



supplement 3 healthcare planning

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SUMMARY OF ROLES AND RESPONSIBILITIES FOR HEALTHCARE AND PUBLIC HEALTH PARTNERS

INTERPANDEMIC AND PANDEMIC ALERT PERIODS

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, surge capacity, supply chain and access to critical inventory needs, and mortuary issues.
- Participate in pandemic influenza response exercises and drills, and incorporate lessons learned into response plans.

State and local responsibilities:

- Develop statewide and local or regional plans to manage an influenza pandemic.
- 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.

HHS 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.

PANDEMIC PERIOD

If an influenza pandemic begins in another country:

Healthcare facility responsibilities:

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

State and local responsibilities:

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

PANDEMIC PERIOD (CONT.)

If an influenza epidemic begins in or enters the United States:

Healthcare facility responsibilities:

- Activate institutional pandemic influenza plans, in accordance with the "Hospital Pandemic Influenza Triggers" outlined in Table 1.
- Identify and isolate all potential patients with pandemic influenza.
 - Implement infection control practices to prevent influenza transmission.
 - Ensure rapid and frequent communication within healthcare facilities and between healthcare facilities and health departments.
- Implement surge-capacity plans to sustain healthcare delivery.

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.

HHS 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 states with materials from the Strategic National Stockpile for further distribution to healthcare facilities.

S3-I. RATIONALE

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, 18–42 million outpatient visits, and 20–47 million additional illnesses, depending on the attack rate of infection during the pandemic.¹ 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,² 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.

¹ Meltzer et al, EID 2004 Meltzer MI, Cox NJ, Fukuda K The economic impact of pandemic influenza in the United States: priorities for intervention. EID 1999 Sep-Oct;5(5):659-71.

² Depending on the locality, health departments may also include territorial or tribal health departments.

S3-II. OVERVIEW

Supplement 3 provides healthcare partners with recommendations for developing plans to respond to an influenza pandemic. The focus is on planning during the Interpandemic Period for: pandemic influenza surveillance, decision-making structures for responding to a pandemic, hospital communications, education and training, patient triage, clinical evaluation and admission, facility access, occupational health, distribution of vaccines and antiviral drugs, surge capacity, and mortuary issues. Planning for the provision of care in non-hospital settings—including residential care facilities, physicians' offices, private home healthcare services, emergency medical services, federally qualified health centers (FQHCs),³ rural health clinics, and alternative care sites—is also addressed.

The recommendations for the Pandemic Period focus on activation of 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.

The activities suggested in Supplement 3 are intended to be synergistic with those of other pandemic influenza planning efforts, including state preparedness plans. Links to additional resources that provide the most up-to-date guidance on particular topics are included. A checklist to help facilities assess their current level of readiness to deal locally with an influenza pandemic is provided in Appendix 2.

S3-III. RECOMMENDATIONS FOR THE INTERPANDEMIC AND PANDEMIC ALERT PERIODS

A. Planning for provision of care in hospitals

U.S. healthcare facilities must be prepared for the rapid pace and dynamic characteristics of pandemic influenza. All hospitals should be equipped and ready to care for: 1) a limited number of patients infected with a pandemic influenza virus, or other novel strains of influenza, as part of normal operations; and 2) a large number of patients in the event of escalating transmission of pandemic influenza.

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.

³ 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/>

Hospitals that intend to use an “all-hazards” incident command structure for responding to pandemic influenza will need to incorporate the relevant aspects of communicable disease control that are included in this supplement and in **Supplement 4**. Hospitals should consider using “table top” simulations or other exercises to test response capabilities (see Appendix 1).

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 Box 1). 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 Box 1).
 - 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 HRSA hospital preparedness programs in the state or region.
 - Include a hospital representative in local or regional planning efforts.
 - Include representatives from safety-net providers⁴ in the local community (e.g., FQHCs and rural health clinics).

2. Planning elements

The elements of a hospital influenza pandemic preparedness plan discussed below are listed in the Hospital Preparedness Checklist provided in Appendix 2.

a) Hospital surveillance

- **Hospital surveillance for novel strains of influenza**

During the Interpandemic 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 the alert for such cases. Novel strains may include avian or animal influenza strains that can infect humans (like avian influenza A

⁴ 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.ahcpr.gov/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.

[H5N1]) and new or re-emergent human viruses that cause cases or clusters of human disease. For detection of cases during the Interpandemic 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 **Supplement 1**). 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 (see S3-III.A and the Table).
- **Hospital surveillance for pandemic influenza**
During the Pandemic Period, healthcare providers and healthcare facilities will play an essential role in pandemic influenza surveillance (see **Supplement 1**). 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 (see box below) 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 of suspected or laboratory-confirmed pandemic influenza patients. This information will be needed to: 1) support local public health personnel in monitoring the progress and impact of the pandemic, 2) assess bed capacity and staffing needs, and 3) 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 (see **Supplement 1**).
 - Criteria for distinguishing pandemic influenza from other respiratory diseases (see **Supplement 5**).

Symptoms of influenza include fever, headache, myalgia, prostration, coryza, sore throat, and cough. Nausea and vomiting are also commonly reported among children. Typical influenza (or “flu-like”) symptoms, such as fever, may not always be present in elderly patients, young children, patients in long-term care facilities, or persons with underlying chronic illnesses (see **Supplement 5, Box 2**).

b) Hospital communications

Each hospital should work with public health officials, other government officials, neighboring healthcare facilities, the lay public, and the press to ensure rapid and ongoing information-sharing during an influenza pandemic.

- **External communications**
 - Assign responsibility for external communication about pandemic influenza; identify 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).
 - Identify points of contact among local media (e.g., newspaper, radio, television) representatives and public officials and community leaders.
 - With guidance from state or local health departments, determine the methods, frequency, and scope of external communications.
 - Determine 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 health 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, 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 inquiries that will be referred to state or local health departments.
- **Internal communications**
 - Determine 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.

c) Education and training

Each hospital should develop an education and training plan that addresses the needs of staff, patients, family members, and visitors. 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 (see Appendix 1).

- **Staff Education**
 - Identify educational resources for clinicians, including federally sponsored teleconferences, state and local health department programs, web-based training materials, and locally prepared presentations.
 - General topics for staff education should include:
 - Prevention and control of influenza
 - Implications of pandemic influenza
 - Benefits of annual influenza vaccination
 - Role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications
 - Infection control strategies for the control of influenza, including respiratory hygiene/cough etiquette, hand hygiene, standard precautions, droplet precautions, and, as appropriate, airborne precautions (see Supplement 4).
 - Hospital-specific topics for staff education should include:
 - Policies and procedures for the care of pandemic influenza patients, including how and where pandemic influenza patients will be cohorted
 - Pandemic staffing contingency plans, including how the facility will deal with illness in personnel

- Policies for restricting visitors and mechanisms for enforcing these policies
- Reporting to the health department suspected cases of infection caused by novel influenza strains during the Interpandemic and Pandemic Alert Periods
- Measures to protect family and other close contacts from secondary occupational exposure
- 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.
- Cross-train clinical personnel, including outpatient healthcare providers, who can provide support for essential patient-care areas (e.g., emergency department, ICU, medical units).
- Train intake and triage staff to detect patients with influenza symptoms and to implement immediate containment measures to prevent transmission (see also **Supplement 5**).
- Supply social workers, psychologists, psychiatrists, and nurses with guidance for providing psychological support to patients and hospital personnel during an influenza pandemic (see **Supplement 11**). (HHS agencies will identify or develop educational materials on: signs of distress, traumatic grief, stress management and effective coping strategies, building and sustaining personal resilience, and behavioral and psychological support resources.) 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).
- Develop a strategy for "just-in-time" training of non-clinical staff who might be asked to assist clinical personnel (e.g., help with triage, distribute food trays, transport patients), students, retired health professionals, and volunteers who might be asked to provide basic nursing care (e.g., bathing, monitoring of vital signs); and other potential in-hospital caregivers (e.g., family members of patients).
- **Education of patients, family members, and visitors**
Patients and others should know what they can do to prevent disease transmission in the hospital, as well as at home and in community settings.
 - Identify language-specific and reading-level appropriate materials for educating patients, family members, and hospital visitors during an influenza pandemic. If language-specific materials are not available for the population(s) being served, arrange for translations.
 - Develop a plan for distributing information to all persons who enter the hospital. Identify staff to answer questions about procedures for preventing influenza transmission.

d) Triage, clinical evaluation, and admission procedures

During the peak of a pandemic, hospital emergency departments and outpatient offices might be overwhelmed with patients seeking care. 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 hospitalization) (see **Supplement 5**).

- Develop a strategy for triage, diagnosis, and isolation of possible pandemic influenza patients. Consider the following triage mechanisms:
 - Using phone triage to identify patients who need emergency care and those who can be referred to a medical office or other non-urgent facility
 - Assigning separate waiting areas for persons with respiratory symptoms
 - Assigning a separate triage evaluation area for persons with respiratory symptoms

- Assigning a “triage coordinator” to manage patient flow, including deferring or referring patients who do not require emergency care (see **Supplement 4** and **Supplement 5**).
- Review procedures for the clinical evaluation of patients in the emergency department and in outpatient medical offices to facilitate efficient and appropriate disposition of patients.
- Review admission procedures and streamline them as needed to limit the number of patient encounters in the hospital (e.g., direct admission to an inpatient bed).
- Identify a “trigger” point at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive (e.g., signs at the entrance) to active (e.g., direct questioning). In addition to visual alerts, potential screening measures might include priority triage of persons with respiratory symptoms and telephone screening of patients with appointments.

e) Facility access

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.

f) Occupational health

The ability to deliver quality health care is dependent on adequate staffing and optimum health and welfare of staff. During a pandemic,⁵ 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 health care workers and their families to help sustain the workforce.

- **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 (see www.cdc.gov/ncidod/hip/GUIDE/infectcont98.htm)
 - Consider assigning staff who are recovering from influenza to care for influenza patients.

⁵ During the Pandemic Alert Period, healthcare personnel exposed to avian influenza A (H5N1) or other novel strains of influenza should be managed on a case-by-case basis (see **Supplement 5**).

- **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 services** (see also Supplement 11)

- 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.

- **Influenza vaccination and use of antiviral drugs**

- Promote annual influenza vaccination among hospital employees. Increased vaccination coverage during the Interpandemic Period might help increase vaccine acceptance during a pandemic and will limit the spread of seasonal influenza.

- Ensure that a system is in place for documenting influenza vaccination of healthcare personnel. The hospital might decide to enroll in the National Healthcare Safety Network (NHSN; www.cdc.gov/ncidod/hip/NNIS/members/nhsn.htm) to help track employee vaccination and health status.

- 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 (see Part 1, Appendix E and Supplement 6 and Supplement 7) but will need to be tailored to fit the epidemiology of the pandemic.

g) Use and administration of vaccines and antiviral drugs

- **Pandemic influenza vaccine and "pre-pandemic" influenza vaccine**

Once the characteristics of a new pandemic influenza virus are identified, the development of a pandemic vaccine will begin. 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 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. Policies for the use of pre-pandemic vaccine have not been finalized.

- Interim recommendations on priority groups for vaccination and strategies for vaccine distribution are discussed in Supplement 6. During a pandemic, these recommendations will be updated, taking into account populations which are most at risk. In the interim, 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.

- Provide estimates of the quantities of vaccine needed for hospital staff and patients, 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.

- **Antiviral drugs**

Antiviral drugs effective against the circulating pandemic strain can be used for treatment and possibly prophylaxis during an influenza pandemic. Because of the effectiveness of treatment with antiviral drugs such as oseltamivir and zanamivir, and the greater efficiency of treatment in a setting of limited supply, the use of prophylaxis will be restricted to maximize health benefits. Interim recommendations for the use of antiviral drugs are discussed in **Supplement 7**. Healthcare facilities should consider how antiviral drugs might be used in their patient and healthcare worker populations, taking into account state and national guidelines, and determine if a reserve supply should be stockpiled. (See also HRSA cooperative agreements www.hrsa.gov/grants/preview/guidancespecial/hrsa05001.htm.)

h) Surge capacity

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 (Box 2). Hospital planners can use FluSurge software (<http://www.cdc.gov/flu/flusurge.htm>) to estimate the potential impact of a pandemic on resources such as staffed beds (both overall and ICU) and ventilators (see also HRSA and AHRQ planning and surge capacity resources listed in Appendix 1.)

- **Staffing**

- 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.
- Determine how the hospital will meet staffing needs as the number of patients with pandemic influenza increases and/or healthcare and support personnel become ill or remain at home to care for ill family members. Consider the following options:
 - Assigning patient-care responsibilities to clinical administrators
 - Recruiting retired healthcare personnel
 - Using trainees (e.g., medical and nursing students)
 - Using patients' family members in an ancillary healthcare capacity
- 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).
- 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) (see also S3-III.A.2.c).
- 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.
- Consult with the state health department⁶ 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.
- Identify insurance and liability issues related to the use of non-facility staff.
- Explore opportunities for recruiting healthcare personnel from other healthcare settings, (e.g., medical offices and day-surgery centers). Consult public health partners about existing state or local plans for recruitment and deployment of local personnel.
- **Bed capacity**
 - Review and revise admissions criteria for times when bed capacity is limited (see also S3-III.A.2.e).
 - 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 procedures will be temporarily postponed.
 - Determine whether patients who require emergency procedures will be transferred to another hospital.
 - 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 “Altered Standards of Care in Mass Casualty Events” will be invoked and applied to pandemic influenza (See <http://www.ahrq.gov/research/altstand/>).
 - 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.
 - Develop Mutual Aid Agreements (MAAs) or Memoranda of Understanding/Agreement (MOU/As) with other local facilities who can accept non-influenza patients who 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.
- **Consumable and durable supplies**
 - Evaluate the existing system for tracking available medical supplies in the hospital to determine whether it can detect rapid consumption, including items that provide personal protection (e.g., gloves, masks). Improve the system as

⁶ The HRSA Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) is helping each state and territory establish a standardized volunteer registration system. Additional information is available at: www.hrsa.gov/bioterrorism/esarvhp/. Two new draft standards on emergency credentialing have been offered for public comment by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO; <http://www.jcaho.org/>).

needed to respond to growing demands for resources during an influenza pandemic (<http://www.cdc.gov/flu/flusurge.htm>).

- Consider stockpiling enough consumable resources such as masks (see Box 2) 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 (see Supplement 5).
- 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.
- **Continuation of essential medical services**
 - Address how essential medical services will be maintained for persons with chronic medical problems served by the hospital (e.g., hemodialysis patients).
 - Develop a strategy for ensuring uninterrupted provision of medicines to patients who might not be able to (or should not) travel to hospital pharmacies.

i) Security

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.

j) Mortuary issues

To prepare for the possibility of mass fatalities during an influenza 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.

Resources for addressing these issues are provided in Appendix 1.

B. Planning for provision of care in non-hospital settings

Planning and effective delivery of care in outpatient settings is critical. Appropriate management of outpatient influenza cases will reduce progression to severe disease and thereby reduce demand for inpatient care. A system of effective outpatient management will have several components. To decrease the burden on providers and to lessen exposure of the “worried well” to persons with influenza, telephone hotlines should be established to provide advice on whether to stay home or to seek care. Most persons who seek care can be managed appropriately by outpatient providers. Health care networks may designate specific providers, offices, or clinics for patients with influenza-like illness. Nevertheless, some persons with influenza will likely present to all medical offices and clinics so that planning and preparedness is important at every outpatient care site. In underserved areas, health departments may establish influenza clinics to facilitate access. Hospitals should develop a strategy for triage of potential influenza patients, which may include establishing a site outside of the Emergency Department

where persons can be seen initially and identified as needing emergency care or may be referred to an outpatient care site for diagnosis and management. Finally, home health care providers and organizations can provide follow-up for those managed at home, decreasing potential exposure of the public to persons who are ill and may transmit infection

Effective management of outpatient care in communities will require that health departments, health care organizations, and providers communicate and plan together. Issues to address include:

- Plan to establish and staff telephone hotlines.
- Develop training modules, protocols and algorithms for hotline staff.
- Within health care networks, develop plans on the organization of care for influenza patients and develop materials and strategies to inform patients on care-seeking during a pandemic
- For clinics and offices, develop plans that include education, staffing, triage, infection control in waiting rooms and other areas, and communication with healthcare partners and public health authorities.

1. Non-hospital healthcare facilities

The hospital planning recommendations (see S3-III.A) can serve as a model for planning in other healthcare settings, including nursing homes and other residential care facilities, and primary care health centers. All healthcare facilities should do the following:

- Create a planning team and develop a written plan.
- Establish a decision-making and coordinating structure that can be tested during the Interpandemic Period and will be activated during an influenza pandemic.
- Determine how to conduct surveillance for pandemic influenza in healthcare personnel and, for residential facilities, in the population served.
- Develop policies and procedures for managing pandemic influenza in patients and staff.
- Educate and train healthcare personnel on pandemic influenza and the healthcare facility's response plan.
- Determine how the facility will communicate and coordinate with healthcare partners and public health authorities during a pandemic.
- Determine how the facility will communicate with patients and help educate the public regarding prevention and control measures.
- Develop a plan for procuring the supplies (e.g., personal protective equipment [PPE]) needed to manage influenza patients.
- Determine how the facility will participate in the community plan for distributing either vaccine or antiviral drugs, including possibly serving as a point of distribution and providing staff for alternative community points of distribution.

Emergency medical services, private homecare services, FQHCs, and rural health clinics may adapt their planning activities from this model. In some parts of the country, FQHCs and rural health clinics may need to rely on volunteers⁷ to provide and administer pandemic influenza vaccines.

2. Alternative care sites

If an influenza pandemic causes severe illness in large numbers of people, hospital capacity might be overwhelmed. In that

⁷ As mentioned in footnote #6, the HRSA Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) is helping each state and territory establish a standardized volunteer registration system. Additional information is available at: www.hrsa.gov/bioterrorism/esarvhp/.

case, communities will need to provide care in alternative sites (e.g., school gymnasiums, armories, convention centers). (Also see <http://www.ahrq.gov/research/altsites.htm>.) The selection of alternative care sites for pandemic influenza should specifically address the following infection control and patient care needs:

- Bed capacity and spatial separation of patients
- Facilities and supplies for hand hygiene
- Lavatory and shower capacity for large numbers of patients
- Food services (refrigeration, food handling, and preparation)
- Medical services
- Staffing for patient care and support services
- PPE supplies
- Cleaning/disinfection supplies
- Environmental services (linen, laundry, waste)
- Safety and Security

S3-IV. RECOMMENDATIONS FOR THE PANDEMIC PERIOD

A. Activating the facility's pandemic influenza response plan

Following initial detection of pandemic influenza anywhere in the world, the facility's pandemic influenza response plan should be activated in accordance with the level of pandemic activity (see Table).

1. Pandemic influenza reported outside the United States

If cases of pandemic influenza have been reported outside the United States, the main steps will be to:

- Establish contact with key public health, healthcare, and community partners.
- Implement hospital surveillance for pandemic influenza, including detection of patients admitted for other reasons who might be infected with the pandemic strain of influenza virus.
- Implement a system for early detection and antiviral treatment of healthcare workers who might be infected with the pandemic strain of influenza virus.
- Reinforce infection control measures to prevent the spread of influenza (see S5-IV.B and Supplement 4).
- Accelerate the training of staff, in accordance with the facility's pandemic influenza education and training plan.

2. Pandemic influenza reported in the United States

If cases of pandemic influenza have been reported in the United States, additional steps will be to:

- Identify when pandemic influenza cases begin in the community. See also Supplement 1.
- Identify, isolate, and treat all patients with potential pandemic influenza. See also Supplements 4, 5, and 8.
- Implement activities to increase capacity, supplement staff shortages, and provide supplies and equipment.
- Maintain close communication within and among healthcare facilities and with state and local health departments.

BOX 1. HEALTHCARE FACILITY PANDEMIC INFLUENZA PLANNING COMMITTEE

Representatives for a hospital pandemic influenza planning committee may include:

- **Hospital staff**
 - Administration/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 department
 - Laboratory services
 - Respiratory therapy
 - Nutrition and food services
 - Pharmacy
 - Environmental services (housekeeping, laundry)
 - Public relations
 - Security
 - Materials management
 - Education/training/staff development
 - Occupational health
 - Diagnostic imaging
 - Information technology
- **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 technicians ("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.ahcpr.gov/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.

BOX 2. EXAMPLES OF CONSUMABLE AND DURABLE SUPPLY NEEDS

- **Consumable resources**
 - Hand hygiene supplies (antimicrobial soap and alcohol-based, waterless hand hygiene products)
 - Disposable N95, surgical and procedure masks
 - Face shields (disposable or reusable)
 - Gowns
 - Gloves
 - Facial tissues
 - Central line kits
 - Morgue packs
- **Durable resources:**
 - Ventilators
 - Respiratory care equipment
 - Beds
 - IV pumps

TABLE 1. HOSPITAL PANDEMIC INFLUENZA TRIGGERS

| Pandemic Influenza Level | Suggested Actions |
|--|---|
| Interpandemic Period | <ul style="list-style-type: none"> • Conduct planning • Conduct education/training • Conduct hospital surveillance for influenza (Supplement 1) |
| Pandemic Alert Period | <ul style="list-style-type: none"> • Increase preparation; refine local plan • Conduct hospital surveillance for influenza (Supplement 1) |
| Pandemic Period <ul style="list-style-type: none"> • Pandemic influenza outside the United States • Pandemic influenza in the United States | <ul style="list-style-type: none"> • Establish contact with key public health, healthcare, and community partners. • Implement hospital surveillance for pandemic influenza (Supplement 1) 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 (Supplement 4). • Accelerate staff training in accordance with the facility's pandemic influenza education and training plan. <p>As above, plus:</p> <ul style="list-style-type: none"> • 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. <p>If pandemic strain is detected in local patient, community transmission can be assumed and hospital would move to next level of response.</p> |

TABLE 1. HOSPITAL PANDEMIC INFLUENZA TRIGGERS (CONT.)

| Pandemic Influenza Level | Suggested Actions |
|---|--|
| Pandemic Period (cont.) <ul style="list-style-type: none">Pandemic influenza in the local area | As above, plus; <ul style="list-style-type: none">Emergency department (ED)<ul style="list-style-type: none">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<ul style="list-style-type: none">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<ul style="list-style-type: none">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<ul style="list-style-type: none">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 (See Supplement 7). |

TABLE 1. HOSPITAL PANDEMIC INFLUENZA TRIGGERS (CONT.)

| Pandemic Influenza Level | Suggested Actions |
|---|---|
| Pandemic Period (cont.) <ul style="list-style-type: none">Nosocomial transmission | <p>As above, plus, if nosocomial transmission is limited to only a small number of units in the facility,</p> <ul style="list-style-type: none">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. <p>See also Supplement 4.</p> |
| <ul style="list-style-type: none">Widespread transmission in community and hospital; patient admissions at surge capacity | <p>As above plus:</p> <ul style="list-style-type: none">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 1. RESOURCES LIST FOR HEALTHCARE PLANNING

PANDEMIC INFLUENZA PLANS

Currently available State Plans may be found on the following Council of State and Territorial Epidemiologists website:
<http://www.cste.org/specialprojects/Influenzaplans/StateMap.asp>.

Currently available National Plans may be found on the following WHO website:
<http://www.who.int/csr/disease/influenza/nationalpandemic/en/index.html>

WHO Global Influenza Preparedness Plan

(http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5/en/index.html)

Document defines the role of WHO and recommendations for national measures before and during pandemics.

WHO Checklist for Influenza Pandemic Preparedness Planning

(http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_4/en/index.html)

Tools

FluAid

(<http://www2.cdc.gov/od/fluid/default.htm>)

FluAid 2.0 provides estimates of the total deaths, hospitalizations, and outpatient visits that might occur during an influenza pandemic.

FluSurge

(<http://www.cdc.gov/flu/flusurge.htm>)

This specialized spreadsheet-based software estimates the potential surge in demand for hospital-based health care during a pandemic. For each week of a pandemic, FluSurge calculates the potential demand for hospital beds, intensive care unit beds, and mechanical ventilators. Demand for resources is compared with actual capacity. FluSurge is a companion to the previously released FluAid 2.0.

AHRQ's Health Emergency Assistance Line and Triage Hub (HEALTH) Mode

The model is designed to minimize surges in patient demand on the health care delivery system during a bioterrorist event or other public health emergency.

1. Full Report—Health Emergency Assistance Line and Triage Hub (HEALTH) Model (AHRQ Publication No. 05-0040)
(<http://www.ahrq.gov/research/health/health.pdf>)
This report helps planners determine the requirements, specifications, and resources needed for developing an emergency contact center such as the HEALTH model.
2. Contact Center Assessment Tool Set
(<http://www.ahrq.gov/research/health/health.asp>)

AHRQ Bioterrorism Planning and Response Resource Page

<http://www.ahrq.gov/browse/bioterbr.htm>

This resource includes a listing of a variety of tools and resources on issues from community prophylaxis to surge capacity in health facilities.

Emergency Preparedness Resource Inventory (EPRI): A Tool for Local, Regional, and State Planners

(<http://www.ahrq.gov/research/epri/>)

The Emergency Preparedness Resource Inventory (EPRI) is a tool allowing local or regional planners to assemble an inventory of critical resources that would be useful in responding to a bioterrorist attack. In addition to a Web-based software tool, EPRI includes an Implementation Report, a Technical Manual, and an Appendix.

Altered Standards of Care in Mass Casualty Events

(<http://www.ahrq.gov/research/altstand/index.html>)

This report discusses the potential of a mass casualty event to compromise the ability of health systems to deliver services meeting established standards of care.

Computer Staffing Model for Bioterrorism Response

(<http://www.ahrq.gov/research/biomodel.htm>)

This new resource is the Nation's first computerized staffing model that is downloadable as a spreadsheet or accessible as a Web-based version. It can be used to calculate the specific needs of local health care systems based on the number of staff they have and the number of patients they would need to treat quickly in a bioterrorism event.

Rocky Mountain Regional Care Model for Bioterrorist Events: Locate Alternate Care Sites During an Emergency

(<http://www.ahrq.gov/research/altsites.htm>)

The alternate care site selection tool is designed to allow regional planners to locate and rank potential alternative sites—stadiums, schools, recreation centers, motels, and other venues—based on whether they have adequate ventilation, plumbing, food supply and kitchen facilities, and other factors.

HRSA Bioterrorism and Hospital Preparedness

(<http://www.hrsa.gov/bioterrorism/preparationandplanning/healthcare&facilities.htm>)

A comprehensive list of resources and documents

ASTHO "Preparedness Planning for State Health Officials – Nature's Terrorist Attack – Pandemic Influenza"

(<http://www.astho.org/pubs/PandemicInfluenza.pdf>)

Provides checklists for state health officials to assist in preparedness planning. A brief summary of major issues to consider is also included.

Educational Materials samples

(<http://www.health.state.ny.us/nysdoh/flu/resources.htm>)

HHS healthcare surge capacity document

(http://www.os.hhs.gov/asphep/mscc_handbook.html)

OSHA—Best Practices for the Protection of Hospital-Based First Receivers

(http://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html)

ASTM Standard Guide for Hospital Preparedness and Response

The purpose of the guide is to answer questions regarding the minimal levels of preparedness needed for hospitals to deal with a large-scale terrorist attack or other serious emergency and includes guidelines regarding the process for preparedness and mitigation; the process of organizing and planning a hospital response plan; the nature of supplies that hospitals need to make available; the application of existing regulations and guidelines; and an acceptable means to protect the facilities for usual operation, patients, and staff while continuing to provide an effective level of response. (This document is not free to the public, a document summary is available at http://www.astm.org/cgi-bin/SoftCart.exe/DATABASE.CART/REDLINE_PAGES/E2413.htm?L+mystore+vybd9920)

Information on Handling Human Remains During Mass-Casualty Events

- Interim Health Recommendations for Workers who Handle Human Remains
www.bt.cdc.gov/disasters/tsunamis/handlerremains.asp
- Disposing of Liquid Waste from Autopsies in Tsunami-Affected Areas
www.bt.cdc.gov/disasters/tsunamis/pdf/tsunami-autopsyliquidwaste.pdf

- Management of Dead Bodies in Disaster Situations
www.paho.org/English/DD/PED/ManejoCadaveres.htm
- Health Concerns Associated with Disaster Victim Identification After a Tsunami—Thailand, Dec 26, 2004–Mar 31, 2005 . MMWR 15 April 2005;54(14):349-52. www.cdc.gov/mmwr/preview/mmwrhtml/mm5414a1.htm

Presentations

2004 AHRQ-sponsored series "Addressing Surge Capacity in a Mass Casualty Event"

(<http://www.hsrnet.net/ahrq/surgecapacity/>)

Presentations from First National Congress on Public Health Readiness

(<http://www.ama-assn.org/ama/noindex/category/11053.html>)

(<http://www.bt.cdc.gov/training/ncphr/>) -CDC Presentations only

These slideshows represent presentations from speakers at the 1st National Congress on Public Health Readiness held July 20-22, 2004.

"No Vacancy: Healthcare Surge Capacity in Disasters."

(<http://www.ama-assn.org/ama1/pub/upload/mm/415/hick.ppt>)

Jonathan L. Hick, MD, Medical Director, Office of Emergency Preparedness, Hennepin County Medical Center, Minneapolis, Minnesota

Bioterrorism Preparedness: A Hospital Tabletop Exercise

SHEA 14th Annual Scientific Meeting, Philadelphia, PA

April 17, 2004

Prepared by Kelly Henning, MD

APPENDIX 2. HOSPITAL PREPAREDNESS CHECKLIST

Preparedness Subject

Actions Needed

1. Structure for planning and decision making

An internal, multidisciplinary planning committee for influenza preparedness has been created.

A person has been designated as the influenza preparedness coordinator.
(Insert name) _____

Members of the planning committee include the following hospital staff members (insert names)

- Administration _____
- Legal counsel _____
- Infection control _____
- Hospital disaster coordinator _____
- Risk management _____
- Facility engineering _____
- Nursing administration _____
- Medical staff _____
- Intensive care _____
- Emergency Department _____
- Laboratory services _____
- Respiratory therapy _____
- Psychiatry _____
- Environmental services _____
- Public relations _____
- Security _____
- Materials management _____
- Staff development _____
- Occupational health _____
- Diagnostic imaging _____
- Pharmacy _____
- Information technology _____
- Other members _____
- Other members _____

| Preparedness Subject | Actions Needed |
|---|----------------|
| <input type="checkbox"/> A state or local health department person has been identified as a committee liaison. (Insert name) _____ | |
| <input type="checkbox"/> A linkage with local or regional emergency preparedness groups has been established (Planning organization) _____ | |
| 2. Development of a written pandemic influenza plan | |
| <input type="checkbox"/> A written plan has been completed or is in progress that includes the elements listed in #3 below. | |
| <input type="checkbox"/> The plan specifies the circumstances under which the plan will be activated. | |
| <input type="checkbox"/> The plan describes the organization structure that will be used to operationalize the plan. | |
| <input type="checkbox"/> Responsibilities of key personnel related to executing the plan have been described. | |
| <input type="checkbox"/> A simulation exercise has been developed to test the effectiveness of the plan. | |
| <input type="checkbox"/> A simulation exercise has been performed. (Date performed _____) | |
| 3. Elements of an influenza pandemic plan | |
| <input type="checkbox"/> A surveillance plan has been developed. | |
| <input type="checkbox"/> Syndromic surveillance has been established in the emergency room. | |
| <input type="checkbox"/> Criteria for distinguishing pandemic influenza is part of the syndromic surveillance plan. | |
| <input type="checkbox"/> Responsibility has been assigned for reviewing global, national, regional, and local influenza activity trends and informing the pandemic influenza coordinator of evidence of an emerging problem. (Name _____) | |
| <input type="checkbox"/> Thresholds for heightened local surveillance for pandemic influenza have been established. | |
| <input type="checkbox"/> A system has been created for internal review of pandemic influenza activity in patients presenting to the emergency department. | |
| <input type="checkbox"/> A system for monitoring for nosocomial transmission of pandemic has been implemented and tested by monitoring for non-pandemic influenza. | |

- A communication plan has been developed.
- Responsibility for external communication has been assigned.
Person responsible for updating public health reporting _____
- Clinical spokesperson for the facility _____
- Media spokesperson for the facility _____
- Key points of contact outside the facility have been identified.
State health department contact _____
- Local health department contact _____
- Newspaper contact(s) _____
- Radio contact(s) _____
- Public official(s) _____
- A list of other healthcare facilities with whom it will be necessary to maintain communication has been established.
- A meeting with local healthcare facilities has been held to discuss a communication strategy.
- A plan for updating key facility personnel on a daily basis has been established.
The person(s) responsible for providing these updates are: _____
- A system to track pandemic influenza admissions and discharges has been developed and tested by monitoring non-pandemic influenza admissions and discharges in the community.
- A strategy for regularly updating clinical, ED, and outpatient staff on the status of pandemic influenza, once detected, has been established. (Responsible person _____)
- A plan for informing patients and visitors about the level of pandemic influenza activity has been established.
- An education and training plan on pandemic influenza has been developed.
- Language and reading level-appropriate materials for educating all personnel about pandemic influenza and the facility's pandemic influenza plan, have been identified.
- Current and potential sites for long-distance and local education of clinicians on pandemic influenza have been identified.
- Means for accessing state and federal web-based influenza training programs have been identified.
- A system for tracking which personnel have completed pandemic influenza training is in place.
- A plan is in place for rapidly training non-facility staff brought in to provide patient care when the hospital reaches surge capacity. _____

Preparedness Subject

Actions Needed

- The following groups of healthcare personnel have received training on the facility's influenza plan:
 - Attending physicians
 - House staff
 - Nursing staff
 - Laboratory staff
 - Emergency Department personnel
 - Outpatient personnel
 - Environmental Services personnel
 - Engineering and maintenance personnel
 - Security personnel
 - Nutrition personnel
- A triage and admission plan has been developed.
- A specific location has been identified for triage of patients with possible pandemic influenza.
- The plan includes use of signage to direct and instruct patients with possible pandemic influenza on the triage process.
- Patients with possible pandemic influenza will be physically separated from other patients seeking medical attention.
- A system for phone triage of patients for purposes of prioritizing patients who require a medical evaluation has been developed.
 - Criteria for determining which patients need a medical evaluation are in place.
- A method for tracking the admission and discharge of patients with pandemic influenza has been developed.
 - The tracking method has been tested with non-pandemic influenza patients. _____
- A facility access plan has been developed.
 - Criteria and protocols for closing the facility to new admissions are in place.
 - Criteria and protocols for limiting visitors have been established.
 - Hospital Security has had input into procedures for enforcing facility access controls. _____
- An occupational health plan has been developed.
 - A system for rapidly delivering vaccine or antiviral prophylaxis to healthcare personnel has been developed.
 - The system has been tested during a non-pandemic influenza season.

- A method for prioritizing healthcare personnel for receipt of vaccine or antiviral prophylaxis based on level of patient contact and personal risk for influenza complications has been established.
 - A system for detecting symptomatic personnel before they report for duty has been developed.
 - This system has been tested during a non-pandemic influenza period.
 - A policy for managing healthcare personnel with symptoms of or documented pandemic influenza has been established. The policy considers:
 - When personnel may return to work after having pandemic influenza
 - When personnel who are symptomatic but well enough to work, will be permitted to continue working
 - A method for furloughing or altering the work locations of personnel who are at high risk for influenza complications (e.g., pregnant women, immunocompromised healthcare workers) has been developed.
 - Mental health and faith-based resources who will provide counseling to personnel during a pandemic have been identified.
 - A strategy for housing healthcare personnel who may be needed on-site for prolonged periods of time is in place.
 - A strategy for accommodating and supporting personnel who have child or elder care responsibilities has been developed. _____
-
- A vaccine and antiviral use plan has been developed.
 - A contact for obtaining influenza vaccine has been identified.
 - (Name) _____
 - A contact for obtaining antiviral prophylaxis has been identified.
 - (Name) _____
 - A priority list (based on HHS guidance for use of vaccines and antivirals in a pandemic when in short supply) and estimated number of patients and healthcare personnel who would be targeted for influenza vaccination or antiviral prophylaxis has been developed.
 - Number of first priority personnel _____
 - Number of second priority personnel _____
 - Number of remaining personnel _____
 - Number of first priority patients _____
 - Number of second priority patients _____
 - A system for rapidly distributing vaccine and antivirals to patients has been developed.

- Issues related to surge capacity have been addressed.
- A plan is in place to address unmet staffing needs in the hospital.
 - The minimum number and categories of personnel needed to care for a group of patients with pandemic influenza has been determined.
 - Responsibility for assessing day-to-day clinical staffing needs during an influenza pandemic has been assigned.
- Persons responsible are: (names and/or titles) _____
- Legal counsel has reviewed emergency laws for using healthcare personnel with out-of-state licenses.
- Legal counsel has made sure that any insurance and other liability concerns have been resolved.
- Criteria for declaring a "staffing crisis" that would enable the use of emergency staffing alternatives have been defined.
- The plan includes linking to local and regional planning and response groups to collaborate on addressing widespread healthcare staffing shortages during a crisis.
- A priority list for reassignment and recruitment of personnel has been developed.
- A method for rapidly credentialing newly recruited personnel has been developed.
- Mutual AID Agreements (MAAs) and Memoranda of Understanding/Agreement (MOU/As) have been signed with other facilities that have agreed to share their staff, as needed.
- Strategies to increase bed capacity have been identified
 - A threshold has been established for canceling elective admissions and surgeries
 - MOAs have been signed with facilities that would accept non-influenza patients in order to free-up bed space
 - Areas of the facility that could be utilized for expanded bed space have been identified
 - The estimated patient capacity for this facility is _____
 - Plans for expanded bed capacity have been discussed with local and regional planning groups
- Anticipated durable and consumable resource needs have been determined
 - A primary plan and contingency plan to address supply shortages has been developed
 - Plans for obtaining limited resources have been discussed with local and regional planning and response groups.

Preparedness Subject

- A strategy for handling increased numbers of deceased persons has been developed.
- Plans for expanding morgue capacity have been discussed with local and regional planning groups.
- Local morticians have been involved in planning discussions.
- Mortality estimates have been used to estimate the number of body bags and shrouds.
- Supply sources for postmortem materials have been identified. _____

Actions Needed