, anger, and fear; physical and mental health care for oneself and one's loved ones; and resolution of ethical dilemmas
    - Determine a strategy for supporting healthcare workers' needs for rest and recuperation
    - Develop a strategy for housing and feeding healthcare personnel who might be needed on-site for prolonged periods

- Develop a strategy for accommodating and supporting staff who have child- or elder- care responsibilities

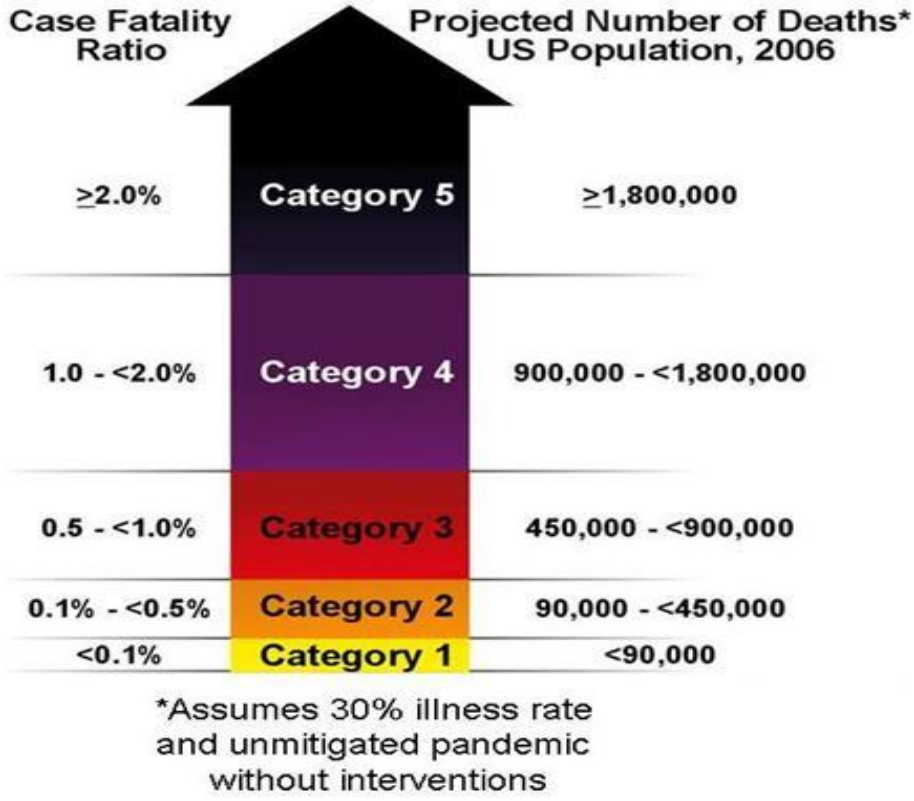
15.4 Influenza vaccination and use of antiviral drugs

- Promote annual influenza vaccination among hospital employees. Increased vaccination coverage during the inter-pandemic period might help increase vaccine acceptance during a pandemic and will limit the spread of seasonal influenza.
- Hospital Infection Control Professionals/Employee Health should register for, and become familiar with the Louisiana Immunization Registry for Kids Statewide (LINKS), which is the Statewide Immunization Registry. Hospital worker immunizations can be documented and tracked using the LINKS system. This can be a very useful tool for hospitals in documenting individual work vaccinations, overall vaccination rates, and can identify pockets of employees who are most prone to either get or spread vaccine preventable diseases for targeted vaccination campaigns. The website address for the LINKS system is http://linksweb.dhh.state.la.us/linksweb/main.jsp. On this site you will find the Enrollment documents needed to participate in LINKS and the name of the contact person in your region for further information.
- We further recommend that all infection control professionals/employee health encourage full participation of their entire hospital in the LINKS system, which would document employee and patient vaccinations of all kinds. Full knowledge of the LINKS system and the information contained could be critical during a pandemic. If you have any questions, please call the Immunization Program Office at 504-838-5300.
- Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to healthcare personnel as recommended by HHS and state health departments. Preliminary recommendations on the use of antiviral drugs and vaccination have been established but will need to be tailored to fit the epidemiology of the pandemic.

The **Pandemic Severity Index** (PSI) is a proposed classification scale for reporting the severity of influenza pandemics in the United States. The PSI was accompanied by a set of guidelines intended to help communicate appropriate actions for communities to follow in potential pandemic situations. Released by the United States Department of Health and Human Services (HHS) on February 1, 2007, the PSI was designed to resemble the Saffir-Simpson Hurricane Scale classification scheme. The PSI was developed by the Centers for Disease Control and Prevention (CDC) as a new pandemic influenza planning tool for use by states, communities, businesses and schools, as part of a drive to provide more specific community-level prevention measures. The index and guidelines were developed by applying principles of epidemiology to data from the history of the last three major flu pandemics and seasonal flu transmission, mathematical models, and input from experts and citizen focus groups.

The goal of the index is to provide guidance as to what measures various organizations can enact that will slow down the progression of a pandemic, easing the burden of stress upon community resources while definite solutions, like drugs and vaccines, can be brought to bear on the situation.

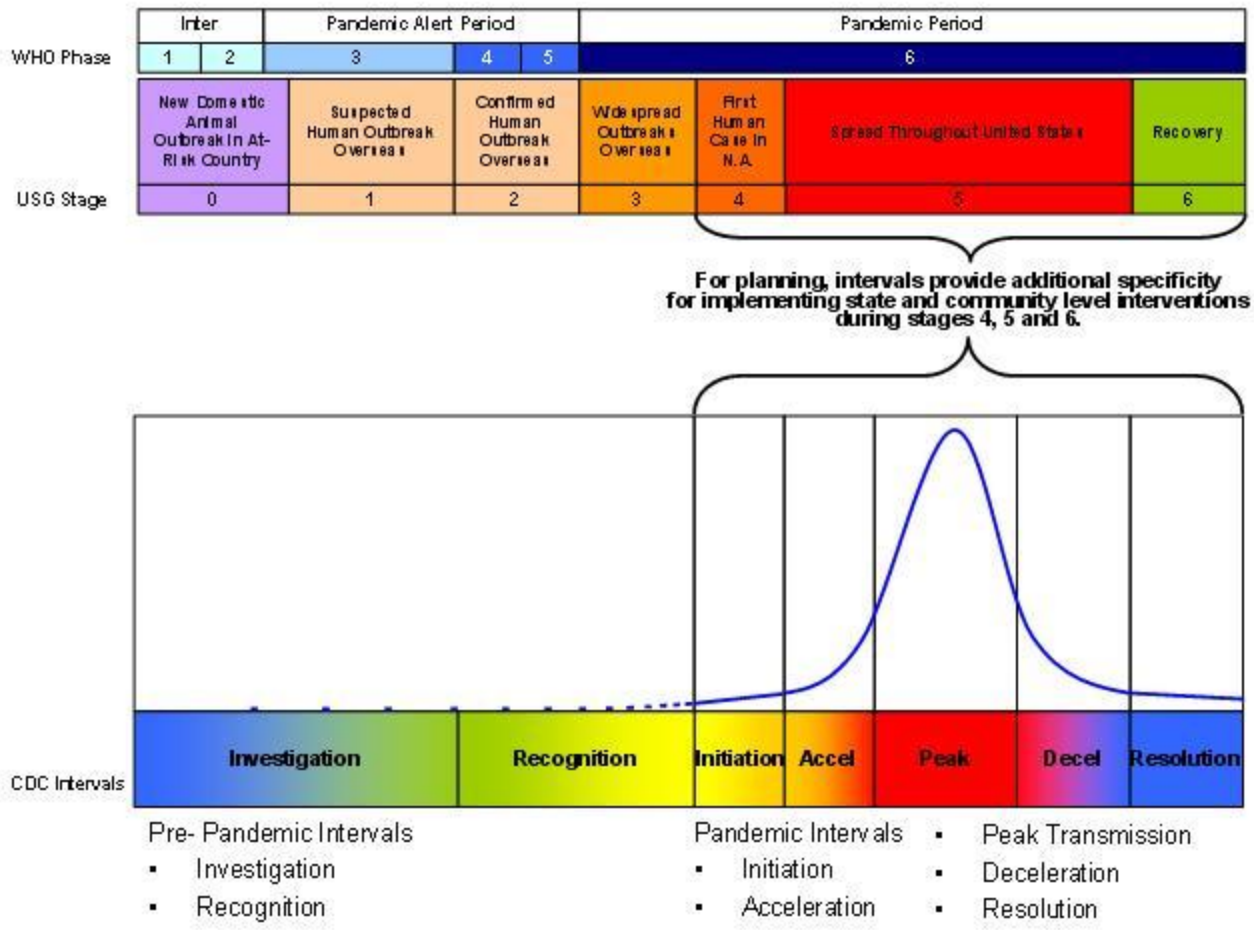
Pandemic Influenza Index



While it is difficult to forecast the duration of a pandemic, it is expected that there will be definable periods between when the pandemic begins, when transmission is established and peaks, when resolution is achieved, and when subsequent waves begin. While there will be one epidemic curve for the United States, the larger curve is made up of many smaller curves that occur on a community by community basis. Therefore, the intervals serve as additional points of reference within the phases and stages to provide a common orientation and better epidemiologic understanding of what is taking place. State health authorities may elect to implement interventions asynchronously within their States by focusing early efforts on communities that are first affected. The intervals thus can assist in identifying when to intervene in these affected communities. The intervals are also a valuable means for communicating the status of the pandemic by quantifying different levels of disease, and linking that status with triggers for interventions.

The intervals are designed to inform and complement the use of the Pandemic Severity Index (PSI) for choosing appropriate community mitigation strategies. The PSI guides the range of interventions to consider and/or implement given the epidemiological characteristics of the pandemic. The intervals are more closely aligned with triggers to indicate *when* to act, while the PSI is used to indicate *how* to act.

Periods, Phases, Stages, and Intervals



16.0 Use and Administration of Antiviral Drugs

16.1 Overview

Antiviral medications strategies support the national pandemic response goals to stop, slow or limit the spread of a pandemic into the United States, limit the domestic spread of a pandemic, mitigate disease, suffering and death, as well as sustain infrastructure and mitigate impact to the economy and function of society. However, the efficacy of antiviral medications against a any specific pandemic influenza strain will have to be determined at the onset and throughout a specific outbreak. This susceptibility testing will be done at the time of a pandemic once the influenza strain has been identified.

At the time of a pandemic outbreak, this guidance on the use of antiviral medicines will be reassessed based on the epidemiology of the disease, virus resistance and medical intelligence regarding the most efficient and effective use of antiviral medications. Louisiana will follow international, and national recommendations for prophylaxis and

treatment of disease through frameworks provided by the Federal government such as the U. S Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC) and Occupational Safety and Health Administration (OSHA).

16.2 State Cache and Distribution Mechanism

The State of Louisiana procured funding to purchase a stockpile of antiviral medications. This is called the State Antiviral Cache (SAC). These medications were received in June 2007 and are stored in a secure, climate controlled environment. The SAC currently includes 357,168 regimens of Tamiflu and 75,232 regimens of Relenza. This totals 432,400 antiviral regimens currently recovered in the State Antiviral Cache from the 2009 -2010 H1N1 response.

The State will receive additional antiviral medications from the Department of Health and Human Services, Centers for Disease Control and Prevention when a pandemic occurs. The Louisiana allocation is based on the State's population. This will provide an additional 669,657 regimens. Of these antivirals, it is expected that 80% will be Tamiflu and 20% will be Relenza.

It is anticipated that a antiviral regimen for a specific pandemic will be similar to current recommendations. A Tamiflu (oseltamivir) regimen is one, 75 mg capsule twice daily for 5 days or 10 capsules per bottle. A Relenza (zanamivir) regimen is 2 inhalations, 10 mg twice daily for 5 days or one Diskhaler and 5 Rotodisks for five days.

The antiviral medications will be sent from the secure state storage site under the direction of the Office of Public Health (OPH) to an individual hospital pharmacy to dispense the antiviral medications under specific guidelines. Physicians and nurses will administer the correct dosage in the hospital or other care setting (inpatient or outpatient clinic) to those who qualify under the guidance for either treatment or an antiviral prophylaxis course.

16.3 Treatment Guidelines

The first priority for the State Antiviral Cache will be for the treatment of certain individuals ill with the pandemic strain who present to a healthcare provider within the first 48 hours of clinical illness who meet the established additional criteria for treatment. The Office of Public Health (OPH) will coordinate with healthcare providers across the state and publish clinical criteria to assist in the identification of persons who meet the national criteria to receive these antiviral medications.

New guidance suggests that antiviral medicines may also be used for prophylaxis (prevention) in some limited circumstances. Essential personnel, like healthcare providers and community responders such as police, fire, and emergency personnel and medical service personnel could be offered antiviral medications as a protective method. Additionally, special groups of persons considered at high risk for disease, like the very young, elderly and immune compromised could also be given priority for prophylaxis with antiviral drugs. This prioritization of special groups of persons will be based on the characteristics of a specific pandemic, and will be published at the time of a pandemic. See Figure 3 for additional guidance on priority groups.

There will be very strict guidelines for use of antiviral medicines during a pandemic. This will include all antiviral medicines, whether privately held or in government stockpiles. Louisiana will endorse the guidelines of the federal government for antiviral medication use. This guidance will be based on epidemiological investigation, medical intelligence and is necessary for the control of disease. Institutions, including healthcare, should plan to prioritize staff based on job function and degree of patient contact to prepare for a limited treatment or prophylaxis (prevention) campaign. Misuse of antiviral medications, whether public or privately held, may result in legal action.

Draft guidance for the use of antiviral medicines is presented in Figure 1, "Treatment Algorithm for Pandemic Influenza Virus Treatment in Louisiana". It is very important that all providers of antiviral medicines understand the priority groups presented, and the indications for treatment and prophylaxis. This algorithm will be updated at the time of a pandemic to reflect the current Federal guidance. Figure 2 follows with information on antiviral dosage regimens.

These are draft guidelines, and will be updated at the time of a pandemic.

16.4 Antiviral Planning Activities

16.4.1 Interpandemic Period

OPH:

- Review and update the Louisiana Antiviral Guidance for Pandemic Influenza Response, October 2009.
- Modify this Plan according to updated interim recommendations on priority groups and antiviral availability.
- Prepare communication information pertaining to the antiviral plan and expected availability, distribution and use of pandemic antiviral medicines.
- Work with hospitals to craft messages which will educate the public on the limited use and availability of antiviral medicines, and appropriate use.

Hospitals:

- Prepare the hospital for secure receipt, storage, distribution and appropriate use of antiviral medicines in both the inpatient and outpatient setting.
- Review State guidance (Table 1) for the appropriate use and distribution of antiviral medications for treatment and/or prophylaxis of certain individuals. Check for updates to this guidance.
- Communicate to hospital staff the extreme importance of using antiviral medicines appropriately. Antiviral medications must be used in accordance with guidance issued by the State Health Officer for treatment of ill persons who fit criteria for pandemic influenza, or limited prophylaxis of essential staff.
- Work with LOPH on appropriate communication messages about antiviral availability, priorities, and distribution.

16.4.2 Pandemic Alert Period

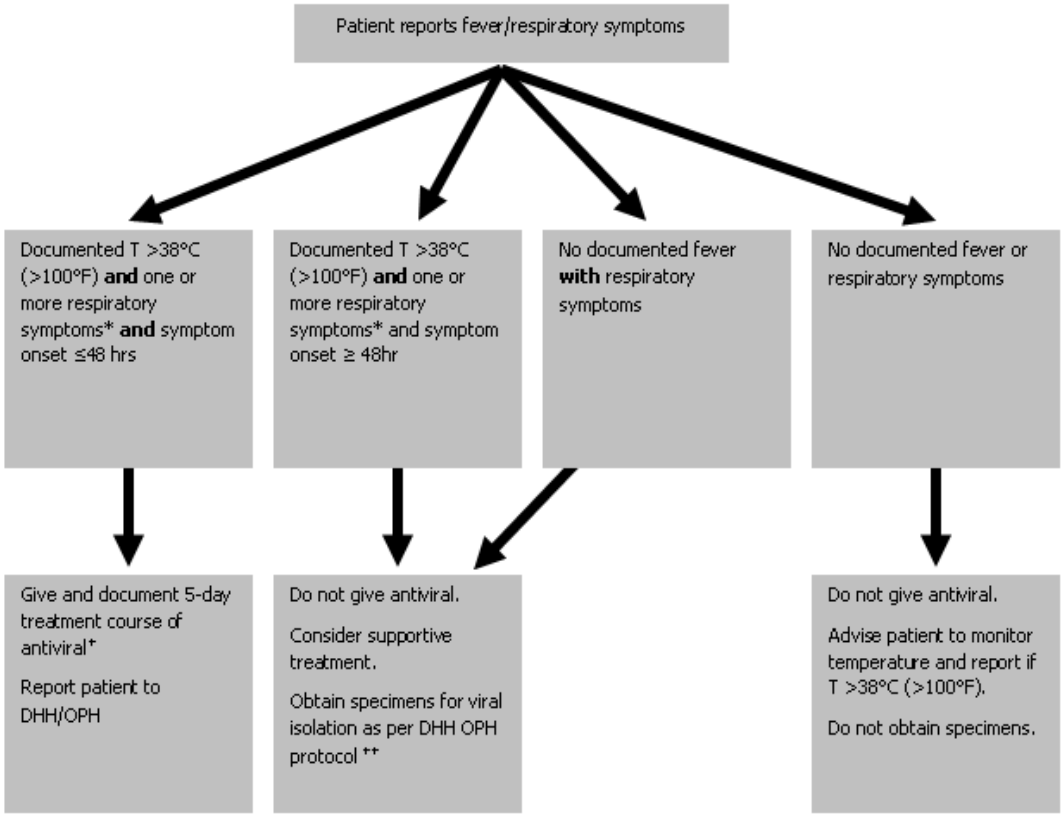
OPH:

- Distribute antiviral medicines to hospitals and other appropriate health care facilities (nursing homes, prisons) following national guidelines and under the direction of the Louisiana State Health Officer with specific directions for use.
- Distribute guidance to hospitals and other health care facilities for antiviral use in patients who fit established criteria for pandemic influenza in both the inpatient and outpatient setting.
- Distribute guidance to hospitals and other health care facilities for prophylactic antiviral use in essential community personnel.
- Release updated communication information on priority groups and use of the pandemic antiviral medicines.
- Investigate adverse events.
- Work with community partners to distribute messages about appropriate use of antiviral medicines.

Hospitals:

- Distribute antiviral medicines to points of patient evaluation in both the inpatient and outpatient setting, with appropriate use and security guidelines.
- Communicate messages about antiviral availability for treatment and appropriate prophylaxis and use to hospital staff.
- Using the Antiviral Administered Report (VAR), document information on persons receiving antiviral medications. Patient outcome information may be requested, as well as additional information related to a specific pandemic.

Figure 3: Draft Algorithm for Pandemic Influenza Virus Treatment in Louisiana



* **Respiratory symptoms include: cough, sore throat, and/or shortness of breath (dyspnea).**

\+ **See attached Antiviral Information Sheet for Providers to determine dose. Antiviral treatment is not FDA-approved for treatment of children < 1 year and of pregnant women and any use in these patients would be off-label.**

++ **Please refer to LOPH protocol for specimen collection and submission. Specimens are for surveillance purposes and treatment should be offered based on clinical suspicion.**

Collect and submit specimens carefully following the current guidance from the DHH OPH State Laboratory.

Figure 4: Antiviral Dosage Regimen

Recommended Daily Dosages of Antivirals for Treatment and Prophylaxis*

Antiviral Agent	Age Groups (years) 1-6	7-9	10-12	13-64	≥65
Amantadine[a]					
Treatment, influenza A	5mg/kg body weight/day up to 150 mg in two divided doses[b]	5mg/kg body weight/day up to 150 mg in two divided doses[b]	100 mg twice daily[c]	100 mg twice daily[c]	≤100 mg/day
Prophylaxis, influenza A	5mg/kg body weight/day up to 150 mg in two divided doses[b]	5mg/kg body weight/day up to 150 mg in two divided doses[b]	100 mg twice daily[c]	100 mg twice daily[c]	≤100 mg/day
Rimantadine[d]					
Treatment[e], influenza A	NA[f]	NA	NA	100 mg twice daily[c,g]	100 mg/day
Prophylaxis, influenza A	5mg/kg body weight/day up to 150 mg in two divided doses[b]	5mg/kg body weight/day up to 150 mg in two divided doses[b]	100 mg twice daily[c]	100 mg twice daily[c]	100 mg/day[h]
Zanamivir[i,j]					
Treatment, influenza A and B	NA	10 mg twice daily	10 mg twice daily	10 mg twice daily	10 mg twice daily
Oseltamivir					
Treatment,[k] influenza A and B	Dose varies by child's weight[l]	Dose varies by child's weight[l]	Dose varies by child's weight[l]	75 mg twice daily	75 mg twice daily
Prophylaxis, influenza A and B	NA	NA	NA	75 mg/day	75 mg/day

* (Adapted from Prevention and Control of Influenza Recommendations of the Advisory Committee on Immunization Practices [ACIP], July 2005)
NOTE: Amantadine manufacturers include Endo Pharmaceuticals (Symmetrel (R)-tablet and syrup) and Geneva Pharms Tech (Amantadine HCL-capsule); USL Pharma (Amantadine HCL-capsule and tablet); and Alpharma, Carolina Medical, Copley Pharmaceutical, HiTech Pharma, Mikart, Morton Grove, and Pharmaceutical Associates (Amantadine HCL-syrup), and Sandoz. Rimantadine is manufactured by Forest Laboratories (Flumadine (R)-tablet and syrup); Corepharma , Impax Labs (Rimantadine HCL-tablet), and Amide Pharmaceuticals (Rimantadine HCL-tablet). Zanamivir is manufactured by GlaxoSmithKline (Relenza (R)-

Figure 5: Antiviral Drug Priority Group Recommendations*

Group	Estimated population (millions)	Strategy**	# Courses (millions)		Rationale
			For target group	Cumulative	
Patients admitted to hospital***	10.0	T	7.5	7.5	Consistent with medical practice and ethics to treat those with serious illness and who are most likely to die.
Health care workers (HCW) with direct patient contact and emergency medical service (EMS) providers	9.2	T	2.4	9.9	Healthcare workers are required for quality medical care. There is little surge capacity among healthcare sector personnel to meet increased demand.
Highest risk outpatients—immunocompromised persons and pregnant women	2.5	T	0.7	10.6	Groups at greatest risk of hospitalization and death; immunocompromised cannot be protected by vaccination.
Pandemic health responders (public health, vaccinators, vaccine and antiviral manufacturers), public safety (police, fire, corrections), and government decision-makers	3.3	T	0.9	11.5	Groups are critical for an effective public health response to a pandemic.
Increased risk outpatients—young children 12-23 months old, persons >65 yrs old, and persons with underlying medical conditions	85.5	T	22.4	33.9	Groups are at high risk for hospitalization and death.
Outbreak response in nursing homes and other residential settings	NA	PEP	2.0	35.9	Treatment of patients and prophylaxis of contacts is effective in stopping outbreaks; vaccination priorities do not include nursing home residents.
HCWs in emergency departments, intensive care units, dialysis centers, and EMS providers	1.2	P	4.8	40.7	These groups are most critical to an effective healthcare response and have limited surge capacity. Prophylaxis will best prevent absenteeism.
Pandemic societal responders (e.g., critical infrastructure groups as defined in the vaccine priorities) and HCW	10.2	T	2.7	43.4	Infrastructure groups that have impact on maintaining health, implementing a pandemic response, and maintaining societal functions.

without direct patient contact					
Other outpatients	180	T	47.3	90.7	Includes others who develop influenza and do not fall within the above groups.
Highest risk outpatients	2.5	P	10.0	100.7	Prevents illness in the highest risk groups for hospitalization and death.
Other HCWs with direct patient contact	8.0	P	32.0	132.7	Prevention would best reduce absenteeism and preserve optimal function.

*The committee focused its deliberations on the domestic U.S. civilian population. NVAC recognizes that Department of Defense (DoD) needs should be highly prioritized. A separate DoD antiviral stockpile has been established to meet those needs. Other groups also were not explicitly considered in deliberations on prioritization. These include American citizens living overseas, non-citizens in the U.S., and other groups providing national security services such as the border patrol and customs service.

**Strategy: Treatment (T) requires a total of 10 capsules and is defined as 1 course. Post-exposure prophylaxis (PEP) also requires a single course. Prophylaxis (P) is assumed to require 40 capsules (4 courses) though more may be needed if community outbreaks last for a longer period.

***There are no data on the effectiveness of treatment at hospitalization. If stockpiled antiviral drug supplies are very limited, the priority of this group could be reconsidered based on the epidemiology of the pandemic and any additional data on effectiveness in this population.

17.0 Use & Administration of Pandemic Influenza Vaccines

17.1 Pre-Pandemic Influenza Vaccine

Recognizing that there may be benefits to immunization with a vaccine prepared before the pandemic against an influenza virus of the same subtype, efforts are underway to stockpile vaccines for subtypes with a pandemic potential. As supplies of these vaccines become available, it is possible that some healthcare personnel and others critical to a pandemic response will be recommended for vaccination to provide partial protection or immunological priming for a pandemic strain.

Since 2004 the U.S. has accumulated a pre-pandemic vaccine stockpile with a goal of having 20 million 2-dose courses stockpiled in case of a pandemic emergency. However, with advances in antigen sparing techniques such as adjuvants and increased manufacturing capacity, the supply of pre-pandemic influenza vaccine may be substantially larger than anticipated and may be available to more persons at the onset of an influenza pandemic.

Federal guidelines for pre-pandemic and pandemic influenza vaccine prioritization are being updated in light of vaccine technology advances and domestic capacity building. These recommendations will represent a departure from the previously published and seasonal influenza vaccine priority group recommendations. The recommendations for pre-

pandemic vaccine will probably be focused on preventing transmission and on supporting critical infrastructure rather than a focus on "high risk" individuals as is done for seasonal influenza. Be aware that different recommendations for pre-pandemic and pandemic vaccine will be released at the time of the event, and evolving guidelines should be expected. Draft recommendations are posted at www.pandemicflu.gov/vaccine/prioritization.html.

17.2 Pandemic Influenza Vaccine

Once the characteristics of a new pandemic influenza virus are identified, the development of a pandemic vaccine will begin. Egg-based influenza vaccine production will be the primary method of manufacturing in the U.S. until 2010, when cell based technology will take over. Therefore, there will be a lag of 4-6 months between the time of identification of a pandemic virus, and the first doses of pandemic vaccine are distributed. Initially, the vaccine will be in very short supply, so strict prioritization will be necessary. As more vaccine becomes available, the distribution criteria will be expanded.

Healthcare facilities should:

- Monitor updated HHS information and recommendations on the development, distribution, and use of a pandemic influenza vaccine (http://www.pandemicflu.gov)
- Work with local and state health departments on plans for distributing pandemic influenza vaccine.
- Prioritize and provide estimates of the quantities of vaccine needed for hospital staff and patients (inpatient and outpatient), as requested by the state health department.
- Develop a stratification scheme for prioritizing vaccination of healthcare personnel who are most critical for patient care and essential personnel to maintain the day-to-day operation of the healthcare facility.
- Develop a pandemic influenza vaccination plan in the hospital.

Once a vaccine does become available, it is likely that it will be in very limited supply. There will need to be a prioritization of persons who should receive the initial doses of vaccine. The CDC recommendations made at the national level will be adopted by the State. The current priority group recommendations are enclosed in the table below. These recommendations will surely be updated at the time of an event, and should be viewed only as a temporary guideline.

The State of Louisiana, DHH-OPH Immunization Program, working closely with our health care partners, will build upon the existing infrastructure identified for mass vaccination of the population to rapidly immunize the public.

Hospitals should prepare a plan to vaccinate their patients, staff and families, and ancillary health care personnel. Refer to "Hospital Point of Dispensing (POD) Preparedness Workbook" that can be found on the Louisiana Hospital Association's website (www.lhaonline.org). Hospitals should be initially considered essentially a closed POD (point of dispensing). The first doses of vaccine that will be distributed by the state should be for healthcare personnel. Additionally, the hospital should provide vaccine for those ***patients*** that fit the criteria for the first Tier (highest priority), as in pregnant women and high risk non-elderly adults. Next, as more vaccine becomes available, the hospital should plan to provide vaccine to patients in the community who fit criteria for treatment. Finally,

the hospital should plan to also offer vaccine to the general public if there is a call for mass vaccination clinics.

As no immunity exists to the pandemic strain, it is possible that two shots of vaccine, thirty days apart will be necessary for every person. The Louisiana Immunization Network for Kids Statewide (LINKS) should be used to document all doses of pandemic influenza vaccine administered.

Monitoring of vaccine adverse events associated with influenza vaccine shall be reported through the Vaccine Adverse Reporting System (VAERS) and mailed immediately upon completion to the DHH OPH Immunization Program 1450 L and A Road Metairie, LA 70001. If the adverse event involves a death, please fax the VAERS immediately to (504) 838-5206.

17.3 Pneumococcal Vaccine

Pandemic influenza can cause morbidity and mortality in two ways. The first is acute respiratory failure due to influenza viral pneumonia. This was very common in 1918. The second way influenza causes morbidity and mortality is secondary bacterial pneumonia, frequently pneumococcal. During the Inter-Pandemic Phase, efforts to increase pneumococcal polysaccharide vaccination (which can reduce the incidence of invasive pneumococcal disease secondary to influenza) is recommended and emphasized. Because large-scale pneumococcal vaccination may not be feasible once a pandemic alert has occurred, the Inter-Pandemic Phase is the ideal time to deliver this preventive measure.

17.4 Vaccine-related Planning Activities

17.4.1 Interpandemic Period

OPH:

- Meet with the key members of the Incident Command Center to review the state's vaccine distribution plan
- Modify the plan according to updated interim recommendations on priority groups, vaccine availability and staffing estimates for mass vaccination
- Prepare communication information pertaining to the vaccine plan and expected availability, distribution and use of pandemic vaccines
- Work with hospitals to craft messages which will educate the public on when to go to public Point of Dispensing (POD) sites for vaccine; include in these messages that the public should NOT go to hospitals for vaccine.
- Have a current archive with all the Hospital addresses, telephone and fax numbers, point of contact, special delivery information and estimated vaccine needs

OPH Regions:

- Review Point of Dispensing Site Management and Operations Plan, September 2006
- Using Local POD Preparedness Workbook review all potential POD sites and update contact information

- Working with Local OHSEP, prepare each parish to open required number of PODS based on population guidance
- Prepare with OHSEP to ensure POD staffing, supplies, security, etc
- Train at least 2 persons at each acute care hospital on the use of the LINKS system

Hospitals:

- Encourage seasonal influenza vaccine for all healthcare professionals
- Use Community POD Workbook to prepare hospital for internal vaccine distribution for appropriate staff (and families), patients, and accessory emergency staff (EMS)
- Prepare a facility based plan to distribute pre-pandemic and pandemic vaccine to staff, patients, accessory staff, and possibly families of these groups.
- Prepare a priority list of the above groups, to account for limited quantities of vaccine early in the pre-pandemic or pandemic vaccine distribution campaign
- Plan where and how vaccine will be received, stored and distributed within the facility.
- Work with LOPH on appropriate communication messages about vaccine availability, priorities, distribution
- Designate at least 2 clerical persons to learn and be able to enter flu vaccine data into LINKS
- Add to mass vaccination program the possibility that the hospital will need to participate in the state effort to offer vaccination to the general public.
- Ensure to communicate to the Immunization Program any changes such as: delivery addresses, telephone and fax numbers, point of contact, special delivery instructions and vaccine needs

17.4.2 Pandemic Period, with Vaccine Available

OPH:

- Distribute vaccine to the public Point of Dispensing sites
- Distribute vaccine to hospitals and other health care facilities for use in patients, staff and families, and accessory emergency personnel
- Monitor the State inventory using LINKS
- Release updated communication information on priority groups and use of the pandemic vaccine.
- The LOPH Immunization Program will follow up all vaccine adverse events reported by healthcare providers
- Work with community partners to distribute messages about where public should get vaccine

OPH Regions:

- Work with Local OHSEP to stage appropriate # of public PODS/population

- Assist in the distribution of vaccine to the PODS
- Work with Local OHSEP to protect vaccine during distribution and storage
- Communicate priority groups outlined by the State Health Officer or designee
- Using the Vaccine Adverse Events Report (VAERS), report cases of adverse events
- Ensure that all Parish Health Units utilize LINKS in real time to facilitate inventory monitoring

Hospitals:

- Use the Community Workbook to set up an internal Hospital POD
- Distribute vaccine to staff (and families), patients, and accessory emergency staff (EMS) according to priorities outlined by the State Health Officer
- Communicate message about vaccine, availability, and appropriate location to get the vaccine (public to PODS). Use the Vaccine Administered Report (VAR), document who received vaccine, and enter into LINKS
- If necessary, offer vaccine to the general public in a mass vaccination clinic.
- Using the Vaccine Adverse Events Report (VAERS), report cases of adverse events and submit VAERS immediately upon completion to the DHH OPH Immunization Program 1450 L and A Road, Metairie, LA 70001.

17.4.3 Priority Groups for Pandemic Influenza Vaccine

Draft tier-by-tier breakdown of the vaccine prioritization plan approved in July 2005 by the National Vaccine Advisory Committee and the Advisory Committee on Immunization Practices. This guidance will be updated at the time a vaccine is produced and distributed:

Tier	Group Description
Tier 1A	Health care workers ❑ Health care workers with direct patient contact and critical health care support staff ❑ Vaccine and antiviral manufacturing personnel
Tier 1B	Highest-risk groups ❑ Patients 65 and older with at least one high-risk condition ❑ Patients 6 months to 64 years with at least two high-risk conditions ❑ Patients hospitalized in the past year because of pneumonia, influenza or another high-risk condition
Tier 1C	Household contacts and pregnancy ❑ Household contacts of children under 6 months ❑ Household contacts of severely immunocompromised individuals ❑ Pregnant women

Tier 1D	Pandemic responders ❑ Key government leaders and critical pandemic public health responders
Tier 2A	Other high-risk groups ❑ Patients 65 and older with no high-risk conditions ❑ Patients 6 months to 64 years with one high-risk condition ❑ Children 6 months to 23 months
Tier 2B	Critical infrastructure groups ❑ Other public health emergency responders, public safety workers, utility workers, critical transportation workers and telecommunications workers
Tier 3	❑ Other key government health care decision-makers ❑ Individuals providing mortuary services
Tier 4	❑ Healthy patients 2 to 64 years without any high-risk conditions

How the tiers break down

In the ACIP and NVAC's draft recommendations on pandemic influenza vaccine prioritization, health care workers with direct patient contact and those who provide critical support roles are included in the highest tier, Tier 1A. Patients can be divided into risk groups based on age, presence of other high-risk medical conditions and household contacts with high-risk persons.[2,3] We recommend using your facility's administrative databases to enumerate eligible individuals among your patient population.

Tier 1B, the highest tier of patients, includes people 65 years and older with at least one underlying high-risk health condition, those 6 months to 64 years of age with two or more underlying high-risk conditions, or those hospitalized in the past 12 months with pneumonia, influenza or another high-risk condition.

Tier 1C comprises pregnant women as well as household contacts and out-of-home caregivers of either severely immunocompromised individuals or children under the age of 6 months. Patients in tier 2A include those 65 years and older with no high-risk conditions, children between 6 months and 23 months, and individuals ages 2 to 64 with one underlying high-risk condition.

18.0 Surge Capacity

18.1 Overview

A pandemic will likely overwhelm the current healthcare system. The increase in patients requiring hospitalization and critical care may result in shortages of multiple resources including beds, personnel and equipment. This section provides a description of patient surge demand, isolation capabilities, equipment and Personal Protective Equipment (PPE), the inventory of existing services and regional system analysis as it currently exists. This information will provide the baseline for the system upon which gaps can be identified and recommendations will be made.

To determine the state's needs, the Louisiana Pandemic Flu Clinical Forum has suggested using a "likely" scenario, by averaging figures including mortality from the mildest and

most severe pandemics of 20th century occurring in 1968 and 1918, respectively. Hospitals will have to meet the surge needs that arise from a virus that no one can predict the nature of at this time, recognizing that the assumptions explicitly described here may vary in either direction. If planning using a more severe model is desired such as that based solely on the 1918 pandemic, the numbers in the table would roughly have to be doubled.

18.2 Meeting Surge Demands

FluSurge Software, publicly available from the CDC website provided the basis for calculating the tables presented in this section and in the appendix. The following tables(s) are based on the assumption of a case fatality ratio of approximately 1.25%, 30% of hospitalized patients will need an ICU bed, 25% of hospitalized influenza patients will need ventilators and only 20% of ventilators will be available for panflu patients because patients will continue to have other conditions requiring ventilator support. If the pandemic is less lethal than 1.25% mortality, these numbers may be too high but in 1918, the case fatality ratio was 2.5% and there is no *a priori* reason that a pandemic virus might not have a case fatality ratio significantly greater than 2.5%.

Based on these assumptions, table 3 demonstrates the impact of a moderate panflu event over an eight-week period of time.

Table 3: Pandemic Influenza Impact on Louisiana

STATE

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9
Hospital Admission	Weekly admissions	3,380	5,634	8,450	10,704	10,704	8,450	5,634	3,380	
	Peak admissions/day				1,668	**1,668**				
Hospital Capacity	# of influenza patients in hospital	2,485	4,141	6,212	7,868	8,147	7,161	5,492	3,603	
	% of hospital capacity needed	28%	47%	71%	89%	**93%**	81%	62%	41%	
ICU Capacity	# of influenza patients in ICU	1,014	2,150	3,302	4,362	4,721	4,592	3,649	2,520	
	% of ICU capacity needed	103%	217%	334%	441%	**477%**	464%	369%	255%	
Ventilator Capacity	# of influenza patients on ventilators	845	1,792	2,752	3,635	3,934	3,827	3,041	2,100	
	% usage of ventilator	146%	309%	475%	627%	**679%**	660%	524%	362%	
Deaths	# of deaths from influenza			771	1,286	1,928	2,443	2,443	1,928	1,286
*	# of influenza deaths in hospital			540	900	1,350	1,710	1,710	1,350	900

* *Deaths are based on the mortality rate assumed in the model 1.25% but would obviously be dependent on ventilator shortfall, availability of vaccine, and antivirals.*

The remaining tables in this chapter (Surge Capacity) are limited to participating Tier 1 hospitals. Of the 254 hospitals identified in the state, 119 are defined as participating Tier 1 hospitals. Tier 1 hospitals are acute care hospitals that have an Emergency Room and/or the resources to support isolation.

Hospitals that lie outside the scope of this plan are single service providers such as specialty hospitals, psychiatric hospitals, long-term acute care and rehab (Tier 2 facilities). Tier 2 hospitals will play a supportive role in housing those with minor illnesses at their respective institutions. Specialty hospitals may be called upon to provide staff and assets/medical equipment to be utilized by the State Health Officer during a state of emergency. Additional roles/responsibilities may be deemed necessary during a pandemic influenza event based on an altered standard of care.

To increase available bed capacity in the region over a short period, hospitals within each region should consider the following:

- Review and revise admissions criteria for times when bed capacity is limited
- Streamline admission procedures to limit the number of patient encounters in the hospital (e.g., direct admission to an inpatient bed).
- Develop policies and procedures for expediting the discharge of patients who do not require ongoing inpatient care (e.g., develop plans and policies for transporting discharged patients home or to other facilities, create a patient discharge holding area or discharge lounge to free up bed space).
- Work with home healthcare agencies to arrange at-home follow-up care for patients who have been discharged early and for those whose admission was deferred because of limited bed space
- Develop criteria or "triggers" for temporarily canceling elective surgical procedures and determining what and where emergency procedures will be performed during a pandemic. Determine which elective surgical procedures will be temporarily postponed.
- Determine whether patients who require emergency procedures will be transferred to another hospital or facility
- Discuss with local and state health departments how bed availability, including available ICU beds and ventilators, will be tracked during a pandemic
- Consult with hospital licensing agencies on plans and processes to expand bed capacity during times of crisis. These efforts should take into account the need to provide staff and medical equipment and supplies to care for the occupant of each additional hospital bed.
- Discuss with healthcare regulators whether, how, and when an "Crisis Standards of Care in Mass Casualty Events" will be invoked and applied to pandemic influenza. (See Appendix M, State Hospital Crisis Standards of Care Guidelines in Disasters).
- Develop policies and procedures for shifting patients between nursing units to free up bed space in critical-care areas and/or to cohort pandemic influenza patients
- Expansion of critical care capacity by placing select ventilated patients on monitored or step-down beds; using pulse oximetry (with high/low rate alarms) in lieu of cardiac monitors; or relying on ventilator alarms (which should alert for disconnect, high pressure, and apnea) for ventilated patients, with spot oximetry checks

- Conversion of single rooms to double rooms or double rooms to triple rooms, if possible
- Reduction of the usual use of imaging, laboratory testing, and other ancillary services
- Develop Mutual Aid Agreements (MAAs) or Memoranda of Understanding/Agreement (MOU/As) with other local facilities who can accept non-influenza patients that do not need critical care
- Identify areas of the facility that could be vacated for use in cohorting influenza patients. Consider developing criteria for shifting use of available space based on ability to support patient-care needs (e.g., access to bathroom and shower facilities). Consider developing cohorting protocols based on a patient's stage of recovery and infectivity.
- The use of cots and beds in flat space areas (e.g., classrooms, gymnasiums, lobbies) within the hospital for noncritical patients care

18.3 Hospital Data Reporting

Hospitals in Louisiana are currently utilizing a regional planning process to prepare for an increase in acutely ill patients, which may occur during a public health emergency. This plan includes the implementation of the emergency preparedness tool, EMSystem Resource Tracking. Hospitals participating in the EMSystem will report the status of operations, availability of beds by category and other resources that include equipment, supplies, pharmaceuticals, and personnel. This data warehousing includes inventories of available resources against which incoming data can be continuously compared, and that resources can be quickly assessed, monitored and distributed. The assessing and monitoring of these resources will continue through the recovery phase of the event. All appropriate staff will conduct after action reviews to evaluate the effectiveness of the plan, identify strengths and weaknesses in the execution, and make appropriate recommendations for future events.

Louisiana will continue to maintain EMSystems as a reporting tool but has also developed a system entitled EMSTAT. Whereas EMSystem provides hospital bed availability, EMSTAT collects, collates and organizes additional data from both hospitals and nursing homes. EMSTAT, used for gathering real-time information from the critical healthcare facilities was effective during the 2009 H1N1 pandemic and will continue to be used, along with EMSystems. Selected variables including hospital census data, # of ILI patients seen and admitted, # of ILI patients seen, treated and discharged, total # of non-ILI patients seen in the ED and the number of deaths can be identified and added to the data collection tool to provide the state with an up-to-date visibility on the status and need of hospitals and nursing homes throughout an event.

18.4 State Hospital Bed Gap Analysis

18.4.1 General Beds

The initial planning surge bed capacity goal from the Health and Human Services (HHS) grant, was to "Establish a system that allows the triage, treatment, and initial stabilization of 500 adult and pediatric patients per 1,000,000 above the

current daily staffed bed capacity, with acute illnesses or trauma requiring hospitalization from a chemical, biological, radiological, nuclear, or explosive (CBRN&E) incident." Using the planning estimate of 500 beds/million population, the state surge need has been estimated at 2,082 beds. To accomplish the HHS grant surge goal, all Tier 1 hospitals were asked to provide additional surge beds in addition to beds made available from the discharge of patients and the canceling of elective surgeries.

Hospitals have also considered re-arrangement of services such as recovery rooms, same day surgery, outpatient areas, physical therapy treatment, and alter staffing to respond to the additional patient needs. According to the data collected in the 2009 HHS Needs Assessment Survey, in addition to HHS surge beds, hospitals can open an additional 7,750 beds above their current daily staffed capacity either by calling in staff within a 24 hour period or opening other structures outside their normal operations.

However, the FluSurge model, a process developed by the Centers for Disease Control and Prevention (CDC) which estimates the need for inpatient services, predicts that hospitals may need more surge capacity than that estimated by HHS. The FluSurge model is based on an average of the 1918 and the 1968 pandemic influenza outbreaks and was calculated on the following assumptions: that 30% of hospitalized patients would need an ICU bed, 25% of hospitalized patients would need a ventilator and only 20% of the current ventilators would be available for influenza patients. Week 5 of FluSurge Model predicts the highest inpatient census for hospitals. Table 4 presents a comparison of projected surge response by Tier 1 hospitals by region in the state per the HHS recommendations and the estimated bed need per the CDC Flu Surge Model.

Table 4: State Surge Bed Capacity

Participating Tier1 Hospitals	FluSurge Week 5 Peak Census	Current Surge Capacity*	Gap
119	8,148 patients	7,750 beds	398 beds

*As reported in Hospital Needs Assessment 2009

There appears to be a gap of approximately 398 inpatient beds needed to provide care for inpatients with pandemic influenza during the peak period of a Pandemic Influenza.

It is important to note that the peak patient census estimated by FluSurge will be patients over and above the hospitals' routine patient care census.

The State of Louisiana will not sponsor off-site alternate care sites. Based on past experiences with Hurricanes Katrina and Rita, the decision has been made to instead, "surge within walls". Hospitals, therefore, should identify alternatives to increase on-site surge capabilities. As mentioned above, currently there exist 7,750 additional on-site surge capabilities for hospitals in the state. These surge beds would have to be dedicated to the care of pandemic influenza patients.

Table 5: Available Surge Capacity/Need

Participating Tier 1 Hospitals	Bed Goal *	Current Surge Capacity**	Gap
Region 1	1370	1424	+54
Region 2	1181	767	414
Region 3	939	532	407
Region 4	727	1351	+624
Region 5	545	612	+67
Region 6	722	577	145
Region 7	1030	975	55
Region 8	671	779	+108
Region 9	963	733	230
TOTAL	**8,148**	**7,750**	**398**

* Hospital 5-year planning goal
**As reported in Hospital Needs Assessment, 2009
These numbers only reflect the equipment, hardware and/or supplies needed to care for patients. These beds may not be available if staffing is not available.

Goal: Hospitals should complete purchase / implementation of additional surge beds to support pandemic flu surge estimates with future grant funds.

18.4.2 Isolation Beds

This section provides a description of available isolation services and system analysis for the state. Given the potential demand for isolation capabilities, the demand to increase isolation capacity is greatest on the facilities that have the characteristics of having emergency room access for the community.

The initial planning isolation capacity goal from the Health and Human Services (HHS) grant, was that participating hospitals should *"Have the capacity to maintain, in negative pressure isolation, at least one suspected case of a highly infectious disease (e.g., smallpox, pneumonic plague, SARS, influenza and hemorrhagic fevers) or febrile patient with a suspect rash or other symptoms of concern who might be developing a highly communicable disease."* All Tier 1 hospitals report the availability of at least one (1) isolation beds.

Hospitals have also considered re-arrangement of services such as recovery rooms, same day surgery, outpatient areas, physical therapy treatment, and alter staffing to respond to the additional patient needs. According to the data collected in the 2009 HHS Needs Assessment Survey, as part of the HHS total surge beds, state hospitals can open an additional 431 isolation beds above their current daily staffed capacity either by calling in staff within a 24 hour period or opening other structures outside their normal operations.

Table 6: Isolation Bed Capacity

Participating Tier 1 Hospitals	# of Negative Pressure Units*	Add'l Beds Hospitals can open within 24 hrs*	Total
Region 1	179	89	268
Region 2	88	41	129
Region 3	22	25	47
Region 4	77	64	141
Region 5	45	55	100
Region 6	63	45	108
Region 7	168	36	204
Region 8	43	23	66
Region 9	60	53	113
TOTAL	**745**	**431**	**1176**

*As reported in Hospital Needs Assessment, 2009
These numbers only reflect the equipment, hardware and/or supplies needed to care for patients. These beds may not be available if staffing is not available.

Another HHS Surge Isolation Goal included that regions must *"identify at least one healthcare facility that is able to support the initial evaluation and treatment of at least 10 adult and pediatric patients at a time in negative pressure isolation within 3 hours post-event."*

Goals and strategies to increase isolation beds thus include: 1) Hospitals should identify alternatives to incrementally increase on-site surge isolation capabilities such as critical care, emergency, and/or patient care areas. 2) Hospitals should evaluate methods to identify and implement large isolation holding areas with capacity for 10+ isolation patients. ***Hospitals should complete purchase & implementation of additional isolation beds to support pandemic flu surge estimates with future grant funding.***

18.4.3 Critical Care Beds

Many Pandemic Influenza patients will require critical care services. The CDC FluSurge Model predicts that as many as 30% of patients admitted for pandemic influenza will require critical care services. Week 5 of FluSurge Model predicts the highest inpatient census for hospitals. Table 7 presents a comparison of projected ICU surge response in the state and the recommendations CDC Flu Surge Model peak demand for critical care beds.

Table 7: Critical Care Availability and Need

Participating Tier 1 Hospitals	FluSurge Week 5 Peak Census	Additional ICU Capacity*	Gap
119	4721 patients	987 beds	3734 beds

*As reported in Hospital Needs Assessment, 2009

There appears to be a gap of approximately 3,756 beds needed to provide care for inpatients with pandemic influenza during the peak period of a Pandemic influenza outbreak. **It is important to note that the peak patient census estimated by FluSurge will be patients over and above the hospitals' ICU patient care census.**

Hospitals should identify alternatives to increase ICU surge capabilities. As mentioned above, currently 987 additional ICU surge beds are available in the state. These surge beds would have to be dedicated to the care of pandemic influenza patients. The availability of health care personnel to support surge requirements will remain the most significant challenge.

Table 8: Critical Care Bed Goal by Region

Participating Tier 1 Hospitals	Bed Goal *	Additional ICU Capacity**	Gap
Region 1	794	253	541
Region 2	684	105	579
Region 3	544	40	504
Region 4	421	129	292
Region 5	316	49	267
Region 6	418	64	354
Region 7	597	164	433
Region 8	389	58	331
Region 9	558	125	433
TOTAL	**4,721**	**987**	**3,734**

*Hospital 5 Year Planning Goal
**As reported in Hospital Needs Assessment, 2009
These numbers only reflect the equipment, hardware and/or supplies needed to care for patients. These beds may not be available if staffing is not available.

Goal: Hospitals should complete purchase/implementation of additional ICU surge beds to support pandemic flu surge estimates with future grant funds.

18.5 Consumable and Durable Supplies

18.5.1 Overview

The mass influx of patients to healthcare facilities will also translate to increased use of consumable goods and durable supplies. The most critical needs may include Personal Protective Equipment (PPE), medical devices such as ventilators, monitoring devices that may or may not go with ventilators, (cardiac monitors, pulse oximeters), and other durable goods including thermometers, household goods, etc.

Recommendations from the Louisiana Pandemic Flu Clinical Forum on the most critical shortages and means of addressing are included in the following sections.

Other administrative measures may also need to be taken by hospitals to maximize use of available resources and ensure the highest quality of patient care under the given circumstances. Those measures include:

- Evaluate existing systems for tracking available medical supplies and to detect rapid consumption of goods including items that provide personal

protection (e.g., gloves, masks). Improve the system as needed to respond to growing demands for resources during an influenza pandemic.

- Consider stockpiling enough consumable resources such as masks (see Appendix N, Examples of Consumable and Durable Supply Needs) for the duration of a pandemic wave (6-8 weeks).
- Assess anticipated needs for consumable and durable resources, and determine a trigger point for ordering extra resources. Estimate the need for respiratory care equipment (including mechanical ventilators), and develop a strategy for acquiring additional equipment if needed. Neighboring hospitals might consider developing inventories of equipment and determining whether and how that equipment might be shared during a pandemic.
- Anticipate needs for antibiotics to treat bacterial complications of influenza and determine how supplies can be maintained during a pandemic.
- Establish contingency plans for situations in which primary sources of medical supplies become limited. Consult with the local and state health departments about access to the national stockpile during an emergency.

18.5.2 Ventilators

18.5.2.1 Overview

In a pandemic, many more patients could require the use of mechanical ventilators than can be accommodated with current supplies. The Strategic National Stockpile (SNS) contains relatively few ventilators (only 59 for Louisiana). In a disaster on the scale of the 1918 influenza pandemic, however, stockpiles would not be sufficient to meet the need. Even if the vast number of ventilators needed for a disaster of that scale were purchased, trained staff would not be available in sufficient numbers to operate them. If the most severe forecast becomes a reality, Louisiana will need to confront the rationing of ventilators.

Table 9 presents a comparison of projected ventilator availability in the state and the estimated peak ventilator need per the CDC FluSurge Model.

Table 9: Estimated Number of Ventilators

Participating Tier 1 Hospitals	FluSurge Week 5 Peak Census (A)	Available Ventilators in Hospitals (B)*	# of Available Vents for Pan Flu Patients** (20%) (C)	Gap (A-C)
119	3934 patients	3818 ventilators	764 ventilators	3170 ventilators

*As reported in Hospital Needs Assessment, 2009
**It is estimated that 80% of ventilators will already be in use on non-pandemic influenza patients, thus leaving only 20% of current supplies of vents for pan flu patients.

Table 10: Recommended Goals for Ventilators by Region

Participating Tier 1 Hospitals	Vent Goal *

Region 1	495
Region 2	472
Region 3	231
Region 4	307
Region 5	260
Region 6	292
Region 7	520
Region 8	330
Region 9	263
TOTAL	**3,170**

*Hospital 5 Year Planning Goal

Table 11: Type of Ventilators in Tier 1 Hospitals in Louisiana

Type of Ventilator	# of Vents	Percent of Total
Standard Electronic ICU vents	**1,272**	**32%**
Pneumatic Portable vents	**861**	**23%**
Non-Invasive vents	**415**	**11%**
Other (vents with an internal gas source)	**99**	**3%**
Other (CPAP Only device)	**213**	**6%**
Other (EMS or Auto resuscitator)	**880**	**23%**
Other (obsolete but working, in deep storage)	**78**	**2%**
Total Vents in Hospitals	**3,818**	**100%**

Hospitals have made efforts to increase the number of ventilators available, including both fixed and portable vents. It should be noted, however, that 68% of the hospital ventilators are non-standard ICU vents and few of these are in use regularly. At the time of the 2009 Needs Assessment Survey, 21% (801) of the total vents were in use. Thus these vents would then come out of the total ICU ventilators (1,272) leaving only 471 ventilators available for pandemic influenza patients. While there will be a possible variance of 10% from day to day and maybe as much as 50% variance depending on the time of the year (season), it is clear that hospitals should continue to purchase full service ICU ventilators as possible in order to meet the estimated needs of a moderate influenza pandemic.

Hospital respiratory therapists should train additional appropriate staff on the use and maintenance of ventilators in order to have sufficient staff with the necessary skills when a pandemic influenza event occurs.

18.5.2.2 Considerations in Meeting Ventilator Surge Needs

- When stockpiling and/or purchasing additional ventilators, hospitals should also order additional supplies of filters, circuits,

and associated accessories including sufficient oxygen associated with maintaining the ventilators in an operational status.

- Consideration should be given to the purchase of ventilators that minimize the use of oxygen (be able to operate on oxygen concentrator or low flow compressed oxygen).
- Procurement plans should include redundancy options, (e.g. obtaining oxygen) in the event that normal supply systems are disrupted.
- Ventilators should be maintained in good working order and Quality Assessment evaluations done as recommended by the manufacturer not to exceed annually.

18.5.2.3 Federal Supplemental Grant Ventilators

In addition to the SNS stockpile of ventilators, the state purchased additional ventilators through a federal supplemental grant. Distribution of these ventilators was population-based and was provided to those hospitals that have the capacity to surge and the expertise to utilize them. The Louisiana Respiratory Care Association agreed to provide training to hospital respiratory therapists on the use and maintenance of the state purchased ventilators. Other training sources may include the manufacturer of the ventilator purchased. As stated previously, it is recommended that the respiratory therapist then train additional hospital staff as appropriate.

18.5.2.4 General Considerations for Ventilator Use in a Pandemic

The Pandemic Influenza Pandemic Clinical Forum Committee is evaluating further recommendations for the use of ventilators purchased by the Federal Supplemental Grant, as well as, others that may be bought or made available for pandemic use. The recommendations focus on issues such as the recommended types of ventilators, skills of staff needed to operate equipment, and the ethical method of allocating ventilators. The recommendations/guidelines may include:

- Pre-triage requirements. Facilities should reduce the need for ventilators and expand resources before instituting ventilator triage procedures.
- Stockpiling. Purchase additional ventilators over time in order to stockpile for future use.
- Patient categories. All patients in acute care facilities will be treated equally subject to triage guidelines, regardless of their disease category or role in the community.
- Implications of triage for facilities. Statewide consistency will prevent inequities; chronic care facilities will maintain different standards from acute care facilities.
- Clinical evaluation. Clinicians will evaluate patients based on universally applied objective criteria, and may offer time-based trials of ventilator support.

- Triage decision-makers. Supervising physicians or crisis standards of care triage teams will take responsibility for triage decisions. Primary care clinicians will care for patients and will not determine ventilator allocation.
- Palliative care. Palliative care will play a crucial role in providing comfort to patients, including those who do not receive ventilator treatment.
- Appeals process. Physicians and patients require a means of requesting review for triage decisions; ethics committee members and others should be prepared to assist in the appeals process.
- Applying Crisis Standards of Care. *See Appendix M, "State Hospital Crisis Standards of Care Guidelines in Disasters".*

18.5.3 Ancillary Supplies

During a pandemic, other medical equipment besides ventilators such as pulse oximeters and cardiac monitors will be needed to help respond and care for surge of patients.

18.5.3.1 Cardiac Monitors

During the pandemic, every attempt should be made to achieve continuous cardiac monitoring of all ventilated patients. Where cardiac monitoring availability falls short of the ideal, attempts should be made to rotate portable monitors to achieve the optimum cardiac monitoring possible under the emergency situation. Hospitals should identify in advance, all available cardiac monitors (portable, fixed, etc) and stockpile additional supplies as needed to handle the surge of patients.

18.5.3.2 Pulse Oximetry

The single most important measurement in deciding when a patient needs to be placed on a ventilator, when that patient can come off of the ventilator, or even whether the patient is a candidate for hospitalization initially is level of oxygenation. Therefore, systems/equipment and protocols must be established. The ability to conduct blood gas testing is essential when placing patients on ventilators. Hospitals may want to consider that blood gas supplies may well run low rapidly during a pandemic both from increased demand and from disruption of "just in time" delivery.

Many decisions that would ordinarily be based on blood gas readings, may, of necessity, need to be made based on pulse ox readings alone if blood gas supplies run low, to "stretch" the remaining blood gas supplies for critical decisions. Pulse oximetry can be used in the ER, ICU, on the floors, and in the influenza triage area. Hospitals should identify current supplies and stockpile additionally supplies as needed in an attempt to meet the surge of patients.

18.5.4 Personal Protection Equipment (PPE)

The Centers for Disease Control and Prevention recommends that hospitals maintain a 6-8 week supply of PPE. The number of healthcare personnel at each facility will determine the amount of personal protective equipment (PPE) each hospital will need. Hospitals should have a methodology to estimate the supply of PPE. (A recommendation/formula was devised by the Pandemic Flu Clinical Forum to estimate the number of N95 masks needed.) This recommendation or others made within each region should consider the following:

- Types of PPE needed for critical care personnel, direct patient care personnel, other hospital employees, guests, and patients.
- Number of personnel in critical care areas, general patient care areas, and other parts of a hospital.
- Estimated number of times masks and other PPEs will be changed per shift.
- Average patient census and their requirement for PPEs
- Number of visitors allowed and their requirements for PPEs

Refer to the OPH Statewide Draft Pandemic Influenza Plan for further guidance on PPEs.

Healthcare facilities should plan ahead to address emergency staffing needs and increased demand for isolation wards, ICUs, assisted ventilation services, and consumable and durable medical supplies (see Appendix M for other examples of Consumable and Durable Supply Needs not discussed in sections above).

18.6 Staffing

The availability of health care personnel to support surge requirements will remain the most significant challenge. Hospital staff absenteeism may exceed 30% during a pandemic due to self illness, illness of family or friends, child care duties if schools and day care centers close, disruption in transportation, and/or other reasons including fear and anxiety about becoming ill in the workplace. Hospitals should consider the following to mitigate staffing needs:

18.6.1 Administrative Considerations

- Assign responsibility for the assessment and coordination of staffing during an emergency
- Estimate the minimum number and categories of personnel needed to care for a single patient or a small group of patients with influenza complications on a given day
- Create a list of essential support personnel titles (e.g., environmental and engineering services, nutrition and food services, administrative, clerical, medical records, information technology, laboratory) that are needed to maintain hospital operations

- Create a list of non-essential positions that can be re-assigned to support critical hospital services or placed on administrative leave to limit the number of persons in the hospital.
- Increase cross-training of personnel to provide support for essential patient-care areas at times of severe staffing shortages (e.g., in emergency departments, ICUs, or medical units)
- Consider changes in staff scheduling (e.g., duration of shifts, staffing ratios).
- Identify insurance and liability issues related to the use of non-facility staff.
- Consider planning for an orientation or "just-in-time" training for volunteers or other professionals that may be recruited outside the hospital settings to assist during a staff shortage.

18.6.2 Recruitment of Additional Workforce

- Recruit retired healthcare personnel
- Use trainees or students from professional schools (e.g., medical, nursing, physical therapy, social work, pharmacy)
- Involve patients' family members in an ancillary healthcare capacity
- Use LAVA (Louisiana Volunteers in Action) set up through the Louisiana Office of Public Health Center for Community Preparedness to recruit and deploy staff from the community. In addition, consult with the state health department on plans for rapidly credentialing healthcare professionals during a pandemic. This might include defining when an "emergency staffing crisis" can be declared and identifying emergency laws that allow employment of healthcare personnel with out-of-state licenses.
- Explore opportunities for recruiting healthcare personnel from other healthcare settings (e.g., medical offices and day-surgery centers).
- Consider volunteers from Medical Reserve Corps and other professional organizations.
- Collaborate with local and regional healthcare-planning groups in an attempt to achieve adequate staffing of the hospital during an influenza pandemic (e.g., decide whether and how staff will be shared with other healthcare facilities, determine how salary issues will be addressed for employees shared between facilities, and consider ways to increase the number of home healthcare staff to reduce hospital admissions during the emergency). State and local health departments can help assess the feasibility of recruiting staff from different hospitals and/or regions, working in coordination with federal facilities, including Veterans Administration and Department of Defense hospitals. Healthcare facilities may implement these arrangements through Mutual Aid Agreements (MAAs) or Memoranda of Understanding/Agreement (MOU/As).
- Consider volunteers from the community to fulfill roles such as distribution of food trays, transport of patients, answering of phones, or provisions of basic nursing care including bathing, monitoring or recording of vital signs.

19.0 State and Federal Resources

19.1 State and Federal Resource Requests

In the event local resources have been exhausted, hospitals can request additional supplies from the State through their Designated Regional Coordinator at the Regional Unified Medical Command Center. The Louisiana Department of Health and Hospitals (DHH) Office of Public Health currently has a cache of personal protection equipment including surgical masks, N-95 masks, infection control supplies (gloves, gowns, face shield, etc) and disinfectant/cleaning supplies for hospitals, primary care clinics, nursing homes, emergency services providers.

Once local and state resources have be exhausted, federal resources will be deployed. On behalf of the State, the State Health Officer in conjunction with the Office of Public Health will request delivery of the Strategic National Stockpile (SNS).

19.2 Strategic National Stockpile

The Strategic National Stockpile is designed to deliver critical medical assets to the site of a national emergency. The stockpile formulary includes medications deployed as 12-hour push packs shipped in color coded containers as follows:

- **Yellow IV Container (Injectable medications and IV Supplies)**

  Ciprofloxacin IV (400mg in D5W, 200ml bag); Doxycycline IV (100mg powder vial); Gentamicin injection IV/IM (40mg/ml, 20 ml multi-dose vial); Diazepam, Doxyclycline, Dopamine, Gentamicin, Midazolam, Levophed, Sterile water for injection (IV vials, ampoules and decappers); NaCl flush; Syringes; IV Butterfly needles (21g); Heparin Locks; IV catheters (18, 20 and 24 gauge); IV administration sets, Normal Saline (NaCl 0.9%, 100 ml and 1,000 ml); gloves (large, medium, non-sterile, vinyl, powder-free, non-latex); bandages/trauma care (4 x 4 gauzes, conforming gauze); silk tape; alcohol pads, betadine swabs, antibiotic ointment; Carpuject devices and medication (pre-filled syringes); tweezers; nasal cannulas; and non-rebreather oxygen masks.

- **White/Clear Container (MED/SURG)**

  Oxygen tubing, abdominal pads, conforming gauze and 4 x 4's.

- **Blue Respiratory Container (Respiratory Supplies)**

  Endotracheal tubes (ET tubes); Endotracheal tube guide/stylette; nasogastric tubes (NG tubes): Oropharyngeal tubes; disposable laryngoscopes and reusable illuminator; non-rebreather oxygen masks; manual pulmonary resuscitator; Easy cap II Co@ detector; suction catheters; Yankauer suctions; gloves (large and medium, non-sterile, powder free, non-latex); atropine sulfate (0.4mg/ml 20 ml: Atropine and Methylprednisolone (IV vials; albuterol nebulizer solution (3ml); masks, aerosol (adult and pediatric); nebulizers, T-mouthpieces, 7' tube; and double antibiotic ointment (0.9 gm pkt).

- **Pink Container (Pediatric)**

  Broselow tape, suction catheters, NG tubes, endotracheal tube guide/stylette, disposable laryngoscopes and illuminator, oropharyngeal tubes, manual pulmonary

resuscitator (MPR), Pedi-cap CO2 detector, non-rebreather oxygen masks and nasal cannulas, and IV catheters (24 gauge).

- **Red Container (Oral Antibiotics)**

  Ciprofloxacin 500mg tablet, Doxycycline 100 mg tablet, Amoxicillin 500 mg capsule/tablet; Pediatric suspensions* - Ciprofloxacin 250mg/5ml (100ml-bt), Doxycycline 25 mg/5ml (60ml-bt) and Amoxicillin 400mg/5 ml (100ml-bt).

  Pediatric Suspension is NOT in the 12-hour Push Package but is shipped simultaneously should a 12-hour Push Package be deployed.

  Note: Other goods may become available via the SNS including but not limited to the following: Radiation countermeasures (Prussian Blue, Ca and Zn-DTPA, KI, Neupogens, Phenergan, Kytril), Pain medications, Antibiotics (Vancomycin, Levofloxacin), Chemical nerve agent antidotes, Burn and blast items (IV fluids – LR, D5 ½ , NS, K+), Wound care/dressings (burn dressings, gauze, suture), Silvadene cream, Bacitracin ointment, Bacitracin and Alcaine ophthalmic, Flurorscein eye strips, Antifungals (Amphotericin), other emergency medications (Dopamine IV, Methylprednisoleone IV, Albuterol nebulizer solution/systems), Smallpox vaccines (ACAMBIS 2000, Aventis Pasteur, diluents and bifurcated needles), Smallpox vaccine adverse event medications (Vaccinia Immune Globulin, Cidofovir, Anthrax Vaccine Absorbed (AVA), ABthrax, Anthrax Immune Globulin (AIG), Antitoxins and Antivirals (Botulinum Antitoxin, AB, AE, Hepatavalent, Tamiflu capsules, suspension (30mg, 45mg, 75mg, 12mg/ml 25 ml), Rimatadine tablets 100 mg, Relenza inhaler and Peramivir.

- **Distribution of Supplies**

  There will be point of dispensing sites (PODS) identified throughout the state where medications or vaccines can be distributed to individuals. These PODS can range from small clinics to large sites with multiple staging and operation areas. It should be noted that the SNS supplies are requested and deployed when state and local resources are depleted or anticipated to be depleted. Assets should be requested in a timely manner allowing for adequate and appropriate delivery.

20.0 Crisis Standards of Care

During a disaster or pandemic, it is recognized that certain healthcare resources may become scarce. These guidelines are designed to provide direction to healthcare providers on the allocation of scarce resources in the setting of a declared state of emergency surrounding an influenza pandemic or other event resulting in scarce healthcare resources. The guiding principle of Crisis Standards of Care is to do the greatest good for the greatest number of persons.

"Crisis standards of care" can be defined as a substantial change in usual healthcare operations and the level of care it is possible to deliver, which is made necessary by a pervasive (e.g., pandemic influenza) or catastrophic (e.g., hurricane) disaster. This change in the level of care delivered is justified by specific circumstances and is formally declared by the state, in recognition that crisis operations will be in effect for a sustained period. The formal declaration (Executive Order) that crisis standards of care are in operation enables specific legal/regulatory powers and protections for healthcare providers in the necessary tasks of allocating and using scarce medical resources.

The Louisiana Department of Health and Hospitals has convened a working committee to assist with the development of state guidelines on methods for conducting crisis standards of care during a pandemic influenza event. Committee members include lawyers, physicians, nurses, Louisiana Hospital Association, ethicists, clergy, government officials and others with a variety of expertise. This committee is currently working on guidance and recommendations. (See *Appendix N*, "State Hospital Crisis Standards of Care Guidelines in Disasters"). The guiding principles for managing a pandemic influenza event are to:

- control pandemic to extent possible; protect public from mass outbreak of disease and resultant morbidity and mortality
- maximize positive patient outcomes when health care needs exceed available resources
- establish process for determining priorities for the use of limited health care resources and crisis standard of care clinical protocols (CSOC protocols) for healthcare providers, including healthcare practitioners at all levels and all institutions which deliver health care
- to the extent possible, have in place, prior to an influenza pandemic, these priorities and protocols.
- establish process for reevaluating these priorities and guidelines during an influenza pandemic.

Priority for limited medical resources and CSOC protocols should be based upon the allocation of scarce resources to maximize the number of lives saved ("the greatest good for the greatest number"). This allocation should be:

- determined solely on the basis of the scientific evidence-base and clinically sound medical information
- implemented in a manner that prohibits disparate treatment of any individual or groups of individuals that is not based on the scientific evidence-base and clinically sound medical information
- implemented without discrimination or regard to age or disability
- implemented without discrimination or regard to sex, race, religion, orientation, ethnicity or income

Priority directives and CSOC protocols will include flexibility and physician discretion to vary priorities and make exceptions based on:

- good faith judgment
- circumstances which warrant exception from the CSOC protocols

The decision to implement the Crisis Standards of Care guideline shall be based upon the degree of the pandemic (or other disaster) and hospital capacity, in conjunction with a governor ordered state of emergency. Specifically, Crisis Standards of Care may be initiated only after all of the following conditions have been met:

1. Initiation of national disaster medical system and national mutual aid and resource management.
2. Surge capacity fully employed within healthcare facility.
3. Attempts at conservation, reutilization, adaption, and substitution are performed maximally.
4. Identification of critically limited resources (e.g., ventilators, antibiotics).
5. Identification of limited infrastructure (e.g., isolation, staff, electrical power).

6. Request for resources and infrastructure made to local and regional health officials.
7. Current attempt at regional, state, and federal level for resource or infrastructure allocation;
8. Institutional implementation team has requested initiation of CSOC.
9. Declared state of emergency or incident of national significance.

21.0 Alternative Care Sites

The State will not establish or sponsor stand-alone Alternative Care Sites for care of pandemic flu patients. The complexities of setting up such a facility, dependent upon medical personnel that will have to be drained from hospitals, as well as, the difficulties in ensuring appropriate care is provided distances the state from encouraging this concept. Given the limitation on resources – both human and material – to operate an alternative care site for months, a more effective plan is to focus on the effective use and surge abilities of EMS and hospitals. The emphasis will be on "surging within walls" or towards setting up an "alternative care site" on the grounds of the hospital(s), in an used wing, in an outpatient building, etc. This type of measure still removes some of the pressure from the hospital EDs and separates flu patients from other types of patients (perhaps more useful in the initial phase of the pandemic). Additionally, in the eyes of the public, it sends the message that they are being cared for at a hospital facility that they are familiar with, rather than an unknown facility that may erroneously become associated with a place for end-of-life care.

22.0 Promotion of Home Care

The Office of Public Health has established communication tools to encourage the public to "stay at home". Louisiana hospitals should support and encourage that message. In the event of a influenza pandemic, the quality of material care (such as nursing, ventilators, nutrition, and hydration) will deteriorate. Family members will be expected and needed to provide care to family members that are unable to be hospitalized.

Promotion of home care and discouragement of the "worried well" from seeking hospital evaluation and care through the use of media campaigns and access to community health call centers will be adopted. Establishment of guidelines and public health messaging describing how to evaluate symptoms, what treatment can be safely delayed and how to care for themselves at home has been developed by the Office of Public Health and is readily available.

23.0 Mortuary Issues

The mass fatality plan for pandemic influenza rests on a number of complex and highly uncertain assumptions. 1) Significant numbers of deaths do not occur until after the first 30 days of the sentinel case; 2) There will be a severe shortage of personnel at all levels of the private and public sector that will hamper and significantly impede the deployment of resources for victim recovery. (Given these trigger points, the plan assumes that local and state authorities will be quickly overwhelmed after day 30 as fatalities escalate both within medical institutions and in homes); and 3) Given the nature of pandemic influenza, the assumption is that there will be no significant federal assistance forthcoming. See *Appendix O*, Level 5 Event Assumptions.

Mass fatality planning is part of an overall, all-hazards emergency preparedness and response performed in Louisiana by the Department of Health & Hospitals (DHH). DHH handles Emergency Support Function #8, and in mass fatality events relies on other support agencies in managing human remains, including victim identification and mortuary affairs. This Framework is refined and fully developed with the guidance of DHH staff, the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), volunteers with DMORT experience, and the 64 parish coroners. Information regarding capabilities and resource continues to be gathered and anchors this process. No plan will ever be able to capture all contingencies; however, having an established and practiced plan provides the direction and guidance needed during the crisis. (See *Appendix P*, "State of Louisiana DHH Mass Fatality Framework").

Pertinent parts of the State's operational plan for pandemic preparedness address the following items:

- Roles and responsibilities
- Isolation and quarantine precautions
- Procedures and systems for documenting (identification and tracking), collecting, transporting and accounting for final disposition of the dead including retrieval of bodies from homes, if necessary
- Procedures and systems for storage of bodies including temporary interment sites
- Family Assistance Services

In the event of a pandemic influenza, hospitals will become overwhelmed with the number of deaths. Based on the table below, the state may expect as many as 10,413 deaths during a pandemic. Data collected from hospitals identifies the available resources for holding remains. The chart below summarizes the estimate of the number of deaths, the hospital holding capacity and the potential gap for the state.

Table 12: Estimate of Deaths due to Pandemic Influenza

Participating Tier 1 Hospitals	FluSurge Week 5 Peak Census (A)	Hospital Capacity	Gap
119	1930 deaths	890 beds	1040 beds

To reduce or eliminate this gap, the following Tier 1 hospitals in the state will secure additional body bags and/or contract with vendors for refrigerated trucks as follows:

Table 13: Hospital Morgue Capacity Goal, by Region

Participating Tier 1 Hospitals	Morgue Capacity Goal *
Region 1	333
Region 2	270
Region 3	215
Region 4	174
Region 5	130
Region 6	172
Region 7	250
Region 8	163
Region 9	223
TOTAL	**1930**

*Hospital 5 Year Planning Goal

Table 14: Morgue Capacity, by Region

Participating Tier 1 Hospitals	Existing Hospital Morgue Capacity	Surge Morgue Capacity on Campus – 1-5 days	Regional Contractual Capacity – 1-5 days	Total	Gap
Region 1	74	23	63	160	173
Region 2	34	67	50	151	119
Region 3	9	5	47	61	154
Region 4	16	2	12	30	144
Region 5	17	10	122	149	+19
Region 6	13	30	44	87	85
Region 7	42	87	40	169	81
Region 8	11	5	5	21	142
Region 9	8	4	50	62	161
Total	**224**	**233***	**433***	**890**	**1040**

*If the bodies remain longer than 5 days, the number of available morgue beds will decrease.

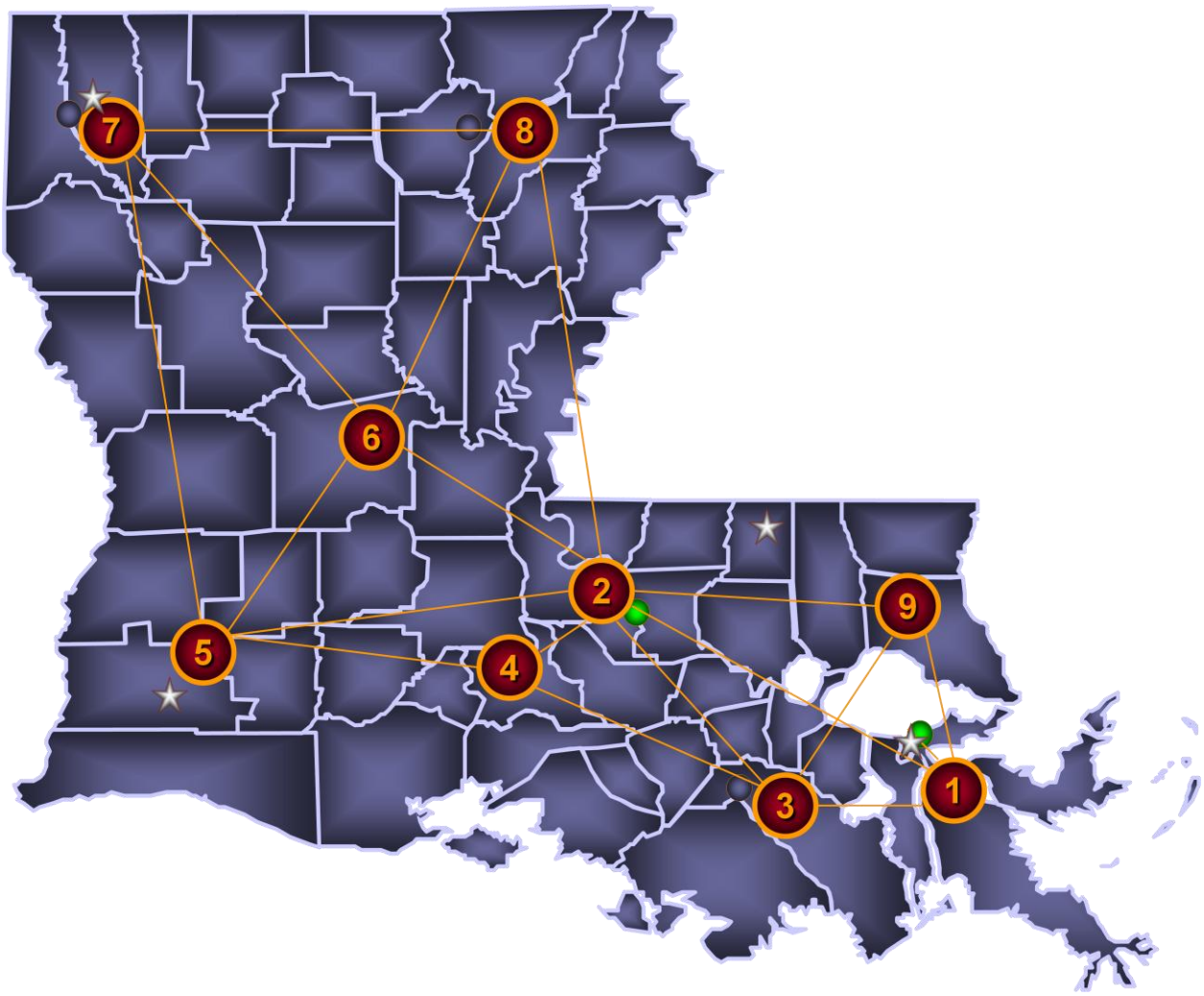
To prepare for the possibility of mass fatalities during a flu pandemic, hospitals should do the following:

- Assess current capacity for refrigeration of deceased persons.
- Discuss mass fatality plans with local and state health officials and medical examiners.
- Work with local health officials and medical examiners to identify temporary morgue sites.
- Determine the scope and volume of supplies (e.g., body bags) needed to handle an increased number of deceased persons.

Regarding the ability of the state to manage the expected medical surge from a pandemic event, the fact that each of the nine regions within the state all have different ideas as to how and which facilities will be identified to handle fatalities, as well as, where to intern decedents does pose some barriers for successful outcome. Most also don't have a cache of equipment and supplies available and this would need to be pushed out to the regions. Surveys of each region's capability in order to "pool" resources will be conducted and evaluated to identify possible solutions.

Appendix A: Map of DHH Emergency Preparedness Regions

DHH Emergency Preparedness Regions



Appendix B: Hospitals and Hospital Emergency Preparedness Coordinator Information

REG	CNT	PARISH	FACILITY	TYPE	TIER	BEDS	COORDINATOR	PHONE
1	1	Orleans	Charity Hosp & Medical Ctr of LA at N.O. (LSU Interim Public Hosp at N.O.	Acute w/ER	T-1	390	Robert Arnold	504-903-0179 Cell 225-620-5149
1	**2**	**Orleans**	**Children's Hospital**	**Acute w/ER**	**DRH**	**247**	**Lisa Miranda**	**504-899-9511**
1	3	Orleans	Community Care Hospital	Psych	T-2	36	Paul Kavanaugh	504-899-2500 x209
1	**4**	**Jefferson**	**East Jefferson General Hosp**	**Acute w/ER**	**DRH**	**432**	**Linda Daigle**	**504-454-4000 Ext 5690**
1	5	Orleans	Kindred Hospital New Orleans	LTAC	T-2	168	Amy Douglas	504-899-1555
1	6	Jefferson	Oceans Specialty Hosp of Gretna (Meadowcrest Specialty)	LTAC	T-2	27	Dena Jules	504-391-1500
1	7	Orleans	Oceans Behavioral Hosp of Greater New Orleans	Psych	T-2	18	Deborah Spiers	504-464-8895
1	8	Orleans	Oceans Behavioral Hosp of Greater New Orleans-Westbank Campus	Psych	T-2	12	Deborah Spiers	504-464-8895
1	9	Orleans	Ochsner Baptist Medical Center	Acute w/ER	T-1	83	Wayne Hill	504-897-5998
1	**10**	**Orleans**	**Ochsner Medical Center**	**DRH**	**T-1**	**469**	**Norris Yarbrough Melissa Mitchell**	**504-842-3772**
1	11	Jefferson	Ochsner Medical Center-Kennerl	Acute w/ER	T-1	123	Robin Wallace	504-464-8047
1	12	Jefferson	Ochsner Medical Center-Westbank	Acute w/ER	T-1	181	Brenda Bankston	504-228-3209
1	13	Jefferson	Ochsner Extended Care Hospital of Kenner (formerly LA Extended Care)	LTAC (FWF)	T-2	32	Fritz Nelson	504-464-8655
1	14	Jefferson	Omega Hospital	Acute	T-2	16	Kelly Hodge	504-832-4200

1	15	Orleans	Psychiatric Pavilion New Orleans LLC	Psych	T-2	24	Geshia Hohbach	504-210-0465
1	16	Jefferson	River Oaks Child & Adolescent Hospital	Psych (FWF)	T-2	26	Mike Capielano	504-734-1740 Ext 274
1	17	Jefferson	River Oaks Hospital	Psych	T-2	100	Mike Capielano	504-734-1740 Ext 274
1	18	Orleans	Seaside Behavioral Center	Psych	T-2	19	Jeffery Demars	504-393-4223
1	19	Orleans	St. Catherine Memorial Hosp (Specialty of N.O.)	LTAC	T-2	100	Evelyn Nolting	504-734-1740
1	20	Orleans	St. Charles Surgical Hospital	Acute	T-2	17	Leon Danna	504-529-6600
1	21	Jefferson	St. Theresa Specialty Hospital - Kenner	LTAC	T-2	42	Linda Rubino	504-250-7795
1	22	Jefferson	St. Theresa Specialty Hospital-Metairie	LTAC (FWF)	T-2	31	Linda Rubino	504-904-7599
1	**23**	**Orleans**	**Touro Infirmary**	**Acute w/ER**	**DRH**	**360**	**Denice Eshleman**	**504-897-8175**
1	24	Orleans	Triumph Louisiana Specialty Hosp East (LA Specialty Hosp East)	Psych	T-2	24	Rob Miggins	504-450-1950
1	25	Jefferson	Triumph Louisiana Specialty Hosp West (La Specialty Hosp West)	LTAC (FWF)	T-2	32	Shirlene Sullivan	504-349-2470
1	26	Orleans	Tulane Medical Center	Acute w/ER	T-1	354	Natasha Wells	504-988-3801
1	27	Jefferson	Tulane-Lakeside Hospital	Acute w/ER	T-1	119	Natasha Wells	504-988-3801
1	28	Orleans	United Medical Healthwest - New Orleans, LLC	Rehab	T-2	26	Larry Barbe	504-433-5551
1	**29**	**Jefferson**	**West Jefferson Medical Ctr**	**Acute w/ER**	**DRH**	**451**	**Steve Brown**	**504-349-1552**
2	30	Ascension	Ascension Gonzales Rehab	Rehab	T-2	20	Shawanza Alston	225-303-0572

			Hosp (South Baton Rouge Rehab Hosp					
2	31	EBR	Baton Rouge General Medical Center - Bluebonnet	Acute w/ER	T-1	201	Wanda Hughes	225-303-0572
2	**32**	**EBR**	**Baton Rouge General Medical Center - Mid City**	**Acute w/ER**	**DRH**	**343**	**Connie Deleo**	**225-387-7852**
2	33	EBR	Baton Rouge Rehab Hospital (Healthsouth Rehab Hosp of Baton Rouge	Rehab	T-2	81	Glen Guerin	225-231-3055
2	34	EBR	Behavioral Hospital of Southeast LA	Psych	T-2	10	Dr. Lynn Simon	225-448-2937
2	35	EBR	Bethesda Rehab Hospital	Rehab	T-2	14	Sheri Broussard	225-356-2200
2	36	EBR	Cypress Psychiatric Hospital	Psych (FWF)	T-2	30	Kenneth O'Rourke	225-336-8940
2	**37**	**EBR**	**Earl K. Long Medical Center**	**Acute w/ER**	**DRH**	**165**	**Sonya Leteff Willis**	**225-358-1153**
2	38	East Feliciana	Eastern Louisiana Mental Health System-Feliciana Forensic Facility	Psych	T-2	235	Brittney Jordan	225-634-0678
2	39	East Feliciana	Eastern Louisiana Mental Health System-East Division	Psych	T-2	400	Keith Thompson	225-634-0100
2	40	East Feliciana	East Louisiana State Hospital Greenwell Spr	Psych	T-2	66	Dee Mondrick	225-261-2730
2	41	East Baton Rouge	Focus Behavioral Hospital	Psych	T-2	28	Candy Lewis	225-810-4200
2	42	EBR	Greater Baton Rouge Surgical Hospital	Acute	T-2	10	Charles Johnson	225-358-4900
2	43	EBR	Lane Regional Medical Center	Acute w/ER	T-1	136	Michelle Shipe	225-658-6645
2	44	East Feliciana	LTAC of Feliciana	LTAC (FWF)	T-2	16	Dorothea Holley	225-683-1600
2	45	EBR	MMO Rehab &	Rehab	T-2	10	Rob Leonhard	225-687-8100

			Wellness Ctr					
2	46	EBR	Oceans Behavioral Hosp of Baton Rouge	Psych	T-2	20	Gene Amons	225-356-7030
2	47	EBR	Ochsner Medical Center-Baton Rouge	Acute w/ER	T-1	141	Mike Spaulding	225-755-4488
2	**48**	**EBR**	**Our Lady of the Lake RMC**	**Acute w/ER**	**DRH**	**734**	**Allyn Whaley-Martin**	**225-765-8329**
2	49	Pointe Coupee	Pointe Coupee General Hospital	Acute w/ER	T-1	25	Elaine Hurme	225-638-5773
2	50	Ascension	Prevost Memorial Hospital	Acute w/ER	T-1	25	Lizbeth Simoneaux	225-474-2161
2	51	EBR	Promise Hospital of Baton Rouge-Mancuso	LTAC	T-2	54	Michael Nolan	225-381-2685
2	52	EBR	Promise Specialty Hospital of BR @ BR General	LTAC (FWF)	T-2	28	Michael Nolan	225-381-2685
2	53	EBR	Promise Specialty Hospital of BR @ Oschner	LTAC (FWF)	T-2	29	Michael Nolan	225-381-2685
2	54	EBR	SAGE Rehabilitation Institute	Rehab	T-2	42	Corey Swartz	225-906-4085
2	55	Ascension	Seaside Health System	Psych	T-2	24	Linda Ellis	225-621-1241
2	56	Ascension	St. Elizabeth Hospital	Acute w/ER	T-1	78	Delba Tullier	225-647-5078
2	57	Ascension	St. James Behavioral Health Hospital (moved from Region 3)	Psych	T-2	28	Charla Burchfield	225-647-7524 Ext 103
2	58	EBR	Surgical Specialty Center of Baton Rouge	Acute	T-2	14	Charles Johnson	225-358-4908
2	59	EBR	The NeuroMedical Center Rehab Hospital	Rehab	T-2	27	Gene Smith	225-906-2999
2	60	EBR	The NeuroMedical Center Surgical Hospital	Acute	T-2	23	Monica Nijoka	225-906-4802
2	61	East Feliciana	Villa Feliciana Medical Complex	Acute (FWF)	T-2	334	Charles Martin	225-634-4086

2	62	West Feliciana	West Feliciana Parish Hospital	Acute w/ER	T-1	22	Art Marquez	225-784-3462
2	63	EBR	Woman's Hospital	Acute	T-1	189	Mike Meagher	225-924-8605
3	64	Assumption	Assumption Community Hospital	Acute w/ER	T-1	15	Liz Templet	985-369-4242
3	65	St. Mary	Franklin Foundation Hospital	Acute w/ER	T-1	22	Charles Ibert	337-355-1261
3	66	Lafourche	Lady of the Sea General Hospital	Acute w/ER	T-1	25	Helene Melancon	985-632-8371
3	67	Terrebonne	Leonard J. Chabert Medical Center	Acute w/ER	T-1	156	Donna Pitre Vera Folse	985-873-1305 985-873-1206
3	68	LaFourche	Ochsner-St. Anne General Hospital	Acute w/ER	T-1	35	Kathy Hebert	985-537-8367
3	69	Terrebonne	Physicians Alliance Hosp of Houma	LTAC	T-2	40	Michael Rabalais	985-274-0001
3	70	Terrebonne	Physicians Medical Center	Acute	T-2	30	David Martin	985-858-3333
3	71	St. John	River Parishes Hospital	Acute w/ER	T-1	106	Kerry Kippes	985-651-1599
3	72	St. Charles	Specialty Rehab Hospital of Luling	Rehab	T-2	22	Lisa Miller	985-785-5233
3	73	St. Charles	St. Charles Parish Hospital	Acute w/ER	T-1	59	Blake Boudreaux	985-785-4266
3	74	St. Charles	St. Charles Specialty Rehab Hospital	Rehab	T-2	16	Juanita Bates	985-331-2281
3	75	St. James	St. James Parish Hospital	Acute w/ER	T-1	20	Jeremy Martin	225-746-2907
3	76	St. Mary	Teche Regional Medical Center	Acute w/ER	T-1	157	Charles Kight	985-380-4552
3	**77**	**Terrebonne**	**Terrebonne General Medical Center**	**Acute w/ER**	**T-1**	**321**	**Dean Marcel Percy Mosely**	**985- 873-4271 985-804-5275**
3	78	Lafourche	Thibodaux Regional Medical Center	Acute w/ER	T-1	183	Eric Degravelle	985-447-5500
4	79	Vermillion	Abbeville General Hospital	Acute w/ER	T-1	60	Lonnie Monteaux	337-898-6566
4	80	Vermillion	Abrom Kaplan Memorial Hospital	Acute w/ER	T-1	35	Donna Gaspard	337-643-5220
4	81	Lafayette	Acadia Vermilion	Psych	T-2	54	Doug Lahasky	337-234-5614 Ext 555

			Hospital					
4	82	Acadia	Acadia-St. Landry Hospital	Acute w/ER	T-1	30	Heather Cradeur	337-684-2044
4	83	Acadia	American Legion Hospital	Acute w/ER	T-1	178	Russell Meche	337-788-6435
4	84	Lafayette	Community Rehab Hospital of Lafayette	Rehab	T-2	22	Stephanie Dyson	337-234-4031
4	85	Acadia	Compass Behavioral Center of Crowley	Psych	T-2	18	Kris Matthews	337-788-3330
4	86	Acadia	Crowley Rehab Hospital, L.L.C	LTAC	T-2	15	Gil Pinac	337-783-2859
4	87	Iberia	Dauterive Hospital	Acute w/ER	T-1	103	Kevin Romero	337- 374-4180
4	88	St. Landry	Eunice Extended Care Hospital	LTAC	T-2	18	Kevin Frank Cayle Guillory	337-289-8190
4	89	Evangeline	Evangeline Extended Care Hospital-Mamou	LTAC (FWF)	T-2	18	Biff David	337-468-4203
4	90	St. Martin	Genesis Behavioral Hospital	LTAC	T-2	12	Lanelle Wilson	337-442-6254
4	91	Lafayette	Heart Hospital of Lafayette	Acute w/ER	T-1	32	Michael Richard	337-521-1036
4	92	Iberia	Iberia Extended Care Hospital	LTAC (FWF)	T-2	16	Kevin Frank Cayle Guillory	337- 369-1100
4	93	Iberia	Iberia General Medical Center	Acute w/ER	T-1	101	Trent Hebert	337-364-0441
4	94	Iberia	Iberia Rehabilitation Hospital	Rehab	T-2	24	Athan Olivier, III	337-364-6923
4	**95**	**Lafayette**	**Lafayette General Medical Center**	**Acute w/ER**	**DRH**	**290**	**Anjanette Hebert**	**337-289-7441**
4	96	Lafayette	Lafayette General Surgical	Acute	T-2	10	Susan Woollen	337-289-8099
4	97	Lafayette	Lafayette Physical Rehabilitation Hospital	Rehab	T-2	32	Johnny Landreth Phil Boudreaux	337-314-1125
4	98	Lafayette	Lafayette Surgical Specialty Hospital	Acute	T-2	20	Selina Guidry	337-769-4202
4	99	Lafayette	Louisiana Extended Care Hospital of Lafayette	LTAC (FWF)	T-2	42	Kevin Frank	337-289-8180

4	100	Vermilion	LTAC of Louisiana-Abbeville	LTAC	T-2	22	Jared Sere	337-769-2041
4	101	Lafayette	LTAC of Acadiana	LTAC	T-2	29	Jared Sere	337-769-2041
4	102	Lafayette	Meadowbrook Specialty Hospital of Lafayette	LTAC	T-2	68	Wilson Boudreaux	337-232-1905
4	103	Evangeline	Mercy Regional Medical Center (Ville Platte Medical Center)	Acute w/ER	T-1	67	Lori Petrie	337-363-9420
4	104	St. Landry	Acadian Medical Center-a campus of Mercy Regional Medical Center	Acute w/ER	T-1	42	Tony Johnson	337-580-7500
4	105	Lafayette	Oceans Behavioral Hospital of Broussard	Psych	T-2	38	Marlene Lucas	337-237-6444
4	106	St. Landry	Oceans Behavioral Hospital of Opelousas	Psych	T-2	20	Nick Guillory	337-948-8820
4	107	St. Landry	Opelousas General Health System	Acute w/ER	T-1	157	John Armand	337-594-3982
4	108	St. Landry	Opelousas General Health System-S. Campus (Doctor's of Opelousas)	Acute w/ER	T-1	88	Gary Keller	337-948-3011
4	109	Lafayette	Optima Specialty Hospital	Psych	T-2	24	Patricia Hebert	337-991-0571 Ext241
4	110	Lafayette	Our Lady of Lourdes RMC	Acute w/ER	T-1	263	Paula Jenkins	337-289-2775
4	111	Lafayette	Park Place Surgery Center	Acute	T-2	10	Brandon Moore	337-237-8119
4	112	St. Landry	Phoenix Behavioral Hospital	Psych	T-2	18	Nancy Bourque	337-457-9280
4	113	Evangeline	Savoy Medical Center	Acute w/ER	T-1	176	TJ Calvin	337-468-0188
4	114	Lafayette	St. Landry Extended Care Hospital, LLC	LTAC (FWF)	T-2	23	Sheila Johnson	337-948-2250
4	115	St. Martin	St. Martin Hospital	Acute w/ER	T-1	25	Julian Knott	337-507-1135

4	116	Lafayette	The Regional Medical Center of Acadiana (Medical Ctr of Southwest LA)	Acute w/ER	T-1	142	Jamie Hollier	337-989-6772
4	117	Lafayette	University Medical Center	Acute w/ER	T-1	140	Me J. Matte	337-261-6786
4	118	Lafayette	University Medical Center-Psych Unit	Psych	T-2	20	Margaret Wiles	(337) 262-4169
4	119	Lafayette	Women's and Children's Hospital	Acute w/ER	T-1	110	Gregory Davis	337-521-9195
5	120	Allen	Allen Parish Hospital	Acute w/ER	T-1	49	Troy Aucoin	337-738-4669
5	121	Beauregard	Beauregard Memorial Hospital	Acute w/ER	T-1	60	Greg Neely	337-462-7176
5	122	Calcasieu	Calcasieu Oaks Psychiatric Hospital	Psych	T-2	24	Charles Getwood	337-439-8111
5	**123**	**Calcasieu**	**Christus St. Patrick Hospital of Lake Charles**	**Acute w/ER**	**DRH**	**266**	**Gini Crawford**	**337-491-7766**
5	124	Calcasieu	Cornerstone Hospital of Southwest Louisiana	LTAC	T-2	30	Robert Lafleur	337-310-6000
5	125	Calcasieu	DeQuincy Memorial Hospital	Acute w/ER	T-1	19	Gayland Barrow	337-786-1218
5	126	Calcasieu	Dubuis Hospital of Lake Charles	LTAC (FWF)	T-2	24	William Willis	337-431-7835
5	127	Calcasieu	Extended Care of Southwest Louisiana	LTAC	T-2	29	William Willis	337-494-3176
5	128	Jefferson Davis	Jennings American Legion Hospital	Acute w/ER	T-1	60	Ruth Carnes	337-616-7042
5	129	Jefferson Davis	Jennings Senior Care Hospital	Psych	T-2	16	Mark Cullen	337-824-1558
5	**130**	**Calcasieu**	**Lake Charles Memorial Hospital**	**Acute w/ER**	**DRH**	**362**	**Bill Wilkie**	**337-494-3176**
5	131	Calcasieu	Lake Charles Memorial Hospital for Women	Acute	T-2	38	Thomas Chapman	337-480-7010
5	132	Allen	Oakdale Community Hospital	Acute w/ER	T-1	60	Phil Rider	318-335-3700

5	133	Beauregard	Oceans Behavioral Hospital of Deridder	Psych	T-2	20	Wayne Morris	337-460-9472
5	134	Calcasieu	Oceans Behavioral Hospital of Lake Charles	Psych	T-2	20	Dena Jules	337-474-7581
5	135	Calcasieu	Rehab Hospital of Dequincy	Rehab (FWF)	T-2	13	Leon Beck	337-462-8880
5	136	Jefferson Davis	Rehabilitation Hospital of Jennings	Rehab	T-2	16	Charity Murrell	337-821-5353
5	137	Cameron	South Cameron Memorial Hospital	Acute w/ER	T-1	49	Kelly Vincent	337-542-4111
5	138	Calcasieu	Walter Olin Moss Regional Medical Center	Acute w/ER	T-1	74	Jamie Malveaux	337-475-8473
5	139	Calcasieu	West Calcasieu Cameron Hospital	Acute w/ER	T-1	101	Randy Favre	337-527-4358
5	140	Jefferson Davis	WestEnd Hospital	Psych	T-2	20	Stacey Wilson	337-616-8122
5	141	Calcasieu	Women and Children's Hospital, Lake Charles	Acute w/ER	T-1	88	Kari Cook	337-475-4704
6	142	Avoyelles	Avoyelles Hospital	Acute w/ER	T-1	51	Michael Johnson	318-240-6180
6	143	Vernon	Bayne Jones Army Community Hospital	Acute w/ER	T-1	66	SFC Gregory Wilson	337-531-3144
6	144	Avoyelles	Bunkie General Hospital	Acute w/ER	T-1	33	Terry Riche	318-346-3316
6	145	Vernon	Byrd Regional Hospital	Acute w/ER	T-1	60	John Bennett	337-239-5260
6	146	Rapides	Central Louisiana Surgical Hospital	Acute	T-2	24	Michelle Tannehill	3318-443-3511
6	147	Rapides	Central Louisiana State Hospital	Psych	T-2	196	Sam Mayeux	318-484-6636
6	148	Rapides	Christus Dubuis Hospital of Alexandria (Dubuis Hospital of Alexandria)	LTAC (FWF)	T-2	33	Stephen Peters	318-448-6505
6	**149**	**Rapides**	**Christus St.**	**Acute**	**DRH**	**242**	**Mary Tarver**	**318-448-6861**

			Frances Cabrini Hospital	**w/ER**			**Charles Credo**	**318-448-6900**
6	150	Rapides	Crossroads Regional Hospital	Psych	T-2	68	Jimmy Rowles	318-445-5111 Ext253
6	151	Rapides	Department of Veteran's Affairs Medical Center	Acute w/ER	T-1	132	Dena Norton	318-466-2488
6	152	Vernon	Doctor's Hospital at Deer Creek	Acute/ LTD	T-2	10	Robert Bash	337-392-4986
6	153	LaSalle	Hardtner Medical Center	Acute w/ER	T-1	35	Ray Atwell	318-495-3131
6	154	Rapides	Healthsouth Rehabilitation of Alexandria	Rehab	T-2	47	Mark Vercher	318-449-8319
6	155	Rapides	Huey P. Long Medical Center	Acute w/ER	T-1	137	Kathy Nugent	318-473-1459
6	156	LaSalle	LaSalle General Hospital	Acute/ ER	T-1	60	Brenda Smith	318-992-9200
6	157	Vernon	Leesville Rehab Hospital, LLC	Rehab	T-2	16	Jason Carroll	337-392-8118
6	158	Rapides	Oceans Behavioral of Alexandria	Psych	T-2	24	Geoff Landry	318-448-8473
6	159	Concordia	Promise Hospital of Miss-Lou	LTAC	T-2	40	Lee Huchaby	318-757-7575
6	160	Rapides	Rapides Regional Medical Center	Acute w/ER	T-1	314	Chuck Butterfield	318-769-7447
6	161	Concordia	Riverland Medical Center	Acute w/ER	T-1	25	Billy Rucker	318-757-6551
6	162	Rapides	Riverside Hospital of Louisiana, Inc	LTAC (FWF)	T-2	28	Kemp Wright	318-767-2900
6	163	Winn	Specialty Hospital of Winnfield	LTAC (FWF)	T-2	20	Wendy Carpenter	318-648-0212
6	164	Vernon	Tri Parish Rehabilitation Hospital, LLC	Rehab	T-2	33	Heath Hairgrove	337-462-8880
6	165	Winn	Winn Parish Medical Center	Acute w/ER	T-1	60	Scott Zimmerman	318-648-3068
6	166	Winn	Woodlands Behavioral Center	Psych	T-2	19	Bobby Jordan	318-628-5445
7	167	Bienville	Bienville Medical Center	Acute w/ER	T-1	21	Deborah Hilton, RN	318-263-4700
7	168	Caddo	Brentwood	Psych	T-2	200	Doug Jones	318-617-7300

			Hospital					
7	169	Red River	Christus Coushatta Health Care Center	Acute w/ER	T-1	25	Kristy Scott	318-932-2191
7	170	Caddo	Christus Schumpert Health System/St. Mary	Acute w/ER	T-1	410	Millard Kimball	318-681-6494
7	171	Caddo	Christus Schumpert Highland	Acute w/ER	T-1	160	Audrey Henderson, RN	318-681-5929
7	172	Bossier	Cornerstone Hospital of Bossier City	LTAC	T-2	102	John Sauls	318-747-9500
7	173	DeSoto	DeSoto Regional Health System	Acute w/ER	T-1	57	Shane Goodman	318-872-9675
7	174	Caddo	Dubuis Hospital of Shreveport	LTAC (FWF)	T-2	36	Holly Powell	318-221-3802
7	175	Claiborne	Homer Memorial Hospital	Acute w/ER	T-1	60	Vance Robinson	318-927-2024 Ext 206
7	176	Caddo	LifeCare Hospital - Shreveport	LTAC	T-2	119	Leslie Nolte	318-680-4530
7	177	Natchitoches	Louisiana Extended Care Hospital of Natchitoches	LTAC (FWF)	T-2	21	Kermit Simmons	318-354-2044
7	**178**	**Caddo**	**LSU Health Sciences Center, Shreveport**	**Acute w/ER**	**DRH**	**459**	**Donnell Chagnard**	**318-675-5410**
7	179	Webster	Minden Medical Center	Acute w/ER	T-1	161	Kristie Copeland, RN	318-371-3271
7	180	Natchitoches	Natchitoches Regional Medical Center	Acute w/ER	T-1	96	Danita Olivier	318-214-4417
7	181	Caddo	North Caddo Medical Center	Acute w/ER	T-1	25	Stacy Alexander	318-375-3235 Ext 158
7	182	Caddo	Overton Brooks VA Medical Center	Acute w/ER	T-1	112	Deborah Callahan	318-990-5040
7	183	Caddo	Physicians Behavioral Hospital	Psych	T-2	14	Debbie Priebe	318-550-0158
7	184	Bossier	Promise Hospital of Bossier City	LTAC	T-2	50	Rick Stockton	318-841-2525
7	185	Caddo	Promise	LTAC	T-2	196	Rick Stockton	318-425-4096

			Specialty Hospital of Shreveport					
7	186	Bossier	Red River Behavioral Center LLC	Psych	T-2	20	Kevin Doerr	318-549-2033
7	187	Sabine	Sabine Medical Center	Acute w/ER	T-1	48	Kenny R. Carter	318-256-5691
7	188	Caddo	Shriners Hospitals for Children	Acute	T-2	45	Shelly Horton	318-226--3324
7	189	Caddo	Specialists Hospital of Shreveport	Acute	T-2	15	Jeff Dittman	318-231-3800
7	190	Red River	Specialty Rehabilitation Hospital in Coushatta	Rehab (FWF)	T-2	12	Denise Logan	318-932-1770
7	191	Webster	Springhill Medical Center	Acute w/ER	T-1	60	Stephen Haehn	318-539-1069
7	192	DeSoto	Stonewall Hospital	Psych	T-2	22	Suresh Donepudi	318-925-6660
7	193	Bossier	Willis-Knighton Bossier Health Center	Acute w/ER	T-1	148	Billie Martin	318-212-7509
7	194	Caddo	Willis-Knighton Medical Center	Acute w/ER	T-1	377	Susan Cash	318-212-4706
7	195	Caddo	Willis-Knighton Pierremont Health Center	Acute w/ER	T-1	196	Clint Sanders	318-212-3511
7	196	Caddo	Willis-Knighton South & Center for Women's Health	Acute w/ER	T-1	153	Alana Moore	318-212-5501
8	197	Lincoln	Allegiance Health Center of Ruston, L.L.C.	Psych (FWF)	T-2	14	Donna Thompson	318-255-8085
8	198	Morehouse	Bastrop Rehabilitation Hospital	Rehab (FWF)	T-2	15	Tena Hughes	318-556-1191
8	199	Caldwell	Caldwell Memorial Hospital	Acute w/ER	T-1	47	Sherri Martin	318-649-6111
8	200	Caldwell	Citizens Medical Center	Acute w/ER	T-1	40	Mike Hailey	318-649-6106
8	201	Ouachita	Cornerstone Hospital of West Monroe	LTAC	T-2	47	Bobby Hayden	318-397-5691
8	202	Ouachita	E.A. Conway Medical Center	Acute w/ER	T-1	246	Lynn Wilson	318-330-7596
8	203	East Carroll	East Carroll	Acute	T-1	23	Tasha Freeman	318-559-4023

			Parish Hospital	w/ER				
8	204	Franklin	Franklin Medical Center	Acute w/ER	T-1	37	Sheila Mason, RN	318-412-5347
8	205	Ouachita	Golden Age Senior Care Hospital	Psych (FWF)	T-2	20	Kelly Roebuck	318-651-0920
8	206	Lincoln	Green Clinic Surgical Hospital	Acute	T-2	12	James W. McClung, MBA	318-232-7700
8	207	Lincoln	HealthSouth Specialty Hospital of North LA	LTAC	T-2	91	Bobby Couch	318-251-5323
8	208	Ouachita	IASIS Glenwood Regional Medical Center	Acute w/ER	T-1	221	Patrick King	318-329-4747
8	209	Jackson	Jackson Parish Hospital	Acute w/ER	T-1	25	Robby Roberts	318-259-4435
8	210	Morehouse	Liberty HealthCare Systems-Bastrop	Psych	T-2	60	Lisa Crymes	318-281-5445
8	211	Union	Serenity Springs Specialty Hospital (Liberty HealthCare Systems-Farmerville)	Psych	T-2	18	Damaris Crocker	318-368-0110
8	212	Ouachita	Louisiana Extended Care of West Monroe	LTAC (FWF)	T-2	18	Cleta Munholland	318-329-4378
8	213	Madison	Madison Parish Hospital	Acute w/ER	T-1	25	Robert Thorton	318-574-2374
8	214	Ouachita	Monroe Surgical	Acute	T-2	10	Scotter Chriceol	318-410-0002
8	215	Morehouse	Morehouse General Hospital	Acute w/ER	T-1	60	Sidney Hodge	318-283-3854
8	216	Lincoln	Northern Louisiana Medical Center	Acute w/ER	T-1	159	Doug Sills	318-254-2453
8	217	Ouachita	Ouachita Community Hospital	Acute	T-2	10	W. Benjamin Patterson	318-322-1339
8	218	Ouachita	P & S Surgical Center	Acute	T-2	22	Teresa Poole	318-998-7327
8	219	Richland	Richardson Medical Center	Acute w/ER	T-1	38	Betty Hill, RN	318-728-8396
8	220	Richland	Richland Parish Hospital - Delhi	Acute w/ER	T-1	25	Alisha McVay	318-878-5171 Ext 329
8	**221**	**Ouachita**	**St. Francis Medical Center**	**Acute w/ER**	**DRH**	**521**	**Mike Brame Fred Rushing**	**318-327-4971 318-966-4579**
8	222	Ouachita	St. Francis	Acute	T-1	216	Fred Rushing	318-966-4579

			North Hospital	w/ER				
8	223	Ouachita	St. Francis Specialty Hospital	LTAC (FWF)	T-2	32	Cleta Munholland	318-966-7132
8	224	Ouachita	Sterlington Rehabilitation Hospital	Rehab	T-2	10	Cathy Perot	318-665-9950
8	225	Union	Reeves Memorial Medical Center (Tri-Ward General Hosp)	Acute w/ER	T-1	15	Sue Hall	318-285-7718
8	226	Union	Union General Hospital	Acute w/ER	T-1	25	Darra Jung	318-368-7095
8	227	West Carroll	West Carroll Parish Hospital	Acute w/ER	T-1	33	Mandy Hibbard	318-428-3237
9	228	Washington	Bogalusa Medical Center (Inpatient Campus)	Acute w/ER	T-1	90	Beverly Sheridan	985-730-6775
9	229	Washington	Bogalusa Medical Center (Outpatient Campus)	Psych	T-2	18	Beverly Sheridan	985-730-6775
9	230	St. Tammany	Doctors Hospital of Slidell	Acute	T-2	10	Arlene Davis	985-690-8200
9	231	St. Tammany	Fairway Medical Center	Acute	T-2	21	Kory Krista	985-801-6298
9	232	St. Tammany	Greenbrier Hospital	Psych	T-2	40	Bridget Suire	985-893-2970
9	233	St. Tammany	Northshore Specialty Hospital (Gulf States LTAC of Covington)	LTAC	T-2	58	Marisol Davenport	985-875-7525
9	234	Tangipahoa	Hood Memorial Hospital	Acute w/ER	T-1	25	Edward Dugar	985-748-9485 Ext 317
9	235	St. Tammany	Lakeview Regional Medical Center	Acute w/ER	T-1	172	Jason Cobb	985-867-4447
9	236	Tangipahoa	Lallie Kemp Regional Medical Center	Acute w/ER	T-1	25	Lisa Bruhl	985-878-1300
9	237	St. Tammany	Louisiana Medical Center & Heart Hospital	Acute w/ER	T-1	137	Tania Loumiet, RN	985-690-7670
9	238	Livingston	LTAC Hospital of Denham Springs	LTAC	T-2	59	Thomas Strobe	225-665-2664
9	239	Washington	LTAC of	LTAC	T-2	20	Herman Frank	985-326-0440

			Washington/St. Tammany (Bogalusa Campus)					
9	240	St. Tammany	LTAC of Washington/St. Tammany (Slidell Campus)	LTAC	T-2	20	Herman Frank	985-326-0440
9	241	Washington	Magnolia Behavioral Healthcare, LLC	Pysch	T-2	30	Gerry Morris	985-735-9104
9	242	Tangipahoa	North Oaks Medical Center	Acute w/ER	T-1	259	Russell Hoover	985-230-6554
9	243	Tangipahoa	North Oaks Rehabilitation Hospital	Rehab	T-2	27	Gary Vinyard	985-230-6104
9	**244**	**St. Tammany**	**Ochsner Medical Center-Northshore (Northshore Regional Medical Center)**	**Acute w/ER**	**DRH**	**165**	**Alan Hodges**	**985-646-5000**
9	245	Tangipahoa	Oceans Behavioral Hospital of Kentwood	Psych	T-2	16	Jessika Scallion	985-229-0717
9	246	Tangipahoa	Oceans Behavioral Hosp of Hammond, a campus of Oceans Behavioral of Kentwood (Intensive Out-pt Program)	Psych	T-2		Jessika Scallion	985-229-0717
9	247	St. Tammany	Regency Hospital of Covington	LTAC	T-2	38	Mark Thompson	985-867-3964
9	248	Washington	Riverside Medical Center	Acute w/ER	T-1	25	Tim Magee	985-795-4259
9	**249**	**St. Tammany**	**Slidell Memorial Hospital**	**Acute w/ER**	**DRH**	**182**	**Ben Galloway**	**985-639-8911**
9	250	St. Tammany	Southeast Louisiana Hospital	Psych	T-2	348	Cincy Little	985-626-6351
9	251	Tangipahoa	Southeast Regional Medical Center	LTAC	T-2	14	Monica Nix	225-978-3618C
9	252	St. Tammany	Southern Surgical	Acute	T-2	37	Joey Bradshaw	985-641-0600

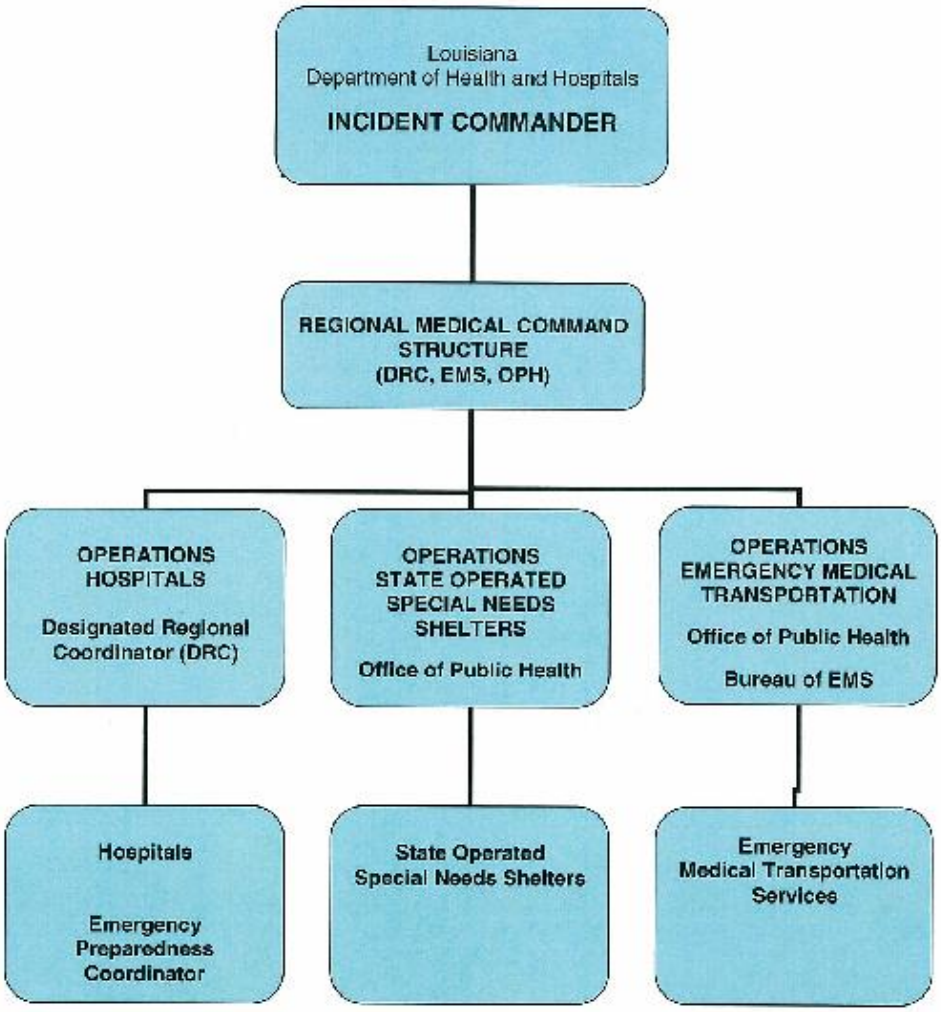
			Hospital					
9	253	Tangipahoa	Specialty LTCH Hosp of Hammond (Gulf States of Hammond)	LTAC	T-2	40	Jim Fritschen	985-902-8148
9	254	St. Helena	St. Helena Parish Hospital	Acute w/ER	T-1	25	Deanne Broussard	225-222-6111
9	**255**	**St. Tammany**	**St. Tammany Parish Hospital**	**Acute w/ER**	**DRH**	**222**	**Don Perkins; Raye Ann Story, CPHRM**	**985-898-4454 (O) 985-705-7552 (C) 985-898-4165 (F)**
9	256	Tangipahoa	United Medical Rehabilitation Hospital	Rehab	T-2	20	Cyrillia Bonds	985-340-5998

Appendix C: Designated Regional Coordinators

DESIGNATED REGIONAL COORDINATORS					
REG	COORDINATOR	FACILITY	OFFICE	CELL	E-MAIL
1	Norris Yarbrough	Ochsner Foundation Hospital	504-842-3772	504-329-5790	nyarbrough@ochsner.org
1	Cynthia Davidson	Metropolitan Hospital Council	504-837-1171	225-939-1313	region1drc@yahoo.com
1	Troy Trosclair	HCA Healthcare-Delta Division	504-988-7058	504-628-9152	Troy.trosclair@hcahealthcare.com
1	Denice Eshleman	Touro Infirmary	504-897-8175	504-235-7193	Denice.eshleman@touro.com
2	Allyn Whaley-Martin	Our Lady of the Lake RMC	225-765-8329	225-247-7343	allyn.whaley@ololrmc.com
2	Connie DeLeo	Baton Rouge General	225-387-7852	225-572-9658	connie.deleo@brgeneral.org
2	Sonya Leteff Willis	Earl K. Long	225-358-1153	225-252-6358	swill6@lsuhsc.edu
3	Percy Mosely	Terrebonne General Medical Center	985-873-4271	985-804-5275	Percy.mosely@tgmc.com
3	Kim Beetz	Region 3 ADRC	985-413-2859	985-413-2859	region3drc@yahoo.com
4	Anjanette Hebert	Lafayette General Med Ctr	337-289-7441	337-654-2662	ahebert@lgmc.com
4 & 5	Liz Harmon	Regions 4 & 5 ADRC	337-570-4230	337-570-4230	lizharmonadrc@bellsouth.net
5	Randy Favre	West Calcasieu Cameron Hospital	337-527-4358	337-244-9395	rfavre@wcch.com
5	Allen Abshire	CHRISTUS St. Patrick of L.C.	337-491-7112	337-540-0714	allen.abshire@christushealth.org
6	Mary Tarver	CHRISTUS St. Frances Cabrini	318-448-6861	318-664-0843	mary.tarver@christushealth.org
7	Knox Andress	LSUHSC-Shreveport	318- 813-3311	318-465-9500	wandr1@lsuhsc.edu
8	Mike Brame	St. Francis Medical Center	318-327-4971	318-348-7096	bramem@stfran.com
8	Lynn Wilson	E.A. Conway Medical Center	318-330-7525	318-381-5872	nwilson@lsuhsc.edu
9	Keith Peek	Region 9 ADRC	985-290-2642	985-290-2642	Region9DRC@yahoo.com

Appendix D: Louisiana Emergency Support Function 8 Structure

Appendix D
Louisiana Emergency Support Function 8
Incident Command Structure



WORKING DRAFT 8/17/07 36

Appendix E: Hospital Pandemic Influenza Triggers

Pandemic Influenza Level	Suggested Actions
Interpandemic Period	• Conduct planning • Conduct education/training • Conduct hospital surveillance for influenza
Pandemic Alert Period	• Increase preparation; refine local plan • Conduct hospital surveillance for influenza
Pandemic Period • Pandemic influenza outside the U.S.	• Establish contact with key public health, healthcare, and community partners • Implement hospital surveillance for pandemic influenza in incoming patients and previously admitted patients. • Implement a system for early detection and treatment of healthcare personnel who might be infected with the pandemic strain of influenza • Reinforce infection control procedures to prevent the spread of influenza • Accelerate staff training in accordance with the facility's pandemic influenza education and training plan
• Pandemic influenza in the U.S.	As above, plus: • Implement activities to increase capacity, supplement staff, and provide supplies and equipment • Maintain close contact with and among healthcare facilities and with state and local health departments • Post signs for respiratory hygiene/cough etiquette • Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain If pandemic strain is detected in local patient, community transmission can be assumed and hospital would move to next level of response.
• Pandemic influenza in the local area	As above, plus: • Emergency department (ED) ○ Establish segregated waiting areas for persons with symptoms of influenza ○ Implement phone triage to discourage unnecessary ED / outpatient department visits ○ Enforce respiratory hygiene/cough

	etiquette
	• Access controls
	  ○ Limit number of visitors to those essential for patient support
	  ○ Screen all visitors at point of entry to facility for signs and symptoms of influenza
	  ○ Limit points of entry to facility; assign clinical staff to entry screening
	• Hospital admissions
	  ○ Defer elective admissions and procedures until local epidemic wanes
	  ○ Discharge patients as soon as possible
	  ○ Cohort patients admitted with influenza
	  ○ Monitor for nosocomial transmission
	• Staffing practices
	  ○ Consider furlough or reassignment of pregnant staff and other staff at high risk for complications of influenza
	  ○ Consider re-assigning non-essential staff to support critical hospital services or placing them on administrative leave: cohort staff caring for influenza patients.
	  ○ Consider assigning staff recovering from influenza to care for influenza patients.
	  ○ Implement system for detecting and reporting signs and symptoms of influenza in staff reporting for duty
	  ○ Provide staff with antiviral prophylaxis, according to HHS recommendations

• Nosocomial transmission	As above, plus, if nosocomial transmission is limited to only a small number of units in the facility
	• Close units where there has been nosocomial transmission
	  ○ Cohort staff and patients
	  ○ Restrict new admissions (except for other pandemic influenza patients) to affected units
	  ○ Restrict visitors to the affected units to those who are essential for patient care and support

• Widespread transmission in community and hospital; patient admissions at surge capacity	As above, plus: • Redirect personnel resources to support patient care (e.g., administrative clinical staff, clinical staff working in departments that have been closed [e.g., physical/occupational therapy,

	cardiac catheterization]) • Recruit community volunteers (e.g., retired nurses and physicians, clinical staff working in outpatient settings) • Consider placing on administrative leave all non-essential personnel who cannot be reassigned to support critical hospital services

Appendix F: Hospital Preparedness Checklist

HOSPITAL PANDEMIC INFLUENZA PLANNING CHECKLIST

Planning for pandemic influenza is critical for ensuring a sustainable healthcare response. The Centers for Disease Control and Prevention (CDC), with input from other Federal partners, have developed this checklist to help hospitals assess and improve their preparedness for responding to pandemic influenza. Because of differences among hospitals (e.g., characteristics of the patient population, size of the hospital/community, scope of services), each hospital will need to adapt this checklist to meet its unique needs and circumstances.[1] This checklist should be used as one of several tools for evaluating current plans or in developing a comprehensive pandemic influenza plan. Additional information can be found at www.pandemicflu.gov.

An effective plan will incorporate information from state, regional, tribal and local health departments, emergency management agencies/authorities, hospital associations and suppliers of resources. In addition, hospitals should ensure that their pandemic influenza plans comply with applicable state and federal regulations and with standards set by accreditation organizations, such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Comprehensive pandemic influenza planning can also help facilities plan for other emergency situations.

1. Structure for planning and decision making.

Completed	In Progress	Not Started	
☐	☐	☐	Pandemic influenza has been incorporated into disaster planning and exercises for the hospital. [2]
☐	☐	☐	A multidisciplinary planning committee has been identified to specifically address pandemic influenza preparedness planning and preparedness testing. [3]
☐	☐	☐	Primary and backup responsibility has been assigned for coordinating preparedness planning. (Insert names, titles and contact information) Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info)
☐	☐	☐	Members of the planning committee include (as applicable to each setting) the following: (Check categories below that apply and develop a list of committee members with the name, title, and contact information for each personnel category checked below, and attach to this checklist.)

- ☐ Hospital administration
- ☐ Legal counsel/risk management
- ☐ Infection control/hospital epidemiology
- ☐ Disaster coordinator
- ☐ Public relations coordinator/public information officer
- ☐ Medical staff (e.g., internal medicine, pediatrics, hospitalist, infectious disease)
- ☐ Nursing administration
- ☐ Human resources (personnel, including Equal Employment Opportunities)
- ☐ Facility personnel representative (e.g., union representative)
- ☐ Occupational health
- ☐ Physical therapy
- ☐ Intensive care
- ☐ Emergency department
- ☐ Respiratory therapy

1 Checklists applicable to other healthcare settings (e.g., residential and long-term care facilities, emergency medical services, physician offices and clinics, and home health care) are available. See www.pandemicflu.gov/plan/healthcare/index.html.

2 Hospitals using the Hospital Incident Command System (HICS) may wish to modify the terminology and planning structure in this checklist to be consistent with that model.

3 An existing emergency or disaster preparedness committee may be assigned this responsibility.

June, 2007
Version 1

1. Structure for planning and decision making. *(continued)*

Completed	In Progress	Not Started	
			☐ Diagnostic imaging (radiology) ☐ Discharge planning ☐ Staff development/education ☐ Engineering and maintenance ☐ Environmental (housekeeping) services ☐ Central (sterile) services ☐ Security ☐ Dietary (food) services ☐ Pharmacy services ☐ Information technology ☐ Purchasing agent /materials management ☐ Laboratory services ☐ Expert consultants (e.g., ethicist, mental/behavioral health professionals) ☐ Other member(s) as appropriate (e.g., volunteer services, community representative, clergy, local coroner, medical examiner, morticians)
☐	☐	☐	Points of contact for information on pandemic influenza planning resources have been identified within local, state and tribal health departments and the state hospital association (insert names, titles, and contact information.) Local health department: (Name) (Title) (Contact info) State health department: (Name) (Title) (Contact info) State hospital association: (Name) (Title) (Contact info) Tribal health association: (Name) (Title) (Contact info)
☐	☐	☐	Local, regional or state emergency preparedness groups[4], including bioterrorism/communicable disease coordinators points of contact, have been identified. (Insert name, title and contact information for each) City: (Name) (Title) (Contact info) County: (Name) (Title) (Contact info) Other regional (and/or tribal): (Name) (Title) (Contact info)
☐	☐	☐	Local or regional pandemic influenza planning groups have been contacted for information on coordinating the facility's plan with other pandemic influenza plans.

State health deparments should be contacted for information on pandemic influenza preparedness planning.

. Development of a written pandemic influenza plan.

Completed	In Progress	Not Started	
☐	☐	☐	Copies of relevant sections of the HHS Pandemic Influenza Plan (available at www.hhs.gov/pandemicflu/plan/) and policy documents that may be forthcoming (available at www.pandemic gov) have been obtained and reviewed for incorporation into the facility's plan.
☐	☐	☐	Copies of relevant sections of other available plans (i.e., state, tribal, regional, or local) have bee obtained and reviewed for incorporation into the facility's plan. ☐ State ☐ Regional ☐ Local ☐ Tribal
☐	☐	☐	A copy of the facility plan and other relevant materials are available in Administration and Infectic Control. (List other locations where information is available, including facility intranet sites.) _____ (Location) _____ (Other locations)
☐	☐	☐	The plan includes strategies for collaborating with local and regional planning and response groups and hospitals and other healthcare facilities in order to coordinate response efforts at the community level (e.g., staffing, material and other resources, triage algorithms, etc.).
☐	☐	☐	The facility plan includes the elements listed in #3 below.
☐	☐	☐	The plan identifies the person(s) authorized to implement the plan and the organizational structu that will be used, including the delegation of authority to carry out the plan 24/7.
☐	☐	☐	The plan stratifies implementation of specific actions on the basis of the WHO Pandemic Phases US Government Pandemic Stages, and the pandemic severity index level worldwide, in the Uni States and at the local level. (See section IV and Appendix 3 of the "Community Strategy for Pandemic Influenza Mitigation" at www.pandemicflu.gov/plan/community/commitigation.html)
☐	☐	☐	Responsibilities of key personnel and departments within the facility related to executing the pl have been described.
☐	☐	☐	Personnel who will serve as back-up (e.g., B team) for key personnel roles have been identified.
☐	☐	☐	A tabletop simulation exercise or other exercises have been developed to test the plan. ☐ Date performed (_____) ☐ Date performed (_____)
☐	☐	☐	A full scale drill/exercise has been developed to test the plan. ☐ Date performed (_____)
☐	☐	☐	The plan is updated regularly and includes current contact information and lessons learned from exercises and drills.

. Elements of an influenza pandemic plan.

Completed	In Progress	Not Started	
☐	☐	☐	**A plan is in place for surveillance and detection of pandemic influenza in hospital patients and staff.** ☐ A method for performing and reporting syndromic surveillance for persons with influenza-like illness has been tested and evaluated during the regular influenza season in preparation for usir the system for pandemic influenza surveillance. Hospital sites for syndromic surveillance shou include the emergency department, hospital clinics, and occupational health. Surveillance repo are sent to hospital epidemiology/infection control personnel and to the local health authority. (The frequency of reporting should be determined by the local health authority and reflect the pandemic severity level, as well as any applicable federal or state recommendations.)

3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
			☐ Responsibility has been assigned for monitoring public health advisories (federal and state) and for updating the pandemic response coordinator and members of the pandemic influenza planning committee when pandemic influenza has been reported in the United States and is nearing the geographic area. (For more information see www.cdc.gov/flu/weekly/fluactivity.htm.) Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info)
			☐ A written protocol has been developed for monitoring and reporting seasonal influenza-like illness among hospitalized patients, volunteers, and staff (e.g., weekly or daily number of patients and staff with influenza-like illness). (Having a system for tracking illness trends during seasonal influenza will ensure that the hospital can detect stressors that may affect operating capacity, including staffing and supply needs, during a pandemic.) Information on the clinical signs and diagnosis of influenza is available at www.cdc.gov/flu/professionals/diagnosis/.)
			☐ A protocol has been developed for the evaluation and diagnosis of hospitalized patients and/or staff with symptoms of pandemic influenza. Information on the clinical signs and diagnosis of influenza is available at www.cdc.gov/flu/professionals/diagnosis/.
			☐ A protocol has been developed for the management of persons with possible pandemic influenza who are seen in the emergency department, hospital clinics, or are transferred from another facility or referred for hospitalization by an admitting physician. The protocol includes criteria for detecting a possible case, the diagnostic work-up to be performed, infection control measures to be implemented, medical treatment, and directions for notifying infection control.
			☐ Protocols include triggers for different levels of action that are based on the Pandemic Severity Index (See www.pandemicflu.gov or www.cdc.gov/flu.)
			☐ A system is in place to monitor for and internally review healthcare-associated transmission of seasonal influenza among patients and staff in the facility. Information used from this monitoring system is used to implement prevention interventions (e.g., isolation, cohorting). (This system will be necessary for assessing pandemic influenza transmission.)
☐	☐	☐	**A facility communication plan has been developed and is coordinated with the local health authority. For more information, see www.hhs.gov/pandemicflu/plan/sup10.html.**
			☐ Key public health points of contact for communication[5] during an influenza pandemic have been identified. (Insert name, title and contact information for each.) Local health department communication contact: _____ (Name) (Title) (Contact info) State health department communication contact: _____ (Name) (Title) (Contact info) Tribal health department communication contact: _____ (Name) (Title) (Contact info)
			☐ Responsibility has been assigned for communications with public health authorities (i.e., case reporting, status updates) during a pandemic. (Insert names, titles and contact information of primary and backup persons.) Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info)

[5] Public health points of contact for communicating or reporting during a pandemic may be different from those who are involved in pre-pandemic planning.

3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
			☐ Responsibility has been assigned for communicating with the public. (Insert name, title and contact information of primary and backup persons for each) Clinical spokesperson: Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info) Public relations spokesperson: Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info)
			☐ Methods of communicating with the public (e.g., public service announcements (PSAs), message mapping) and the subjects that will be addressed have been discussed.
			☐ Plans and responsibilities for communicating with hospital staff, volunteers, and private medical staff have been developed. Anticipate employee fear/anxiety and plan communications accordingly.
			☐ Plans and responsibilities for communication with patients and their family members have been developed.
			☐ Responsibility has been assigned for internal communications with staff regarding the status and impact of pandemic influenza in the hospital. (Insert names, titles and contact information of primary and backup persons.) Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info)
			☐ The types of communication needs (e.g., staff and community updates) and methods of communication (e.g., intranet, PSAs, and newspaper reports) have been identified and are appropriate for individuals with visual, hearing, or other disabilities, or limited English proficiency.
			☐ A list has been created of other healthcare entities, including their points of contact, within the region (e.g., other hospitals, long-term care and residential facilities, local hospital's emergency medical services, clinics, relevant community organizations [including those involved with disaster preparedness]) with which it will be necessary to maintain communication in real-time and be able to report information in a timely and accurate manner during a pandemic (Insert location of the list of contacts and attach a copy to the pandemic plan:) _____ (location of list)
			☐ The facility has been represented in discussions with other hospitals regarding local plans for inter-facility communication during a pandemic.
☐	☐	☐	**A plan is in place to provide education and training for personnel and information for patients and visitors to ensure that the implications of and basic prevention and control measures for pandemic influenza are understood. (For more information and resources see www.cdc.gov/flu/professionals/index.htm.)**
			☐ A person has been designated with responsibility for coordinating education and training on pandemic influenza (e.g., identifies and facilitates access to available programs, maintains a record of personnel attendance). (Insert name, title and contact information.) _____ (Name) (Title) (Contact info)

3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
			☐ Current and potential opportunities for long-distance (e.g., Web-based) and local (e.g., health department- or hospital-sponsored) influenza training programs have been identified. (See www.cdc.gov/flu/professionals/training/.)
			☐ Language, format (i.e., prepared for individuals with visual, hearing or other disabilities) and reading-level appropriate materials for clinical and non-clinical personnel have been identified to supplement and support education and training programs (e.g., materials available through state and federal public health agencies and through professional organizations), and a plan is in place for obtaining these materials.
			☐ Education and training for hospital personnel includes information on differences in pandemic influenza infection prevention and control measures if necessary and are provided in languages and format (i.e., prepared for individuals with visual, hearing or other disabilities) appropriate for hospital personnel. Regular education and training should include, but not be limited to: training in Standard and Droplet Precautions; use of respiratory protection; social distancing and respiratory hygiene/cough etiquette.
			☐ Education and training includes information on the hospital's pandemic influenza plan, including relevant personnel policies, and operational changes that will occur once the plan is implemented.
			☐ A plan has been established for expediting the identification of, credentialing and training of non-facility staff brought in from other locations within the region to provide patient care when the hospital reaches a staffing crisis.
			☐ Informational materials (e.g., brochures, posters) on pandemic influenza and relevant hospital policies (e.g., visitation) have been developed or identified for patients and their families. These materials are language format (i.e., prepared for individuals with visual, hearing or other disabilities) and reading-level appropriate and a plan is in place to disseminate these materials to hospital patients and visitors.
☐	☐	☐	**A plan has been developed for triage (e.g., initial patient evaluation) and admission of patients during a pandemic that includes the following:**
			☐ A designated location, separate from other clinical triage and evaluation areas, (utilizing the principles of social distancing) for the triage of patients with possible pandemic influenza.
			☐ Assigned responsibility to specifically-trained healthcare personnel overseeing the triage process.
			☐ Use of signage to direct and instruct patients with possible pandemic influenza on the triage process that is language, format (i.e., prepared for individuals with visual, hearing or other disabilities) and reading-level appropriate.
			☐ A telephone triage system for prioritizing patients who require a medical evaluation (i.e., those patients whose severity of symptoms or risk for complications necessitate being seen by a physician).
			☐ Criteria for prioritizing admission of patients to those in most critical need.
			☐ Coordination with local emergency medical services and 9-1-1 services for transport of suspected flu patients.
			☐ A method to specifically track admissions and discharges of patients with pandemic influenza
☐	☐	☐	**A plan has been developed to address the needs of specific patient populations that may be disproportionately affected during a pandemic or that may need services normally not provided by the hospital (e.g., pediatric and adult hospitals may need to extend services to other populations).**
			Populations to consider
			☐ Children and their families
			☐ Frail elderly and their caretakers
			☐ Young adults
			☐ Patients with chronic diseases (e.g., diabetes, hemodialysis)
			☐ Physically or mentally challenged/individuals with disabilities
			☐ Pregnant women
			☐ Immunocompromised children and adults
			☐ Others (specify)_____

3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
			Issues to consider
			☐ Clinical expertise available
			☐ Need for specialized equipment, medical devices, and medications
			☐ Transportation
			☐ Mental health concerns
			☐ Need for social services
			☐ Translation services/medical interpreters
			☐ Cultural issues affecting behavioral response
☐	☐	☐	**A plan has been developed for facility access during a pandemic that includes the following:**
			☐ Criteria and protocols for modifying admission criteria on the basis of current bed capacity.
			☐ Criteria and protocols for closing the facility to new admissions and referrals to other facilities.
			☐ Criteria and protocols for limiting or restricting visitors to the hospital, including specific plans for communicating with patients' families about hospital rules for visiting hospitalized family members.
			☐ A contingency plan has been developed in the event of hospital quarantine in conjunction with local jurisdictions to ensure quarantine is enforced and necessary supplies, equipment, and basic necessities can be delivered and maintained.
☐	☐	☐	**A plan has been developed for facility security during a pandemic that includes the following:**
			☐ Hospital security personnel input into procedures for enforcing facility access controls.
			☐ Plans for facilitating identification (e.g., special badges) of non-facility healthcare personnel and volunteers by security staff and facilitating their access to the facility when deployed.
			☐ The identity of key and essential personnel who would have access to the facility during a pandemic.
			☐ Recruitment and training of additional security personnel (e.g., local police, national guard) that is coordinated by the local health authority.
			☐ Plans for establishing a controlled, orderly, flow of patients within the facility.
☐	☐	☐	**An infection control plan that includes the following is in place for managing hospital patients with pandemic influenza: (For the most recent information on pandemic influenza infection control recommendations for staff in a healthcare setting, see** www.pandemicflu.gov/plan/healthcare/maskguidancehc.html.)
			☐ An infection control policy[6] that requires healthcare personnel to use at a minimum Standard Precautions (www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html and Droplet Precautions (i.e., mask for close contact) (www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html) with symptomatic patients.
			☐ A communication plan is developed to inform all hospital staff and employees about appropriate need for and use of infection control measures, social distancing practices, and personal protective equipment.
			☐ Use of respiratory protection (i.e., N-95 or higher-rated respirator as feasible) by personnel who are performing aerosol-generating procedures (e.g., bronchosocopy, endotrachael intubation, open suctioning of the respiratory tract). Use of N-95 respirators for other direct care activities involving patients with confirmed or suspected pandemic influenza is also prudent. If supplies of N-95 or higher-rated respirators are not available, surgical masks can provide benefits against large droplet exposures. (Additional guidance available at www.pandemicflu.gov/plan/healthcare/maskguidancehc.html.)
			☐ A strategy for implementing Respiratory Hygiene/Cough Etiquette throughout the hospital. (For information, see www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm.)
			☐ A plan for cohorting patients with known or suspected pandemic influenza in designated units or areas of the facility.

Refer to HHS recommendations for infection control for pandemic influenza for recent updates or changes in recommendations. (www.hhs.gov/pandemicflu/plan/sup4.html)

. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
			☐ Responsibility has been assigned for regularly monitoring www.pandemicflu.gov for updates/revisions of infection control recommendations and implementing recommended changes. Once a pandemic influenza virus is detected and its transmission characteristics are known, HHS/CDC will provide updated guidance on any need to modify infection control recommendations. Any changes to current recommendations will be published on www.pandemicflu.gov. Primary: _____ (Name) (Title) (Contact info) Backup: _____ (Name) (Title) (Contact info)
			☐ A plan for monitoring adherence to infection control procedures and for monitoring the effectiveness of the infection control plan.
☐	☐	☐	**The facility's human resource and payment policies should be reviewed to identify and eliminate language that may encourage staff to work when ill or even when they are symptomatic with influenza-like illness and especially when they are within the period of communicability. An occupational health plan for addressing staff absences and other related occupational issues has been developed that includes the following:**
			☐ A liberal/non-punitive sick leave policy that addresses the needs of ill and symptomatic personnel and facility staffing needs during various levels of a pandemic health crisis. The policy considers the following:
			☐ The handling of personnel who develop symptoms while at work.
			☐ Allowing and encouraging ill people to stay home until no longer infectious.
			☐ When personnel may return to work after having pandemic influenza.
			☐ Personnel who need to care for family members who become ill or affected by closed care centers.
			☐ Personnel who must stay home to care for children if schools and childcare centers close
			☐ A plan to educate staff and volunteers to self-assess and report symptoms of pandemic influenza before reporting for duty; consider a phone triage system similar to that used for patients.
			☐ A list of mental/behavioral health, community and faith-based resources that will be available to provide counseling to personnel during a pandemic.
			☐ A system to track annual influenza vaccination of personnel. (Having a system in place to track annual vaccination will facilitate documentation and tracking of pandemic influenza vaccine in personnel.)
			☐ A plan for managing personnel who at the time of a pandemic are at increased risk for influenza complications[7] (e.g., pregnant women, immunocompromised workers, employees 65 yrs of age and over). A plan might include, for example, placing them on administrative leave, altering their work location, or other appropriate alternative.
☐	☐	☐	**A vaccine and antiviral use plan has been developed. (For useful information on this subject see www.hhs.gov/pandemicflu/plan/sup6.html and www.hhs.gov/pandemicflu/plan/sup7.html.)**
			☐ CDC and state health department websites have been identified for obtaining the most current recommendations and guidance for the use, availability, access, and distribution of vaccines and antiviral medications during a pandemic.
			☐ Local and/or state health departments and the hospital have agreed upon the hospital's role, if any, in a large scale program to distribute vaccine and antivirals to the general population.
			☐ A list has been developed of key healthcare and other personnel who are essential for maintaining hospital operations during an influenza pandemic who would be the first priority for influenza vaccination.
			☐ A plan is in place for expediting administration of influenza vaccine to patients as recommended by the state health department.
			☐ A plan is in place for expediting provision of antiviral prophylaxis/treatment to patients as recommended by the state health department

Persons at increased risk for influenza complications may not be known prior to a pandemic. The subject, however, should be considered as part of the planning process.

3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
			☐ A plan is in place for expediting administration of influenza vaccine to staff as recommended by the state health department.
			☐ A plan is in place for expediting provision of antiviral prophylaxis/treatment to staff as recommended by the state health department.
			☐ The vaccine/antiviral plan considers the following:
			☐ How decisions on allocation of limited vaccine or antivirals will be made.
			☐ How persons who receive antiviral prophylaxis/treatment will be followed for adverse events.
			☐ Security issues have been identified and addressed in the influenza vaccine and antivirals use plans.
☐	☐	☐	**Issues related to surge capacity during a pandemic have been addressed and discussed with the local and/or State health department and other pandemic influenza planning partners.**
			Healthcare services
			☐ Plans include strategies for maintaining the hospital's core missions and continuing to care for patients with chronic diseases (e.g., hemodialysis and infusion services), women giving birth, emergency services, and other types of required care unrelated to influenza.
			☐ Criteria have been developed for determining when to cancel elective admissions and surgeries.
			☐ Plans for shifting healthcare services away from the hospital, e.g., to home care or pre-designated alternative care facilities, have been discussed with local, state, tribal, or regional planning contacts.
			☐ Ethical issues concerning how decisions will be made in the event healthcare services must be prioritized and allocated (e.g., decisions based on probability of survival) have been discussed.
			☐ A procedure has been developed for communicating changes in hospital status to health authorities and the public.
			Staffing
			☐ A contingency staffing plan has been developed that identifies the minimum staffing needs and prioritizes critical and non-essential services on the basis of essential facility operations.
			☐ The contingency staffing plan considers how health professions students assigned to the facility will be utilized.
			☐ A plan has been developed for utilizing non-facility volunteer staff, such as those who may be made available through a State Emergency System for Advanced Registration of Volunteer Health Professionals (ESAR-VHP) to provide patient care when the hospital reaches a staffing crisis.
			☐ The contingency staffing plan includes a strategy for training of non-facility volunteers (e.g., retired clinicians, trainees) and includes a procedure for rapid credentialing/privileging (consistent with the JCAHO disaster privileging standard MS.4.110) and badging for easy identification by security and access to the facility when deployed.
			☐ The contingency staffing plan includes a strategy for cross-training and reassignment of personnel to support critical services.
			☐ The contingency staffing plan considers alternative strategies for scheduling work shifts in order to enable personnel to work longer hours without becoming overtired.
			☐ Responsibility has been assigned for conducting a daily assessment of staffing status and needs during an influenza pandemic. (Insert name, title and contact information of primary and backup persons.)
			Primary: _____ (Name) (Title) (Contact info)
			Backup: _____ (Name) (Title) (Contact info)
			☐ Define criteria for declaring a "staffing crisis" that would enable the use of emergency staffing alternatives.

3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	

- ☐ Strategies have been developed for supporting personnel whose family and/or personal responsibilities or other barriers prevent them from coming to work (e.g., strategies that take into account the principles of social distancing when schools are closed, care of elders, transportation, reasonable accommodation or state governmental mandate).
- ☐ The staffing plan includes strategies for collaborating with local and regional planning and response groups to address widespread healthcare staffing shortages during a crisis, including the development of memorandums of advanced agreement (MAAs) and memorandums of understanding (MOUs) with regional and tribal healthcare partners.

Consumable and durable medical equipment and supplies

- ☐ Estimates have been made of the quantities of essential patient care materials and equipment (e.g., intravenous pumps and ventilators, pharmaceuticals, diagnostic testing materials) and personal protective equipment (e.g., masks, respirators, gowns, gloves, and hand hygiene products), that would be needed during an eight-week pandemic with subsequent eight-week pandemic waves.
- ☐ Estimates have been shared with local, regional, and tribal planning groups to better plan stockpiling agreements.
- ☐ A strategy has been developed for how priorities would be made in the event there is a need to allocate limited patient equipment (e.g., ventilators), pharmaceuticals (e.g., antiviral and antibacterial therapy), and other resources.
- ☐ A plan has been developed to address related shortages of supplies (e.g., intravenous fluids, personal protective equipment), including strategies for using normal and alternative channels for procuring needed resources.
- ☐ A list of alternative vendors for medical devices, pharmaceuticals, and contracted services (e.g., laundry, housekeeping, food services) has been developed.
- ☐ A plan has been developed for maintaining critical laboratory testing capability in-house and priorities for tests that require shipping; back-up plans are in place for testing services that will remain in-house.
- ☐ A process is in place to track and report to public health and other response partners, in real-time, information regarding the status of the hospital and resources available that would identify burden on the system.

Bed capacity

- ☐ Surge capacity plans include strategies to help increase hospital bed capacity.
- ☐ Signed agreements have been established with area hospitals and long-term-care facilities to accept or receive appropriate non-influenza patients who need continued inpatient care to optimize utilization of acute care resources for seriously ill patients.
- ☐ Facility space has been identified that could be adapted for use as expanded inpatient beds and this information has been provided to local, regional, and tribal planning contacts.
- ☐ Plans are in place to increase physical bed capacity (staffed beds), including the equipment, personnel and pharmaceuticals needed to treat a patient with influenza (e.g., ventilators, oxygen, antivirals).
- ☐ Logistical support has been discussed with local, state, tribal and regional planning contacts to determine the hospital's role in the set-up, staffing, and provision of supplies and in the operation of pre-designated alternate care facilities.

Postmortem care

- ☐ A contingency plan has been developed for managing an increased need for post mortem care and disposition of deceased patients.
- ☐ An area in the facility that could be used as a temporary morgue has been identified.
- ☐ Logistical support for the management of the deceased has been discussed with local, state, tribal, or regional planning contacts and local coroners/medical examiners.
- ☐ Local morticians have been involved in planning discussions.
- ☐ Mortality estimates have been used to anticipate and supply needed body bags and shroud packs.
- ☐ Plans for expanding morgue capacity have been discussed with local, State, tribal and regional planning contacts.

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Appendix G: Healthcare Facility Pandemic Influenza Planning Committee

Representatives for a hospital pandemic influenza planning committee may include:

- **Hospital staff**
  - Administrative/senior management (including fiscal officer)
  - Legal counsel/risk management
  - Infection control/hospital epidemiology
  - Hospital disaster/emergency coordinator
  - Engineering/physical plant/industrial hygiene/institutional safety
  - Nursing administration
  - Medical staff (including outpatient areas)
  - Intensive-care unit
  - Emergency departments
  - Laboratory services
  - Respiratory therapy
  - Nutrition and food services
  - Pharmacy
  - Environmental services (housekeeping, laundry)
  - Public relations
  - Security
  - Materials management
  - Education/training/staff development
  - Occupational health
  - Information technology
  - Diagnostic imaging
- **Adjunct staff members**
  - Infectious diseases
  - Mental health (psychiatry, psychology)
  - Union representatives
  - Human resources
  - Social work
  - Director of house staff/fellowship and other training programs
  - Critical care medicine
  - Pathology
- **State and local health departments**
  - Communicable disease division
  - Laboratory services
  - Medical examiners
- Community partners
  - Emergency medical technician ("first responders")
  - Local law enforcement
  - Funeral service personnel
  - Community service agencies
  - Federally qualified health centers (FQHC)* and other healthcare safety net providers**

*A federally qualified health center (FQHC) is a type of provider defined by the Medicare and Medicaid statutes. FQHCs include health centers receiving grants under section 330 of the Public Health Service Act, certain tribal organizations, and clinics designated by HHS as FQHC Look-Alikes. More information may be found at: http://www.cms.hhs.gov/providers/fqhc.

**Health care safety net providers deliver care to low income and other vulnerable populations, including the uninsured and those covered by Medicaid. Many of these providers have either a legal mandate or an explicit policy to provide services regardless of a patient's ability to pay (http://www.ahcprgov/data/safetynet/faq.htm). Major safety net providers include public hospitals and community health centers, as well as, teaching and community hospitals and private physicians.

Appendix H: Emergency Patient Transfer Process

The HHS Hospital Preparedness Grant has facilitated the development of regional and statewide patient transfer processes. Consistent with the DHH Office of Public Health, the state has been divided into nine regions. The volunteer Designated Regional Coordinator (DRC) from each region has agreed to support the patient transfer process by identifying available resources in their region.

Each region has a Designated Regional Coordinator (and backup) to assist.

The process for patient transfer is as follows:

1) The Administrator/Medical Director on call from the hospital that has patients that need to be transferred **outside the region** should contact their Designated Regional Coordinator. The transferring hospital should have the following information available for their DRC:

Patient Name, Preliminary Diagnosis, Resources Needed, Physician Support, Type of Bed, Other Special Needs

Hospital Information, Hospital Name, Contact Person for transfer, Telephone Number, Transfer approved by, Whether staff will accompany patient(s)

2) The "transferring" DRC should contact "accepting" DRC with a referral request. The transferring DRC will provide patient and hospital information. Please note the HHS Coordinator is on-call and is available for back-up assistance.
3) The "accepting" DRC will contact hospitals in their region for available resources. The DRC will provide the potential accepting hospitals with limited patient and hospital information consistent with HIPPA guidelines until appropriate resources have been identified. If resources are not available, the "accepting" DRC will contact the "transferring" DRC to advise that another alternative region must be identified.
4) The "accepting" hospital will contact the "transferring" hospital regarding transfer resources. Transfer will be arranged per procedures of the transferring and receiving hospitals.
5) If transportation is needed, the Hospital DRC will contact the EMS DRC within their region for assistance.
6) The "accepting" DRC will notify the "transferring" DRC of the proposed referral arrangements.

Updated 2009

Appendix I: Patient Tracking Plan

PURPOSE:

In the event of a disaster, patients will be displaced from hospitals, nursing homes, and private homes. A mechanism is needed so that patients can be found by their loved ones once they have been transported to and from hospitals, nursing homes and medical special needs shelters. In an event of such a disaster, this patient-tracking plan will be implemented and executed.

CONCEPT OF OPERATIONS:

Once an evacuation is triggered, hospitals and nursing homes will provide a list of their patients via **At Risk Registry**. The list of patients should include all patients including those being evacuated through the federal system, those private moved using commercial resources, as well as, those sheltering in place. The **At Risk Registry** can be found on the LHA website at www.lhaonline.org or at www.dhh.louisiana.gov.

The Louisiana Hospital Association (LHA) will use the list of patients and their dispositions from the At Risk Registry to update Louisiana's Patient Tracking System. The LHA will work with the receiving hospitals to maintain current patient information via the identified mechanism.

PATIENT LOCATOR:

Louisiana's Patient Tracking System is accessible via the web at www.lhaonline.org under the "HHS Emergency Preparedness" section. The web address will also be disseminated to the media for the use by the general public to recover information about family members that have been evacuated.

Draft 4/2011

Appendix J: Influenza Self-care

Influenza Self-care

As with seasonal influenza, most cases of the new pandemic strain can be cared for and treated within the nursing home environment. The following is a guide to help determine if a resident has influenza, a guide to assist in the care of the resident within the nursing home, guidance for use of antiviral medications, and signs and symptoms that a resident may need to seek medical evaluation.

IS it the Flu or the common Cold?

Symptom	FLU (Influenza)	Cold (rhinoviruses)
Fever	USUAL, sudden onset 100^0 F-104^0 F Lasts 3-4 days	Rare
Headache	USUAL, and can be severe	Rare
Aches and Pains	USUAL and can be severe	Rare
Fatigue and Weakness	USUAL, and can last a week or more	Usually mild
Extreme Fatigue	USUAL, early onset can be sever	Rare
Nausea, Vomiting	in Children < 5 years	Rare
Runny, stuffy nose	Rare	USUAL
Sneezing	Rare	USUAL
Sore Throat	Rare	USUAL
Chest discomfort	USUAL, and can be severe	Sometimes, mild to Moderate
Complications	Respiratory failure; can worsen a current chronic condition; can be life-threatening	congestion; ear ache
Prevention	frequent hand washing, cover your Cough, influenza vaccine (if available)	Frequent hand washing; cover your cough

Caring for Someone with Influenza

During a severe influenza outbreak or pandemic, the media and healthcare providers will notify residents of Louisiana with instructions for obtaining medical advice and receiving medical care. The following information is a general guide and is not intended to take the place of medical advice from a healthcare provider.

Monitoring and Comforting

Keep a care log. Record the following information about the ill person at least once each day or more often as symptoms change, along with the date and time.
Check the patient's temperature
Check the patient's skin for color (pink, pale, bluish?) and rash
Record the quantity of fluids consumed each day and through the night
Record how many times the ill person urinates each day and the color of the urine (clear to light yellow, dark yellow, brown, or red)
Record all medications, dosages and times given

Keep the ill person as comfortable as possible. Rest is important.
Keep tissues and a trash bag for their disposal within reach of the patient.
Keep in mind that low-grade fever is a sign that the patient is fighting the infection. It will go away as the patient is getting better. Sponging with lukewarm (wrist temperature) water may lower the patient's temperature, but only during the period of sponging. **Do not sponge with alcohol.**

Watch for complications of influenza. Complications may be more common in individuals with health conditions such as diabetes, heart and lung problems, but may occur with anyone who has the flu.

Call your healthcare provider if the ill person:

Has difficulty breathing, fast breathing, or bluish color to the skin or lips
Begins coughing up blood
Shows signs of dehydration and cannot take enough fluids
Does not respond or communicate appropriately or appears confused
Complains of pain or pressure in the chest
Has convulsions (seizures)
Is getting worse again after appearing to improve
Is an infant younger than 2 months old with fever, poor feeding, urinating less than 3 times per day or other signs of illness

Medications:
Use ibuprofen (Motrin®) or acetaminophen (Tylenol®) or other measures, as recommended by your healthcare provider for fever, sore throat and general discomfort.
DO NOT use aspirin in children or teenagers (sixteen years old and younger) with influenza because it can cause Reye's syndrome, **a life-threatening illness**.

Fluids and Nutrition:
If the patient is **not** vomiting, offer small amounts of fluids frequently to prevent dehydration, even if he or she does not feel thirsty. If the ill person is not eating solid foods, include fluids that containing sugars and salts, such as broth or soups, sports drinks (diluted with half water), ginger ale and other sodas, but **not** diet drinks. Regular urination is a sign of good hydration.

Recommended minimum daily fluid intake, if not eating solid food:

Young children – 1.5 ounce per pound of body weight per day
Example: a 20 lb. child needs approximately 30 oz. fluid per day
Older children and adults – 1.5 to 2.5 quarts per day

If the patient is vomiting, do not give any fluid or food by mouth for at least 1 hour. Let the stomach rest. Next, offer a clear fluid, like water, in very small amounts. Start with 1 teaspoon to 1 tablespoon of clear fluid every 10 minutes. If the patient vomits, let the stomach rest again for an hour. Again, try to give small frequent amounts of clear fluid. When there is no vomiting, gradually increase the amount of fluid offered and use fluids that contain sugars and salts. After 6-8 hours of a liquid diet without vomiting, add solid food that is easy to digest, such as saltine crackers, light soups or broth, mashed potatoes or rice. Gradually return to a regular diet.

Babies who are breast-fed and vomiting can continue to nurse. Feed smaller amounts more often by breast-feeding on only one breast for 4-5 minutes every 30-60 minutes or by offering teaspoonfuls of Pedialyte® or Lytren® every 10 minutes.

Make sure the patient avoids drinking alcohol and using tobacco. Smoking should not be allowed in the home.

Watch for signs of dehydration:

Weakness or unresponsiveness
Decreased saliva/dry mouth and tongue
Skin tenting: check this by picking up layers of skin between your thumb and forefinger and gently pinching for 1 second. Normally, the skin will flatten out to its normal shape right away. If a patient is dehydrated, the skin will "tent" or take 2 or more seconds to flatten out. This is best checked on the belly skin of a child and on the upper chest of an adult.
Decreased output of urine, which becomes dark in color from concentration. Ill persons who are getting enough fluids should urinate at least every 8 hours.

If the ill person is dehydrated, give sips or spoonfuls of fluids frequently over a 4-hour period. Watch for an increase in urination, a lighter color of the urine and improvement in the patient's overall condition. Persons of any age who have become dehydrated need more fluids than the amounts given above for persons who are not dehydrated. These are signs that that the increased fluids are working.

Children under 5 years: Give 1 ounce per pound body weight over 4 hours (example: a 20lb child needs 20 oz. or 2-3 cups of liquid over 4 hours)
Older children and adults will need 1-2 quarts of fluids over the first 4 hours

Appendix K: EMSTAT All Hazards System Tracking

DRAFT

Pandemic Flu Data Tracking

EMStat Data Elements, Assumptions, Business Rules, and Page Layout

Draft: April 6, 2011

Assumptions

1. Default reporting period is every 24 hours
    a. Data from every reporting period is saved and available for reporting and trending over time
2. Age grouping:
    a. Adults –17 years old and over
    b. Children – Under 17 years old

Business Rules

1. Highlighted fields are mandatory. Entry is required to permit further data entry.
2. If Event type is labeled "Pan Flu", display only fields tagged as "Pan Flu". Otherwise, display all fields.
3. "Beds" can also include cots and stretchers in counts.
4. Bed Census data should be pre-populated from Hospital Profile. No redundant data entry.

Page 1: Incident Command Structure

Emergency Operations Center Location	
Emergency Operations Center Email	

Liaison Officer First Name		Operations Branch Manager First Name	
Liaison Officer Last Name		Operations Branch Manager Last Name	
Liaison Shift		OPS Shift	
Liaison Phone Number (Day)		OPS Phone Number	
Liaison Phone Number (Night)		OPS Fax Number	
Liaison Fax Number		OPS Email	
Liaison Email			
Incident Commander First Name		Finance Branch Manager First Name	
Incident Commander Last Name		Finance Branch Manager Last Name	
IC Shift		Finance Shift	
IC Phone Number		Finance Phone Number	
IC Fax Number		Finance Fax Number	
IC Email		Finance Email	
Planning Branch Manager First Name		Public Information Officer First Name	
Planning Branch Manager Last Name		Public Information Officer Last Name	
Planning Shift		Public Information Shift	
Planning Phone Number		Public Information Phone Number	
Planning Fax Number		Public Information Fax Number	
Planning Email		Public Information Email	
Logistics Branch Manager First Name		Security Officer First Name	
Logistics Branch Manager Last Name		Security Officer Last Name	
Logistics Shift		Security Shift	
Logistics Phone Number		Security Phone Number	
Logistics Fax Number		Security Fax Number	
Logistics Email		Security Email	
Pharmacy Contact Name Pharmacy Contact Phone Number Pharmacy Contact Fax Number Pharmacy Contact Email			

Page 2: Facility Census Information

Facility Secure		
Security Description		
Facility Problem Text		
Census Data	**Adults**	**Children**
Census		
Waiting in ED/Triage		
Total Treated for Influenza		
Total Treated for Pneumonia		
Total Treated for Any Reason		
Admissions		
Admitted for Influenza		
Admitted for Pneumonia		
Total Admitted for Any Reason		
Maximum Surge Capacity for PanFlu		

Page 3: Staffing Information

Staff Type	Can Provide	Urgently Needed
Doctors: Pulmonologists		
Doctors: Infectious Disease		
Doctors: Intensivists		
Nurses: Critical Care		
Nurses: Critical Care Pediatric		
Pharmacists		
Respiratory Therapists		
Other (Specify):		

Page 4: Detailed Census Information

Bed Type	Available		Needed	
	Adult	Pediatric	Adult	Pediatric
Beds: General Med/Surg				
Beds: Critical Care (Telemetry)				
Beds: OR Rooms				
Beds: ICU				
Beds: Negative Pressure Isolation				
Beds: Emergency				
Beds: Burn				
Beds: Psychiatry				
Beds: Dialysis				
Beds: Other (Specify):				

Page 5: Equipment Inventories

Equipment Type	Adult		Pediatric	
	Available	Needed	Available	Needed
Ventilators				
Disposable Nebulizers				
Other Respiratory Equipment (Filters, Circuits, etc.)				
Mobile Cardiac Monitors				
Pulse Oximetry				
Beds				
IV Pumps Other (Specify):				

Page 6: Pharmaceutical Inventories

Number of Treatment Regimens		Urgently Needed	
		Adult	Pediatric
Tamiflu			
Relenza			
Pandemic Influenza Vaccine			
Ciprofloxacin			
Levofloxacin			
Doxycycline			
Tetracycline			
Rifampin			
Streptomycin			
Gentamicin			
Penicillin			
Cephalosporins			
Vaccinia immune globulin			
Other (Specify)			
Comment			

Page 7: Other Patient Care Supply Inventories

Item Counts	Available	Urgently Needed
Disposable N95, Surgical And Procedure Masks		
Face Shields (disposable Or Reusable)		
Gowns		
Gloves		
Hand Hygiene Supplies		
O2 Masks, Suction Catheters, O2 Tubing		
Endotrachael Tubes, Laryngoscopes, Oraphyngeal Airways		
Central Line Kits, Iv Start Kits		
IV Fluids		
IV Fluids - Normal Saline - 1000ml		
IV Fluids - Normal Saline - 500ml		
IV Fluids - D5W - 1000ml		
IV Fluids - D5W - 500ml		
IV Fluids - Lactated Ringers - 1000ml		
IV Fluids - D5 1/2NS - 1000ml		
IV Fluids - Other (Specify)		
IV Fluids - Other		
Syringes		
Bandages/dressings		
Facial Tissues		
Extra Linens		
Bleach/Disinfectant		
Morgue Packs		
Body Bags		
Water		
Food Supply		
Other (Specify):		

Page 8: Decontamination and Mortality Data

Item	Adults	Children
Event Related Deaths		
Non-Event Related Deaths		
Number of Unidentified Males		
Number of Unidentified Females		
Number of Deceased Stored On Site		
Number of Deceased Stored Off Site		
	Available	**Urgently Needed**
Number of Refrigerated Storage Spaces		

Appendix L-1: Triage

The proposed triage system were developed to address needs of hospital EDs, as number of patients presenting to the facility begin to exceed usual capacity for the ED. The implementation and adoption of the proposed system is up to each facility, but is strongly encouraged by the Louisiana Pandemic Flu Clinical Forum where applicable. Refer to *Appendix J-1* for the flow diagram associated with the triage process.

To reduce the number worried-well and patients with minimal illness in the main ED of hospital, the triage process should begin with a Screening Triage at the perimeter of the campus. Refer to *Appendix J-2* for the form associated with this step. The first step of the screening triage is to have a hospital staff* quickly conduct a visual assessment to determine whether a patient looks critically ill or has an obvious injury/ailment (e.g. broken arm) that is not flu related. If so, the patient is directed to the main ED for standard triage. If the patient is not critically ill and may have a flu like illness, the hospital staff should go through the checklist of symptoms associated with the flu and listed on the screening triage tool. If the patient has one or more of the symptoms listed and again does not look critically ill, the patient is diverted to Rapid Triage. The destination of the patient whether Main ED or Rapid Triage is indicated at bottom of the screening form, initialed and timed by hospital staff, and is handed to the patient or care provider to take. Hospitals may choose to adopt duplicate copies of the screening triage form so one is kept for their own records at the screening triage station.

**Note: It would be ideal to have a nurse or an EMT perform the screening triage but in a worst case scenario and with extremely limited staffing or where the state would operate under altered standards, a non-medical staff (i.e. security guard/volunteer) may be considered for conducting the screening triage.*

For patients that are diverted to the main ED, usual operating procedures for triage, assessment, and evaluation may be followed along with use of that institution's regular forms. For patients that display flu-like symptoms at the screening triage and are sent to the rapid triage, they are to be greeted by a Rapid Triage Nurse or other Clinical professional who completes the left hand side of the form presented in *Appendix J-3*, titled "Pandemic Flu Triage Template."

The goal of the rapid triage professional is to quickly evaluate and separate patients who have minor flu illnesses and thus can wait (potentially hours) in a Flu Holding Area from those whose flu symptoms need more immediate attention and need to be directed to the main ED. To assist as a guide, the "Pandemic Flu Triage Template" includes concerning abnormal findings (made bold-faced) both in the history and physical exam of the patient. If one or several of these items are noted in the patient case, it may signify that a patient cannot wait very long for care and thus should be diverted to the main ED rather than the flu holding area.

For other patients that come to the rapid triage nurse, the triage nurse or professional may note that the patient does not actually exhibit influenza-like illness (perhaps mistakenly sent by screening triage to rapid triage rather than main ED) or based on her exam she notes that what may have sounded like a flu symptom at screening triage may be a result of another medical condition. If so, the nurse would redirect these patients to the main ED and would note this disposition at the end of her section on the Pandemic Flu Triage Template.

The decision as to where a patient may be sent (either to the flu holding area or Main ED) may reflect the level of care provided at each site, the proximity of the flu holding area to other acute patient care areas of the hospital, or other institution specific variables. Certain hospitals may set-up a flu holding area in their auditorium where no clinical care can be provided, while others may have a dedicated patient care area where basic monitoring can be done, labs can be obtained, or other medical procedures can be accommodated. Accordingly, the final distribution of patients into the flu holding area vs. main ED may differ for each hospital.

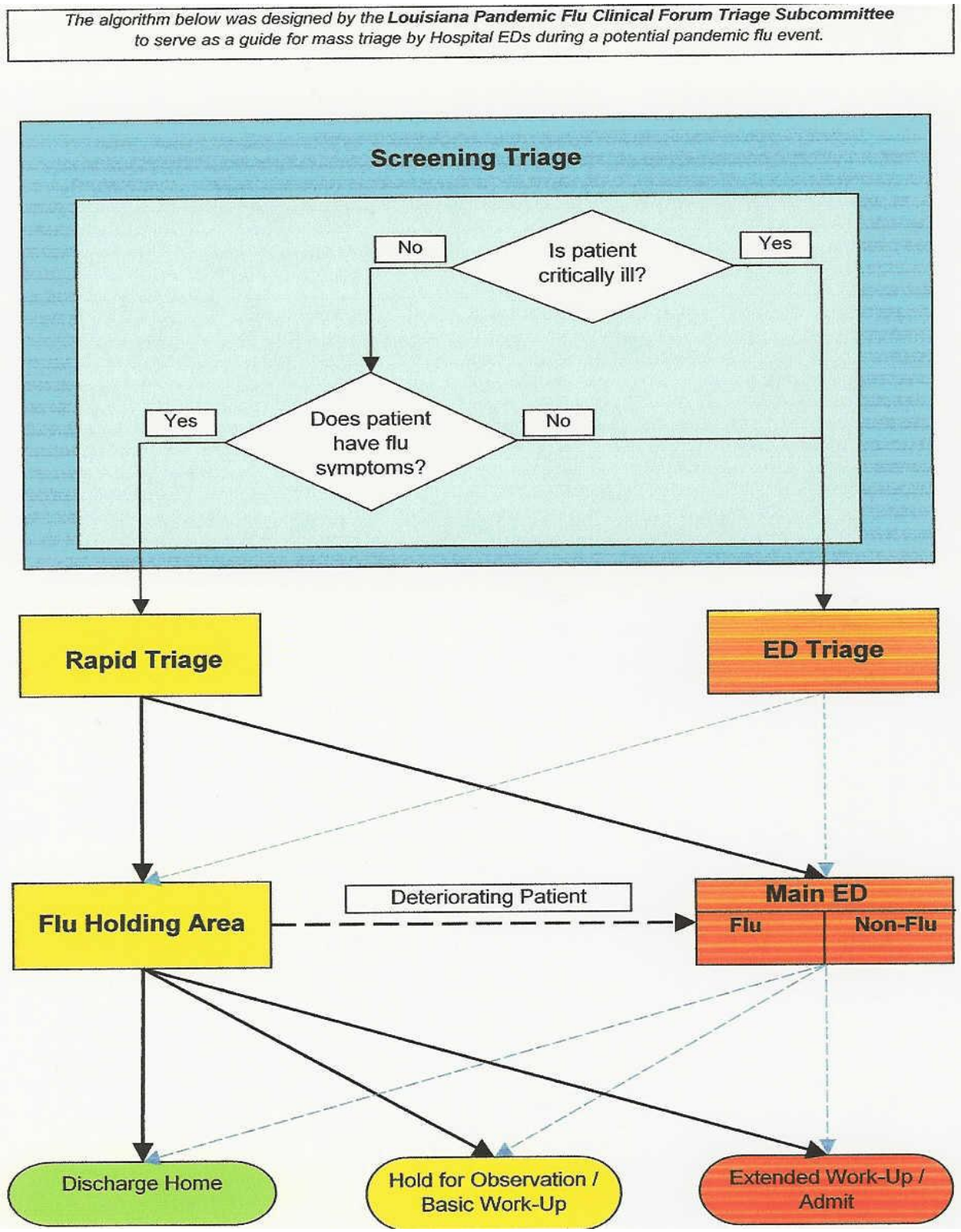
Depending on the staffing at your flu holding area, you may have additional staff, an LPN, medical students, or other paraprofessionals fill in other pertinent medical information for the patient as denoted in the green box at the bottom left hand side of the form. This includes, medications, allergies, LMP, social history. This information was not included in the triage nurse's assessment to streamline his/her activity but is amenable change.

Once the rapid triage nurse or professional finishes her section and notes whether the patient goes to a flu holding area or main ED, you can consider the triage process finished. The form used by the rapid triage nurse can be used further to document care for the patients diverted to the flu holding area. This form is not recommended to be used for patients that are directed to the Main ED, unless the institution reviews/changes this form and finds it acceptable to do so.

The flu holding area whether a large waiting room or another designated patient care area in the hospital should be ideally in close proximity to the main ED. While it is important to keep these two areas clearly separated and delineated to avoid patient mixing and minimize contact of flu patients with non-flu patients, this will accommodate quick transfers for any patients rapidly declining in status or requiring further supplies, material, etc. from the main ED.

The flu holding area would again house patients requiring minimal/low intensity clinical supervision and who may need to wait for some time before they are evaluated by a physician, APRN, or other advanced degree clinician. The clinician when available can continue completing the right hand side of the Pandemic Flu Triage Template. This form was designed by the Pandemic Flu Clinical Forum to meet the requirements of a "medical screening exam" to satisfy EMTALA requirements. Therefore, once complete, the advanced practitioner can discharge the patient if he or she chooses to do so. If the patient is not discharged, the patient may be kept for further observation and evaluation in the flu holding area or the main ED.

Appendix L-2: Triage Algorithm



Appendix L-3: Pandemic Flu Screening Triage Form

Does the patient look critically ill or have obvious injuries?

☐**Yes** → Send to Main ED
☐**No** → Continue Form Below

Patient Name:_____ Date: _____/_____/_____
Time:_____:_____

Does the patient have any of the following problems? Check all that apply. Send to Rapid Triage if one or more boxes (excluding "other") are checked.

- ❑ Fever
- ❑ Cough
- ❑ Sore Throat
- ❑ Shortness of Breath
- ❑ Runny nose
- ❑ Congestion/sinus aches
- ❑ Muscle Aches
- ❑ Exposure to anyone with the flu
- ❑ Other: _____

☐Report to Rapid Triage
☐Report to Main ED Triage

Screener Initials: _____

**The above document was produced in conjunction with the Louisiana Pandemic Flu Clinical Forum Triage Subcommittee.*

Appendix L-4: Pandemic Flu Triage Template Form

Pandemic Flu Triage Template

Rapid Triage (Nurse)

Triage Date: **Triage Time:**

Name:

DOB: **Age:** **M / F**

Chief Complaint:
HPI:

Vitals: BP____ P____ RR____ Temp____ SaO_2____

ROS: Non-Remarkable
Mod-Severe Dyspnea
Chest Pain (> 1 min)
Hemoptysis
Severe Headache
Intractable Vomiting
Intractable Diarrhea
Syncope
Change in Mental Status
Other:_____

PMH: None
HIV
Steroids
Recent chemo
Other:_____

PE:
General: NAD
Mod-Severe Distress
Toxic Appearance
ENT: Normal
Abnormal
Resp: Clear
Wheezing (Mod-Severe)
Rales
Decreased Air Flow
Retractions/Nasal Flaring
Heart: Normal
Irregular Rhythm (new)
Irregular Rate
Murmur

Disposition ☐**Flu Holding Area** ☐ **Main ED**

Provider Signature:_____

Meds: **Allergies:**

LMP: **Pregnant (Y/N)**
If yes, 2nd or 3rd trimester (Y/N)

Social History:

Medical Screening (Physician/APRN/PA)

Date: **Time:** ☐**Reviewed Triage Note**
Chief Complaint:
HPI:

Associated Signs and Symptoms: *Non-Remarkable*

Cough (productive / nonproductive)		Fever
Chills	Sore Throat	Dyspnea
Congestion	Rhinorrhea	Wheezing
Ear Pain	Myalgia/Arthralgia	Nausea/Vomitir

ROS: *Non-Remarkable*

Headache	Syncope	Blurry Vision
Diarrhea	Abdominal Pain	Chest Pain
Back Pain	Urinary frequency/urgency	

PMH: *Non-Remarkable*

CVD	CHF	Asthma/COPD
Steroids	Recent Chemo	Malignancy
Diabetes	HIV	ESRD
Splenectomy	Age>70 or <6 mo	Prematurity

PE:
Vitals: BP____ P____ RR____ Temp____ SaO_2____

General:	NAD	Mild /Mod/Sev. Distres
	Alert	Lethargic
	Oriented	Disoriented
ENT:	Ears Normal	Air-fluid level
	Nose Normal	Rhinorrhea
		Purulent Nasal Discharg
		Nasal Flaring
	Throat Normal	Mucus Membranes Dry
		Tonsillar Exudate
		Pharyngeal Erythema
Resp:	Normal	Wheezing/Rhonchi/ Ral
		Decreased breath sound
		Dullness to Percussion
		Retractions
Heart:	Regular Rhythm	Irregular Rhythm
	Regular Rate	Irregular Rate
	No Murmur	Murmur Present

Other: _____

Clinical Impression:
Condition:
Orders:_____

Disposition: ☐ Discharge ☐ Flu Holding Area ☐ Main I

Provider Signature_____ **Time:**_____

Appendix M: Examples of Consumable and Durable Supply Needs

- **Durable resources**:
  - Ventilators
  - Respiratory care equipment
  - Beds
  - IV pumps

- **Consumable resources**

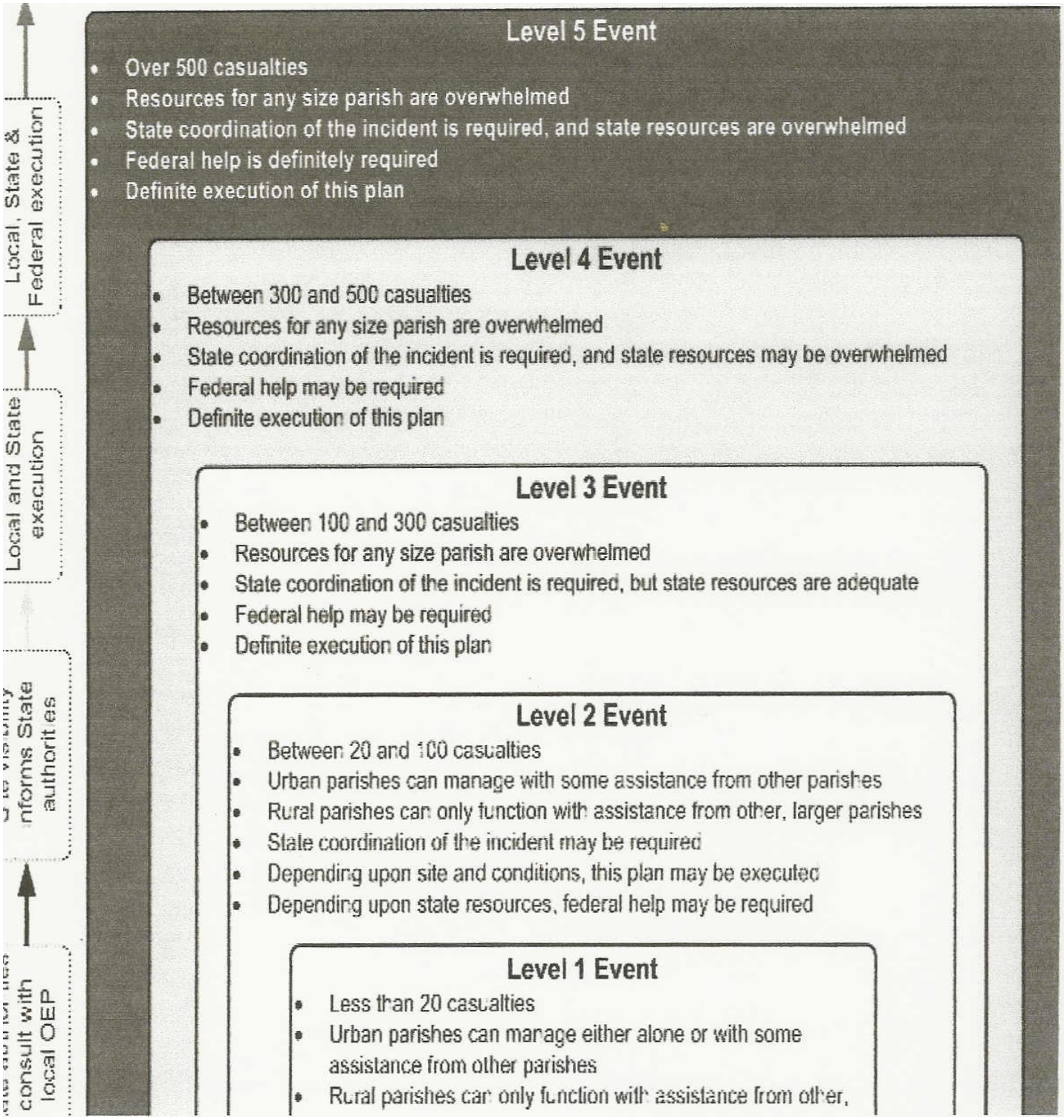
PPE Supplies
- Disposable N95, surgical and procedure masks
- Face shields (disposable or reusable)
- Gowns
- Gloves
- Hand hygiene supplies (antimicrobial soap and alcohol-based, waterless hand hygiene products)

Patient Care Supplies
- oxygen tanks, oxygen masks, suction catheters, O2 tubing
- endotrachael tubes, laryngoscope, oropharyngeal airways
- Central line kits, IV start kits
- IV fluids
  - Normal saline – 1000ml
  - Normal saline – 500ml
  - D5W – 1000ml
  - D5W – 5000ml
  - Lactated Ringers – 1000ml
  - D5 1/2NS – 1000ml
  - other
- syringes
- bandages/dressings
- facial tissues
- extra linens

Other Supplies
- bleach
- morgue packs
- water
- food – 6-8 week supply

Appendix N: DHH State Hospital Crisis Standard of Care Guidelines in Disasters

Appendix O: Level 5 Event Assumptions



Appendix P: State of Louisiana DHH Mass Fatality Framework

MassFatalityPlan-April 2010.docx