



Pandemic Influenza Preparedness for Healthcare Facilities: *National Mandate, Community Planning, Local Implementation*

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Learning Objectives

- Identify key elements of a healthcare facility pandemic influenza plan
- Identify resources available to hospitals for help with the planning process
- Recognize gaps between planning requirements and funding availability

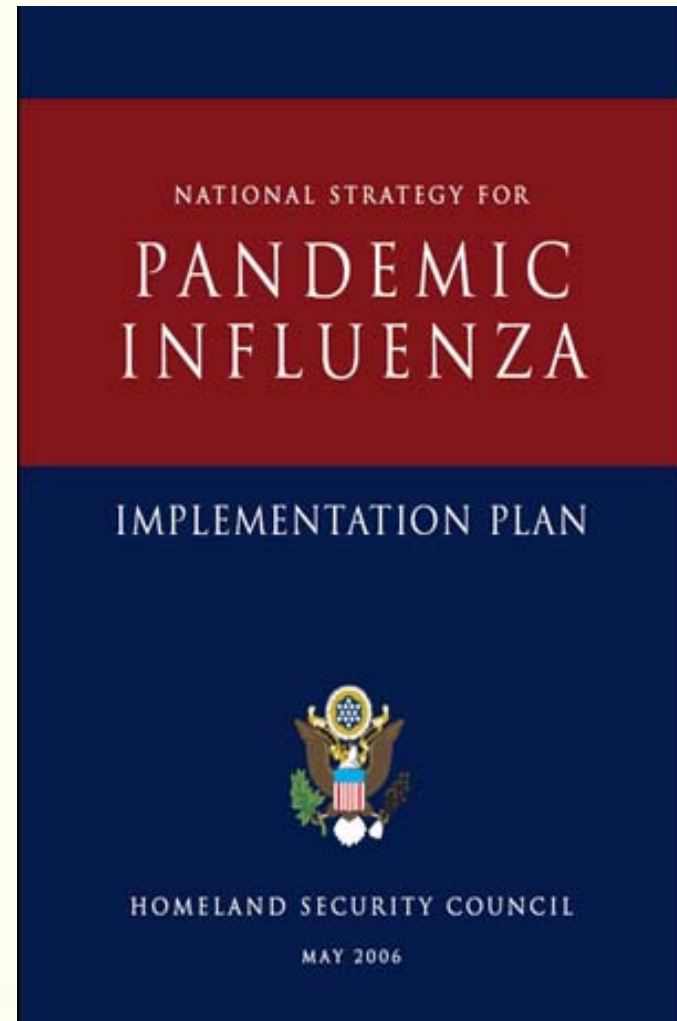
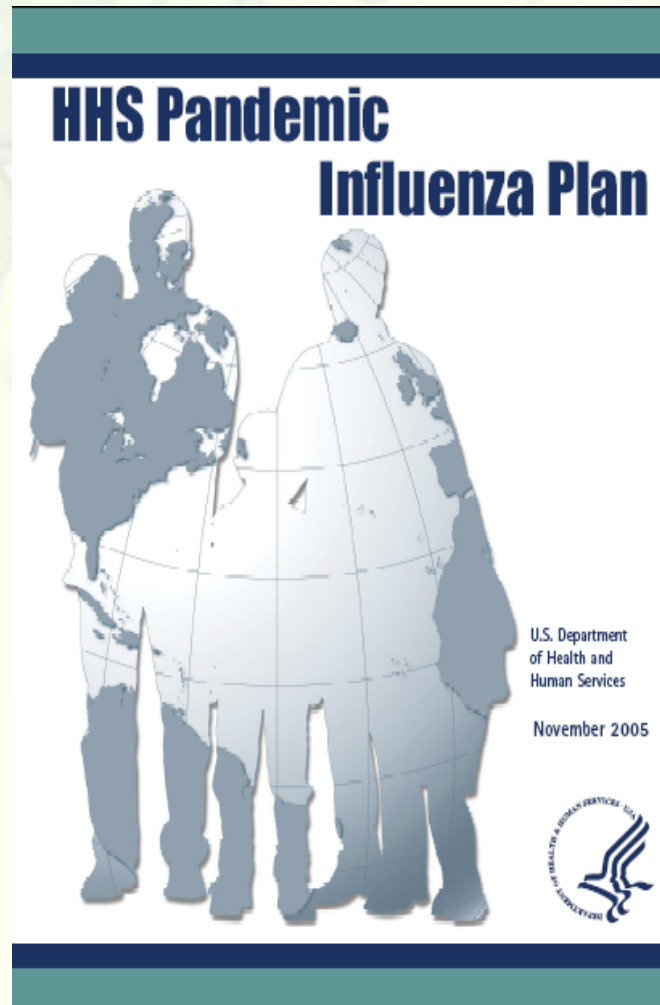
Glossary

- EMTALA – Emergency Medical Treatment and Active Labor Act
- HHS – US Department of Health & Human Services
- HICS – Hospital Incident Command System
- HIPAA - Health Insurance Portability and Accountability Act
- HRSA – Health Resources and Services Administration
- NIMS – National Incident Management System
- PPE – Personal Protective Equipment

Pandemic Influenza

- Severe pandemic = prolonged mass casualty event
- Extreme stress on healthcare system
 - Will last for weeks to months
 - Up to 1/3 of workforce may be out, causing shortages of key staff
 - Shortages of ICU beds, ventilators, critical care needs
 - Shortages of drugs and other supplies
 - Mass fatality situation
 - Disruption of critical infrastructure and essential services

National Mandate





"Any community that fails to prepare with the expectation the federal government will come to the rescue will be tragically wrong . . ."
Health and Human Services (HHS) Secretary Michael O. Leavitt

National Mandate: Pandemic Influenza Implementation Plan

- All hospitals should be prepared to treat patients with pandemic influenza, ie, equipped and ready to care for:
 - (1) a limited number of patients infected with a pandemic influenza virus, or other novel strain of influenza, as part of normal operations; and
 - (2) a large number of patients in the event of escalating transmission of pandemic influenza
- All healthcare facilities should develop, test, and be prepared to implement infection control campaigns for pandemic influenza (by November 2006)

National Mandate: Pandemic Influenza Implementation Plan (cont'd)

- ...it will be necessary for hospitals, medical providers, and oversight agencies to maximize hospital bed surge capacity, and triage and treat patients in a manner that affords each the best chance of survival and recovery within the limits of available resources
- In all cases, the goal should be to provide care and allocate scarce equipment, supplies, and personnel in a way that saves the largest number of lives
- Planning should therefore include thresholds for altering triage algorithms and otherwise optimizing the allocation of scarce resources

HHS Pandemic Influenza Preparedness Plan: Healthcare System Guidance

- Planning committee for pandemic planning and decision-making
- Have a written pandemic influenza preparedness and response plan
- Integrate into existing emergency response plans and activities
- Coordinate with public health response
- Plan regionally

Local Implementation of Pandemic Influenza Planning: Key Elements of an Influenza Pandemic Plan

1. Command, control and management
2. Surveillance
3. Triage, admission and management of patients
4. Infection control
5. Occupational health
6. Vaccine and antiviral use

Key resources

HHS Pandemic Influenza Plan Sup.3 (Healthcare Planning):

<http://www.hhs.gov/pandemicflu/plan/sup3.html>

Local Implementation of Pandemic Influenza Planning: Key Elements of an Influenza Pandemic Plan (cont'd)

7. Surge capacity
8. Communication
9. Legal and regulatory considerations
10. Education and training
11. Essential services and continuity of operations
12. Ethical considerations

Key resources

HHS Pandemic Influenza Plan Sup.3 (Healthcare Planning):

<http://www.hhs.gov/pandemicflu/plan/sup3.html>

Key Elements of an Influenza Pandemic Plan:

1 – Establish Command, Control and Management Procedures

- Identify hospital team for decision-making and response coordination (see resources for complete list):
 - senior management and administration
 - hospital epidemiology and infection control
 - multidisciplinary group of expert clinicians
 - infectious disease, critical care, medical directors, emergency medicine, pediatricians, OB/GYN, nursing, ethicists, etc
 - human resources
 - legal counsel
 - emergency management
 - security and facilities management

Key Elements of an Influenza Pandemic Plan:

1 – Establish Command, Control and Management Procedures (cont'd)

- NIMS compliance: Response staff should be familiar with basic principles of incident management systems, eg, HICS
- Assure all response staff know their roles and responsibilities
- Assure coordinated community-wide healthcare system response: Your organization must “plug in” to the larger community and regional response through local incident management structure

Key resources

NIMS training: www.nimsonline.com/ics_training/index.htm

California Emergency Medical Services Authority (HICS):

www.emsa.ca.gov/hics/hics.asp

Key Elements of an Influenza Pandemic Plan

2 – Surveillance and Detection at Healthcare Facilities

- Use current surveillance guidelines for novel influenza virus
 - Currently screening for avian influenza A (H5N1)
- Be familiar with procedures for diagnostic testing for novel influenza virus infection
 - Know when and how to use the public health laboratory
 - Be aware of special procedures and processes needed for obtaining and submitting specimens
- Be able to detect nosocomial influenza infection
- Monitor influenza-related deaths and hospitalizations
- Have a system to report surveillance data during a pandemic
 - Designate a liaison with local public health agency for surveillance

Key resources

HHS Pandemic Influenza Plan – Supplements 1, 2, & 5 (Surveillance, Laboratory Diagnostics and Clinical Guidance): www.hhs.gov/pandemicflu/plan/

Key Elements of an Influenza Pandemic Plan

3 – Triage and Clinical Evaluation

- Implement new patient triage, evaluation, admission, and clinical management procedures
 - Revise criteria for hospital admission
 - Screen all referrals for admission: no direct admits
 - Limit or cancel elective admissions and surgeries
 - Early discharge of patients: coordinate with home healthcare agencies
 - Standardized clinical management protocols
 - Consider special populations: Children, pregnant women, immunocompromised persons, etc

Key resources

Providing Mass Medical Care with Scarce Resources: A Community Planning Guide www.ahrq.gov/research/mce/mceguide.pdf

Key Elements of an Influenza Pandemic Plan

3 – Triage and Clinical Evaluation (cont'd)

- If possible, use separate triage area or designated outpatient clinic sites or practices for persons with febrile or respiratory disease
- Have separate site for persons at highest risk of complications from influenza
- Consider triage officer to manage patient flow and referral (within facility and external)
- Ensure adequate staffing in ED and outpatient areas
- Patient flow considerations
- Currently no standardized clinical management guideline
 - Convene local/regional multidisciplinary experts for guidance

Key resources

HHS Pandemic Influenza Plan – Supplement 3 (Triage, clinical evaluation and admission procedures): <http://www.hhs.gov/pandemicflu/plan/sup3.html#trriage>

Key Elements of an Influenza Pandemic Plan

4 – Infection Control (IC)

- Implement recommended IC measures
- Staff must be familiar with IC precautions and use of PPE
- Plan and implement strategies to reduce nosocomial transmission, ie, special triage and patient care procedures
- Provide thorough counseling to cases, contacts and their families regarding disease control measures
- Importance of education and counseling at point of care to assure patients comply with voluntary isolation request and infection control measures

Key resources

HHS Pandemic Influenza Plan – Supplement 4 (Infection Control):

<http://www.hhs.gov/pandemicflu/plan/sup3.html#triage>

Interim Guidance on Planning for the Use of Surgical Masks and Respirators in Health Care Settings during an Influenza Pandemic:

www.pandemicflu.gov/plan/healthcare/index.html

Key Elements of an Influenza Pandemic Plan

5 – Surge Capacity



Emergency hospital during influenza epidemic, Camp Funston, Kansas.

Key Elements of an Influenza Pandemic Plan

5 – Surge Capacity (cont'd)

- Staffing shortages
 - Identify essential personnel and emergency staffing plans
 - Legal issues: credentialing, altered staffing models, liability
- Bed capacity (critical care and medical beds)
- Durable and consumable resources
 - Critical equipment: respiratory care, mechanical ventilation
 - Masks, gowns, gloves, eye protection
- Medications
 - Antibiotics, pneumococcal vaccine, etc
- Mortuary capacity

Key resources

Providing Mass Medical Care with Scarce Resources: A Community Planning Guide www.ahrq.gov/research/mce/mceguide.pdf

Key Elements of an Influenza Pandemic Plan

5 – Surge Capacity: Maximize Bed Capacity

- Policies/procedures to limit elective admissions and surgery
- Consider using surgical ambulatory care center for necessary surgeries
- Expand focus on managing patient flow; utilization review; expedited discharge procedures
- Review and revise criteria for admission – consider screening all referrals for admission in ED
- Coordinate with home health agencies for follow-up of persons not admitted or discharged early
- Palliative care

Key resource

HHS Pandemic Influenza Plan – Supplement 3 (Surge capacity):
www.hhs.gov/pandemicflu/plan/sup3.html#surge

Key Elements of an Influenza Pandemic Plan

6 – Communication

- Have reliable and redundant systems to receive and/or access information from public health
 - Local epidemiological and surveillance data
 - Screening criteria and case definitions
 - Treatment and prevention guidelines
 - Infection control recommendations and exposure management in clinical, household and community settings
 - Laboratory testing
 - Travel advisories and alerts
- Disseminate information to others in your practice setting
 - Healthcare providers and patients
- Have integrated communication system through local/regional emergency response system

Key Elements of an Influenza Pandemic Plan

7 – Occupational Health Plan

- System to screen staff, rapidly identify illness
- Evaluation and management of symptomatic staff
- Plans for delivery of antiviral drugs and vaccine
 - In collaboration with the local and/or state public health agency

Key Elements of an Influenza Pandemic Plan

8 – Influenza Vaccine and Antiviral Drugs

- Work with public health department to plan for coordinated distribution and use of antiviral medication and vaccine
- Educate healthcare providers on appropriate use of antiviral drugs (and ultimately, vaccine)
- Collaborate with public health to define job categories and/or individuals for prioritized use of available vaccine
- Collaborate with public health to develop plans to monitor persons vaccinated

Key resource

HHS Pandemic Influenza Plan – Supplement 3 (Use of vaccine and antiviral drugs): www.hhs.gov/pandemicflu/plan/sup3.html#useadm

Key Elements of an Influenza Pandemic Plan

9 – Legal and Regulatory Considerations

- Be familiar with federal, state and local powers during emergencies and how they might be invoked
- Liability protection
 - Changing standards of care, alternative care sites altered staffing patterns; volunteers
- EMTALA
- HIPAA
- Licensing and credentialing
- Property management and control

Key resources

HHS Pandemic Plan (legal preparedness) www.hhs.gov/pandemicflu/plan/part2.html#apd2

Providing Mass Medical Care with Scarce Resources: A Community Planning Guide

www.ahrq.gov/research/mce/mceguide.pdf

Emergency Preparedness, Response, and Recovery Checklist: Beyond the Emergency Management Plan (American Health Lawyers Association, 2004).

www.gnyha.org/31/Default.aspx

Key Elements of an Influenza Pandemic Plan

10 – Education and Training

- Educate healthcare workers about influenza disease, diagnosis, management, infection control measures, and pandemic response plan before the pandemic
 - No national “standardized” training materials
- Training programs for persons who will assume new roles during crisis
- Identify credible spokespersons and coordinate messages with public health

Key resources

PowerPoint training materials for healthcare workers and hospital staff are available at: <http://www.metrokc.gov/health/pandemicflu/hcp/>

Key Elements of an Influenza Pandemic Plan

11 – Emergency Management Response:

Maintenance of Critical Services

- Impact on human infrastructure responsible for critical community services – widespread absenteeism is expected
- Identify essential services that, if interrupted, would pose a serious threat to ability to meet response objectives
- Develop contingency plans to provide back-up of services and/or replacement personnel to provide the services
- Integrate your continuity of operations planning and response into local/regional healthcare system and jurisdictional emergency management structure

Key resources

FEMA Continuity of Operations Programs:
www.fema.gov/government/coop/index.shtm

Key Elements of an Influenza Pandemic Plan

12 – Ethical Considerations

- Decisions about allocation of scarce resources involve value judgments
 - Access to medical care, equipment, treatments
- Consider ethical implications of decisions
 - Take ethical principles into account when planning
 - Involve ethicists to help guide planning and decision-making

Key resources

Stand on Guard for Thee. Ethical considerations in preparedness planning for pandemic influenza. University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group. Nov 2005. www.utoronto.ca/jcb/home/documents/pandemic.pdf

Ethical and Legal Considerations in Mitigating Pandemic Disease. A workshop of the Institute of Medicine of the National Academies. Sept. 19-20 2006. www.iom.edu/CMS/3783/3924/35857/37298.aspx

Healthcare Facilities Pandemic Influenza Planning – Regional Planning

- Hospitals should work with other local hospitals, community organizations (eg, social service groups), and the local health department to coordinate healthcare activities in the community (HHS Pandemic Influenza Plan)
- Consistent with objectives of HRSA National Bioterrorism Hospital Preparedness Program
 - Prepare hospitals and supporting healthcare systems, in collaboration with other partners, to deliver coordinated and effective care to victims of terrorism and other public health emergencies

Healthcare Facilities Pandemic Influenza Planning – Regional Planning: Healthcare Coalitions

- Expand the health system's emergency response capacity through regional agreements and plans (resource sharing)
- Coordinate the emergency response of healthcare organizations through effective communications
- Integrate the health system's response into the larger emergency response
- Advise public officials on health policy matters during emergencies

Key resources

King County Healthcare Coalition web page, Public Health – Seattle & King County:

<http://www.metrokc.gov/health/hccoalition/>

Minnesota Department of Health All-Hazards Response and Recovery Base Plan

<http://www.health.state.mn.us/oep/planning/allhazards.html#macresponserecovery>

Healthcare Facilities Pandemic Influenza Planning – Regional Planning: Healthcare Coalitions (cont'd)

- Coordinate medical assets in the community
 - Hospitals
 - Outpatient medical groups
 - Safety net healthcare organizations
 - Professional associations
 - Home health and long-term care providers
 - Public health agencies
 - Emergency Medical Services
 - Other stakeholders, eg, blood center, Red Cross, community service agencies, community mental health agencies, etc

Key resources

Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies. The CNA Corporation for the Department of Health and Human Services. www.hhs.gov/ophep/mscc_handbook.html

Healthcare Facilities Pandemic Influenza Planning – Challenges

- Lack of sufficiently detailed, prioritized hospital planning guidance from authoritative national experts and organizations to supplement HHS guidance
- Guidelines should be consistent with HRSA and JCAHO requirements
- Need to participate in planning on a regional basis with other healthcare facilities and public health agencies
- Lack of standardized approach to ethical issues related to allocation of limited resources and altered standards of care including surge staffing models

Healthcare Facilities Pandemic Influenza Planning – Challenges (cont'd)

- Training of healthcare workers and other essential support staff
- Credentialing and volunteer recruitment
- Liability and regulatory issues
- Insufficient funding for planning and reimbursement

Healthcare Facilities Pandemic Influenza Planning – Challenges (cont'd)

- Federal funding for hospital preparedness is inadequate
 - University of Pittsburgh's Center for Biosecurity estimates minimum costs to prepare for a severe (1918-like) pandemic are at least \$1 million for the average sized hospital (164 beds)
 - Component costs to achieve minimal preparedness include:
 - Develop specific pandemic plan: \$200,000
 - Staff education/training: \$160,000
 - Stockpile minimal PPE: \$400,000
 - Stockpile basic supplies: \$240,000
 - Recurring annual costs to maintain preparedness, estimated to be approximately \$200,000/year per hospital

Healthcare Facilities Pandemic Influenza Planning – Conclusions

- A template for pandemic influenza planning for hospitals is available from the Department of Health & Human Services
- The HHS plan provides good general guidance but lacks detail, and places much responsibility on healthcare facilities
- Federal funding proportional to the tasks required for optimal healthcare planning is not currently available
- Hospitals should enter into regional planning in their communities in collaboration with other hospitals and healthcare organizations and public health agencies

Key Resources: Healthcare System Pandemic Planning

- National pandemic information including resources for healthcare facilities, clinicians, individuals and families, schools, etc: links to HHS Pandemic Influenza Plan, National Implementation Plan and WHO guidelines – www.pandemicflu.gov/
- HHS Pandemic Influenza Plan includes information for healthcare planning (found under Public Health Guidance Supplements): www.hhs.gov/pandemicflu/plan/
- HHS pandemic planning checklists for hospitals and medical offices and clinics: www.pandemicflu.gov/plan/healthcare/index.html
- Avian Flu resources for healthcare professionals from CDC includes guidelines for identifying and testing suspected cases: www.cdc.gov/flu/avian/

Key Resources: Healthcare System Pandemic Planning (cont'd)

- Providing Mass Medical Care with Scarce Resources: A Community Planning Guide. AHRQ publication No. 07-001:
www.ahrq.gov/research/mce/#down and
www.ahrq.gov/research/mce/mceguide.pdf
- Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies – the CNA Corporation for the Department of Health and Human Services: www.hhs.gov/ophep/mscc_handbook.html
- Surge Hospitals: Providing Safe Care in Emergencies – The Joint Commission on Accreditation of Healthcare Organizations
www.jointcommission.org/PublicPolicy/surge_hospitals.htm
- Altered Standards of Care in Mass Casualty Events – AHRQ Publication No. 05-0043. April 2005
www.ahrq.gov/research/altstand/altstand.pdf