STATE OF TEXAS
Department of State Health Services

Pandemic Influenza Plan Operational Guidelines

APPROVAL AND IMPLEMENTATION

The Department of State Health Services Pandemic Influenza Plan Operational Guidelines is hereby accepted for implementation and supersedes all previous editions.

Date

David L. Lakey, M.D.
Commissioner
Department of State Health Services
DISCLAIMER

The *Pandemic Influenza Plan Operational Guidelines* (PIPOG) serve as the Texas Department of State Health Services (DSHS) operational response plan for use throughout Texas; however, the primary target audiences are state, regional and local health departments (LHD), health care system planners, and planners in other agencies and organizations tasked with developing pandemic influenza response plans. DSHS PIPOG serves as a guide for local planning as well as for delineating DSHS roles, responsibilities and activities.

This document is made available to outside agencies for the sole purpose of providing an understanding of the internal processes within DSHS. This document in no way prescribes guidance for any entity other than the departments mentioned above.

This plan shall not be construed to alter any law, executive order, rule, regulation, treaty, or international agreement. Noncompliance with this document shall not be interpreted to create a substantive or procedural basis to challenge agency action or inaction.
RECORD OF CHANGES AND REVIEWS

The DSHS Pandemic Influenza Plan Operational Guidelines will require updates and be affected by changes related to advances in science and as new developments and best practices related to dealing with a pandemic influenza emerge. The Pandemic Influenza Planning Group will review the Pandemic Influenza Plan Operational Guidelines yearly.

Proposed changes should be submitted to:

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EXECUTIVE SUMMARY

An influenza pandemic has the potential to cause substantial worldwide illness and death, possibly more than any other current health threat. Without interventions, a pandemic influenza similar to the 1918 pandemic could result in an estimated 7 million illnesses and 1.4 million deaths among Texans. Although the timing, nature and severity of the next pandemic cannot be predicted with certainty, preparation is imperative to lessen the impact of a pandemic.

The Pandemic Influenza Plan Operational Guidelines (PIOG) are intended to coordinate with global and national plans developed by the World Health Organization (WHO), U.S. Department of Homeland Security (DHS), U.S. Department of Health and Human Services (DHHS), Centers for Disease Control and Prevention (CDC), and the State of Texas Emergency Management Plan. The PIOG guides preparedness for and response to an influenza pandemic, with the intent of (1) stopping, slowing, or otherwise limiting the spread of a pandemic into the state; (2) limiting the spread of a pandemic and mitigating disease, suffering, and death; and (3) sustaining infrastructure and mitigating impact on the economy and the functioning of society. Specifically, these guidelines outline activities and responsibilities for the state, regional and local public health departments and build upon preparedness assets developed at the state, regional, and local levels of government and in the private sector. This document is structured around the three Pillars of the National Strategy (Preparedness and Communication, Surveillance and Detection, Response and Containment) and five Key Components (Planning and Coordination, Situation Monitoring and Assessment, Prevention and Containment, Health Systems Response, and Communications) following the pandemic phases outlined by the World Health Organization. The prevention and containment component is further developed in three companion documents that are part of State of Texas Emergency Management Plan, Annex H: Health and Medical: Planning Guidelines for Non-Pharmaceutical Interventions (Appendix J), the Antiviral Allocation, Distribution, and Storage Planning Guidelines (AADS) (Appendix K), and the Vaccine Allocation, Distribution, and Storage Planning Guidelines (VADS) (Appendix L).

The decisions and actions outlined in this document are not exhaustive but are intended to provide a high-level overview of state recommendations and approaches for responding to a pandemic influenza. A number of the processes described are in various of development. It is recognized that during a pandemic a number of actions and decisions will proceed in the face of incomplete information or in the setting of a rapidly evolving epidemiologic or societal picture. Maintaining a flexible and nimble response posture throughout the response, and adjusting our approach as additional situational information becomes available will be vital. Finally, a series of crosscutting actions will occur throughout the response. The strategies described will be continuously reviewed, reassessed, and adjusted as new information or response capabilities become available in areas such as risk communication to the public, the allocation scheme for countermeasures, and support provided to different sectors of critical infrastructure and the economy. While these guidelines provide strategic direction for the state, health service regions (HSR), and local health departments (LHD), they do not attempt to catalogue and assign all responsibilities. The unique characteristics and events of a pandemic will strain local, state, and federal resources. It is unlikely that there will be sufficient personnel, equipment, and supplies to respond adequately to multiple areas of the state for a sustained period of time. Preparing for and responding to a pandemic has to occur at all government levels and in all sectors outside of government that can be integrated to address the pandemic threat.
<table>
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<tr>
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<td>CERC</td>
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<td>Federal Emergency Management Agency</td>
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<td>Federal Government Response Stage</td>
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<td>DHHS</td>
<td>U.S. Department of Health and Human Services</td>
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<td>Homeland Security Exercise and Evaluation Program</td>
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<td>Laboratory Response Network</td>
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<td>MACC</td>
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<td>MHMR</td>
<td>Mental Health/Mental Retardation</td>
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<td>Mental Health and Substance Abuse</td>
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<td>Memorandum of Understanding</td>
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<td>NIMS</td>
<td>National Incident Management System</td>
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<td>National Respiratory and Enteric Virus Surveillance System</td>
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<td>OBH</td>
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<td>Office of General Counsel</td>
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<td>PB</td>
<td>Pharmacy Branch</td>
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<td>Public Health Laboratory</td>
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<td>SDO</td>
<td>Standing Delegation Orders</td>
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<td>SITREP</td>
<td>Situational Report</td>
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<td>SMAT</td>
<td>State Mortuary Assistance Teams</td>
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<td>Subject Matter Expert</td>
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<td>SNS</td>
<td>Strategic National Stockpile</td>
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<td>SOC</td>
<td>State Operations Center</td>
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<td>SOP</td>
<td>Standard Operating Procedure</td>
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<td>SPSN</td>
<td>Sentinel Provider Surveillance Network</td>
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<td>STRAC</td>
<td>South Texas Regional Advisory Council</td>
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<td>TALHO</td>
<td>Texas Association of Local Health Officials</td>
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<td>TER</td>
<td>Texas Electronic Registration (Electronic Death Reporting System)</td>
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<td>THA</td>
<td>Texas Hospital Association</td>
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<td>TIMS</td>
<td>Texas Inventory Management System</td>
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<td>Texas Medical Association</td>
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<td>TOMA</td>
<td>Texas Osteopathic Medical Association</td>
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<td>TWICES</td>
<td>Texas Web-based Integrated Client Encounter System</td>
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<td>Vaccine Allocation, Distribution and Storage Guidelines</td>
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<td>VAERS</td>
<td>Vaccine Adverse Events Reporting System</td>
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<td>Web Based Emergency Operations Center</td>
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SECTION I. PURPOSE

I. GOALS, OBJECTIVES AND ACTIVITIES

A. The state goals of the Pandemic Influenza Plan Operational Guidelines, which are consistent with those of the nation (DHHS Pandemic Influenza Plan, 2005), are to:
   1. Minimize serious illness, hospitalizations, and death.
   2. Preserve critical infrastructure.

B. The objectives include the following:
   1. Identify roles and responsibilities for DSHS, health service regions (HSR) in both their role as the regional presence of DSHS and their role as the local health department (LHD) for jurisdictions without independent LHDs, and LHDs.
   2. Develop flexible guidelines to account for the unknown epidemiology of a pandemic and the needs of different stakeholders.
   3. Recommend appropriate prevention, patient care, and treatment during a pandemic.
   4. Advocate appropriate communications, resource management, and preventive measures to minimize infrastructure and social disruption.

C. Activities associated with preparedness planning include the following:
   1. Establish a National Incident Management System (NIMS) compliant incident command protocol for DSHS.
   2. Define local roles and responsibilities.
   3. Identify and develop interrelationships among bordering jurisdictions and among national and state surveillance programs.
   4. Improve surveillance methods.
   5. Clarify the role of the DSHS Laboratory and the Laboratory Response Network (LRN).
   6. Identify non-pharmaceutical interventions available to health departments.
   7. Recommend personal protection practices for Texas residents.
   8. Develop plans for equitable vaccine and antiviral allocation and distribution.
   9. Reinforce seasonal vaccination efforts.
   10. Identify health care resources and supplies in communities.
   11. Project potential impact on the community.
   12. Identify critical service providers.
   13. Develop professional and public communication strategies.

II. SITUATION AND ASSUMPTIONS

A. Situation
   1. The people of Texas are susceptible to a novel influenza virus that may cause a pandemic.
   2. Immunity to infection with a pandemic strain can only occur after natural infection or immunization with an effective vaccine.
   3. Animals also may be susceptible to the novel influenza virus and may carry, spread, or serve as an intermediate host to facilitate genetic reassortment of the virus (See Appendix 4 of Annex H: Foreign and Emerging Animal Disease Response Plan of the State of Texas Emergency Management Plan.)
4. When pandemic influenza occurs, many people will become ill and may die from influenza or its complications.
5. Pandemic influenza in Texas will be deemed a catastrophic incident.
6. Pandemic influenza will cause the degradation of local infrastructure.
7. If the initial outbreak is not controlled within a short time, pandemic influenza may spread to all jurisdictions within the State.
8. Pandemic influenza will severely affect economic stability and viability of the state and nation.
9. Social and economic ties with neighboring states and Mexico necessitate interstate and binational cooperation during all phases of pandemic influenza.
10. The federal government will make every effort to keep international and intrastate travel routes open to maintain the flow of critical supplies.

B. Assumptions
1. It is highly unlikely that the most effective tool for mitigating a pandemic (a well-matched pandemic strain vaccine) will be available when a pandemic begins.
2. Seasonal influenza vaccination may or may not offer some level of protection against a novel pandemic influenza strain.
3. The pre-pandemic vaccine stockpiled by the federal government may be effective against the pandemic strain of H5N1 influenza.
4. The novel influenza virus may initially be spread by animals to people in Texas, or by people entering the state and already contagious with the virus.
5. Multiple waves of illness are likely to occur—each wave may last six to eight weeks.
6. Communities will experience differences in the occurrence and length of pandemic influenza waves based on community risk and availability and use of countermeasures.
7. Pandemic influenza may severely affect even otherwise healthy people in all age groups and will limit or degrade the response capabilities at all levels of government.
8. Individuals who become ill shed virus and may transmit virus up to one day before the onset of symptoms. Individuals who are ill may shed virus up to five days after onset of symptoms.
9. Children will play a major role in transmission of infection because their illness rates are likely to be higher, they shed more virus over a longer period of time, and they control their secretions less effectively.
10. Surveillance of pandemic influenza will provide information critical to the implementation of control measures, such as restricting travel, closing schools, canceling public gatherings, and initiating antiviral vaccine usage in target groups.
11. Systematic application of non-pharmaceutical disease control measures can significantly reduce the disease transmission rates with accompanying reductions in the intensity and velocity of pandemic influenza spread.
12. Control and monitoring of pandemic influenza will involve many state and federal agencies, not just those traditionally associated with public health activities.
13. Some people may not believe the reality of the threat posed by a pandemic influenza incident, and may take actions counterproductive to the government process to quarantine, control and treat people infected with the disease. Health
education will be needed on multiple levels and at multiple points to achieve full cooperation.

14. Over the course of the pandemic, up to 50 percent of the work force may be absent due to illness, caretaking responsibilities, fear of contagion, loss of public transportation, or public health control measures. Local government and private industries must plan for the continuation of critical community infrastructure and services even with high employee absenteeism.

15. Alternate care sites and decisions for allocating scarce resources will be required.

16. There will likely be critical shortages of health care resources such as pharmaceuticals, vaccine (once developed), staffed hospital beds, health care workers, mechanical ventilators, morgue capacity, and temporary refrigerated holding sites.

17. Pandemic influenza will severely affect local and state economies, as well as intrastate, interstate, and international travel and commerce.

18. Pandemic influenza may result in long-term and costly emergency response operations.

19. Pandemic influenza may cause stress and/or emotional trauma.

20. Disseminating timely, consistent, and accurate information to public and private sector stakeholders, the media, and the general public is one of the most critical facets of pandemic influenza preparedness and response.

21. When the CDC determines pandemic influenza is imminent, antiviral medications and other medical supplies from the Strategic National Stockpile (SNS) will be forward-placed in Texas.

22. A small DSHS cache has been purchased for outbreak control, responder prophylaxis and preserving critical infrastructure are stored in health service regions.

23. Antivirals purchased with General Revenue funds are stored centrally and will be forward-placed before receiving the SNS cache.

24. Some local jurisdictions and private entities have purchased their own antiviral medications and other medical materiel for pandemic response.

25. The private health care system will serve as the primary source for antiviral medications for the treatment of ill patients.

III. ROLES AND RESPONSIBILITIES

A. Pandemic Response Team (PRT): Provides support to the DSHS Incident Command (IC) and deals with plan-specific issues. The PRT will be composed of the Pandemic Influenza Lead (PIL), the Pandemic Influenza Program Coordinator, and the Pandemic Influenza Planning Group (PIPG) members.

B. Pandemic Influenza Planning Group (PIPG): A group composed of the Pandemic Influenza Program Coordinator who serves as the committee chair, a physician from the DSHS Infectious Disease Control Unit (IDCU) who functions as the PIL, subject matter experts related to the Key Components of PIPOG, representatives from across the agency, and stakeholder representatives. This group is charged with development and updating the PIPOG annually.

C. Laboratory Response Network (LRN): A network of public health labs around the state that provides testing, training, and technical support for the DSHS pandemic response.

D. DSHS Immunization Branch (IB), DSHS Pharmacy Branch (PB), and/or Strategic
National Stockpile (SNS) Team: Depending on the situation, will provide oversight for vaccine/drug procurement and distribution for vaccine and antivirals either purchased by the state or allocated to the state by the federal government during short supply periods when vaccine will be available only for highest priority groups.

E. Health Service Region (HSR): HSRs serve as the LHD for counties without a full service LHD. Each HSR will have the following personnel and other resources to assist in disaster response:

1. Disease Control and Prevention: epidemiologists, physicians, veterinarians, infection control practitioners, registered nurses, data entry/analysis, health educators, and other professional staff
2. Environmental Health: sanitarians, industrial hygienists, toxicologists, health physicists, engineers, hydrologists, and other environmental technicians
3. Regulatory Affairs: regulatory staff with expertise in state/federal laws and hospital licensing
4. Immunization Program and Pharmacy: nurses, pharmacists, and epidemiologists
5. Emergency Medical Services (EMS): staff with expertise in emergency medical system response and trauma systems
6. Public Health Laboratories (PHL): microbiologists, laboratory technicians and other staff; laboratory testing facilities
7. Public Health Information Network (PHIN): designated administrators and back-ups
8. Stress Management and Crisis Counseling: trained personnel, social workers, psychologists, psychiatric nurses, and other professional staff

F. Community Preparedness Section (CPS): Coordinates plans, including the PIPOG, with bordering states, American Indian tribes, and special populations. In collaboration with the Office of Border Health, CPS assists in coordinating plans with Texas-Mexico border jurisdictions and their Mexican counterparts.

G. World Health Organization (WHO): Conducts international influenza surveillance activities. More than 100 countries with a total of 112 laboratories participate with the WHO flu surveillance.

H. Centers for Disease Control and Prevention (CDC): Conducts national influenza surveillance in the United States. Seventy laboratories in the United States report the number and type of influenza viruses isolated each week and send representative and unusual viral specimens to CDC for comparative antigenic and genetic analysis.

I. State and territorial epidemiologists: Report the level of influenza activity in their state each week as “widespread,” “regional,” “sporadic,” “local,” or “no activity.”

J. Sentinel physicians: Report the number of patients presenting with influenza-like illness (ILI) and the total number of patient visits by age group to CDC.

K. Vital statistics offices: Report, on a weekly basis, the percentage of total deaths caused by influenza and pneumonia.

L. DSHS Infectious Disease Control Unit (IDCU): Carries out state influenza surveillance activities in collaboration with partners.

M. Office of Border Health (OBH): Identifies border health issues and plan solutions with other agencies. Develops memoranda of understanding (MOU) between Texas and the sister Mexican states as necessary.

N. DSHS Office of the General Counsel (OGC): Reviews medical and public health
control legislation and liability issues related to delivery of biologic agents (e.g., vaccine and antiviral drug), examines legal aspects (including workers compensation issues) related to use of prophylactic medications and refusal of medication for those in high-risk groups, and makes changes as necessary and determines procedures for, and legalities related to suspension of rules to contain the pandemic, including but not limited to:

1. Unlicensed vaccinators
2. Distribution of prescription antivirals by unlicensed volunteers
3. Distribution and/or vaccination by non-Texas licensed volunteers
4. Mandatory vaccinations
5. Emergency distribution of drugs/vaccines
6. Use of investigational drugs/vaccines
7. Social distancing strategies

O. **Preparedness Coordinating Council (PCC):** Provides advice and assistance to DSHS in coordinating efforts to prepare Texas for bioterrorism attacks, other infectious disease outbreaks, and additional public health threats and emergencies.

P. **Pandemic Influenza Coordinating Committee (PICC):** A subcommittee of PCC that focuses on pandemic influenza planning and pandemic preparedness activities. Through study and discourse, develops recommendations for actions by the PCC. Membership reflects a broad spectrum of society including faith-based organizations, community advocates, animal health, retailers, grocers, information and referral services, transportation, and others. Through members’ contacts with members of their organizations, information is shared and needs and concerns are brought to DSHS. Some members of the PICC also are members of the PCC.

Q. **Center for Consumer and External Affairs (CCEA):** Oversees and coordinates government affairs, media relations, public awareness and education campaigns, volunteer and community engagement activities, stakeholder relations and supports the DSHS Council. Communications and Governmental Affairs staff serve on the Command Staff in PIO and Liaison roles when the Multi-Agency Coordination Center is activated during a disaster response.

IV. DOCUMENT STRUCTURE

A. This document is formatted to provide roles and responsibilities for DSHS and LHDs. HSRs that may act in both capacities will need to evaluate both sections.

B. These guidelines operationalize Texas’ approach to a pandemic threat and the format correlates with the National Strategy for Pandemic Influenza developed by U.S. Department of Homeland Security. The organization of the PIPOG ties the pillars of the National Strategy to the WHO pandemic phases and the Federal Government Response Stages (Table 1) as well as CDC Intervals\(^1\) (See Table 2.) The pillars of the National Strategy, the WHO Phases, and Federal Government Response Stages (FGR Stage), and CDC Intervals are

1. **Pillar 1: Preparedness and Communication (WHO Interpandemic Period, Phases 1 and 2; FGR Stage 0; CDC Interval Investigation):** Activities that

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Section I. Purpose

should be undertaken before a pandemic to ensure preparedness, and the communication of roles and responsibilities to all levels of government, and individual members and segments of society.

2. **Pillar 2: Surveillance and Detection** (WHO Pandemic Alert Period, Phases 3, 4, and 5; FGR Stages 0, 1, and 2; Investigation and Recognition): Actions to limit the spread of the outbreak and to mitigate the health, social and economic impacts of a pandemic.

3. **Pillar 3: Response and Containment** (WHO Pandemic Period, Phase 6; FGR Stages 3, 4, 5; 6; CDC Intervals Acceleration, Peak, Deceleration, and Resolution): Actions to limit the spread of the outbreak and to mitigate the health, social and economic impacts of a pandemic.

**TABLE 1: WHO Periods and Phases and Corresponding Federal Government Response Stages**

<table>
<thead>
<tr>
<th>WHO Phases</th>
<th>Federal Government Response Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTER-PANDEMIC PERIOD</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused a human infection may be present in animals. If present in animals, the risk of human disease is considered to be low.</td>
</tr>
<tr>
<td>2</td>
<td>No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza subtype poses a substantial risk of human disease.</td>
</tr>
<tr>
<td><strong>PANDEMIC ALERT PERIOD</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.</td>
</tr>
<tr>
<td>4</td>
<td>Small cluster(s) with limited human-to-human transmission, but spread is highly localized, suggesting that the virus is not well adapted to humans.</td>
</tr>
<tr>
<td>5</td>
<td>Larger cluster(s) but human-to-human spread still localized suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).</td>
</tr>
<tr>
<td><strong>PANDEMIC PERIOD</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Pandemic phase: increased and sustained transmission in general population.</td>
</tr>
<tr>
<td>4</td>
<td>First human case in North America</td>
</tr>
<tr>
<td>5</td>
<td>Spread throughout United States</td>
</tr>
<tr>
<td>6</td>
<td>Recovery and preparation for subsequent waves</td>
</tr>
</tbody>
</table>

C. The WHO Phases and Federal Government Response Stages have provided structure
for triggers for action. FGR Stages are categories, rather than actions to be taken. The
epidemic curve superimposed over the Phases and Stages provides an epidemiological
guide to action. This guide to action is divided into intervals classified as pre-pandemic
and pandemic. Pre-pandemic actions are Investigation, Recognition; pandemic actions
include Initiation, Acceleration, Peak Transmission, Deceleration, and Resolution. For
state planning, using the intervals to describe the progression of the pandemic within
communities in a state helps to provide a more granular framework for defining when to
respond with various interventions during U.S. Government Response Stages 4, 5 and
6.  

Table 2: WHO Phases, Federal Government Response (FGR) Stages or (USG Stage),
and Corresponding CDC Intervals

<table>
<thead>
<tr>
<th>WHO Phase</th>
<th>Pandemic Alert Period</th>
<th>Pandemic Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>123456</td>
<td></td>
</tr>
<tr>
<td>USG Stage</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>012</td>
<td></td>
</tr>
</tbody>
</table>

For planning, intervals provide additional specificity for implementing state and community level interventions during stages 4, 5 and 6.

D. Within each pandemic period and associated FGR Stages, state, regional and local roles,
responsibilities and activities are outlined according to WHO-defined key components
including:
1. Planning and Coordination
2. Situation Monitoring and Assessment
3. Prevention and Control

4. Health Systems Response
5. Communication

E. Key Components

1. **Planning and Coordination**—These efforts require collaboration at all levels (national, federal, state, local, tribal) and involve cooperation of leaders from both public and private sectors. DSHS is charged with guiding the state’s health response during a pandemic crisis. The focus of efforts is to provide leadership and expertise in the development of the state plan, and to develop a series of guidance documents that can be used to focus roles, responsibilities, and operations at the state, regional, and local level. These plans and guidance documents should be flexible and practical with the purpose of supporting existing national, state, regional, and local plans and guidelines. Additionally, they will be updated as needed. **Key Roles and Responsibilities** are summarized in Appendix A.

2. **Situation Monitoring and Assessment**—Successful influenza surveillance requires support, participation, and coordination of a wide network of support agencies, healthcare practitioners, and people within the state as well as cross-state and international borders. This section provides guidance for maintaining and improving situational awareness and enhanced surveillance efforts to monitor changes in current circulating influenza virus subtypes, to rapidly identify novel influenza viruses, and to track and monitor their introduction and movement through human populations. Enhanced surveillance activities may be recommended during a particular pandemic period. Implementation steps for enhanced human surveillance and algorithms for surveillance activities are located in the appendix for **Surveillance** (Appendix B). Surveillance issues associated with case identification and submission of laboratory specimens are not discussed in this document. They are located in the **DSHS Resource Manual for Seasonal and Pandemic Influenza Testing in Texas**.

3. **Prevention and Containment**—The public health system will take steps to delay the introduction of a pandemic influenza virus into the state and movement throughout the state to provide communities additional time to activate their response plans. This section provides guidance for community-level prevention and containment through the use of both non-pharmaceutical and pharmaceutical mitigation strategies. Detailed guidelines and implementation strategies have been created and are available as companion documents. For brevity, information contained in these documents will not be detailed in this document. People who seek additional information or who are tasked with implementing operational aspects of these strategies should refer to the specific operational guidelines for further details including the **Antiviral Allocation, Distribution and Storage Planning Guidelines** (AADS), the **Vaccine Allocation, Distribution and Storage Planning Guidelines** (VADS), and **Planning Guidelines for Non-Pharmaceutical Interventions**. A strong seasonal vaccination program provides the foundation for a strong pandemic influenza response. **Recommendations for Pneumococcal Vaccine** (Appendix C) also have been made available. Sample **Standing Delegation Orders and Emergency Medical Response** for antiviral drugs and vaccines are available in Appendix D. Vaccine and antiviral tracking information (for adults and children) is available in Appendix E.
Section I. Purpose

4. **Health Systems Response**—All state and local governments, hospitals, nursing homes, schools and other congregate settings are required to have an all-hazards emergency management plan. However, pandemic influenza is likely to pose unique and long-standing challenges that may not be addressed in current emergency management plans. This section offers guidance for agencies involved in health systems response as they revisit their all-hazards emergency plans to address specific issues associated with pandemic influenza. An important consideration in pandemic planning is the availability of resources. Just as hospital bed capacity will be challenged during a pandemic, the supplies of critical equipment and health care materials may be inadequate. Information on the *Allocation of Scarce and Limited Resources* can be found in Appendix M. Information regarding *Alternate Care for Medical Surge* is found in Appendix N. Topics addressed in sub-appendices include: Determining the need for alternate care, (N.1); Site Selection and Design (N.2); Staffing (N.3); Equipment, Consumable, and Disposable Supplies for Alternate Care (N.4); and Stock Medications (N.5). In addition, efforts must be made to identify special populations (e.g., homeless, elderly, immunocompromised, speaking other languages, physically challenged, immigrants) as well as mechanisms to ensure continued delivery of services.

5. **Communications**—Events leading up to and including a pandemic necessitate effective communications strategies with stakeholders, media, and the general public. This section provides guidance strategies to address these needs. Disseminating timely and accurate information to stakeholders including government officials, community leaders, public health officials, medical care providers, the media, and the general public is an important facet of pandemic influenza preparedness and response. Cross-agency communications may be achieved using standard communications tools such as Epi-X or through the Public Health Information Network (PHIN). The DSHS Communications Unit, through the *DSHS Crisis and Emergency Risk Communication (CERC) Guidelines*, will carry out emergency risk communications and public information dissemination at the state level for pandemic influenza in compliance with the *DSHS News Media Policy* (found under Tab A in the DSHS CERC Guidelines). In addition, *Pandemic Influenza Shelf Kits* have been developed and distributed to regional offices, local health departments, hospitals, and partner organizations to provide standardized educational materials and to assist with prevention and containment strategies. During the pandemic period, many routine communications efforts will be handled within the Incident Command System (ICS) structure. *DSHS Incident Command Templates* (Appendix H) are provided as samples of common incident command forms which might be used during an influenza pandemic. Information on *Additional Contacts and Resources* is available in Appendix I; however, secured contacts information will be available through the PHIN.

F. Other Useful Appendices

1. **Business Continuity of Operations Planning** (COOP) documents are located in Appendix F. Add some narrative

2. **Death Care for Managing Mass Fatalities** is available in Appendix G. Add
narrative
3. Guidelines for Monitoring International Travelers (Appendix J)

G. Appendices as Free-Standing Companion Documents
1. Several Appendices to the Pandemic Influenza Plan Operating Guidelines also are
   stand-alone companion documents. These documents may be reviewed
   independently or as part of the PIPOG. Others will be added as they are developed.
   The current documents include:
   b. Antiviral Allocation, Distribution and Storage Planning Guidelines (AADS)
      (Appendix K).
   c. Vaccine Allocation, Distribution and Storage Planning Guidelines (VADS)
      (Appendix L).
2. Other useful appendices.

SECTION II. OPERATING GUIDELINES

PILLAR 1: Preparedness and Communication
Preparedness and planning are fundamental for preparedness and response activities, including
surveillance, detection, response, containment and recovery efforts, and communications.

I. INTERPANDEMIC PERIOD (WHO Phases 1 and 2; FGR Stage 0; CDC Interval
   Investigation)
A. DSHS will
   1. Planning and Coordination
      a. Identify Pandemic Influenza Coordinators:
         i. Planning Coordinator from the Strategic Preparedness Branch
         ii. Pandemic Influenza Surveillance Coordinator is the Nurse Epidemiologist
             from the Infectious Disease Epidemiology and Surveillance Group in the
             Infectious Disease Control Unit
      b. The State assumes the state coordination role for pandemic influenza.
      c. Participate in the Preparedness Coordinating Council (PCC) and related
         Pandemic Influenza Coordinating Committee (PICC), and the Pandemic
         Influenza Planning Group (PIPG).
      d. Review and update pandemic influenza plans and guidelines:
         i. Appendix 7: Pandemic Influenza Response to Annex H—Health and
            Medical Services of the State of Texas Emergency Management Plan.
         ii. Appendix 8: Strategic National Stockpile of the Annex H: Health and
             Medical Services of the State of Texas Emergency Management Plan.
         iii. Pandemic Influenza Plan Operational Guidelines (PIPOG) and
             companion documents,
             (a) DSHS Resource Manual for Seasonal and Pandemic Influenza Testing in
                 Texas,
             (b) Planning Guidelines for Non-Pharmaceutical Interventions
                 (Appendix J),
             (c) Antiviral Allocation, Distribution and Storage Planning Guidelines
                 (AADS) (Appendix K),
(d) Vaccine Allocation, Distribution and Storage Planning Guidelines (VADS) (Appendix L)
(e) Interim Guidance for Allocation of Scarce Resources (Appendix M), and
(f) Establishment of Alternate Care Sites (Appendix N)

iv. DHS Continuity of Operations Plan (COOP) [HYPERLINK when posted]

e. Provide subject matter expertise and guidance as requested to assist HSRs and LHDs in developing jurisdictional and COOP plans.

f. COOP planning
   i. Developed COOP plan for DSHS
   ii. Develop, in collaboration with other state agencies,
   iii. Provide guidance and assistance in developing COOP plans for all state agencies including the development of overarching policies such as leave, and telecommuting.

g. Coordinate with stakeholders including regional and local bioterrorism planning groups to ensure that pandemic influenza is included in planned scenarios.

h. Coordinate high-level planning with bordering states, Texas-Mexico border jurisdictions, Mexican counterparts and American Indian tribes.

i. Coordinate planning activities with military partners.

j. Plan for the oversight for procurement, distribution and storage of state-controlled caches of antiviral drugs, seasonal/pandemic influenza vaccines, and other medical assets.

k. Identify funding sources to maintain and enhance seasonal and pandemic influenza program development.

l. Identify major gaps in effective pandemic influenza preparedness and response, and explore ways to address them.

m. Identify and develop/explore approaches to address gaps in state infrastructure and resources, laws and statutes that may interfere with effective response such as:
   i. Isolation and quarantine laws for individuals and communities
   ii. Medical volunteer licensure, liability and compensation
   iii. Employees on voluntary assignment

n. Improve and maintain the Texas Electronic Registration-Death Registration (electronic death certificate and reporting system).

o. Identify and train staff in NIMS, ICS, and working in the Multi-Agency Coordination Center (MACC).


q. Assist HSRs and LHDs as they work with community agencies/organizations (e.g., Salvation Army, Meals on Wheels, EMS, Red Cross) regarding the development of plans to:
   i. Assist in distributing pharmaceuticals to households in isolation/quarantine.
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ii. Assist households in obtaining adequate food and supplies while in isolation/quarantine.
iii. Address access to critical services and supplies for vulnerable populations.

2. Situation Monitoring and Assessment

a. The Infectious Disease Surveillance and Epidemiology Branch will coordinate ongoing state influenza surveillance activities (Appendix B) with national, regional, and local partners, including coordination of year-round statewide seasonal/pandemic influenza surveillance. The nurse epidemiologist within the Branch serves as the state influenza surveillance coordinator. Sources may include reports from key health providers and clinics, sentinel providers (Appendix B.3-B.5), syndromic surveillance reports, laboratory reports, animal health sources and reports, and other sources of information.

b. Continue to monitor the national and international communities for alerts and updates concerning avian/seasonal/pandemic influenza, and work with state and local partners to communicate information using appropriate web-based methods.

c. Seasonal influenza surveillance is conducted year-round in Texas. During WHO Phases 1 and 2, the state influenza surveillance coordinator will work with HSRs and LHDs to enhance respiratory virus surveillance:
   i. Expand the number of participating physicians in the Sentinel Provider Surveillance Network (SPSN). (Goal: at least one (1) sentinel physician per 250,000 individuals).
   ii. Increase the number of SPSN physicians who report on a weekly basis.
   iii. Increase the number of medical providers serving as culture surveillance sites.
   iv. Increase the number of specimens collected and submitted for viral isolation.
   v. Expand the number of laboratories participating in the National Respiratory and Enteric Virus Surveillance System (NREVSS).
   vi. Provide rapid flu test kits as necessary to encourage testing.
   vii. Develop LRN ability to conduct PCR testing.

viii. Use PHIN to communicate to medical providers and both reference and hospital clinical laboratories the criteria for pandemic influenza virus testing and local contact information for testing coordination.

ix. Collaborate and establish formal partnerships through the zoonosis epidemiologist in the Infectious Disease Control Unit (512-458-7111 x2155) with animal health agencies at the federal, state, and local levels to:

x. Identify human influenza associated/linked with animals with confirmed influenza infection.

xi. Share surveillance data (e.g., line lists, contact information, investigation points) associated with animal/human influenza between departments using appropriate means (typically using email, telephone, conference calls, etc.).

xii. Consider establishing an active serologic surveillance program to monitor potential exposure among all individuals who are likely to have contact
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with poultry, wild birds, pigs, horses, and other animals with confirmed influenza infection.

d. Assist HSRs and LHDs to develop plans for follow up of isolated and/or quarantined households as a part of outbreak control measures during the “Initiation” and early “Acceleration” CDC intervals. Sample forms to monitor isolated/quarantined individuals and household contacts (Appendix B.6) and case investigation forms (Appendix B.7) are currently available as guides for HSRs and LHDs.

e. Continue to improve virologic surveillance capabilities and capacity to isolate and subtype influenza viruses during a pandemic influenza.

f. Develop/improve, maintain, and provide guidelines related to laboratory issues surrounding pandemic influenza.

g. Maintain LRN protocols for identifying influenza subtypes.

h. Improve ability to submit influenza isolates to CDC according to established protocols.

i. Work toward linking influenza specimen-level and surveillance data electronically to share information with other participating laboratories and CDC.

j. Identify and maintain a list of laboratories that may serve as resources and assist with surge capacity needs for specimen analysis.

k. Provide laboratory specimen submission forms and materials to HSRs and LHDs as requested.

l. Consider linking influenza surveillance to syndromic bioterrorism surveillance, e.g., increased over-the-counter drug use, school/work closures.

m. Coordination of reports of early suspect cases will be conducted by the state influenza surveillance coordinator. Investigations will be conducted by appropriate local and regional epidemiologists. The epidemiologists will be directed to complete the Human Influenza A (H5) Domestic Case Screening Form (Appendix B). Suspect cases will be reported using the state disease surveillance application (NEDSS).

3. Prevention and Containment

a. Provide subject matter expertise and guidance to HSRs and LHDs for the provision of non-pharmaceutical intervention strategies (e.g., cancellation of public events, school/business closures, quarantine and isolation, sharing information across agencies) and pharmaceutical intervention strategies (allocation, distribution and storage of antiviral drugs, pre-pandemic/pandemic vaccine, and other medical assets) during a pandemic. State-level guiding documents and materials include the following:

i. Pandemic Influenza Shelf Kits.

ii. Planning Guidelines for Non-Pharmaceutical Interventions (Appendix J)

iii. AADS Planning Guidelines 1 (Appendix K)

iv. VADS Planning Guidelines (Appendix L)


b. Provide guidance to HSRs, LHDs and other agencies concerning interpretation of isolation and quarantine statutes and laws associated with cross-border, and
interstate travel.

c. Generate and maintain lists of critical service providers for DSHS as a part of the DSHS COOP Plan.

d. Ensure draft of the DSHS Community Emergency Medication Clinic, a mass clinic template developed for the DSHS SNS program, is available on the PHIN to local and regional planners.

e. Maintain the Texas childhood immunization tracking system (ImmTrac) to include tracking of antivirals and pandemic vaccine for children and adults (Appendix E).
   i. Inform healthcare sector about system.
   ii. Provide online training.

f. Develop or revise interview forms for pandemic influenza outbreak management.

g. Develop, with assistance of HSRs and LHDs, a community mitigation tracking tool for use on WebEOC.

4. Health Systems Response

a. Review and communicate pertinent legal authorities and laws and procedures including quarantine laws and their applicability for closing of businesses, cancellation of public events, and dismissal of schools during a declared public health emergency.

b. Review and communicate legal aspects and issues related to medical volunteer licensure, liability, and compensation for in-state, out-of-state, federal public health service, and returning retired and nonmedical volunteers.

c. Assist health care providers in developing templates for triaging/screening sick individuals in places such as ambulatory care, homes, or fever clinics to determine appropriate placement for care.

d. Provide guidance to hospitals to assist in decision making regarding allocation of scarce resources (Appendix M).

e. Develop guidelines for healthcare surge including alternate care sites (Appendix N).

5. Communications

a. Increase communication capabilities in and among HSRs and LHDs and ensure the health department’s ability to broadcast and receive health bulletins using the PHIN.
   i. Maintain direct communication channels to the Governor’s Division of Emergency Management (GDEM) and the Governor’s Office of Homeland Security, physicians, Texas Osteopathic Medical Association (TOMA) and the Texas Medical Association (TMA).
   ii. Maintain a database of emergency contacts that receive health alerts.
   iii. Maintain PHIN capability to auto-forward health alerts to:
         (a) LHD staff,
         (b) HSR staff,
         (c) DSHS central office staff,
         (d) GDEM,
         (e) Texas Commission on Environmental Quality,
         (f) Texas Hospital Association (THA),
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(g) TMA, and
(h) TOMA

iv. Maintain the Emergency Operations Center software application (WebEOC) to manage communication (message boards, information sharing with state and local partners, instant communications) during short- and long-term critical events.

v. Provide Real Time Emergency Resource Management (EMResource™), an internet-based application, to public health professionals statewide. The Web-based application EMResource™ is used by most Texas hospitals to monitor and report capacity and diversion statuses.

b. Maintain ability to communicate with DSHS Mental Health and Substance Abuse (MHSA) Section through the Health and Human Services Commission (HHSC) communication channels or an out-of-state vendor until MHSA joins the PHIN system.

b. Maintain redundant communication systems.

d. Communicate with health care professionals
   i. Identify and address health issues and concerns for healthcare professionals regarding pandemic influenza.
   ii. Assist hospitals and health care facilities in the development of triage and screening protocols for patients presenting with ILI thought to be associated with pandemic influenza.
   iii. Assist hospitals and health care facilities in the development of community and patient recommendations concerning the use of non-pharmaceutical interventions (i.e., social distancing, staying home from school and work with symptoms of ILI associated with pandemic influenza, voluntary isolation and quarantine, and when to seek additional help for ill family members).

iv. Develop communication channels for affected target audiences so they can receive messages regarding pandemic influenza;

v. Develop appropriate messages to address issues and concerns associated with healthcare professionals as they deal with pandemic influenza.

vi. The Texas Department of State Health Services communicates and informs private- and public-sector health professionals on case definitions and methods for laboratory diagnosis through the PHIN and the Departments website.

vii. Alert state and local hospitals, local health authorities, state schools, community mental health centers, the GDEM, the Texas Department of Criminal Justice, county emergency management coordinators and other mental health partners to pandemic potential.


e. Inform the public
   i. Ensure all state-level communication is in accordance with the DSHS Crisis and Emergency Risk Communications (CERC) Guidelines.
   ii. Review CERC guidelines on a regular basis, at a minimum of once a year.
iii. Develop and refine public education strategies for use with community resources.

iv. Coordinate the development, adaptation, revision, and update of educational materials. These materials will be in an easy-to-read format in multiple languages and will include information on personal use of non-pharmaceutical prevention measures such as hand washing, respiratory hygiene, and cough etiquette.

v. Provide informational materials in multiple languages to local jurisdictions through the Pandemic Influenza Shelf Kit and the DSHS Public Health Preparedness Web site.

(a) Ensure that foreign missions have access to informational materials.

vi. Coordinate development of key messages and fact sheets regarding currently circulating viruses and pandemic influenza.

vii. Identify and prepare DSHS spokesperson to handle questions regarding the DSHS response to pandemic influenza.

viii. Identify and strengthen relationships among public and private sector stakeholders, including recognized community health providers who are able to reach special populations; provide them pandemic influenza information.

ix. Maintain Web section in English and Spanish for pandemic influenza information as part of the DSHS Preparedness Web site.

x. Maintain channels for providing emergency public information to the public (including those who under voluntary isolation and quarantine) including the use of Texas 2-1-1, Texas Online and any DSHS-operated hotlines that are established.

xi. Include public information dissemination for any pandemic influenza response exercise or training in which DSHS participates.

xii. Maintain resource lists to facilitate communication with media, and public and private sector stakeholders.

B. Health Service Regions and Local Health Departments will

1. Planning and Coordination

a. Establish/appoint a Pandemic Influenza Coordinators

i. Planning Coordinator (PIPC)

ii. Surveillance Coordinator (Epidemiology Response Team)

b. Participate in the development, review, and update of state-level pandemic influenza plans and operational guidelines.

c. Develop, update, and maintain pandemic influenza plans and operational guidelines for the jurisdictions for which they serve in the LHD role based on the following State documents:

i. Pandemic Influenza Plan Operational Guidelines,

ii. Planning Guidelines for Non-Pharmaceutical Interventions (Appendix J),

iii. AADS Planning Guidelines (Appendix K)

iv. VADS Planning Guidelines (Appendix L),

v. Interim Guidance for Allocation of Scarce Resources (Appendix M),

vi. Establishment of Alternate Care Sites (Appendix N), and

vii. Texas Strategic National Stockpile Manual
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d. Develop COOP plans to maintain critical services.

e. Provide subject matter expertise to assist in the development of local and community plans.

f. Identify and maintain private- and public-sector partners to facilitate coordination and participation in the pandemic influenza planning process.

g. Identify gaps in existing local infrastructure to respond to a pandemic influenza and develop approaches to correct them.

h. Identify and develop/explore approaches to address gaps in region and/or local infrastructure and resources, and laws and statutes that may interfere with effective response.

i. Collaborate with local government, community organizations, and community leaders to identify and address the accessibility needs of vulnerable populations.

j. Collaborate with community partners including informal leaders to identify vulnerable populations.

i. Identify locations of long-term care facilities.

ii. Identify location of individuals who are medically fragile, homebound or are unable to access public transportation.

iii. Identify languages spoken with substantial frequency within jurisdictions and supply educational materials in those languages.

iv. Collaborate with community partners to determine availability of potential sites for aggregate care facilities.

k. Develop strategies to overcome barriers experienced by special populations with particular attention to vulnerable populations including access and language issues.\(^\text{v}\)

i. (e.g., Salvation Army, Meals on Wheels, EMS, Red Cross) with plans to:

ii. Assist in distributing pharmaceuticals to households with homebound patients including isolation/quarantine.

iii. Assist households in obtaining adequate food and supplies to with homebound patients including those in isolation/quarantine.

l. Coordinate pandemic influenza planning efforts with other public health disaster planning at the local level.

m. Work with DSHS to address cross-border/cross-jurisdictional planning issues, if applicable, with

i. Bordering states,

ii. Texas-Mexico border jurisdictions and their Mexican counterparts, and

iii. American Indian tribes.

n. Identify and provide training opportunities for staff in NIMS, ICS, and working in local emergency operations centers.

o. Collaborate with local healthcare providers to identify appropriate sites to serve as triage and treatment centers, vaccination sites and holding areas for acutely ill patients not able to be admitted to hospitals.

p. Collaborate with local healthcare providers and death care providers to identify facilities/resources with sufficient refrigerated storage to serve as temporary morgues.

q. Provide oversight for procurement, regional or local storage, safety, and
Section II. Operating Guidelines

distribution of vaccine and antivirals from national, state, and locally acquired caches.

r. Participate in developing, exercising, evaluating and updating plans and guidelines.

s. Ensure that Disaster Mental Health Services resources such as state hospitals, community Mental Health and Mental Rehabilitation (MHMR) centers, and substance abuse assets are identified and included in planning, implementation, and response activities in accordance with the Disaster Mental Health Appendix 13 to Annex H—Health and Medical Services of the State of Texas Emergency Management Plan.

t. Ensure plans and guidelines are exercised at the regional level according to HSEEP guidelines and modify as necessary to meet regional and local needs.

u. Develop or adapt Standing Delegation Orders (SDO) or protocols (Appendix D.5) for:
   i. Administering antiviral medications and
   ii. Reporting drug reactions to MedWatch.

v. Develop or adapt SDOs or protocols (Appendix D.1) for:
   i. Administering influenza vaccine in clinics
   ii. Emergency medical management of vaccine reactions (Appendix D.2)
   iii. Prevention protocol for vaccinating people with chicken egg or gentamycin sulfate allergy (Appendix D.1).

2. Situation Monitoring and Assessment

a. Continue to assume responsibility for and conduct year-round influenza virologic, mortality, and morbidity surveillance for jurisdictions, including suspected early cases of pandemic influenza.

b. Participate in the development, use, and improvement of an electronic surveillance system for seasonal influenza that can be used during an influenza pandemic.

c. Collaborate with local health care partners to improve, develop, and enhance surveillance of severe respiratory illness (including associated deaths), and ILI.

d. Develop relationships with health care partners serving populations that favor traditional cultural healing practices over conventional U.S. health care practices.

e. Work with DSHS Central Office to develop methods for estimating/enumerating influenza-associated deaths.

f. Recruit local physicians into the Sentinel Provider Surveillance Network (SPSN) and encourage weekly reporting to assure adequate sampling within jurisdictions.

g. Work to increase number of medical providers to serve as culture surveillance sites.

h. Work with DSHS Central Office and local health care providers to increase number of influenza isolates submitted to DSHS laboratory (possibly directly to CDC) according to established protocols.

i. Collaborate with local hospitals to explore monitoring of pneumonia and influenza hospitalizations electronically during a pandemic influenza.

j. Participate in ongoing influenza surveillance which includes the following:
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i. Assist with submission of respiratory specimens for viral isolation and identification, typing and sub-typing.

ii. Passive surveillance of ILI outbreaks in long-term care facilities, schools, and other institutional settings (e.g., jails, workplaces).

k. Develop plans for follow up of isolated and/or quarantined households as a part of outbreak control measures during the “Initiation” and early “Acceleration” CDC intervals. Engage community service agencies/organizations:

   i. Information- Dedicated website for isolation/quarantine information, 2-1-1, etc.

   ii. Monitoring - phone calls from Salvation Army, churches

   iii. Evaluation – phone calls or visits by EMS, Home Health, hospital phone triage nurses

l. Maintain LRN protocols for identifying influenza subtypes.

m. Enroll/train private practitioners and hospital personnel, and other designated officials/individuals to use the newly developed Texas Electronic Registration-Death Registration (electronic death certificate and reporting system).

3. Prevention and Containment

a. Address antiviral and vaccination issues including

   i. Collaborate with DSHS Central Office and community partners to review current emergency plans for inclusion of provisions for mass antiviral distribution and vaccination campaigns.

   ii. Identify appropriate sites to serve as vaccination sites within jurisdictions.

   iii. Locate and enumerate Target Groups in the jurisdiction and methods to deliver antivirals to these priority groups.

   iv. Locate, enumerate, and determine methods to verify Target Group membership for vaccination.

   v. Identify, locate and determine methods to verify Target Group membership for vaccination.

   vi. Identify and remove barriers to annual influenza and pneumococcal vaccination programs.vii

   vii. Enhance influenza and pneumococcal vaccination coverage levels for high risk populations.

   viii. Work with health care partners to assess and improve healthcare worker influenza immunization levels.

   ix. Work with animal health partners to assess and improve poultry, swine, and wild waterfowl influenza immunization levels.

   x. Maintain ability to participate in antiviral adverse event reporting online (MedWatch) including plans demonstrating steps toward adequate follow-up and monitoring.

   xi. Maintain ability to participate in vaccine adverse event reporting (VAERS, Appendix D.3) including plans demonstrating steps toward adequate follow-up and monitoring (further guidance is expected from CDC).

b. Ensure ability to report data during Pandemic Period to help determine vaccine and antiviral allocation for Target Groups by the DSHS Central Office. See Appendix D.4 and Appendix D.6 for sample vaccine and antiviral allocation
c. Identify border health issues and plan solutions with the Office of Border Health (OBH) and other applicable agencies. Develop MOUs as necessary.

d. Collaborate with DSHS Central Office to
   i. Review medical and public health control legislation and liability issues related to delivery of biologic agents (e.g., vaccine and antiviral drugs).
   ii. Examine legal aspects (including workers compensation issues) related to use of prophylactic medications and refusal of medication for those in high-risk groups. Make changes as necessary.
   iii. Determine procedures for, and legalities related to, suspension of rules to contain the pandemic, including but not limited to
       (a) Unlicensed vaccinators,
       (b) Distribution of prescription antivirals by unlicensed volunteers,
       (c) Distribution and/or vaccination by non-Texas licensed volunteers,
       (d) Mandatory vaccinations,
       (e) Emergency distribution of drugs/vaccines, and
       (f) Use of investigational drugs/vaccines.

e. Develop plans for application and tracking of community containment strategies by local jurisdictions to include
   i. Educational campaigns for the public and local businesses.
   ii. Provision of social, medical, and psychological care.
   iii. Provision of supplies such as food.

f. Determine who will provide prophylaxis to certain targeted risk groups such as hospital staff, EMS, or critical service providers, if included in the DSHS priorities (Antiviral Allocation, Distribution and Storage Planning Guidelines) (Appendix K) and based on community needs and resources.

g. Ensure that plans for recruiting/credentialing DSHS and other state agency assigned staff, volunteers, pharmacists, EMS, retired physicians, and nurses, and others (out-of-state and federal, including the Public Health Service and the U.S. military) to administer antivirals and vaccines will be done at the local and regional level.

h. Prepare to track distribution of antivirals and vaccine through TIMS (See AADS and VADS guidelines)

i. Prepare to track children and adult antiviral distribution and vaccinations through ImmTrac. ImmTrac will generate summary reports which will be used to report to CDC through the Countermeasure and Response Administration (CRA) reporting system.

j. Identify sources of supplies needed for administering vaccine.

k. Collaborate with private and public sector stakeholders in planning:
   i. Determine private sector roles, responsibilities, and capabilities.
   ii. Determine who is responsible for vaccinating or prophylaxing certain risk target populations.
   iii. Develop plans for educating private professional sector regarding prophylaxis and intervention strategies.

l. Request hospitals and community service providers, such as police and utilities, to develop and maintain contact lists of essential community services
personnel (including work and home communication information) whose absence would pose a serious threat to public safety, critical infrastructure, or would significantly interfere with the ongoing response. Maintain the list and provide numbers to DSHS for allocation of pharmaceuticals for Target Groups.

m. Individual-focused strategies
   i. Encourage use of personal protective strategies including seasonal influenza vaccination, hand washing, respiratory hygiene, and cough etiquette to prevent influenza.
   ii. Encourage annual seasonal influenza vaccination for health care workers.
   iii. Enhance seasonal influenza vaccination coverage levels in traditional “high-risk” groups, particularly in subgroups in whom coverage levels are low.\(^\text{xi}\)
   iv. Work with the Texas Animal Health Commission to require protection for individuals involved in activities to control and eradicate outbreaks of avian influenza among poultry and swine.
   v. Encourage poultry and swine industry workers to be vaccinated for seasonal influenza.
   vi. Enhance Pneumococcal vaccination coverage levels for eligible children and adults to reduce the incidence or severity of secondary bacterial pneumonia (Appendix C).

4. Health Systems Response
   a. Encourage and assist private sector healthcare providers to develop and maintain pandemic influenza plans and protocols.
   b. Provide preventive action recommendations to communities.
   c. HSR and LHDs in conjunction with public and private sector stakeholders including state and federal agencies, health care systems, pharmaceutical companies and researchers, as appropriate, will
      i. Update and/or inventory state medical assets.
      ii. Collaborate with the appropriate agencies to inventory, identify, and type regional resources.
      iii. Develop and coordinate recommendations on health issues related to pandemic influenza.
      v. Coordinate plans for fever clinics and telephone hotlines to include:
         (a) When clinics and hotlines will be activated,
         (b) Where clinics and hotlines will be located,
         (c) Hours and staffing patterns, and
         (d) Protocols and triage decision trees.
         (e) Coordinate with area 2-1-1 Information and Referral Service.
      vi. Develop or identify, based on the disease epidemiology, disease-specific protective action recommendations to be implemented during the pandemic.
      vii. Estimate and communicate the impact of pandemic influenza on essential health services using both moderate and worst-case scenarios.
      viii. Maintain an inventory of, and report to DSHS as requested, available beds
in nursing facilities that might serve to house sick patients as hospital overflow.

ix. Maintain the ability to inventory hospital readiness status and medical resources (e.g., EMResource™).

d. Assist DSHS to maintain a statewide inventory of
   i. Medical personnel, including but not limited to currently licensed physicians, physician assistants, registered nurses, licensed practical nurses, medical assistants, and other people who may be trained in the event of an emergency,
   ii. Back-up personnel with emphasis on nontraditional volunteers (e.g., family members, retired health care personnel),
   iii. Beds (hospital and long-term care),
   iv. ICU capacity,
   v. Ventilators,
   vi. Pharmacies and pharmacists,
   vii. Laboratories,
   viii. Personal Protective Equipment (PPE) (e.g., masks, gloves),
   ix. Specimen collection and transport materials,
   x. Contingency medical facilities (within jurisdiction),
   xi. Mortuary and funeral services,
   xii. Social services, disaster mental health services, substance abuse and faith based services,
   xiii. Medical supplies (e.g., syringes, gloves, IV supplies, feeding tubes) appropriate for infants and children as well as adults, and
   xiv. Interpreter services.

e. Analyze public surge capacity and assist private-sector providers to determine potential needs.
   i. Work with healthcare partners to identify and train screeners for on-site and remote patient screening,
   ii. Collaborate with area hospitals to establish alternate care sites as necessary (Appendix N)

f. Provide a range of estimates for the potential local impact related to deaths, hospitalizations, and outpatient visits due to pandemic influenza for your community (FluAid software is available).

g. In collaboration with area hospitals, determine a strategy to advise non-acute patients to stay home.

h. In collaboration with healthcare partners, identify locations for the management of patient overflow.

i. Contact the local and/or regional State Mortuary Assistance Team xiii to ensure death care of mass fatalities is coordinated (Appendix G).

j. Provide lists of healthcare workers and support personnel critical for pandemic response for Tier 1 prophylaxis or vaccination.

k. Assist state hospitals and community mental health/mental retardation centers to;
   i. Review internal emergency management plans and Disaster Mental Health
      Appendix 13 of Annex H—Health and Medical Services of the State of
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ii. Review shelter-in-place and evacuation procedures.
iii. Update and/or inventory medical supplies.
iv. Identify and maintain lists (including work and home contact information) of essential medical and nonmedical staff including back-up personnel with special emphasis on nontraditional volunteers.
v. Estimate the impact of pandemic influenza on service provision.
l. DSHS recommends that congregate facilities serving special needs populations follow the same recommendations as above.

5. Communications
a. Adopt appropriate communications strategies as outlined in DSHS Communication section above.
b. Maintain ability to send and receive information using the PHIN.
c. Maintain local level emergency contact lists and the ability to communicate health alert messages to local partners.
d. Maintain redundant communications systems.
e. Coordinate the use of educational materials (e.g., personal use of non-pharmaceutical prevention measures such as hand washing, respiratory hygiene, and cough etiquette).
f. Encourage local health care providers to use the PHIN for alerts and useful information.
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PILLAR 2: Surveillance and Detection

Early warning of a pandemic and the ability to closely track the spread of an avian influenza outbreak is critical to being able to rapidly employ resources to contain the spread of the virus. An effective surveillance and detection system will save lives by allowing the activation of response plans before the arrival of a pandemic virus to the state.

II. PANDEMIC ALERT PERIOD (WHO Phases 3, 4, and 5; FR Stages 0, 1, and 2; CDC Interval Recognition)

A. Department of State Health Services will
   1. Planning and Coordination
      a. If incomplete, accelerate activities of Interpandemic Period.
      b. Notify and update all HSRs and LHDs about changes in Pandemic Phase, Federal Response Stages, and CDC Intervals through the PHIN.
      c. Meet with all participating DSHS partners/stakeholders to review the critical elements and expectations of State Pandemic Influenza Plan, PIPOG, AADS, and VADS Guidelines.
      d. DSHS and HSRs review and update if necessary COOP Plans.
      e. Provide training and monitor records for staff cross-trained to cover critical tasks and ICS.
      f. Notify and update HSRs, LHDs and partners of antiviral and pandemic vaccine status and projected timeline of antiviral and vaccine availability.
      g. Coordinate activities with Quarantine Stations (Appendix O).
      h. Review response readiness (non-pharmaceutical and pharmaceutical preparations) with the Texas Military Forces (TMF).
      i. Prepare to transition into Emergency Operations
   2. Situation Monitoring and Assessment
      a. Provide HSRs and LHDs with updated case definitions, protocols, and algorithms to assist with case finding, management, infection control, and surveillance reporting. This information will be provided through the PHIN and the Department’s website.
      b. The state influenza coordinator within the Infectious Disease Surveillance and Epidemiology Branch will initiate discussions and meetings with necessary public and private sector stakeholders, and partners to review elements of enhanced surveillance.
         i. Notify public and private sector stakeholders of the need for heightened awareness.
         ii. Craft public announcements encouraging education and heightened awareness.
         iii. Activate the National Electronic Data Surveillance System (NEDSS)-Based System (NBS) to collect enhanced surveillance data.
         iv. Collaborate with animal health partners to share information between agencies on animal and human diseases, specifically avian influenza and influenza-like illnesses (ILI) in humans.
      c. Request submission of additional viral specimens from patients presenting with ILI including those with recent travel history to regions where
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avian/seasonal/pandemic strains of influenza are circulating and those with unusual or severe symptoms (See DSIS Resource Manual for Seasonal and Pandemic Influenza Testing in Texas). The PHIN will be sued to communicate with medical providers and reference and hospital clinical laboratories the criteria for virus testing and local contact information for testing coordination.

d. Work with CDC and other national partners to ensure capability and capacity to identify novel subtype.

e. Acquire/maintain laboratory space that meets Bio Safety Level 3 specifications.

f. Determine need for increased transportation resources and additional shipping materials for viral specimens. Coordinate specimen transport to national labs.

g. Test specimens that are suspected of being a novel subtype, using non-culture techniques as requested by DSIS epidemiologists. (See DSIS Resource Manual for Seasonal and Pandemic Influenza Testing in Texas.)

3. Prevention and Containment

a. Expedite completion of Interpandemic preparations.

b. Initiate relevant components of non-pharmaceutical and pharmaceutical guidelines for including

   i. DSIS Pandemic Influenza Guidelines for Non-Pharmaceutical Interventions (Appendix I)

   ii. Antiviral Allocation, Distribution and Storage Guidelines (Appendix K)

      (a) Allocate and distribute General Revenue Cache to HSRs.

   iii. Vaccine Allocation, Distribution, and Storage Guidelines (Appendix L)

      (a) Allocate and distribute pre-pandemic vaccine per Target Population.

c. Report confirmed cases of novel influenza virus to CDC according to established protocols.

d. Prepare to track community mitigation strategies as they are initiated.

4. Health Systems Response

a. Review, revise as needed, and activate guidelines for infection control measures for health care settings (DHHS Strategic Plan, Supplement 4: Infection Control), business communities (Appendix F), and schools.

b. Collaborate with the infectious disease specialists and influenza experts on the review and revision of the prevention and control measures.

5. Communications

a. Maintain enhanced and secure communication with international, federal, interstate, regional and local partners.

b. PHIN staff will continue to monitor the delivery of health alerts, maintain backup and redundant communications systems as needed, and update the PHIN emergency contact database if required.

c. Continue to coordinate with DSIS IDCU staff on use of DSIS broadcast messaging equipment for delivery of health alerts by email, automated phone and fax technologies.

d. Utilize the PHIN to pass Situational Reports (SitReps) among agencies.

e. Communicate with health care professionals

   i. Communication efforts regarding novel virus identified in a single human
confirmed case, small overseas cluster(s), and larger overseas cluster(s) will continue as described for the Interpandemic Phase. Modifications to the standard communications procedures will be made accordingly as new information about the novel subtype is received.

ii. DSHS will coordinate notification of all appropriate agencies, statewide professional organizations, and PHL directors.

iii. Designated DSHS IDCU staff will be responsible to communicate pandemic response updates and recommendations of the Epidemiology Response Teams (ERT) to targeted health care professionals or agencies that serve health care professionals.

f. Inform the public per CERC guidelines

i. Update *Pandemic Influenza Shelf Kits*, fact sheets, flyers and frequently asked questions sheets in coordination with local jurisdictions.

ii. Provide information in Spanish and other languages as needed.

iii. Coordinate messages and information with bordering states and Texas-Mexico border jurisdictions and their Mexican counterparts in coordination with the DSHS OBH. Work with partners to ensure consistent messages are delivered.

iv. Update Web page as needed.

v. DSHS Press Officer or designee will provide public information in ways such as response to media calls and dissemination of educational materials on pandemic influenza in coordination with local jurisdictions.

B. Health Service Regions and Local Health Departments will

1. Planning and Coordination

   a. Notify regional and local partners of WHO Pandemic Alert Phase and changes in federal stages through PHIN or other communication channels.

   b. Confirm availability of resources to support a pandemic response

   c. Review guidelines for prevention and control measures.

   d. Review SNS plans for state and jurisdictions.

   e. Review and update regional and local antiviral and vaccine allocation, distribution and storage plans.

   f. Distribute antiviral and vaccine plans with updated priority groups to the medical community.

   g. Review training records for staff identified for surge capacity.

   h. Provide education about agency COOP plans to maintain essential services.

   i. Prepare to transition into Emergency Operations

2. Situation Monitoring and Assessment

   a. Initiate meetings with necessary public and private sector stakeholders and partners to review elements of enhanced surveillance.

   b. Review seasonal influenza guidelines.

   c. Review protocols for submitting specimens for influenza testing.

   d. Consider enhanced syndromic surveillance activities such as monitoring school absenteeism, use of over-the-counter medications, and emergency room visits.

   e. Encourage local practitioners test for influenza and to submit specimens to LRN laboratories for confirmation and further testing.
f. Implement investigation and containment strategies for cases/clusters as necessary.
g. Prepare for and conduct investigations of suspected cases/clusters of pandemic influenza as required.

3. Prevention and Containment
   a. Expedite completion of Interpandemic and Pandemic Alert preparations.
      i. Non-Pharmaceutical Interventions
         (a) Place on alert (FGR Stage 2) relevant components of the Planning Guidelines for Non-Pharmaceutical Interventions (Appendix I).
         (b) Prepare to track community mitigation strategies a they are initiated.
      ii. Coordinate prevention and mitigation strategies with the OBH for Texas-Mexico border jurisdictions and their Mexican counterparts.
      iii. Coordinate prevention and mitigation strategies for international travelers with federal quarantine stations (Appendix O).
      iv. Pharmaceutical Interventions (Vaccines and Antivirals)
         (a) Implement strategies to improve seasonal and influenza vaccination rates among priority groups and the general population.
         (b) Implement strategies to improve pneumococcal vaccination rates among priority groups and the general population.
         (c) Place on alert (FGR Stage 2) relevant components of jurisdictional and DSHS AADS Planning Guideline(s) (Appendix K).
            (i) Have available Target Group population count for submission to DSHS upon request.
            (ii) Have available appropriate client forms (see SNS guidelines).
            (iii) Alert partner locations previously identified for antiviral distribution to priority populations.
         (d) Notify medical community of (pre)pandemic vaccine status, projected timeline of vaccine availability and client options for obtaining vaccine.
         (e) Prepare to activate (FGR Stage 2) relevant components (depending on federal stage) of the DSHS and jurisdictional Vaccine Allocation, Distribution and Storage Planning Guidelines (Appendix L) for pre-pandemic vaccine distribution.
            (i) Have available Target Group population count for submission to DSHS upon request.
            (ii) Have available adequate supplies of Texas C-93 Addendum to Vaccine Information Statements and Vaccine Information Statements.
            (iii) Alert partner locations previously identified as locations for vaccine clinics for pre-pandemic vaccine to priority populations.
            (iv) Prepare to activate plans for allocation and distribution of any available pre-pandemic vaccine.

v. Activate (FGR Stage 2) relevant components (depending on federal stage) of the jurisdictional plans associated with the Appendix 8: Strategic National Stockpile of the Annex H: Health and Medical Services of the State of Texas Emergency Management Plan.
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b. Prepare to receive General Revenue Cache of antivirals (WHO Phase 4).
c. If there are suspected cases/clusters within jurisdiction, confirm infections with LRN and implement outbreak management strategies.
   i. Implement individual and community level countermeasure strategies for confirmed cases/clusters and their contacts as appropriate (see Planning Guidelines for Nonpharmaceutical Interventions and AADS plan).
   ii. Report cases of confirmed Novel Virus Influenza to DSHS.
   iii. Implement enhanced surveillance activities.
   iv. Implement screenings of international and interstate travelers in collaboration with quarantine stations.

4. Health Systems Response
   a. Encourage hospitals and congregate facilities to review and update their Pandemic Influenza Plans.
   b. Encourage hospitals to review health care setting prevention and control procedures (DHHS Strategic Plan, Supplement 4: Infection Control).
   c. Collaborate with local emergency management coordinators to maintain a high level of awareness and preparedness among emergency responders and health care providers to include mental health.
   d. Provide public and private health care providers with updated case definitions, protocols, and algorithms to assist with case finding, management, infection control, and surveillance reporting. This information will be provided using the PHIN and the Department's website. In addition, this information would be located on appropriate local public health department websites.
   e. Work with healthcare partners to train secondary screeners.

5. Communications
   a. Maintain enhanced and secure communication with international, interstate, state, regional and local partners.
   b. PHIN staff will continue to monitor the delivery of health alerts, maintain backup and redundant communications systems as needed, and update the PHIN emergency contact database if required.
   c. Coordinate with DSHS staff for delivery of health alerts.
   d. Communicate with healthcare professionals
      i. ERTs will ensure that pandemic response updates and recommendations will reach local health care professionals or agencies that serve health care professionals.
      ii. Highly encourage health care providers to use the PHIN to receive health alerts and other useful information.
      iii. Inform partners regarding novel virus identified in a single human case, small overseas cluster(s), and larger overseas cluster(s).
   g. Inform the public
      i. Update fact sheets, flyers and frequently asked questions sheets in coordination with DSHS.
      ii. Provide information in Spanish and other languages as needed.
      iii. Coordinate messages and information with bordering states and Texas-Mexico border jurisdictions and their Mexican counterparts in coordination with the DSHS Communications Unit and the OBH. Work
with partners to ensure consistent messages are delivered.
iv. Work with DSHS Press Officer or designee to provide public information including through responses to media calls, news releases, and dissemination of educational materials on pandemic influenza.

PILLAR 3: Response and Containment

It is recognized that a virus with pandemic potential anywhere represents a risk to populations everywhere. Once health authorities have signaled sustained and efficient human-to-human spread of the virus has occurred, a cascade of response mechanisms will be initiated.

III. PANDEMIC PERIOD (WHO Phase 6; FGR Stages 3, 4, 5; CDC Intervals Initiation, Acceleration, Peak, Deceleration)

A. Department of State Health Services will
   1. Planning and Coordination
      a. Notify and update all HSRs and LHDs of Pandemic Phase 6, changes in the Federal Response Stages, and CDC Intervals through the PHIN.
      b. Review the PIPOG in conjunction with key private and public sector stakeholders.
      c. Activate (FGR Stage 4) DSHS MACC incident command; refer to MACC Operational Guidelines [HYPERLINK when available].
      d. Review the State Pandemic Influenza Plan
      e. Review the SNS Manual
      f. Declare community mitigation triggers [HYPERLINK when available] (alert, standby, activate) as appropriate based on PSI and presence of disease in the state or region.
      g. Review and operationalize (FGR Stage 4–6) elements of the PIPOG, modifying as necessary.
      h. Review (FGR Stage 4) and operationalize (FGR Stage 5–6) the DSHS COOP plan.
      i. Review (FGR Stage 4) and operationalize (FGR Stage 5–6) HHSC and state multi-agency COOP plans.
      j. Ensure that TIMS through the PHIN is available and ready for implementation to track antiviral supplies according to SNS Manual.
      k. Ensure that ImmTrac is available and ready for implementation to track antiviral and vaccine administration and CDC-required client data to be reported in the aggregate.
      l. Conduct just-in-time training on pandemic policies and protocols for regions and other partners.
      m. Ensure that appropriate policies, protocols, and MOUs are in place.
      n. Review logistics and human resources.
   2. Situation Monitoring and Assessment
      a. Begin (FGR Stage 2) and continue enhanced surveillance activities which may include
         i. Provide assistance to HSRs to conduct outbreak investigations as requested and as resources allow,
         ii. Monitor absenteeism rates within schools,
iii. Alert hospitals to be prepared to report number of patients, number of patients with influenza, number on ventilators, number of available ventilators, number of beds occupied, number of beds available, estimates of staffing levels (MDs, nurses, ancillary), number of deaths due to any respiratory illness (ICD-9 480–486 and 487) including medical examiner offices, emergency room visit trends, syndromic surveillance,
iv. Monitor essential infection control supplies at health care venues, state-level response venues (including GDEM, TMF), and suppliers/distributors,
v. Report enhanced ILI activity by participating health practitioners, and vi. Conduct surveillance for a spike in retail over-the-counter medication purchases,

b. During the CDC Interval Acceleration
   i. Move from case-based interventions toward community level interventions,
   ii. Focus surveillance on syndromic disease and mortality

c. During CDC Interval Peak
   i. Laboratory accepts samples for virologic surveillance rather than case confirmation
   ii. Continue to focus surveillance on syndromic disease and mortality

d. During the CDC Interval Deceleration
   i. Refocus surveillance away from community-level back toward individual-level measures.

{e. Report data and information using available electronic reporting system(s).}

f. Collaborate with HSRs, LHDs, and other public and private sector stakeholders to evaluate response to previous wave(s) and make adjustments as necessary based on new information.
   i. Surveillance and outbreak control
   ii. Community mitigation strategies
   iii. Pharmaceutical interventions

3. Prevention and Containment
   a. Activate as appropriate Interpandemic and Pandemic Alert preparations.
      i. Non-Pharmaceutical Interventions
         (a) Activate relevant components of the Planning Guidelines for Non-Pharmaceutical Interventions as appropriate according to the Pandemic Severity Index.
         (b) Begin/continue to track and monitor activated community mitigation strategies as reported by HSRs.
         
      ii. Pharmaceutical Interventions (Vaccines and Antivirals)
         (a) Prepare for receipt of pre-pandemic vaccine (FGR Stage 4)
         (b) Begin administering pre-pandemic vaccines to priority groups
         (c) Deploy SNS Cache of antivirals to HSRs and LHDs as necessary.

      (a) Activate relevant components of DSHS AADS Planning Guidelines
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(Appendix K)
(i) Provide appropriate client forms to distribution sites per SNS Manual.
(ii) Distribute to allocation sites available antivirals for dispensing to pre-identified Target Groups.
(b) Activate relevant components of the DSHS Vaccine Allocation, Distribution and Storage Planning Guidelines (Appendix L).
(i) Provide Texas C-93 Addendum to Vaccine Information Statements and Vaccine Information Statements to dispensing sites.
(ii) Distribute to allocation sites available pre-pandemic vaccine for dispensing to pre-identified Target Groups.
(c) Monitor Immutrac for antiviral and/or vaccine coverage levels and adverse reactions
(d) Report adverse reactions to antivirals and vaccines to Medwatch and VAERS.

4. Health Systems Response
   a. Recommend health care system providers activate Pandemic Influenza plans.
      i. Screen employees for illness (physical and mental health) prior to entering the facility
   b. Review mass fatality plan and activate as necessary
   c. Implement response activities of the Appendix 13: Disaster Mental Health to Annex H—Health and Medical Services of the State of Texas Emergency Plan.
   d. DSBS Behavioral Health Services personnel and mental health partners are activated to provide stress management and crisis counseling services.
   e. Recommend inventory, evaluation of medical assets during (previous/subsequent) waves of pandemic influenza.
   f. Prepare to activate (CIKR Initiation) or activate (CIKR Acceleration) Annex ______ of Annex H [HYPERLINK TO STATE PLAN when available] and Death Care for Managing Mass Fatalities (Appendix G).

5. Communications
   a. Contact 2-1-1 information system with current pandemic influenza situation information for the public and update as appropriate.
   b. Coordinate notification of all appropriate agencies that pandemic influenza has been identified in the United States/Texas.
   c. Provide information using the PHIN, Epi-X, WebEOC, or other electronic or available means to federal, state, and local stakeholders regarding cases of pandemic influenza.
   d. Notify bordering states and Texas-Mexico border jurisdictions and their Mexican counterparts (and the OBH as appropriate).
   e. PHIN staff will continue to monitor the delivery of health alerts, maintain backup and redundant communications systems as needed, and update the PHIN emergency contact database if required.
   f. Create a WebEOC event to be used by public health entities to pass SitReps and other real time information among agencies.
   g. Communicate with health care professionals
i. Continue communication efforts as described above for the Pandemic Alert Period.
ii. Designated DSHTS IDCU staff will be responsible to communicate pandemic response updates and recommendations of the ERTs to targeted health care professionals or agencies that serve health care professionals.

h. Inform the public per DSHTS CERC Guidelines and in accordance with state and/or local ICS
i. Staff the MACC in the PIO and Liaison positions on Command Staff.
ii. Update the public through regular news releases and news updates as warranted, and coordinate with local, other state and federal jurisdictions.
iii. Update fact sheets, flyers and frequently asked questions sheets in coordination with CDC information and local jurisdictions.
iv. Provide translations in Spanish and other languages as needed.
v. Coordinate messages and information with bordering states and Texas-Mexico border jurisdictions and their Mexican counterparts in coordination with the DSHTS OBH.
vi. Go live with the Pandemic Flu Emergency Web page and update as necessary, following DSHTS CERC Guidelines.

B. Health Service Regions and Local Health Departments will
1. Planning and Coordination
   a. Activate as appropriate Regional and local ICS.
      i. Coordinate response and requests to DSHTS through local and regional EOCs as appropriate.
      ii. Direct the work of the reassigned staff.
      iii. Meet with all participating partners to review the critical elements and expectations of the state and jurisdictional Pandemic Influenza Plans.
   b. Activate, as appropriate, local Pandemic Influenza Plans for Pandemic Period WHO Phase 6 and appropriate federal stage (3-5).
   c. Declare community mitigation triggers [HYPERLINK TO NEW TABLE] (alert, standby, activate) as appropriate based on PSI and presence of disease in the state or region.
   d. Coordinate with Quarantine Stations as appropriate.
   e. Confirm the availability of resources to support a pandemic response.
   f. Prepare for medical surge.

2. Situation Monitoring and Assessment
   a. Maintain heightened surveillance for pandemic influenza as resources allow.
   b. Conduct outbreak investigations (as resources allow) and report results to DSHTS for dissemination to other stakeholders.
   c. Encourage collection and facilitate shipment of additional viral specimens and viral cultures to DSHTS for subtyping from health care providers (e.g., SPSN providers, and participating hospitals, clinics and private practitioners).
   d. Electronically submit laboratory reports through jurisdictions to DSHTS using the PHIN or established electronic reporting system.
   e. DSHTS, LHDs, and other health care providers in Texas (e.g., hospitals and clinics) are responsible for data collection and reporting, which must be done according to currently established guidelines.
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f. Private practitioners, hospital personnel and other designated officials/individual will provide death records to state using electronic Texas Electronic Registration-Death Registration web-based system (available since January 2006).

3. Prevention and Containment
   a. Expedite completion of Interpandemic and Pandemic Alert preparations if incomplete
   b. Non-Pharmaceutical Interventions
      i. Activate relevant components of jurisdictional plans and Planning Guidelines for Non-Pharmaceutical Interventions (Appendix J) as appropriate according to the Pandemic Severity Index.
      ii. Coordinate prevention and mitigation strategies with the OBH for Texas-Mexico border jurisdictions and their Mexican counterparts.
      iii. Begin/continue to track and monitor activated community mitigation strategies as reported by LHDs.
   c. Pharmaceutical Interventions (Vaccines and Antivirals)
      ii. Continue to implement strategies to improve seasonal and influenza vaccination rates among jurisdictional priority groups and the general population.
      iii. Continue to implement strategies to improve pneumococcal vaccination rates among jurisdictional priority groups and the general population.
      iv. Activate relevant components of jurisdictional and DSHS AADS Planning Guidelines (Appendix K)
         (a) Distribute State General Revenue Cache antivirals, deployed during WHO Phase 4, according to established protocols in the antiviral plan.
         (b) Request SNS antivirals as necessary
   v. Notify medical community of (pre)pandemic vaccine status, projected timeline of vaccine availability and client options for obtaining vaccine.
   vi. Activate relevant components of the DSHS and jurisdictional Vaccine Allocation, Distribution and Storage Planning Guidelines (Appendix L)
      (a) Make available adequate supplies of Texas C-93 Addendum to Vaccine Information Statements and Vaccine Information Statements.
      (b) Consider vaccine clinics for (pre)pandemic vaccine to priority populations.
      (c) Consider allocation and distribution of any available pre-pandemic and pandemic vaccine as it becomes available.
   vii. Enter required information relating to antiviral and vaccine administration into Immtrac
   viii. Report adverse reactions to antivirals and vaccine to Medwatch and VAERS.
   ix. Coordinate movement of medical assets obtained from other state caches as available and necessary.

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a. Continue to collaborate with local emergency management coordinators to maintain a high level of awareness and preparedness among emergency responders and health care providers to include mental health.
b. Coordinate notification of appropriate agencies, infection control practitioners, local laboratories, and emergency rooms within their own jurisdictions.
c. Encourage healthcare providers to:
   i. Activate COOP plan
   ii. Ensure direct service and care employees are:
      (a) Listed on Target Population list for antivirals and vaccine
      (b) Have been fitted for and have available N95 masks or surgical masks as appropriate.
      (c) Begin social distancing behaviors
      (d) Begin preparation for medical surge and activate plans for managing surge as necessary.
d. Advise health care systems to implement health care setting prevention and control procedures (DHHS Strategic Plan, Supplement 4: Infection Control).

5. Communications
a. Maintain contact with 2-1-1 Texas, providing appropriate messages to guide residents to appropriate resources for their questions and needs.
b. Communicate jurisdictional updates among the regions and jurisdictions, bordering states, Texas-Mexico border jurisdictions and their Mexican counterparts, and all partners.
c. Continue to monitor the delivery of health alerts.
d. Maintain backup and redundant communications systems as needed and update the PHIN emergency contact database if required.
e. Use established WebEOC event for communications per established protocol (e.g., transfer SitReps, and other real time information).
f. Communicate with health care professionals by local PIO through ICS structure.
g. Inform the public in accordance with state and/or local ICS
   i. Update the public through regular news releases and news updates as warranted, and coordinate with local, regional, state and federal jurisdictions.
   ii. Update fact sheets, flyers and frequently asked questions sheets in coordination with DSHS and CDC information.
   iii. Provide translations in regional and local languages as needed.
   iv. Coordinate messages and information with bordering states and Texas-Mexico border jurisdictions and their Mexican counterparts in coordination with the DSHS and the DSHS OBH.
v. Update Web-based information as necessary. Link to the DSHS Pandemic Influenza Emergency Web page as appropriate.
vi. Maintain local channels for providing emergency public information to the public (including those who under voluntary isolation and quarantine) including the use of Texas 2-1-1, Texas Online and any DSHS-operated hotlines that are established.
Section II. Operating Guidelines

IV. PANDEMIC PERIOD (WHO Phase 6; FR Stage 6; CDC Interval Resolution)

A. Department of State Health Services will
   1. Planning and Coordination
      a. DSHS IC will
         i. Convene to determine next steps.
         ii. Determine communications needs and alert and/or mobilize necessary
             resources.
         iii. Logistics section will determine the need for obtaining and maintaining
             essential personnel, facilities, equipment, and supplies.
         iv. Review procedures from (previous) wave and make adjustments as
             necessary.
         v. Debrief from response activities. After Action Reports will be generated
             and disseminated appropriately.
         vi. Communicate the status of the response throughout DSHS, HSRs, LHDs,
             and private sector stakeholders.
      b. Provide technical assistance regarding assessment and analysis as needed to
         and from HSR offices, LHDs and public and private sector stakeholders.
      c. Review and update PIPOG to account for any gaps in the public health
         infrastructure noticed during the pandemic.
      d. Behavioral Health Services will
         i. Coordinate with Federal Emergency Management Agency (FEMA) to
            provide technical and public assistance to HHSC Risk Management,
            DSHS, and Community MHMR Centers and Substance Abuse providers.
            (a) Throughout the life of the FEMA Crisis Counseling Program, reassess
                and refine service provision adjusting grant objectives and funding as
                needed.
            (b) Because the psychosocial and financial effects of a pandemic will
                probably be felt for months if not years, efforts will be made to make
                crisis counseling program services available for at least one year
                after the postpandemic declaration date.
      e. HHSC (Risk Management) will
         i. Coordinate the assessment of the impact on State Hospitals.
         ii. Coordinate the assessment of the impact on Substance Abuse Providers.
      f. Initiate recovery operations including stress management and crisis counseling
         needs.
      g. Summarize and analyze the pandemic response and record lessons learned for
         future pandemic situations.
      h. Review and revise PIPOG based on outcome measurements and performance
         results of current plans.
      i. Support rebuilding of essential services.
      j. Coordinate the assessment of Community MHMR Centers in consultation with
         the Department of Aging and Disability Services.

2. Situation Monitoring and Assessment
   a. Assess the impact, response, and control of the pandemic.
   b. Initiate multidisciplinary teams of invited local medical and public health
      experts to carry out analyses. Tasks and analysis may include:
Section II. Operating Guidelines

i. Document influenza outbreaks among different populations in Texas.
ii. Determine age-specific attack rates, morbidity and mortality rates, and case fatality rates.
iii. Describe unusual clinical syndromes as well as risk factors for those syndromes and appropriate treatment.
iv. Describe unusual pathologic features associated with “serious” or fatal cases.
v. Conduct efficacy studies of vaccination, infection control interventions, or chemoprophylaxis.
vi. Monitor and describe the ability of Texas hospitals and outpatient clinics to cope with increased patient loads.
vii. Assess the medical, social and economic impact of the pandemic.
viii. Provide rates of illness visits and hospitalizations using data from defined populations.
ix. Determine effects of community mitigation strategies on patterns of illness related to various demographics.
c. Analyze and distribute state data under the supervision of PIL. Draft protocols for these and other studies will have been developed at the national level and will be shared with states that show an interest in collaborating.
d. Evaluate situation-monitoring response in first wave. Make adjustments as necessary for subsequent waves.
e. Maintain heightened surveillance activities.
f. Maintain laboratory capabilities as necessary to determine reemergence.
g. Assess state, regional and local plans (e.g., COOP, state plan, PIPOG) and recommend changes/updates as necessary.

3. Prevention and Containment
   a. Expedite recovery preparations and restocking of medical assets.
   b. Non-Pharmaceutical Interventions
      i. Continue to support relevant components of jurisdictional plans and Planning Guidelines for Non-Pharmaceutical Interventions (Appendix J) while discontinuing others
      ii. Coordinate state-level prevention and mitigation strategies with the OBH for Texas-Mexico border jurisdictions and their Mexican counterparts.
      iii. Track cessation of community mitigation strategies reported by HSRs.
   c. Pharmaceutical Interventions (Vaccines and Antivirals)
      i. Continue to implement strategies to improve seasonal and influenza vaccination rates among jurisdictional priority groups and the general population as necessary.
      ii. Continue to implement strategies to improve pneumococcal vaccination rates among jurisdictional priority groups and the general population.
      iii. Continue to support activation of relevant components of jurisdictional and DSHS AADS Planning Guidelines (Appendix K) as necessary.
         (a) Distribute antivirals according to established protocols in the AADS Planning Guidelines.
      iv. Notify medical community of pre-pandemic and pandemic vaccine status, projected timeline of vaccine availability and client options for obtaining
v. Continue with relevant components of the DSHS and jurisdictional VADS Planning Guidelines (Appendix 1) as necessary.
   (a) Consider mass vaccine clinics as supplies of vaccine allow.
   (b) Continue state-level allocation and distribution of any available pre-pandemic and pandemic vaccine as available.

vi. Continue to activate relevant components of the jurisdictional plans associated with the Appendix 8: Strategic National Stockpile of the Annex H: Health and Medical Services of the State of Texas Emergency Management Plan.

vii. Coordinate restocking and movement of pharmaceutical and non-pharmaceutical medical assets between state caches as available and necessary.

viii. Continue to enter pre-pandemic and antiviral dispensing information into ImmTrac and report aggregate data to CDC as required.

4. Health Systems Response
   a. Notify health service agencies (e.g., hospitals, clinics, and private practitioners) and community partners about the change of status to Postpandemic Period and federal stage 6.

5. Communications
   a. Continue communication efforts to inform the HSRs and LHDs about additional pandemic waves or the end of the pandemic.
   b. Conduct after-action analysis of PHIN communications systems and database systems to improve the network design and delivery of services.
   c. Conduct after-action analysis of WebEOC use to determine effectiveness and to determine areas for additional training and improvement.
   d. Conduct analysis of the effectiveness of distance learning programming and delivery to improve delivery of services.
   e. Update emergency contact database and conduct after-action interviews with local response staff to gather information to improve the alert function.
   f. Discuss the communications strategy and conduct a process review.
   g. Communicate pandemic response updates (including case definitions) and recommendations to the ERTs for targeted health care professionals or agencies that serve health care professionals.

h. Inform the public per DSHS CERC Guidelines
   i. DSHS communication with the media continues to be disseminated through the PIO and Liaison positions on the MACC Command Staff.
   ii. Update the public through regular DSHS news releases and news updates as warranted. Coordinate release of information with local, other state and federal jurisdictions.
   iii. Update DSHS fact sheets, flyers, and frequently asked questions sheets in coordination with CDC information and with local jurisdictions.
   iv. Provide translations in Spanish and other languages as needed.
   v. Coordinate messages and information with bordering states and Texas-Mexico border jurisdictions and their Mexican counterparts in coordination with the DSHS OBH.
Section II. Operating Guidelines

vi. Update the Pandemic Flu Emergency Web page as necessary, following DSHS CERC Guidelines.
vii. Evaluate (through after-action report) the DSHS CERC Guidelines and public information dissemination. Assess effectiveness of messages.
viii. Assess media coverage and amount of information provided.

B. Health Service Regions and Local Health Departments will

1. Planning and Coordination
   a. Review and update plans, guidelines, and standard operating procedures to account for any gaps in the public health infrastructure noticed during the pandemic wave and/or complete pandemic.
   b. Coordinate the generation and dissemination of epidemiologic and after action reports.
   c. Determine the need for obtaining and maintaining essential personnel, facilities, equipment, and medical assets.

2. Situation Monitoring and Assessment
   a. Evaluate situation-monitoring response for each wave. Make adjustments as necessary for subsequent waves.
   b. Maintain heightened surveillance activities.
   c. Maintain laboratory capabilities.
   d. Collaborate with DSHS to carry out analyses of the pandemic’s impact on the community:
      i. Success of community mitigation strategies
         (a) Determine use of social distancing measures within communities
            (i) Survey businesses for social distancing strategies, use of PPE and/or closures.
            (ii) Count numbers of schools that dismissed students
            (iii) Count number of cancelled public events
            (iv) Determine morbidity and mortality rates
         (b) Compare communities to determine differences in attack rates, and morbidity and mortality rates
      ii. Hospital surge
      iii. Mortuary/Mass fatality surge
      iv. Success of Alternate Care Sites (if mobilized)

3. Prevention and Containment
   a. Expedite recovery preparations and restocking of medical assets within jurisdictions.
   b. Non-Pharmaceutical Interventions
      i. Continue with relevant components of jurisdictional plans and Planning Guidelines for Non-Pharmaceutical Interventions, and (Appendix J)
      ii. Coordinate prevention and mitigation strategies with the OBH for Texas-Mexico border jurisdictions and their Mexican counterparts as necessary.
      iii. Coordinate prevention and mitigation strategies with the Quarantine Stations as appropriate (Appendix O).
      iv. Track cessation of community mitigation strategies reported by HSRs.
      v. Evaluate the impact of community mitigation strategies on local
jurisdictions and make adjustments for future waves. Report findings.

c. Pharmaceutical Interventions (Vaccines and Antivirals)
   i. Continue to implement strategies to improve seasonal and influenza vaccination rates among jurisdictional priority groups and the general population.
   ii. Continue to implement strategies to improve pneumococcal vaccination rates among jurisdictional priority groups and the general population.
   iii. Activate relevant components of jurisdictional and DSHS Antiviral Allocation, Distribution and Storage Planning Guidelines (Appendix K) as necessary.
      a) Distribute antivirals according to established protocols in the antiviral plan.
   iv. Continue to notify medical community of (pre)pandemic/pandemic vaccine status, projected timeline of vaccine availability and client options for obtaining vaccine.
   v. Continue with relevant components of the DSHS and jurisdictional Vaccine Allocation, Distribution and Storage Planning Guidelines (Appendix L) as necessary.
      a) Restock adequate supplies of Texas C-93 Addendum to Vaccine Information Statements and Vaccine Information Statements
      b) Consider mass vaccine clinics as supplies of vaccine allow.
      c) Continue allocation and distribution of any available pre-pandemic and pandemic vaccine as available.
      d) Complete populating ImmTrac with required data.
      e) Begin second dose recalls for Target Groups if adequate vaccine is available.
      f) Continue to monitor and support vaccination efforts with a narrow focus, e.g., regions and cities only.
   vi. Continue to activate relevant components of the jurisdictional plans associated with the Appendix 8: Strategic National Stockpile of the Annex H: Health and Medical Services of the State of Texas Emergency Management Plan.
   vii. Coordinate restocking and movement of medical assets obtained from other state caches as available and necessary.

d. Maintain the ability to continue/discontinue strategies as necessary.
   e. Continue to track/restock resources for use during subsequent waves for final inventory for return to interpandemic period.

4. Health Systems Response
   a. Notify involved agencies of change of status to the Postpandemic Period.
   b. Collaborate with HSRs, LHDs, and other public and private sector stakeholders to evaluate response to previous wave and make adjustments as necessary.
   c. Respond to subsequent waves with identified adjustments.
   d. Support rebuilding of essential services.
   e. Provide stress management and crisis counseling services for responders and disaster survivors.

5. Communications
Section II. Operating Guidelines

a. Conduct after-action analysis of communications systems and database systems to improve the network design and delivery of services.
b. Conduct after-action analysis of WebEOC use during the event to determine effectiveness and areas for additional training and improvement.
c. Conduct after-action analysis of the effectiveness of distance learning programming and delivery to improve delivery of services.
d. Update the emergency contact database and conduct after-action interviews with local response staff to gather information to improve the alert function.
e. Communicate with health care professionals
   i. Inform local partners about the end of the pandemic.
   ii. Discuss the communications strategy and conduct process review.
f. Inform the Public
   i. Disseminate public service announcements requesting those who have been ill and recovered to volunteer for service for the next wave.
   ii. Evaluate (through after-action report) risk communications and public information dissemination. Assess effectiveness of messages.
   iii. Assess media coverage and amount of information provided.
   iv. Update the public through regular news releases and news updates as needed about the current situation.
   v. Update messages about the current pandemic influenza aftermath in coordination with DSHS and CDC information.
   vi. Update fact sheets, flyers and frequently asked questions sheets in coordination with DSHS and CDC information.
   vii. Provide translations in relevant regional and local languages as needed.
   viii. Update Web pages as needed. Link to the DSHS Pandemic Influenza Emergency Web page as appropriate.
APPENDICES

APPENDIX A: Key Roles and Responsibilities
APPENDIX B: Surveillance
APPENDIX C: Recommendations for Pneumococcal Vaccine
APPENDIX D: Standing Delegation Orders and Emergency Medical Management for Adverse Reactions to Vaccines and Antiviral Drugs
APPENDIX E: Vaccine and Antiviral Tracking
APPENDIX F: Business Continuity Planning
APPENDIX G: Death Care for Managing Mass Fatalities
APPENDIX H: Templates for Common Incident Command Forms Used During an Influenza Pandemic
APPENDIX I: Contacts and Resources
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APPENDIX M: Allocation of Limited Resources
APPENDIX N: Alternate Care for Medical Surge
APPENDIX O: Guidelines for Monitoring International Travel
### APPENDIX A: Key Roles and Responsibilities

<table>
<thead>
<tr>
<th>Interpandemic Period</th>
<th>Community Preparedness Section (CPS) with Assistance from the Pandemic Response Team (PRT)</th>
<th>Pandemic Influenza Coordinator (PIC) and Pandemic Influenza Planning Group (PIPG)</th>
<th>Regional/Local Health Departments (HSR/LHD)</th>
<th>Pandemic Influenza Lead (PIL)</th>
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</table>
| Phases 1 and 2       | • Lead in state’s public health, mental health and health-care related response to pandemic influenza.  
                        • Maintain information resource list(s). Works with PIL in state’s response. | • Develop, review and update the plan annually.  
                        • Involve HSR/LHD Representatives in the planning/updating process. |                                           | • Mandatory member of PIPG and PRT.  
                        • Review state-wide influenza data, syndromic surveillance, and laboratory information.  
                        • Look for funding sources to sustain Influenza plan. |
| Federal Stages 0 and 1 |                                                                                       |                                                                                |                                           |                               |
| Pandemic Alert Period | • Operationalize plan in conjunction with key partners—regional directors, IDCU, GDEM, IB, and others.  
                        • Along with PIL, coordinates a review of essential elements of vaccine distribution plan with major stakeholders. | • Convene to review plan and modify as necessary.  
                        • Confirm availability of resources to support a pandemic response.  
                        • Serve as lead for community distribution of developed state and national communication.  
                        • Maintain a resource checklist. |                                           | • Track influenza activity. |
| Phases 3, 4, and 5   |                                                                                       |                                                                                |                                           |                               |
| Federal Stages 0, 1, 2 |                                                                                       |                                                                                |                                           |                               |
| Pandemic Period (Phase 6) | • Coordinate pandemic influenza response with the DSHS MACC  
                        • Provide standard communication with agency and other state and national agency counterparts. | • Work with the CPS and PIL to ascertain the continued availability of resources.  
                        • Implement and coordinate the response from regional & local levels.  
                        • Assess available resources and communicate needs to local EOC.  
                        • Ensure distribution of vaccine/antivirals to target groups as available. |                                           | • Track influenza activity to isolate affected geographic areas.  
                        • Disseminates resource needs to agency heads.  
                        • Direct work of reassigned agency staff.  
                        • Monitor procedures for Texas on vaccinations and adverse event reporting. |
| Federal Stages 3, 4, 5 |                                                                                       |                                                                                |                                           |                               |
### Appendix A: Key Roles and Responsibilities

<table>
<thead>
<tr>
<th>Community Preparedness Section (CPS) with Assistance from the Pandemic Response Team (PRT)¹</th>
<th>Pandemic Influenza Coordinator (PIC)¹ and Pandemic Influenza Planning Group (PIPG)</th>
<th>Regional/Local Health Departments (HSR/LHD)</th>
<th>Pandemic Influenza Lead (PIL)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pandemic Period (Phase 6)</strong></td>
<td><strong>Federal Stage 6</strong>&lt;br&gt;(Subacute Period)</td>
<td>• Evaluate DSHS IC response during first wave and make adjustments.&lt;br&gt;• Evaluate resources.</td>
<td><strong>Evaluate regional/local response and make adjustments.</strong>&lt;br&gt;<strong>Evaluate resources; attempt to resupply.</strong>&lt;br&gt;• Collect relevant information/data (e.g., # of deaths, # of hospitalizations) to include in final analysis.&lt;br&gt;• Continue vaccination as vaccine becomes available.&lt;br&gt;• Ensure antivirals/vaccine information is entered into IMMTRAC</td>
</tr>
<tr>
<td><strong>Pandemic Stage 6</strong>&lt;br&gt;(Postpandemic Recovery)</td>
<td>• Communicate status of response throughout agency including HSR/LHD.&lt;br&gt;• Supervise a detailed retrospective characterization/analysis of the pandemic conducted by a multidisciplinary team in collaboration with PIL.</td>
<td>• Conduct retrospective analysis of the process and documents.&lt;br&gt;• Recommend changes to the existing plan(s)/guidelines once analysis is finalized.</td>
<td><strong>Collaborate with the CPS and PIL on retrospective analysis of the pandemic.</strong>&lt;br&gt;<strong>Receive community-specific analysis and distribute to stakeholders.</strong>&lt;br&gt;<strong>Provide the PIL with recommendations regarding state plan to meet geographic needs.</strong></td>
</tr>
</tbody>
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¹ Pandemic Response Team (PRT), Pandemic Influenza Coordinator (PIC) and Pandemic Influenza Lead (PIL) to be developed.
APPENDIX B: Surveillance

- **Appendix B.1: Influenza Surveillance**
- **Appendix B.2: Texas DSHS Weekly Influenza Report Form**
- **Appendix B.3: Influenza Sentinel Provider Surveillance Network Information Sheet**
- **Appendix B.4: Influenza Sentinel Provider Surveillance Network Sample Workfolder**
- **Appendix B.5: Influenza Sentinel Provider Surveillance Network Sample Enrollment Form**
- **Appendix B.6: Sample Case and Household Contact Reporting Form**
- **Appendix B.7: Sample of an Influenza A. H5 Case Investigation Form**
Appendix B.1: Influenza Surveillance

DSHS Lead Contact Information

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Summary

Texas primarily uses a sentinel surveillance system to monitor influenza. Influenza is not a reportable condition in Texas; however, through a variety of different sources of information, local, regional, and state health officials monitor flu activity. The Infectious Disease Control Unit within the Texas Department of State Health Services (DSHS) reports activity level to Centers for Disease Control and Prevention (CDC) weekly during the influenza season (October through May). Influenza activity levels are reported as no activity, sporadic, local, regional, or widespread. Many sources of information are used to determine the state's influenza activity level. Texas currently has culture surveillance sites across the state, whose health care providers collect and submit specimens for viral culture to the DSHS Medical Virology Laboratory on a weekly basis during the influenza season as well as specimens from any cases of influenza that occur during the summer. Other laboratories, military institutions, and facilities besides DSHS also are capable of viral isolation. Viral isolation results from these laboratories are shared with DSHS. DSHS also utilizes information from the CDC-sponsored Sentinel Provider Surveillance Network (SPSN). Approximately 100 providers in Texas voluntarily participate in this program. These providers report influenza-like illness by age group to the CDC on a weekly basis. Not only does this data provide information on influenza activity, but it is also a good indicator of when influenza season begins, ends, and peaks. The SPSN and virus surveillance results provide public health partners with a situational awareness of influenza virus activity, the geographic distribution of influenza viruses, and the clinical impact of the circulating viruses are obtained. In addition, DSHS facilitates and encourages laboratories in Texas to participate in the National
Appendix B.1: Influenza Surveillance

Respiratory and Enteric Virus Surveillance System (NREVSS) sponsored by CDC. This system collects surveillance data on other respiratory viruses affecting the state population. These viruses include respiratory syncytial virus, parainfluenza viruses, and adenoviruses. This is a laboratory-based sentinel surveillance system, and participation is voluntary. DSHS actively recruits hospital laboratories to participate. These sentinel providers report on a weekly basis both the number tests performed antigen detection or isolation to identify each virus and the number of positives test results. Currently, 21 laboratories in Texas participate in this system representing 7% of all participating laboratories nationwide.

The Texas DSHS is continuously attempting to enhance respiratory virus surveillance by: 1) Expanding the number of participating physicians in the SPSN, 2) Increasing the number of SPSN physicians that report on a weekly basis, 3) Increasing the number of medical providers to serve as culture surveillance sites, 4) Increasing the number of specimens collected and submitted for viral isolation, and 5) Expanding the number of laboratories participating in NREVSS.

Year-round influenza surveillance has been implemented in Texas and is conducted by staff at state, regional and local health departments. The enhancements noted above will improve surveillance to detect and identify novel influenza viruses and other respiratory agents. Surveillance to identify and report newly occurring cases of possible novel influenza have been implemented. Public health staff are familiar and aware of how to report novel influenza virus cases.

Currently, the DSHS does not monitor influenza-related hospitalization and deaths related in influenza virus. DSHS has focused its surveillance efforts on other activities described above. In January 2006, the Texas Electronic Registration—Death Registration for submitting death record information to the State became available. Physicians, other designated officials/personnel may now report deaths and electronically submit certificate of death records to the State using this Web-based system.
Appendix B.2: Texas DSHS Weekly Influenza Report Form

WEEKLY FLU REPORT FORM

HSR: _____ WEEK ENDING: ________

Is influenza activity occurring in the region? (X yes or no) __ YES __ NO
(If yes, please complete the report. If no, the report is complete).

Since the last report, has influenza activity in the region:
__ Increased  __ Decreased  __ Stayed about the same  __ Not sure

Influenza activity is defined as:
- Influenza-like illness activity (ILI): ILI is defined as fever over 100°F and cough and/or sore throat. (Can be assessed using a variety of sources including sentinel providers, school/workplace absenteeism, and other syndromic surveillance systems that monitor ILI); and/or,
- Lab confirmed case: Influenza case confirmed by rapid test, culture, antigen detection, or PCR; and/or,
- Institutional outbreak: A lab confirmed outbreak in a nursing home, hospital, prison, school, etc.

Please complete the table listing the counties where influenza activity is occurring.
Enter a (+) in the table where applicable.

<table>
<thead>
<tr>
<th>Co.</th>
<th>Flu A</th>
<th>Flu B</th>
<th>ND*</th>
<th>ILI INSTITUTIONAL OUTBREAK</th>
<th>SCHOOL CLOSURE</th>
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*Not Differentiated Influenza

Please email report to the Influenza Activities Coordinator on Mondays. If Monday is a holiday, send ASAP.
The report may also be faxed to (512) 458-7616 to the Influenza Activities Coordinator. The Coordinator may be reached at (512) 458-7111 ext. 6364 if you have questions or comments.

If sending additional information for a previously submitted report, please highlight the changes being made. Thank you!
Appendix B.3: Influenza Sentinel Provider Surveillance Network Information Sheet

Now You Can Help With...

**Influenza Sentinel Provider Surveillance**

...In Only a Few Minutes a Week!

**What is an influenza sentinel provider?**
An influenza sentinel provider reports clinically diagnosed influenza-like illness (ILI) to the CDC. The CDC and the state health departments use this data to determine flu activity levels for each state. Nationally, over 2,000 providers were enrolled in this network during the 2005-06 influenza season. Less than 100 participated in Texas. **More are needed!**

**What data do sentinel providers collect? How and to whom are data reported?**
Sentinel providers report the total number of patient visits for ILI by age group (0–4 years, 5–24 years, 25–64 years, ≥65 years) along with the total number of patient visits for any reason. These data are transmitted once a week via the Internet or fax to the CDC. Most providers report that the entire process takes **less than 20 minutes a week.** In addition, sentinel providers can submit specimens from a subset of patients for virus isolation **free of charge.**

**Who can be an Influenza Sentinel Provider?**
Providers of any specialty (e.g., family practice, internal medicine, pediatrics, infectious diseases) in any type of practice (e.g., private practice, public health clinic, urgent care center, emergency room, university student health center) are eligible to be sentinel providers. Nurse Practitioners and Physician Assistants are also eligible.

**Why Volunteer?**
Influenza viruses are constantly evolving and cause substantial morbidity and mortality (approximately 36,000 deaths) almost every winter. With the ever-increased threat of pandemic influenza, the need for surveillance has never been more important. Data from sentinel providers are critical for monitoring the impact of influenza and, in combination with other influenza surveillance data, can be used to guide prevention and control activities, vaccine strain selection, and patient care. **Sentinel providers receive feedback on the data submitted, summaries of regional and national influenza data, and free subscriptions to CDC's Morbidity and Mortality Weekly Report and Emerging Infectious Diseases journal.** The most important consideration is that the data provided are critical for protecting the public’s health.

*For more information on Influenza Sentinel Provider Surveillance, please contact Irene Brown, SPSN Coordinator, or an epidemiologist at (512) 458-7676*
### U.S. Influenza Sentinel Provider Surveillance Workfolder

**October 1, 2006 - September 29, 2007**

**Influenza-Like Illness (ILI) is defined as:**
Fever (>100°F [37.8°C], oral or equivalent) AND cough and/or sore throat
(in the absence of a KNOWN cause other than influenza).

<table>
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<tr>
<th>Provider ID:</th>
<th>Password:</th>
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#### 2006 - 07 Season

<table>
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<tr>
<th>Week Ending Date</th>
<th>CDC Date Code</th>
<th>0-4 Yrs</th>
<th>5-24 Yrs</th>
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<td>MAY 5</td>
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</tbody>
</table>

#### 2006 - 07 Season

<table>
<thead>
<tr>
<th>Week Ending Date</th>
<th>CDC Date Code</th>
<th>0-4 Yrs</th>
<th>5-24 Yrs</th>
<th>25-64 Yrs</th>
<th>&gt;64 Yrs</th>
<th>Total Patients Seen*</th>
</tr>
</thead>
<tbody>
<tr>
<td>JUN 2</td>
<td>0722</td>
<td></td>
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<tr>
<td>JUL 7</td>
<td>0727</td>
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<td>0738</td>
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<tr>
<td>29</td>
<td>0739</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Total Patients seen for any reason = (non-ILI + ILI)

Thank you for participating in the U.S. Influenza Sentinel Provider Surveillance System.

Please do not discard this workfolder.

A postage paid envelope will be provided for you to return the workfolder to CDC.
INFLUENZA-LIKE ILLNESS (ILI) is defined as:
Fever (>100°F [37.8°C], oral or equivalent), AND cough and/or sore throat.
(in the absence of a KNOWN cause other than influenza)

The presence or absence of other symptoms, such as body aches, fatigue, or vomiting, should be disregarded when classifying a patient as having an ILI. Although this cannot be used alone, it is very general. When combined with information on circulating viruses, the information on ILI activity provides an excellent picture of influenza activity in the United States.

INSTRUCTIONS FOR INTERNET REPORTING

The sentinel provider Internet reporting site should be accessible by both Netscape (Version 5.0 and above) and Internet Explorer (Version 5.0 and above) browsers.

To access the influenza sentinel provider Internet reporting system, go to:
http://www2.neid.cdc.gov/flu/

Enter your provider ID code and password which can be found on the previous page and select Submit.

You will now be on the Main Menu page. From this page you may either enter or view your data.

To enter data:

1. Select Enter Data.
2. Select the four digit date code (e.g. 0640) for the week you wish to report and enter your data. Use the enter or tab key to move from one data field to the next. Indicate if the report is an update from a previously entered report.

In addition to entering and viewing your own data, you can also view the most recent influenza activity update.
Appendix B.5: Influenza Sentinel Provider Surveillance Network Sample Enrollment Form

Provider's First Name ____________________________________________

Last Name ______________________________________________________

Degree (example: MD, PA, DO) ____________________________________

Practice Name (example: name of facility) __________________________

Contact Person _________________________________________________

E-mail Address __________________________________________________

Address _________________________________________________________

City ___________________________________________________________

State __________________________________________________________

Zip ____________________________________________________________

Area Code / Phone Number ________________________________________

Alternate Phone _________________________________________________

Fax Number _____________________________________________________

Type of Practice (example: pediatrician, family practice) __________

A certificate is sent annually to regular participants who submit 50% or more reports.

Please indicate Provider or Clinic name for certificate ________________

☒ Unable to participate at this time

Irene Brown
Sentinel Influenza Coordinator
Infectious Disease Control Unit
Phone: (512) 458-7111, ext. 6878
Fax: (512) 458-7616
E-mail: Irene.Brown@dshs.state.tx.us
## Reported By

<table>
<thead>
<tr>
<th>Agency Name:</th>
<th>Date Form Filled Out: <em><strong>/</strong></em>/___ (mm/dd/yy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Name:</td>
<td>Date Household Reported to Agency: <em><strong>/</strong></em>/___ (mm/dd/yy)</td>
</tr>
<tr>
<td>Contact Phone:</td>
<td>Date Agency Assigned to Case: <em><strong>/</strong></em>/___ (mm/dd/yy)</td>
</tr>
<tr>
<td></td>
<td>Date Submitted to Regional/State Health Department: <em><strong>/</strong></em>/___ (mm/dd/yy)</td>
</tr>
</tbody>
</table>

## Information on Isolated Patient

| Date Placed in Voluntary Isolation/Quarantine: ___/___/___ (mm/dd/yy) |
| Anticipated Date Ending Voluntary Isolation/Quarantine: ___/___/___ (mm/dd/yy) |

## Household Characteristics

<table>
<thead>
<tr>
<th>Physical Address:</th>
<th>Apartment #</th>
<th>City</th>
<th>Zipcode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Person for Household:</td>
<td>Phone:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Living in Household:</td>
<td>Number of Household Members:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Information Collected on Each Household Member

<table>
<thead>
<tr>
<th>Name</th>
<th>Age (Years)</th>
<th>Gender</th>
<th>Are they currently sick?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

## Signs and Symptoms*

Does anyone in the household have any of these signs and symptoms (check all that apply):

- □ Fever
- □ Temperature taken (> 38 C (100.4 F))
- □ Temperature not taken
- □ Eye infection
- □ Vomiting
- □ Cough
- □ Headache
- □ Shortness of Breath
- □ Nausea
- □ Other (specify): ____________________________

* Investigations must be completed on all contacts with symptoms

If someone is sick in your household, have you contacted your physician? Yes □ No □
Appendix B.7: Sample of an Influenza A. H5 Case Investigation Form

Appendix B.7: Sample of an Influenza A. H5 Case Investigation Form

The following case investigation form can be adapted for Case Investigations.

<table>
<thead>
<tr>
<th>Human Influenza A (H5) Domestic Case Screening Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC Case ID:</td>
</tr>
<tr>
<td>Date reported to state or local health department:</td>
</tr>
<tr>
<td>State/local assigned case ID:</td>
</tr>
<tr>
<td>Last Name:</td>
</tr>
<tr>
<td>First Name:</td>
</tr>
<tr>
<td>State:</td>
</tr>
<tr>
<td>Affiliation:</td>
</tr>
<tr>
<td>Email:</td>
</tr>
<tr>
<td>Phone 1:</td>
</tr>
<tr>
<td>Phone 2:</td>
</tr>
<tr>
<td>Fax:</td>
</tr>
</tbody>
</table>

2. Patient Information

<table>
<thead>
<tr>
<th>City of Residence:</th>
<th>County:</th>
<th>State:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at onset:</td>
<td>Year(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Month(s)</td>
<td></td>
</tr>
<tr>
<td>Sex:</td>
<td>Male</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Race:</td>
<td>(Choose One)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>American Indian/Alaska Native</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Native Hawaiian/Other Pacific Islander</td>
<td></td>
</tr>
<tr>
<td>Ethnicity:</td>
<td>Non Hispanic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td></td>
</tr>
</tbody>
</table>

3. Optional Patient Information

<table>
<thead>
<tr>
<th>Last Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
</tr>
</tbody>
</table>

4. Signs and Symptoms

<table>
<thead>
<tr>
<th>Date of symptom onset:</th>
</tr>
</thead>
<tbody>
<tr>
<td>m m d d y y y y y y</td>
</tr>
</tbody>
</table>

B. What symptoms and signs did the patient have during the course of illness? (Check all that apply)

- Fever > 38°C (100.4°F)   - Feverish (temperature not taken)   - Conjunctivitis
- Cough                   - Headache                  - Shortness of breath
- Sore throat             - Other (specify):                       |

C. Was a chest X-ray or chest CAT scan performed?   - Yes*   - No   - Unknown

If yes*, did the patient have radiographic evidence of pneumonia or respiratory distress syndrome (ARDS)?   - Yes*   - No   - Unknown

February 19, 2004

1 Taken from the HHS Pandemic Influenza Plan, November 2005. Entire Document available at http://www.hhs.gov/pandemicflu/plan/
## Epidemicologic Risk Factors

### 5. Travel/Exposures

A. In the 10 days prior to illness onset, did the patient travel to any of the countries listed in the table below? If yes*, please fill in arrival and departure dates for all countries that apply.

<table>
<thead>
<tr>
<th>Country</th>
<th>Arrival Date</th>
<th>Departure Date</th>
<th>Country</th>
<th>Arrival Date</th>
<th>Departure Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td></td>
<td></td>
<td>Myanmar (Burma)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td></td>
<td>Nepal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brunei</td>
<td></td>
<td></td>
<td>North Korea</td>
<td></td>
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</tr>
<tr>
<td>Cambodia</td>
<td></td>
<td></td>
<td>Oman</td>
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<td>China</td>
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<td>Pakistan</td>
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<tr>
<td>Hong Kong</td>
<td></td>
<td></td>
<td>Papua New Guinea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
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<td></td>
<td>Philippines</td>
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<tr>
<td>Indonesia</td>
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<td>Saudi Arabia</td>
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<td>Iran</td>
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<td>Jordan</td>
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<td>Macao</td>
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<td>Yemen</td>
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<tr>
<td>Malaysia</td>
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</tr>
</tbody>
</table>

For the questions 5B to 5E, in the 10 days prior to illness onset, while in the countries listed above.

B. Did the patient come within 1 meter (3 feet) of any live poultry or domesticated birds (e.g. visited a poultry farm, a household raising poultry, or a bird market)?

<table>
<thead>
<tr>
<th>Yes*</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

If Yes*

C. Did patient touch any recently butchered poultry?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

D. Did the patient visit or stay in the same household with anyone with pneumonia or severe flu-like illness?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

E. Did the patient visit or stay in the same household with a suspected human influenza A(H5) case?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

F. Did the patient visit or stay in the same household with a known human influenza A(H5) case?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

*See Influenza A (H5): Interim U.S. Case Definitions

February 19, 2004
Appendix B.7: Sample of an Influenza A. H5 Case Investigation Form

Influenza A (H5) Domestic Case Screening Form 1.0
(continued from previous page)

6. Exposure for Non Travelers
For patients whom did not travel outside the U.S.,
in the 10 days prior to illness onset did the patient visit or stay
in the same household with a traveler returning from one of
the countries listed above who developed pneumonia or severe
flu-like illness?
If yes*, was the contact a confirmed or suspected H5 case
patient?
If yes*: CDC ID: ___________________ STATE ID: _______________

Laboratory Evaluation

7. State and local level influenza test results

<table>
<thead>
<tr>
<th>Specimen 1</th>
<th>Date Collected:</th>
<th>Test Type:</th>
<th>Result:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP swab</td>
<td><strong>/</strong>/____</td>
<td>RT–PCR</td>
<td>Influenza A</td>
</tr>
<tr>
<td>NP aspirate</td>
<td><strong>/</strong>/____</td>
<td>Rapid Antigen Test*</td>
<td>Influenza (type unk)</td>
</tr>
<tr>
<td>Bronchoalveolar lavage specimen (BAL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP swab</td>
<td><strong>/</strong>/____</td>
<td>Direct fluorescent antibody (DFA)</td>
<td>Influenza B</td>
</tr>
<tr>
<td>Other</td>
<td><strong>/</strong>/____</td>
<td>Viral Culture</td>
<td>Negative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen 2</th>
<th>Date Collected:</th>
<th>Test Type:</th>
<th>Result:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP swab</td>
<td><strong>/</strong>/____</td>
<td>RT–PCR</td>
<td>Influenza A</td>
</tr>
<tr>
<td>NP aspirate</td>
<td><strong>/</strong>/____</td>
<td>Rapid Antigen Test*</td>
<td>Influenza (type unk)</td>
</tr>
<tr>
<td>Bronchoalveolar lavage specimen (BAL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP swab</td>
<td><strong>/</strong>/____</td>
<td>Direct fluorescent antibody (DFA)</td>
<td>Influenza B</td>
</tr>
<tr>
<td>Other</td>
<td><strong>/</strong>/____</td>
<td>Viral Culture</td>
<td>Negative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen 3</th>
<th>Date Collected:</th>
<th>Test Type:</th>
<th>Result:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP swab</td>
<td><strong>/</strong>/____</td>
<td>RT–PCR</td>
<td>Influenza A</td>
</tr>
<tr>
<td>NP aspirate</td>
<td><strong>/</strong>/____</td>
<td>Rapid Antigen Test*</td>
<td>Influenza (type unk)</td>
</tr>
<tr>
<td>Bronchoalveolar lavage specimen (BAL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP swab</td>
<td><strong>/</strong>/____</td>
<td>Direct fluorescent antibody (DFA)</td>
<td>Influenza B</td>
</tr>
<tr>
<td>Other</td>
<td><strong>/</strong>/____</td>
<td>Viral Culture</td>
<td>Negative</td>
</tr>
</tbody>
</table>

*Name of Rapid Test:

February 19, 2004
### Appendix B.7: Sample of an Influenza A. H5 Case Investigation Form

Influenza A (H5) Domestic Case Screening Form 1.0  
(continued from previous page)

<table>
<thead>
<tr>
<th>CDC ID:</th>
</tr>
</thead>
</table>

#### 8. List specimens sent to the CDC

Select a SOURCE* from the following list for each specimen: Serum (acute), serum (convalescent), NP swab, NP aspirate, bronchoalveolar lavage specimen (BAL), OP swab, tracheal aspirate, or tissue.

<table>
<thead>
<tr>
<th>Specimen 1:</th>
<th>Source*</th>
<th>Collected:</th>
<th>Date Sent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Material</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Extracted RNA</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Virus Isolate</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen 2:</th>
<th>Source*</th>
<th>Collected:</th>
<th>Date Sent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Material</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Extracted RNA</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Virus Isolate</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen 3:</th>
<th>Source*</th>
<th>Collected:</th>
<th>Date Sent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Material</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Extracted RNA</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Virus Isolate</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen 4:</th>
<th>Source*</th>
<th>Collected:</th>
<th>Date Sent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Material</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Extracted RNA</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Virus Isolate</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen 5:</th>
<th>Source*</th>
<th>Collected:</th>
<th>Date Sent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Material</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Extracted RNA</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
<tr>
<td>Virus Isolate</td>
<td></td>
<td></td>
<td>m m d d v v v</td>
</tr>
</tbody>
</table>

Carrier:  | Tracking #: |

#### 9. Case Notes:

February 19, 2004  
Page 4 of 5
Appendix B.7: Sample of an Influenza A. H5 Case Investigation Form

Influenza A (H5) Domestic Case Screening Form 1.0
(continued from previous page)

<table>
<thead>
<tr>
<th>CDC Contact Information (FOR CDC USE ONLY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC ID:</td>
</tr>
<tr>
<td>Case status and date status applied:</td>
</tr>
<tr>
<td>□ Clinical Case</td>
</tr>
<tr>
<td>(lab results pending)</td>
</tr>
<tr>
<td>Date entered by CDC:</td>
</tr>
<tr>
<td>□ Ruled Out/Non-Case:</td>
</tr>
<tr>
<td>Reason:</td>
</tr>
<tr>
<td>□ Influenza A neg. (by PCR, viral culture, or influenza A serology)</td>
</tr>
<tr>
<td>□ Non-H5 Influenza Strain</td>
</tr>
<tr>
<td>□ Other etiology*</td>
</tr>
<tr>
<td>□ Did not meet case definition</td>
</tr>
<tr>
<td>Date entered by CDC:</td>
</tr>
<tr>
<td>Contact Date</td>
</tr>
<tr>
<td>Name of CDC Contact:</td>
</tr>
</tbody>
</table>

*Alternative Diagnosis

A. Was an alternative non-influenza respiratory pathogen detected? □ Yes* □ No □ Unknown
If yes* specify:

B. Was there a diagnosis other than respiratory infection? □ Yes* □ No □ Unknown
If yes* specify:

February 19, 2004
APPENDIX C: Recommendations for Pneumococcal Vaccine

A. **Assumption:** Pneumococcal vaccine will assist in the prevention of secondary bacterial infections.

B. **Interpandemic Period:** DSHS participates in a number of coalitions to improve vaccine coverage throughout Texas. Local health departments promote vaccination locally with Pneumococcal Polysaccharide vaccine for individuals >65 and Pneumococcal Conjugate vaccine for children 2 to 23 month olds.

C. **Pandemic Alert Period, Phase 4:** Human-to-human transmission is confirmed.
   1. DSHS will notify all health care providers of the need to vaccinate people over 65 years of age and people recommended by the Advisory Committee on Immunization Practice (MMWR 1997; v46: No. RR–8) with pneumococcal vaccine as a method of decreasing morbidity and mortality associated with pandemic influenza.
   2. The DSHS Press Officer (or designee) may send information to the media to inform the general public of the need for children ages 2 months to 23 months, adults age 65 and older, and other high-risk people to receive pneumococcal vaccine as defined by the Advisory Committee on Immunization Practices (ACIP).
   3. Pneumococcal vaccine will be distributed and administered by private healthcare providers. Children may be covered by the Texas Vaccines for Children program. Reimbursement rates for Medicare and Medicaid vary annually. Private insurers frequently follow Medicare reimbursement guidelines. Be sure to check current publications.

D. **Pandemic Period, Phase 6:** Confirmation is made of onset of pandemic, regional and multiregional epidemics, end of first wave. DSHS will continue efforts to notify providers and people recommended by the ACIP to receive pneumococcal vaccine as described above.

E. **Subsided:** Second or later waves follow same process as D.

F. **Postpandemic Period:**
   1. The DSHS will continue efforts to notify providers and people recommended by the ACIP to receive pneumococcal vaccine as described above.
   2. DSHS, along with providers and HSRs and LHDs will review the plan and pandemic and update as necessary.
APPENDIX D: Standing Delegation Orders and Emergency Medical Management for Adverse Reactions to Vaccines and Antiviral Drugs

Vaccines
- Appendix D.1: Sample Standing Delegation Orders for Pandemic Influenza Vaccine
- Appendix D.2: Emergency Medical Management for Vaccine Reactions
- Appendix D.3: Vaccine Adverse Reaction Form and DSHS Complaint and/or Injury Report
- Appendix D.4: Vaccine Allocation Form—Example Only (priority groups will change)

Antiviral Drugs
- Appendix D.5: Standing Orders for Administration of Antivirals to Contacts
- Appendix D.6: Antiviral Allocation Form—Example Only
Appendix D.1: Sample Standing Delegation Orders for Pandemic Influenza Vaccine

[INSERT NAME OF PUBLIC HEALTH ORGANIZATION]

A. Administering Influenza Vaccine in Clinics

Purpose
To reduce morbidity and mortality from influenza by vaccinating patients who meet priority criteria established by the Advisory Committee on Immunization Practice (ACIP). If these priority criteria are unavailable, criteria developed by the DSHS will be followed.

Policy
After determining that a client is eligible to receive vaccination (i.e., there are no absolute contraindications), registered nurses, licensed vocational nurses, and/or other staff licensed or certified to give medications can administer influenza vaccine in pandemic influenza vaccination clinics. The chart below lists the types of vaccine that may be used and the required guidelines for use. These guidelines reflect ACIP recommendations, Standards for Immunization Practices, and established CDC or DSHS target group priorities.

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>AGE GROUP</th>
<th>CONTRAINDICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live Attenuated Influenza Virus</td>
<td>2 years through 49 years of</td>
<td>History of anaphylaxis after eating eggs or following previous influenza</td>
</tr>
<tr>
<td>Vaccine (nasal spray, e.g.,</td>
<td>age</td>
<td>vaccination, pregnancy, immunosuppressed people, or people with close contact</td>
</tr>
<tr>
<td>FluMist®)</td>
<td></td>
<td>with immunosuppressed people (e.g., health care personnel or household contacts)</td>
</tr>
<tr>
<td>Inactivated Influenza Vaccine</td>
<td>&gt; 6 months of age</td>
<td>History of anaphylaxis after eating eggs or following previous influenza</td>
</tr>
<tr>
<td>(injectable)</td>
<td></td>
<td>vaccination; history of gentamycin sulfate allergy</td>
</tr>
</tbody>
</table>

All approved personnel administering vaccines should
- Read and have available a copy of the protocols for Managing Vaccine Reactions including anaphylactic reactions (Appendix D.2: Emergency Medical Management of Vaccine Reactions).
- Sign the vaccinator list at the end of this form.

Authority for instituting and for oversight responsibility of the SDO is assumed by the Medical Director or other appropriate authority whose signature is at the end of this document.

SDO Procedures
1. Practice and clinic personnel will be trained and qualified to be responsible for one or more of the SOP procedural steps.
2. Each client is provided with a copy of the most current Vaccine Information Statement.
Appendix D.1: Sample Standing Delegation Orders for Pandemic Influenza Vaccine

(VIS). Provide non-English speakers with a VIS in their native language if available. The publication date of the VIS should be documented.
3. Designated person(s) will answer client questions and assist if form completion if necessary.
4. Each client will be screened for eligibility for vaccination using the most current CDC/ACIP recommendations available at that time for prioritizing the use of available influenza vaccine(s). As and when epidemiologic evidence indicates the need to revise priorities or vaccine availability changes, prioritizing recommendations may be revised and instituted.
5. Each eligible client will be screened for contraindications and precautions to influenza vaccine(s)
   a. Contraindications: serious reaction (e.g., anaphylaxis) after ingesting eggs or after receiving a previous dose of influenza vaccine or an influenza vaccine component. Do not give live attenuated influenza vaccine (LAIV) to pregnant women, immunosuppressed people, or people with close contact with immunosuppressed people (e.g., health care personnel or household contacts).
   b. Precautions: moderate or severe acute illness with or without fever
6. The appropriate influenza vaccine will be administered correctly:
   a) Administer 0.5 mL inactivated influenza vaccine IM (22-25g, 1-1½" needle) in the deltoid muscle or other age appropriate dose and injection site
   b) Alternatively, healthy people 2–49 years of age without contraindications may be given 0.5 mL of LAIV; 0.25 mL is sprayed into each nostril while the patient is in an upright position
7. Emergency medical protocol, kit, and trained person will be on site. (Appendix D.2).
   Standing Delegation Order (SDO) for Emergency Medical Management of Vaccine Reactions.)
8. Vaccine, vaccination date and site will be documented in client held record and in practice or clinic records.
9. Vaccine-tracking forms will be completes and submitted to the appropriate DSHS office.

These SDOs for the medical management of vaccine reactions in adult patients shall remain in effect for patients of the ___________________________ until rescinded or until ___________________.

name of clinic
### Appendix D.1: Sample Standing Delegation Orders for Pandemic Influenza Vaccine

<table>
<thead>
<tr>
<th>Printed Name</th>
<th>Signature</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D.2: Emergency Medical Management of Vaccine Reactions

[INSERT NAME OF PUBLIC HEALTH ORGANIZATION]

Purpose
All vaccines have the potential to cause an adverse reaction. Even with careful screening, reactions may occur. These reactions can vary from trivial and inconvenient (e.g., soreness, itching) to severe and life threatening (e.g., anaphylaxis). If reactions occur, staff should be prepared with procedures for their management.

Policy
In order to minimize adverse reactions, patients should be carefully screened for precautions and contraindications before vaccine is administered. All clinic staff licensed for patient care will read and understand symptoms and management of reactions and the location of supplies for event management. The table below describes procedures to follow for various reactions that may occur.

**SDO Procedures**

<table>
<thead>
<tr>
<th>REACTION</th>
<th>SYMPTOMS</th>
<th>MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized physical reaction</td>
<td>Soreness, itching, swelling, or redness at injection site</td>
<td>• Apply cold compress to injection site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recommend analgesic or antipyretic.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Observe the client for 30 minutes before allowing the client to leave to be sure generalized symptoms do not occur.</td>
</tr>
<tr>
<td>Slight bleeding</td>
<td></td>
<td>• Apply adhesive compress over injection site.</td>
</tr>
<tr>
<td>Continuous bleeding</td>
<td></td>
<td>• Place a thick layer of gauze pads over the area and maintain direct &amp; firm pressure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Raise arm above the level of the client’s heart.</td>
</tr>
<tr>
<td>Fright and syncope (fainting)</td>
<td>Fright before injection is given</td>
<td>• Have client sit or lie down for injection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If available, provide stress management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If available, use client support structure.</td>
</tr>
<tr>
<td>Extreme paleness, sweating, coldness of hands and feet, nausea, light-headedness, dizziness, weakness, or visual disturbances</td>
<td>• Have client lie flat or sit with head between knees for several minutes.</td>
<td>• Loosen any tight clothing especially around airway.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Apply cool damp cloths to face and neck.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If available, provide stress management.</td>
</tr>
<tr>
<td>Fall, without loss of consciousness</td>
<td></td>
<td>• Examine for injury before attempting to move client.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Place client flat on back with feet elevated.</td>
</tr>
</tbody>
</table>
## Emergency Medical Management of Vaccine Reactions

| Loss of consciousness | • Examine for injury before attempting to move client.  
• Place client flat on back with feet elevated.  
• Do not give anything by mouth.  
• Monitor vital signs.  
• After return of consciousness, observe client for 30 minutes before allowing client to leave.  
• Call on-site emergency provider (EMT or MD) or 911 if client does not respond. |
|-----------------------|---------------------------------------------------------------------------------------------------------|
| **Seizure**           | • Call on-site emergency provider (EMT or MD) and 911.  
• If possible, protect the client from falling. Move furniture away from the client to prevent injury during the seizure.  
• **Do not** restrain the client  
• **Do not** place anything in the client’s mouth.  
• **Do not** give the client anything by mouth until they have completely regained consciousness and are fully alert.  
• Complete a Vaccine Adverse Event Report (VAERS) form.  
• Observe the client in the clinic for 30 minutes after seizure.  
• Send client to the ED for evaluation. |
| Loss of consciousness and rigidity and uncontrolled flexion/extension movements |                                                                                                           |
| **Anaphylaxis**       | Sudden or gradual onset of generalized itching, erythema (redness), or urticaria (hives); angioedema (swelling of the lips, face, or throat); severe bronchospasm (wheezing); shortness of breath; shock; abdominal cramping; or cardiovascular collapse.  
See “Emergency Medical Protocol for Management of Anaphylactic Reactions in Adults” below for detailed steps to follow in treating anaphylaxis. |

### Emergency Medical Protocol for Management of Anaphylactic Reaction

#### Supplies Needed

- Aqueous epinephrine USP, 1:1000 in an Epi-Pen. At least three adult Epi-Pens (delivering a single dose of 0.3 mg/0.3 mL) should be available whenever adult immunizations are given.
- Benadryl (Benadryl) injectable (50 mg/mL solution) & oral in 25 or 50 mg tablets
- Syringes: 1–3 mL, 22–25g, 1"-1½"-2" needles for injectable Benadryl
- Adult airways (small, medium, and large)
- Sphygmomanometer (adult and extra-large cuffs) and stethoscope
Appendix D.2: Emergency Medical Management of Vaccine Reactions

- Adult size pocket mask with one-way valve
- Alcohol swabs
- Tourniquet
- Tongue depressors
- Flashlight with extra batteries (for evaluating the mouth and throat)

**Emergency Treatment**

1. If symptoms are generalized, activate the emergency response system (x-4911 DSHS First Responders and 911 EMS) and call the covering physician for orders. Another person should do this while the nurse/first responder treats and observes the patient.
2. Keep family and/or caregivers informed.
3. Administer epinephrine via Epi Pen subcutaneously or intramuscularly. Site of administration can be the anterior thigh or deltoid muscle.
4. Administer Benadryl by intramuscular injection according to the dose in the Table 1. Do not administer oral Benadryl or anything else by mouth if the patient is not fully alert or if the patient has respiratory distress.
5. Monitor the patient until EMS arrives. Perform CPR & maintain airway if necessary.
6. Monitor vital signs frequently.
7. Keep the patient in supine position unless there are breathing difficulties. If breathing is difficult, patient’s head may be elevated, provided blood pressure is adequate to prevent loss of consciousness.
8. If EMS has not arrived and symptoms are still present, repeat the dose of epinephrine every 15 minutes.
9. Patient must be referred for medical evaluation, even if symptoms resolve completely. Symptoms may recur after epinephrine and Benadryl wear off, as much as 24 hours later.

**Table 1. Dosage for Benadryl (50 mg/ml)**

<table>
<thead>
<tr>
<th>WEIGHT</th>
<th>DOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kgs</td>
<td>Lbs</td>
</tr>
<tr>
<td>35–40</td>
<td>76–99</td>
</tr>
<tr>
<td>46+</td>
<td>100+</td>
</tr>
</tbody>
</table>

Authority for instituting and for oversight responsibility of the SDO is assumed by the Medical Director or other appropriate authority whose signature is at the end of this document.
Appendix D.2: Emergency Medical Management of Vaccine Reactions

These SDOs for the medical management of vaccine reactions in adult patients shall remain in effect for patients of the ___________________________ until rescinded or until ___________.

*name of clinic*

Sources:
American Pharmacists Association, Grabenstein, JD, Pharmacy-Based Immunization Delivery, 2002.
C. Vaccination of people with chicken egg or gentamycin sulfate allergy

Purpose
All vaccines have the potential to cause an adverse reaction. Even with careful screening, reactions may occur. These reactions can vary from trivial and inconvenient (e.g., soreness, itching) to severe and life threatening (e.g., anaphylaxis). Clients with known allergies to chicken eggs or GS require careful screening before vaccination. Both the injectable inactivated influenza vaccine and the live attenuated influenza vaccine (FluMist®) are currently grown in eggs.

Policy
In order to minimize adverse reactions, clients should be carefully screened for precautions and contraindications before vaccine is administered.

Procedure
1. All clinic staff licensed for patient care will read and understand contraindications to influenza vaccination.
2. Question all clients or client caregivers about allergies. If a person reports an allergy to chicken eggs ask about symptoms:
   a. If a person reports an allergy, but has received influenza vaccine in the past without difficulty, give vaccine.
   b. If a person reports an “allergy,” because of distaste for eggs, give vaccine.
   c. A person who reports a localized reaction (such as a swollen arm) may be given vaccine.
   d. A person who reacts with systemic symptoms (a drop in blood pressure, significant wheezing, difficulty breathing, or generalized hives) should not receive influenza vaccine.
   e. Allergy to duck meat or duck feathers is not a reason to hold back on influenza vaccine.
3. If vaccine is given to anyone with questionable past reactions, keep client on-site and observe for 30 minutes. If a reaction occurs, see Emergency Medical Protocol for Medical Management of Vaccine Reactions.
4. If staff determines that the client should not receive vaccine:
   a. Give instructions on how to reduce influenza exposure.
   b. Give or prescribe antivirals as appropriate if client falls into a CDC priority group or if antivirals are plentiful and unrestricted.
### Appendix D.3: Vaccine Adverse Reaction Form

**VAERS ADVERSE EVENT REPORTING SYSTEM**

**For CDC/FDA Use Only**

- VAERS Number: ____________________________
- Date Received: ____________________________

**Patient Identity Kept Confidential**

**Patient Name:**
- Last: ____________________________
- First: ____________________________
- M.I.: ____________________________

**Address:**
- __________________________________
- __________________________________
- __________________________________

**City:** ____________________________
**State:** ____________________________
**Zip:** __________________________________

**Telephone no.:** ____________
**City:** ____________________________
**State:** ____________________________
**Zip:** __________________________________

**Date of birth:** mm/dd/yy
**Patient age:** mm/dd/yy

**Describe adverse event(s) (symptoms, signs, time course) and treatment, if any:**

**Check all appropriate**
- Patient died (date mm/dd/yy)
- Life threatening illness (date mm/dd/yy)
- Required emergency room/doctor visit
- Required hospitalization (days)
- Resulted in prolongation of hospitalization
- Resulted in permanent disability
- None of the above

**Date of vaccination:** mm/dd/yy
**Adverse event onset:** mm/dd/yy
**Time:** ______________ PM
**Time:** ______________ PM

**Enter all vaccines given on date listed in no. 10**

<table>
<thead>
<tr>
<th>Vaccine (type)</th>
<th>Manufacturer</th>
<th>Lot number</th>
<th>Route/Site</th>
<th>No. Previous Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>______________</td>
<td>____________</td>
<td>____________</td>
<td>______________</td>
</tr>
<tr>
<td>b.</td>
<td>______________</td>
<td>____________</td>
<td>____________</td>
<td>______________</td>
</tr>
<tr>
<td>c.</td>
<td>______________</td>
<td>____________</td>
<td>____________</td>
<td>______________</td>
</tr>
<tr>
<td>d.</td>
<td>______________</td>
<td>____________</td>
<td>____________</td>
<td>______________</td>
</tr>
</tbody>
</table>

**Any other vaccinations within 4 weeks prior to the date listed in no. 10**

<table>
<thead>
<tr>
<th>Vaccine (type)</th>
<th>Manufacturer</th>
<th>Lot number</th>
<th>Route/Site</th>
<th>Date given</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>______________</td>
<td>____________</td>
<td>____________</td>
<td>____________</td>
</tr>
<tr>
<td>b.</td>
<td>______________</td>
<td>____________</td>
<td>____________</td>
<td>____________</td>
</tr>
</tbody>
</table>

**Vaccinated at:**
- Private doctor's office/hospital
- Military clinic/hospital
- Other/unknown

**Other medications**
- Private funds
- Military funds
- Public funds
- Other/unknown

**Illness at time of vaccination (specify)**

**Pre-existing physician-diagnosed allergies, birth defects, medical conditions (specify)**

**Have you reported this adverse event previously?**
- No
- To health department
- To doctor
- To manufacturer

**Only for children 5 and under**

- Birth weight: ______________ lb, ______________ oz.

**Adverse event following prior vaccination (check all applicable, specify)**

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>Onset</th>
<th>Type</th>
<th>In patient</th>
<th>In brother or sister</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Only for reports submitted by manufacturer/immunization project**

<table>
<thead>
<tr>
<th>Mfr./Nmm. proj.</th>
<th>report no.</th>
<th>Date received</th>
<th>15 day report?</th>
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<tbody>
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<td>Yes</td>
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</table>

**Initial**

**Follow-Up**

---

Health care providers and manufacturers are required by law (21 USC 300a-25) to report reactions to vaccines listed in the Table of Reportable Events Following Immunization. Reports for reactions to other vaccines are voluntary except when required as a condition of immunization grant awards.

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Department of State Health Services
Pandemic Influenza Plan Operational Guidelines Page 79 of 169
Appendix D.3: Vaccine Adverse Reaction Form

"Fold in thirds, tape & mail — DO NOT STAPLE FORM"

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 1995 ROCKVILLE, MD
POSTAGE WILL BE PAID BY ADDRESSEE

VAERS
P.O. Box 1100
Rockville MD 20849-1100

DIRECTIONS FOR COMPLETING FORM
(Additional pages may be attached if more space is needed.)

GENERAL

- Use a separate form for each patient. Complete the form to the best of your abilities. Items 3, 4, 7, 8, 10, 11, and 13 are considered essential and should be completed whenever possible. Parents/Guardians may need to consult the facility where the vaccine was administered for some of the information (such as manufacturer, lot number or laboratory data.)
- Refer to the Reportable Events Table (RET) for events mandated for reporting by law. Reporting for other serious events left to be related but not on the RET is encouraged.
- Health care providers other than the vaccine administrator (VA) treating a patient for a suspected adverse event should notify the VA and provide the information about the adverse event to allow the VA to complete the form to meet the VA’s legal responsibility.
- These data will be used to increase understanding of adverse events following vaccination and will become part of CDC Privacy Act System 09-20-0136, “Epidemiologic Studies and Surveillance of Disease Problems”. Information identifying the person who received the vaccine or that person’s legal representative will not be made available to the public, but may be available to the vaccinee or legal representative.
- Postage will be paid by addressee. Forms may be photocopied (must be front & back on same sheet).

SPECIFIC INSTRUCTIONS
Form Completed By: To be used by parents/guardians, vaccine manufacturers/distributors, vaccine administrators, and/or the person completing the form on behalf of the patient or the health professional who administered the vaccine.

Item 7: Describe the suspected adverse event. Such things as temperature, local and general signs and symptoms, time course, duration of symptoms, diagnosis, treatment and recovery should be noted.
Item 9: Check "YES" if the patient's health condition is the same as it was prior to the vaccine, "NO" if the patient has not returned to the pre-vaccination state of health, or "UNKNOWN" if the patient’s condition is not known.
Item 10: Give dates and times as specifically as you can remember. If you do not know the exact time, please and 11: indicate "AM" or "PM" when possible if this information is known. If more than one adverse event, give the onset date and time for the most serious event.
Item 12: Include "negative" or "normal" results of any relevant tests performed as well as abnormal findings.
Item 13: List ONLY those vaccines given on the day listed in Item 10.
Item 14: List any other vaccines that the patient received within 4 weeks prior to the date listed in Item 10.
Item 16: This section refers to how the person who gave the vaccine purchased it, not to the patient's insurance.
Item 17: List any prescription or non-prescription medications the patient was taking when the vaccine(s) was given.
Item 18: List any short term illnesses the patient had on the date the vaccine(s) was given (i.e., cold, flu, ear infection).
Item 19: List any pre-existing physician-diagnosed allergies, birth defects, medical conditions (including developmental and/or neurologic disorders) for the patient.
Item 21: List any suspected adverse events the patient, or the patient's brothers or sisters, may have had to previous vaccinations. If more than one brother or sister, or if the patient has reacted to more than one prior vaccine, use additional pages to explain completely. For the onset age of a patient, provide the age in months if less than two years old.
Item 26: This space is for manufacturers’ use only.
DSHS Complaint and/or Injury Reporting Form

1: Complaint Information:
1a. Form of Complaint: Mode complaint was conveyed to the department: i.e. by telephone, by personal visit, or by a written letter.
1b. Source of Complaint: From what source did the complaint come from: i.e. from the consumer, from another government agency, or from a trade source. If none of the provided answers are appropriate, choose other and write in the source.

2: Injured Party and/or Complaint Information:
2a. Name and Address of Injured Party: Include Full name, street address, Apt # or Box #, City, State and Zip Code. Phone: Include area code, home phone number, and work phone number.
2b. Name and Address of Complainant: Include Full name, street address, Apt # or Box #, City, State and Zip Code. Phone: Include area code, home phone number, and work phone number.
2c. Age: Age of Injured Party.
2d. Sex: Sex of Injured Party.
2e. Region: Region Number complaint/injury occurred in.
2f. County #: County code complaint/injury occurred in.
2g. County Name: Spell out the county name.

3: Injury or Illness Resulted: (check “yes” or “no” box)
3a. Symptoms: List the type of symptoms the Injured Party experienced. Date and Time of Onset of each symptom is requested, if known.
3b. Attending Physician: Mark no, if no medical attention was sought. Mark yes, if medical attention was sought and list full name, complete address and phone number of attending physician for injury that occurred.
3c. Hospitalization Required: Mark no, if hospitalization was not required. Mark yes, if hospitalization was required and list hospital name, complete address, and phone number.

4: Product and Labeling:
4a. Product Name: List full name of product or food item(s). If this is regarding a drug product, type one of the following appropriate program categories: “Manufacturer”, “Distributor”, “Salvage”, “Tattoo”, “Cosmetic”, “Piercing”, “Diet”, or “Other”. If this is regarding a device product, type one of the following appropriate program categories: “Manufacturer”, “Distributor”, “Tanning”, “Salvage”, or “Other”. Make sure to enter the program exactly as typed...not “Manufacturing” or “Distributing”.
4b. Product Code: List product code for the product.
4c. Size and Package Type: Describe product size used and type of package. i.e.16 oz. plastic bottle.
4d. Package Code/Serial Number: List package codes, serial numbers or and other identifying information from product label, if applicable.
4e. Exp/Use Date: List expiration or use by date printed on product, if applicable.
4f. Date Used: List the date the product was used/consumed.
4g. Date Purchased: List date product was purchased, if applicable.
4h. Amt Remaining: List amount of product remaining in package.
4i. Sample No.: List number given to sample if taken.

5: Manufacturer / Distributor Information:
5a. Name and Address of Manufacturer: List full name and complete address of manufacturer of product. Also list the firm’s CFN number (if licensed with DSHS). Reference the product label. Phone: List area code and phone number of manufacturer.
Appendix D.3: Vaccine Adverse Reaction Form

5b. Name and Address of Distributor/Retailer: List full name of distributor or retailer and their complete address including zip code. Also list the firm’s CFN number (if licensed with DSHS). **Phone:** List area code and phone number of distributor/retailer.

6.: **Complaint or Injury:**
6a. **Nature of Complaint/Injury:** Mark box corresponding to nature of complaint or mark box "other" and describe the nature of the complaint.
6b. **Valid Complaint:** Is complaint valid? Mark the appropriate box Yes or No.
6c. **Follow-Up Inspection:** Is a follow-up inspection needed? Mark appropriate box.
6d. **Notice Given:** Is notice to be given? Mark appropriate box. If answer is yes, list number of days.
6e. **Description of Complaint/Injury:** Explain the circumstances of the complaint or injury. Include dates and names of any witnesses.

7. **Disposition:** List the disposition of the complaint or any actions taken.
8. **Referred to:** List any agency complaint was referred to.
9. **Date referred:** List the date the complaint was referred.
10. **Name and Title:** Name and title of person taking complaint.
11. **Date Complaint Investigated:** Date complaint assigned to an investigator and investigation is started.

**OFFICE USE ONLY:**
Complaint Number: Assigned complaint number given by the Compliance Branch. To be completed by admin staff.

Date of Complaint: Date complaint was received by DSHS. To be completed by person receiving complaint.

Assigned to Investigator: Who is case assigned to? To be completed by a supervisor.
Division/Branch: What division/branch does this complaint fall under: “Drugs” or “Devices”? **Make sure to enter as plural (not Drug or Device). To be completed by person receiving complaint.

Injury Class: To be completed by a supervisor.
1 = Serious/Imminent health hazard, death, injury/illness associated with the use of this product requiring medical intervention/hospitalization.
2 = Significant health hazard, injury/illness from use of this product.
3 = Potential health hazard from use of this product, economic fraud, misbranding, certification, licensure.
4 = Little or no health hazard from use of this product, administrative noncompliance.

Reviewer’s Initials: List the initials of the person reviewing the complaint.

Date Reviewed: List the date the complaint was reviewed.
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<th>1. COMPLAINT INFORMATION</th>
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<td>b. Source of complaint:</td>
<td>Consumer</td>
<td>Trade Source</td>
<td></td>
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<tr>
<td>□ Telephone □ Visit □ Letter □ Other</td>
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<td>□ Government □ Other</td>
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<td>b. Complainant (name and address):</td>
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<td>d. Sex:</td>
<td>e. Region:</td>
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<td>g. County name:</td>
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<td>8. □ Other</td>
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<td>Yes</td>
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<td>4. PRODUCT AND LABELING (as applicable)</td>
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<td>i. Sample #:</td>
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<td>e. Exp/Use Date:</td>
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<td>5. MANUFACTURER/DISTRIBUTOR INFORMATION</td>
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<td>a. Manufacturer (name, address, &amp; CFN—if applicable)</td>
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<td>b. Distributor/Retailer (name, address, &amp; CFN—if applicable)</td>
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</table>
Appendix D.3: Vaccine Adverse Reaction Form

<table>
<thead>
<tr>
<th>6. COMPLAINT OR INJURY</th>
<th>a. Nature of Complaint/Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ Adulterated ☐ Illness/injury</td>
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<td>b. Follow-up</td>
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<tr>
<td></td>
<td>Notice</td>
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<td></td>
<td>☐ Yes ☐ No</td>
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</tbody>
</table>

|                         | c.                             |
|                         | Yes ☐ No Days                  |

|                         | d. Description of Complaint/Injury: |

| OFFICE USE ONLY ASSIGNED TO INVEST: |
| DIVISION/PROGRAM: |
| INJURY CLASS: |
| REVIEWER’S INITIALS: |
| DATE REVIEWED: |

| 7. DISPOSITION: |
| 8. REFERRED TO: | 9. DATE REFERRED: |
| 10. NAME AND TITLE: | 11. DATE INVESTIGATED: |
### Appendix D.4: Vaccine Allocation Form—Example Only
(Target groups may change)

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<th>Regional Allocation Form—Region 1 Example</th>
<th>0</th>
<th>Co. Totals</th>
<th>0</th>
<th>Total Population—Target Groups*</th>
<th>Co. Population’s % of Total TX Population*</th>
<th>Co. Allotment</th>
<th>Allocation Adjustment (+/-)</th>
<th>Final Co. Allocation</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Priority Groups (may need to add more columns and change names of groups)</td>
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<td>OLDHAM</td>
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</table>
Appendix D.4: Vaccine Allocation Form—Example Only

| PARMER   |   |   |   |   |   |
| POTTER   |   |   |   |   |   |
| RANDALL  |   |   |   |   |   |
| ROBERTS  |   |   |   |   |   |
| SHERMAN  |   |   |   |   |   |
| SWISHER  |   |   |   |   |   |
| TERRY    |   |   |   |   |   |
| WHEELER  |   |   |   |   |   |
| YOAKUM   |   |   |   |   |   |

Co. Totals: 0 0 0

DSHS Allocation Worksheet—Explanation of Columns—NOTE: This form will be provided as an Excel Spreadsheet. Each priority group will be defined in the instructions.

**Column A: Counties**

**Columns B–J: Target Groups**

**Column K: Total Population—TX Target Groups. Sum of Columns B through J**

**Column L: County Population’s Percent (%) of Total Texas Target Group and Extended Target Group Population**

Multiplier for suggested vaccine allocation. County’s proportion of Texas statewide priority group and extended priority group population.

**Column M: County Allotment**

Suggested county adult vaccine allocation based on the Texas vaccine allotment and multiplier.

**Column N: Allocation Adjustment (+/-)**

Amount of adjustment for county level vaccine allocation (+ or -) by the regions.

**Column O: Final County Allocation**

Sum of Columns N and O. This is the requested amount of vaccine for the county after adjustment by the region. Includes the County Totals cell at the bottom of the column with a summary formula. The County Totals cell should equal the Regional Totals cell at the top of the worksheet.

**Column P: Comments**

Field for comments, particularly those regarding column O.
Appendix D.5: Standing Orders for Administration of Antivirals to Contacts

Appendix D.5: Standing Orders for Administration of Antivirals to Contacts
[INSERT NAME OF PUBLIC HEALTH JURISDICTION]

Summary
The public health response for people exposed to influenza may include the urgent provision of prophylactic antiviral to the exposed person in settings including households, residential care facilities, hospitals, and other workplaces. This standing order sets out procedures for administering the antivirals oseltamivir and zanamivir for the purpose of prophylaxis against influenza, when a medical officer is not available to prescribe them and prophylaxis is warranted. This standing order, which is signed by the city, Co., district, region, or state public health authority, has been developed with advice from the Texas DSHS Strategic Preparedness Team and is to be reviewed annually.

General Policy Directives for Standing Orders for the Administration of Medication in a Public Health Emergency

Wherever possible, a prescription should be issued by a medical practitioner, for subsequent dispensing by a pharmacist, to allow for the administration or supply of medication to each patient. However, in many circumstances it is not possible for a medical practitioner to provide a prescription for each patient prior to administration or supply. To accommodate such situations, a standing order provides authorization for a registered nurse to administer or supply medication in specified situations without a prior patient specific prescription. The standing order must be approved by the city, Co., district, regional or state public health authority and reviewed at least annually. The standing order must be dated and annotated with the relevant approval and review dates.

Any administration or supply of medication under a standing order must be in accordance with the following requirements:

1. Each standing order
   (a) must be in the form of a written instruction, signed and dated by the public health jurisdiction’s public health authority;
   (b) must clearly define the emergency situation, for example “Standing Order for the Mass Administration of Anti-Influenza Prophylaxis to Defined Contacts”;  
   (c) must define criteria for identifying the person to whom the medication is to be supplied or administered (for example contact within a specified period of time);  
   (d) must specify any medical, drug or other contraindication;  
   (e) must specifically state the medication to be administered or supplied, the dose or dose schedule (which may be weight-based), the form (tablets, intramuscular injection, syrup etc.), the route and frequency of administration and, if medication is to be supplied to the patient for further dosing, the number of doses to be supplied;  
   (f) must state that any nurse who administers or supplies the medication under the standing order,  
   (g) must be a registered nurse; and  
   (h) must be a “stand-alone” document for each medication. It should not be necessary to refer to other sources for direction or information.

2. Approval to activate a standing order in response to a public health emergency must be given in
writing by the public health jurisdiction’s public health authority on each occasion of a public health emergency.

3. A registered nurse may administer or supply medication only in accordance with the instructions in the standing order. At all times the registered nurse must be able to contact the jurisdiction’s public health authority who gave the approval to initiate treatment or another appropriate medical officer.

4. Prior to administration or supply of medication to a patient, the nurse must
   (a) Explain the treatment and its purpose to the patient (or guardian);
   (b) Provide an information sheet to the patient. The information sheet must provide an outline of the disease, the treatment and its purpose, and any significant side effects resulting from the treatment, the public health jurisdiction’s 24/7 telephone contact number, and must advise the patient to inform his or her primary care provider of the treatment at the next visit; and
   (c) Obtain patient/guardian consent to provide treatment as appropriate.

5. The nurse who administers or supplies the medication must keep a full record of the administration or supply. Details must include the patient’s name and address, age or date of birth, patient weight if applicable, the name, strength and quantity of the drug supplied or administered, the date of supply or administration and that patient or guardian consent has been obtained. These records are to be held at the public health jurisdiction in accordance with the public health jurisdiction’s policy on general retention and disposal of patient/client records.

6. All medication that is to be supplied to the patient for dosing at a later time should be prepared by a pharmacist and labeled with the name and strength of the drug and the directions for use. If known by the pharmacist, the patient’s name must be included on the label. If the patient’s name is unknown, this must be hand-written on the label by the nurse at the time of supply.

7. At the completion of any mass vaccination/treatment program, the jurisdiction’s public health authority must review and sign and date the records as soon as possible to confirm that the program was in accordance with the standing order.
Specific Policy Directives for Standing Orders for Mass Administration of Anti-Influenza Prophylaxis to Defined Contacts

The public health response for people exposed to influenza in either infected animals or humans, or contaminated laboratory specimens from either animals or humans, carried out in accordance with National Centers for Disease Control and Prevention guidelines, may include the urgent provision of anti-influenza prophylaxis to the exposed person. This standing order applies to people exposed to influenza in settings including households, residential care facilities, hospitals, laboratories, airports, poultry operations and processing plants, veterinary practices and other workplaces.

This standing order sets out procedures for administering the antivirals oseltamivir (Tamiflu®), and zanamivir (Relenza®) for the purpose of prophylaxis against influenza, when a medical officer is not available to prescribe them, and when the intensity of exposure is considered to warrant it. This standing order, which is signed by the jurisdiction’s public health authority, has been developed with advice from the DSHS Strategic Preparedness Team and is to be reviewed annually.

Anti-influenza medications—oseltamivir and zanamivir

Two medications, oseltamivir and zanamivir, may be suitable for use as prophylaxis against influenza. Oseltamivir is licensed for prophylaxis in individuals aged \( \geq 1 \) year, and Zanamivir is licensed for prophylaxis in individuals aged \( \geq 5 \) years. All healthcare professionals who administer or supply anti-influenza medication must be familiar with the most current information* regarding:

- drug-resistant strains of influenza virus;
- indications for use of anti-influenza medications when susceptibility exists;
- recommended dosage;
- pharmacokinetics; and
- side effects and adverse reactions.

* Current information for healthcare professionals is available at: (http://www.cdc.gov/flu/professionals/).

Note: On November 13, 2006, the FDA approved a labeling supplement for Roche Laboratories’ Tamiflu (Oseltamivir Phosphate) to include a precaution about neuropsychiatric events. The revision is based on post-marketing reports (mostly from Japan) of self-injury and delirium with the use of Tamiflu in patients with influenza. The reports were primarily among pediatric patients. The relative contribution of the drug to these events is not known. However, people with the flu, particularly children, may be at an increased risk of self-injury and confusion shortly after taking Tamiflu and should be closely monitored for signs of unusual behavior. A healthcare professional should be contacted immediately if the patient taking Tamiflu shows any signs of unusual behavior. The announcement can be found at: http://www.fda.gov/medwatch/safety/2006/safety06.htm#tamiflu.
Appendix D.5: Standing Orders for Administration of Antivirals to Contacts

Use of Standing Orders
These standing orders authorize a registered nurse to administer and/or supply these anti-influenza medications to defined influenza contacts for the purpose of prophylaxis, on the written direction of the jurisdiction’s public health authority. Authorization can be written into case progress notes, or provided by e-mail or facsimile. Administration may be carried out during clinics specific for the purpose, or in other settings. The jurisdiction’s public health authority or delegated medical officer must be able to be contacted to provide advice to the registered nurse during the prophylaxis program.

Prophylaxis for pandemic influenza should not be provided if more than seven days has elapsed since the last contact with influenza. Once it is determined that prophylaxis is required, administration should commence as soon as possible. Where prophylaxis is commenced after the first exposure to influenza, the temperature of all contacts should be taken prior to administration of prophylaxis. If the contact already has fever and/or other symptoms suggestive of infection with influenza, the contact should be considered for treatment as a case. Consult with the jurisdiction’s public health authority or delegated medical officer in this instance, and refer the case to an appropriate facility for isolation and treatment if required.

At the completion of the prophylaxis program, the jurisdiction’s public health authority or delegated medical officer must review and sign the program records as soon as possible to confirm that prophylaxis was administered in accordance with this standing order.

* The incubation period for pandemic influenza is currently unknown, and is assumed to be 7 days. Once information on the epidemiologic characteristics of the pandemic influenza virus, including the incubation period and infectious period are known, the duration of time during which prophylaxis should be offered will be updated accordingly.

Procedure checklist for a registered nurse to supply or administer anti-influenza medication to contacts of influenza

1. Attend yearly training in cardio-pulmonary resuscitation, including review of protocol for administration of adrenaline.
2. Assess the eligibility for prophylaxis of each person exposed to influenza in accordance with the most current National Center for Disease Control and Prevention recommendations, ensure that fever or other symptoms of infection with influenza are not already present, and document that this has occurred. If fever or symptoms are present, contact the jurisdiction’s public health authority or designated medical officer immediately.
3. Verify and document that there are no contraindications to the administration of anti-influenza medication.
4. Verify and document that the public health jurisdiction has a surveillance program in place to monitor the development of influenza resistance to anti-viral medication, and that this program is fully integrated into the public health jurisdiction’s unified area local-regional-state public health authority NIMS-compliant ICS structure.
5. Verify that the public health jurisdiction has a surveillance program in place to monitor and report adverse reactions to anti-viral medication, and that this program is fully integrated into the public health jurisdiction’s unified area local-regional-state public health authority NIMS-compliant ICS structure.
6. Explain the rationale and purpose of prophylaxis to each contact (or parent/guardian) and provide the appropriate anti-influenza medication patient information fact sheet and

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Pandemic Influenza Plan Operational Guidelines Page 90 of 169
document that this has occurred.

7. Explain that prophylaxis does not exclude the possibility of a person developing influenza, and that the contact should check their own temperature twice daily, and report the development of fever or symptoms of influenza to their public health jurisdiction.

8. Check with the contact (or parent/guardian) if they are pregnant, breast-feeding, have any known allergies or are currently taking any medications or have pre-existing medical conditions, such as renal impairment, asthma or chronic respiratory disease, where the use of a particular medication may be contraindicated, and document that this has occurred.

9. Explain the side effects of the recommended anti-influenza medication and document that this has occurred.

10. Explain the procedure for reporting adverse event. Provide appropriate local health department contact information.

11. Obtain valid consent from the contact (or parent/guardian), and document that this has been obtained.

12. Weigh the contact if indicated (e.g., for a child being administered oseltamivir).

13. Document for each contact the following details: name, address, date of birth, sex, weight (if a child), phone number, dosage and administration details, and the number of doses supplied.

14. For contacts with ongoing exposure, determine whether another week’s supply of the anti-influenza medication will be necessary, and if so, document that this has been arranged.

15. Supply recommended medication, labeled by the pharmacist with the drug name, drug frequency, and dose for that contact. If the contact’s name was unknown by the pharmacist at the time he/she packaged and labeled the medication, the registered nurse is to hand write the contact’s name and date on the label at the time of supply.

16. At the completion of the mass treatment program, the jurisdiction’s public health authority or delegated medical officer must review, sign and date the records as soon as possible to confirm that the program was in accordance with the standing order.
## Type of influenza

**Definition of types of exposure where prophylaxis may be considered**

**NORMAL SEASONAL INFLUENZA**

Prophylaxis against *normal seasonal influenza* may be considered where the subject has not been vaccinated against the currently circulating strains of influenza and has been in unprotected contact (post-exposure prophylaxis) or will be in contact with (pre-exposure prophylaxis) an ill person. Administration of prophylaxis should be discontinued if subsequent laboratory testing indicates that the index case does not have influenza.

**AVIAN INFLUENZA**

Prophylaxis against *avian influenza* (AI) may be considered when the subject has been in unprotected contact with an ill person within the last 7 days (post-exposure prophylaxis) or will be in contact with (pre-exposure prophylaxis):
- a confirmed human case of avian influenza during the infectious period (i.e., one day before to 7 days after onset of AI illness, for children aged <13 years one day before to 14 days after onset of illness, and for children < 5 years—one day before to 21 days after onset of illness);
- poultry or with any dead birds where the cause of death is unknown, in an area known to have outbreaks of AI, or
- laboratory samples from individuals or animals suspected of having avian influenza. Administration of prophylaxis should be discontinued if subsequent laboratory testing indicates that the index case does not have avian influenza.

**Note:** As there is no circulating strain of pandemic influenza at the time of writing, the case definition is based on the one for avian influenza and should be treated as an interim case definition only. The case definition will be reviewed and revised as information about any future pandemic influenza strain becomes available. Prophylaxis against *pandemic influenza* (PI) may be considered where the subject has been in unprotected contact within the last 7 days (post-exposure prophylaxis) or will be in contact with (pre-exposure prophylaxis):
- a confirmed human case of pandemic influenza during the infectious period (i.e., one day before to 7 days after onset of influenza illness, for children aged <13 years one day before to 14 days after onset of illness, and for children < 5 years—one day before to 21 days after onset of illness),
- a person with an undiagnosed influenza-like illness, in an area known to have outbreaks of pandemic influenza, or
- laboratory samples from individuals suspected of having pandemic influenza. Administration of prophylaxis should be discontinued if subsequent laboratory testing indicates that the index case does not have influenza.

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1. Prophylaxis may be considered for influenza exposures that occur less than 2 weeks after vaccination with inactivated vaccine.
2. The incubation period for avian influenza is unknown, and is currently assumed to be 7 days. Once information on the epidemiologic characteristics of the pandemic influenza virus, including the incubation period and infectious period are known, the duration of time during which prophylaxis should be offered will be updated accordingly.
3. An influenza-like illness is characterized by sudden onset of fever ≥38°C, cough and fatigue.
Appendix D.6: Antiviral Allocation Form—Example only
(priority groups will change)

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<th>Antiviral Allocation Form—Region 1 Example</th>
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<td>Total: 0</td>
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<tr>
<td>Co. Totals: 0</td>
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<tr>
<td>Priority Groups (may need to add more columns and change names of groups)</td>
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<tr>
<td>County</td>
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<td>FLOYD</td>
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<td>GARZA</td>
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<td>GRAY</td>
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<td>HALE</td>
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<td>HALL</td>
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<td>HANSFORD</td>
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<td>HARTLEY</td>
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<td>HEMPHILL</td>
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<tr>
<td>HOCKLEY</td>
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<tr>
<td>Total Population—Target Groups*</td>
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<tr>
<td>Co. Population’s % of Total TX Population Group Population</td>
</tr>
<tr>
<td>Co. Allocation</td>
</tr>
<tr>
<td>Adjustments (+/-)</td>
</tr>
<tr>
<td>Final Co. Allocation</td>
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<tr>
<td>Comments</td>
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Appendix D.6: Antiviral Allocation Form—Example only

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<td>KING</td>
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<td>LAMB</td>
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<td>LIPSCOMB</td>
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<td>LUBBOCK</td>
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<td>LYNN</td>
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<td>MOTLEY</td>
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<td>WHEELER</td>
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<td>YOAKUM</td>
</tr>
</tbody>
</table>

**DSHS Allocation Worksheet—Explanation of Columns**

**NOTE:** This form will be provided as an Excel Spreadsheet. Each priority group will be defined in the instructions.

**Column A: Counties**

**Columns B–J: Priority Groups**

**Column K: Total Population—TX Priority Groups (CDC)**

Sum of Columns B through J

**Column L: Co. Population’s % of Total Texas Priority Group and Extended Priority Group Population**

Multiplier for suggested antiviral allocation. Co.’s proportion of Texas statewide priority group and extended priority group population.

**Column M: Co. Allotment**

Suggested Co. adult antiviral allocation based on the Texas vaccine allotment and multiplier.
Appendix D.6: Antiviral Allocation Form—Example only

**Column N: Allocation Adjustment (+/-)**  
Amount of adjustment for Co. level antiviral allocation (+ or −) by the regions.

**Column O: Final Co. Allocation**  
Sum of Columns N and O. This is the requested amount of antiviral for the Co. after adjustment by the region. Includes the Co. Totals cell at the bottom of the column with a summary formula. The Co. Totals cell should equal the Regional Totals cell at the top of the worksheet.

**Column P: Comments**  
Field for comments, particularly those regarding column O.
Appendix E: Vaccine and Antiviral Tracking

APPENDIX E: Vaccine and Antiviral Tracking

- Appendix E.1: Plan for Vaccine and Antiviral Tracking
- Appendix E.2: Draft Consent Form for Enrollment into IMMTRAC
Appendix E.1: Plan for Vaccine and Antiviral Tracking

Vaccine and antiviral distribution and administration will be monitored by DSHS through TIMS and ImmTrac. Both TIMS and ImmTrac are computer-based systems with online entry functions. A back-up paper system based on the C-93 Addendum to the Vaccine Information Statement required by Texas law will be used for vaccine back-up documentation and initial documentation if Internet access is not available at the dispensing site. Client data entered into an Excel spreadsheet will serve as a back-up system for antiviral administration tracking. The LHDs will hold the primary responsibility for data entry. Assistance of the HSRs may be requested if there is a shortage of staff. HSRs have the responsibility to ensure non-electronic data will be transferred to DSHS IB or DSHS PB for upload into the electronic TIMS system.

A. The Texas Inventory Management System (TIMS) will track antiviral and vaccine distribution to RSS and/or PODs. TIMS is capable of tracking antivirals and vaccine whether received from the SNS, distributed through the DSHS PB, or distributed through Vendor Managed Inventory (VMI) through the contracted DSHS distributor. This system’s current status is

1. Current Capabilities
   a. Dial-up or other Internet access from anywhere
   b. Encrypted data
   c. Pharmaceuticals followed from the SNS delivery through accessible Points of Distribution in real time.
   d. Creation of material lists for shipping
   e. Running inventory of materials and their location
   f. Creation of order requests to be filled Tracking of material to be returned
   g. Tracking of order status

2. Next steps for use with Pandemic Influenza Plan Operational Guidelines
   a. PI module written to track client antiviral delivery, if required

3. ImmTrac: The 2007 Texas Legislature approved expanding ImmTrac from a children only system to also track medications and vaccinations given to adults during emergencies such as natural disasters, terrorism events and epidemics/pandemics.

1. Current Capabilities
   a. Developed
   b. Web-based system with web-based training
   c. Used for patient level data for immunizations
   d. Electronic signature tracking
   e. Compatible with Texas vaccine paperwork requirements
   f. Has 2nd dose reminder recall with personal physician access
   g. Legal issues regarding consent worked out

2. Next steps for use with Pandemic Influenza Plan Operational Guidelines
   a. Expand software to accommodate additional surge.
   b. Educate and train health care providers serving adults in the use of ImmTrac for reporting to include use of consent forms for adults (Appendix E.2)
   c. Recruit and register adult health care providers most likely to use it.
Appendix E.2: Draft Consent Form for Enrollment into IMMTRAC

(TO BE DEVELOPED)
APPENDIX F: Business Continuity Planning

Unlike natural disasters such as hurricanes Katrina and Rita or terrorist actions such as 9/11/2001, where disruption of business activity is localized (other corporation offices remain open and absorb functions), an influenza pandemic will likely impact the entire state of Texas and the nation. The Department of Homeland Security calls small businesses, which account for 99% of the businesses that employ 50% of the workers in the U.S., “the backbone of our economy.” As such, it benefits not only the business owner but the economy as well to be able to continue operation and recover as quickly as possible.

The impact of disasters and terrorist events can sometimes be primarily the destruction of buildings and other structures. Leaving those unscathed, the devastation of pandemics affects only people. Businesses, government, and services should plan for at least a 50% absentee rate for employees lasting about 2 weeks at the peak of the wave and somewhat lower rate for a few weeks on either side of the peak. A number of waves may occur with each affecting smaller numbers of people.

Employees may be absent for a number of reasons:
- Actual or suspected illness
- Illness of family member
- Feel safer at home away from groups of people
- Choose to volunteer services in the community
- Look after school-aged children if schools close

Moreover, high absenteeism in one business inevitably has an impact on other businesses. For example, supplies of widgets you require to manufacture your product might drop significantly, a fact which prevents you from manufacturing your product. Business continuity plans are one way to plan for emergencies and maximize resources and productivity.

It is beyond the scope of this particular document to provide a template for planning. There are numerous resources for business continuity planning on the Internet (search for “business continuity plans for pandemic influenza”). There are purchased programs, pricey consultant experts, and free resources. Following is a list of Internet resources compiled with input from a number of people who have found them helpful.

Please note: Reference to any private industry or professional association does not constitute an endorsement. The sites below were compiled in the spirit of information sharing. This document is intended neither as a comprehensive resource nor an official recommendation.

Resources from the Private Sector
Avian Flu: Preparing for a Pandemic (PDF, 32 pages) is a report for employees and clients of Marsh on risk related topics: http://www.marsh-asia.com/birca/white_paper.pdf
Appendix F: Business Continuity Planning

Example of a Pandemic Influenza Workplace Plan (12 page PDF) based on Shell Oil’s workplace plans for operations in Oceana. The host website of this posting has numerous flu related planning resources:

Pandemic Flu Planning Guide for Infrastructure Providers (59 page Word Doc.). The actual guidelines begin on page 14. Table 3 may be of special interest. Suggested Summary Actions for Infrastructure Providers for each Alert Code (New Zealand has adopted a PI alert code which seems practical and understandable for the public). Another good tool is their employee screening algorithm on page 36:

Planning Checklist in Brochure Form by Trust for America’s Health (2 Page PDF):
http://healthyamericans.org/reports/flu/FluBrochure.pdf

Continuity Central posts influenza related topics on its website, including WHO updates for business community and best practice recommendations:

Occupational Health Disaster Emergency Network’s, OHDEN, Website Site is specific to pandemic influenza private industry workplace planning. This site has links to all state response plans: http://ohden.sph.unc.edu:9002/pandemic

The University of North Carolina’s Occupational Health Disaster Expert Network (OHDEN) can be found at: http://ohden.sph.unc.edu:9002/pandemic/
Business Continuity Planning and Disaster Recovery Planning Directory can be located at:
http://www.disasterrecoveryworld.com/

The document Business Continuity Guideline: A Practical Approach for Emergency Preparedness, Crisis Management, and Disaster Recovery provides a complete guide to planning with emphasis on security published by ASIS. Committee members represent some of the largest corporations in the U.S. It can be found at:
http://www.asisonline.org/guidelines/guidelinesbc.pdf

The Association of Contingency Planners has 3 chapters in Texas: Capital of TX (Austin), South TX (Houston), and North TX (Dallas). Their websites are: http://www.acp-centraltexas.com/, http://www.acp-international.com/southtx/ , and http://www.acp-international.com/northtx/.

The Association of Contingency Planners has developed a composite listing of resources for planning including articles, examples of plans, checklists, exercises taken from the private sector, government resources, and conferences that can be found at http://www.aep-international.com/pandemic/BCPSites_PandemicInfluenzaResponsePlanning.pdf
Appendix F: Business Continuity Planning

Government Resources

The Federal Emergency Management Agency (FEMA) provides a wonderful assortment of educational and training tools as well as templates. DSHS used the FEMA COOP template as a starting point for its COOP plan. The template includes suggested language as well:
http://www.fema.gov/government/coop/#3

Workplace Planning for businesses and critical infrastructure providers provided by the federal government on their pandemic influenza-dedicated website:
http://www.pandemicflu.gov/plan/workplaceplanning/index.html

Emergency Management Guide For Business & Industry (FEMA’s website is also an excellent resource for family disaster preparedness guides ~ recommended distribution to employees):
http://www.fema.gov/library/bizindex.shtm

DHHS Pandemic Influenza Specific Business Continuity Checklist:
http://www.pandemicflu.gov/plan/tab4.html

DHHS Pandemic Influenza Tabletop Exercise Materials:
http://www.hhs.gov/nvpo/pandemics/tabletopex.html

Comprehensive Pandemic Preparedness PowerPoint Presentations From CDC and DHHS Sources are Posted on the Arizona Department of Health’s Website:
http://www.azdhs.gov/pandemicflu

The U.S. Department of Homeland Security has a website entitled Ready Business that focuses on business continuity planning for emergencies. Materials are available for downloading that guide businesses through planning. Examples of existing plans are available for downloading:
http://www.ready.gov/business/st1-planning.html

University Pandemic Flu COOP Planning

The Virginia Department of Emergency Management had developed a number of resources for colleges and universities to develop COOP plans. Tools in the tool kit include: a planning manual, worksheets, and templates. These can be accessed for downloading at:
http://www.vdem.state.va.us/library/coop/higher_ed/index.cfm
APPENDIX G: Death Care for Managing Mass Fatalities

During an influenza pandemic the mortuary and funeral service community will be called upon to handle a large number of deaths in addition to the number normally expected from all causes. In 2003, 3603 (2.3%) of the 154,501 deaths in Texas were attributed to influenza and pneumonia. During a flu pandemic, assuming a 35% of the population becomes ill and 3% die, the number of Texans dying from influenza alone might be 219,000. Added to deaths regularly expected from all other causes, it is feasible that the funeral service community might be asked to handle as many as 370,000 bodies, a 140% increase above normal. It is important to remember that unlike natural disasters where help will be forthcoming in a matter of hours or days, this will not be the case with pandemic disease since everyone will be experiencing the same emergency. We will need to prepare as best as possible and assume there will be no additional assistance from outside. This appendix is aimed at assisting emergency planners and funeral service professionals in planning for surge capacity to handle excessive deaths.

The following table provides a concise summary of requirements for each step of preparation and final disposition of a body, limiting factors placed on the steps by a pandemic, and planning for possible solutions.

<table>
<thead>
<tr>
<th>STEPS</th>
<th>REQUIREMENTS</th>
<th>LIMITING FACTORS</th>
<th>PLANNING FOR POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death pronounced</td>
<td>Person legally authorized to perform task: Physician, Registered Nurse (RN)</td>
<td>• If death occurs at home someone will need to contact</td>
<td>• Determine if temporary authorization can be granted with a declaration of a public health emergency.</td>
</tr>
<tr>
<td></td>
<td>in consultation with a physician, Justice of the Peace (JP), Medical</td>
<td>• Numbers of authorized person</td>
<td>• Provide public education about how to access an authorized person.</td>
</tr>
<tr>
<td></td>
<td>Examiner (ME)*</td>
<td></td>
<td>• Consider planning a 24/7 call system.</td>
</tr>
<tr>
<td>Death certified</td>
<td>Person legally authorized to perform task: Physician, JP*</td>
<td>• Does not need to be same person as person who</td>
<td>• Consider assigning quadrants for certifying deaths to improve efficiency.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pronounces death.</td>
<td>• Provide public education related to rationale and triggers for determining implementation.</td>
</tr>
<tr>
<td>Death certificate</td>
<td>Person legally authorized to perform task: Co. Clerk, Local Health</td>
<td>• Number of authorized individuals</td>
<td>• Authorization will be extended to physician, ME, JP, and Funeral Directors with electronic</td>
</tr>
<tr>
<td>issued</td>
<td>Department Vital Statistics Death Registrar</td>
<td></td>
<td>certification coming soon.</td>
</tr>
<tr>
<td>Body wrapped</td>
<td>• Person trained to perform task</td>
<td>• Number of trained individuals</td>
<td>• Consider training or expanding the role of current staff to include this task.</td>
</tr>
<tr>
<td></td>
<td>• Body bags</td>
<td>• Availability of body bags</td>
<td>• Consider developing a rotating 6 month inventory of body bags, given</td>
</tr>
</tbody>
</table>
## Appendix G: Death Care for Managing Mass Fatalities

<table>
<thead>
<tr>
<th>STEPS</th>
<th>REQUIREMENTS</th>
<th>LIMITING FACTORS</th>
<th>PLANNING FOR POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Death occurring at home: availability of either trained individuals or body bags</td>
<td>• Provide this service in the home</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Stretcher and vehicle appropriate</td>
<td>• Availability of drivers and suitable vehicles</td>
</tr>
</tbody>
</table>
| Transportation to funeral establishment or storage site | | | • Research alternate suppliers equipment that could be used as stretchers in an emergency and consider a Memorandum of Understanding (MOU).  
• Consider assigning quadrants for “collecting” remains for each funeral home to improve efficiency  
  o Provide public education related to rationale and triggers for determining implementation  
• Consider family transport to funeral establishment or designated storage site.  
• Provide public education or specific instructions through a toll-free phone service regarding where to take remains if the family must transport |
| Storage | Suitable facility that can be maintained at 34 to 40 degrees Fahrenheit (4 to 8 degrees Celsius) | • Availability of suitable facility  
• Capacity of facility | • Identify and plan for possible temporary morgue sites and/or State Mortuary Assistance Teams (SMAT)  
• Locate ice arenas for temporary storage  
• Consider MOUs |
| Autopsy if required | Person legally authorized and qualified to perform task: ME and pathologists | • Availability of:  
• Authorized person  
• Facility | • Ensure that physicians and families are aware that an autopsy is not required for confirmation of influenza as cause of death. |
| Embalming | • Suitable vehicle to transport from ME office, hospital, home, or temporary storage  
• Suitable location approved by the Texas Funeral Service Commission  
• Consideration of spiritual/ethnic beliefs about embalming  
• Trained person  
• Embalming supplies and equipment | • Availability of:  
• Drivers and suitable vehicles  
• Trained individuals  
• Facilities  
• Availability of spiritual leader for consultation  
• Embalming supplies | • Consult with service provided regarding the availability of supplies and potential need to stockpile or develop a rotating 6 month inventory of essential equipment/supplies  
• Discuss capacity and potential alternate sources of human to perform this task e.g., retired workers or students in training programs  
• Consider “recruiting” workers that would be willing to provide this service in an emergency and provide training  
• Consider location of facilities for SMAT and acquire MOUs |
Appendix G: Death Care for Managing Mass Fatalities

<table>
<thead>
<tr>
<th>STEPS</th>
<th>REQUIREMENTS</th>
<th>LIMITING FACTORS</th>
<th>PLANNING FOR POSSIBLE SOLUTIONS</th>
</tr>
</thead>
</table>
| Cremation                    | • Suitable vehicle to transport from ME office, hospital, home, funeral home, storage  
                                 | • Consideration of spiritual/ethnic beliefs about cremation  
                                 | • Crematorium  
                                 | • Cremation certificate  
                                 | • Burial Transit Permit | Availability of:  
                                 | • Drivers and suitable vehicles  
                                 | • Crematorium  
                                 | • Availability of spiritual leader for consultation  
                                 | • If immediate next of kin not available to authorize cremation, it can be done by an authorized authority such as the Commissioner's Court | • Identify alternate vehicles that could be used for mass transport  
                                 | • Examine the capacity and surge capacity of crematoriums within the jurisdiction | • Discuss and plan appropriate storage options if the crematoriums become backlogged | • Discuss and plan expedited cremation certificate completion processes |
| Funeral service              | • Appropriate location  
                                 | • Casket  
                                 | • Funeral director | Availability of:  
                                 | • Location  
                                 | • Casket  
                                 | • Funeral director  
                                 | • Spiritual leader | • Contact suppliers to determine lead time for casket manufacturing and discuss possibilities for rotating 6 month inventory  
                                 | • Consult with the Funeral Services Commission to determine surge capacity and possibly the need for additional sites (e.g., use of churches for visitation) | • Identify alternate vehicles  
                                 | • Consider use of volunteer drivers | |
| Transportation to burial site| • Suitable vehicle to transport  
                                 | • For commercial or out of state burial a Burial Transit Permit is required | | Availability of:  
                                 | • drivers and suitable vehicles | • Identify alternate vehicles  
                                 | • Consider use of volunteer drivers | |
| Burial                       | • Space at cemetery  
                                 | • Grave digger | | • Expand capacity by increasing temporary holding sites or grave sites  
                                 | • Identify sources of supplementary workers  
                                 | • Examine alternatives to individual burial | |
| Cultural and spiritual special needs | • Time between death and burial  
                                 | • Special handling of body  
                                 | • Special preparation  
                                 | • Special ceremonies | Availability of:  
                                 | • spiritual leaders and supplies  
                                 | • Public health requirements  
                                 | • Realities of handling mass fatalities with limited resources | • Consult in advance with community spiritual leaders on acceptable alternative arrangements in a public health emergency  
                                 | • Encourage spiritual leaders to educate their communities about acceptable alternatives | |

A number of collaborative death care activities in preparation for the outcomes of a pandemic should be undertaken early, even before there is a threat. However, remember to prepare...
yourself, your family (http://www.dshs.state.tx.us/preparedness/Public_Guide.pdf), and your business (Appendix F). Some preparations may be specific to pandemic influenza, but most are generic for any mass hazard. The following table contains activities to consider for each pandemic period.

<table>
<thead>
<tr>
<th>Pandemic Period / Phase/Stage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interpandemic Period</strong></td>
<td>• Develop or update your business continuity plan and concept of operations plans.</td>
</tr>
<tr>
<td></td>
<td>• Educate yourself on mass fatalities in order to serve as a subject matter expert.</td>
</tr>
<tr>
<td><strong>WHO Phase 1:</strong></td>
<td>• Other countries such as Canada, and its funeral professional associations (click on Pandemic Guide after reaching this site), and Great Britain have done more on this issue than the U.S. has.</td>
</tr>
<tr>
<td>No new virus subtypes</td>
<td>o Understand risks of exposure and need for PPE when handling body*</td>
</tr>
<tr>
<td>identified</td>
<td>o Implement Personal Protective Strategies and encourage staff to do so. (DSHS Public Health Preparedness Web site)</td>
</tr>
<tr>
<td><strong>WHO Phase 2:</strong></td>
<td>o Review laws related to disposition during a public health emergency and seek clarification or change in collaboration with partners (pronouncing, certifying, family transport, etc.)</td>
</tr>
<tr>
<td>“Novel virus” identified in</td>
<td>• Begin collaborations</td>
</tr>
<tr>
<td>birds or animals. Transmission to humans has not occurred.</td>
<td>o Contact the public health preparedness planner in your local health department. If there is no local health department, contact the planner in your health service regional office. Some planning may have started. The death care industry plans must be consistent with local plans</td>
</tr>
<tr>
<td></td>
<td>o Coordinate planning** to avoid inconsistencies and duplication.</td>
</tr>
<tr>
<td><strong>FGR Stage 0:</strong></td>
<td>• Develop SMAT Team</td>
</tr>
<tr>
<td>New domestic animal outbreak</td>
<td>• Reach consensus on system of after death care during a public health emergency (quadrant system, identifying and tagging dead bodies, etc.).</td>
</tr>
<tr>
<td>in at-risk country</td>
<td>• Coordinate use of scarce resources and surge locations</td>
</tr>
<tr>
<td></td>
<td>• Consider feasibility of stockpiling and rotating 6 months of supplies in a centralized location</td>
</tr>
<tr>
<td></td>
<td>• Establish plan for recruiting volunteers (students in training programs, retired professionals, others in community)</td>
</tr>
<tr>
<td></td>
<td>o Get to know your local and county officials, local police, fire representatives, local health official, and local disaster coordinator/planner.</td>
</tr>
<tr>
<td><strong>Familiarize yourself with the community’s emergency management system:</strong></td>
<td>• Familiarize yourself with the community’s emergency management system:</td>
</tr>
<tr>
<td></td>
<td>o Review pertinent sections of state and local emergency plans</td>
</tr>
<tr>
<td></td>
<td>o Become an active participant in local emergency management committees/councils.</td>
</tr>
<tr>
<td></td>
<td>o Assist in planning at the local level</td>
</tr>
<tr>
<td><strong>Serve as an educator related to death care</strong></td>
<td>• Serve as an educator related to death care</td>
</tr>
<tr>
<td></td>
<td>o Via forums, media, meetings</td>
</tr>
<tr>
<td></td>
<td>o Craft messages appropriately for the general public, insurance industry, and health care providers including hospitals, nursing homes, and primary care.</td>
</tr>
<tr>
<td></td>
<td>o Explain potential changes in standard death care that may occur due to large numbers of deaths (access appropriate person, quadrant system, SMATs, delays, etc.)</td>
</tr>
</tbody>
</table>
### Pandemic Period / Phase/Stage

<table>
<thead>
<tr>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify sites and resources necessary for temporary needs related to surge in collaboration with other death care professionals and local emergency management:</td>
</tr>
<tr>
<td>• Temporary morgue with refrigeration, e.g., refrigerated trucks, ice rinks, or warehouses***</td>
</tr>
<tr>
<td>• SMAT location, e.g., warehouses, vacant buildings, gymnasiums, large garages.</td>
</tr>
<tr>
<td>• Vehicles and drivers for body transport</td>
</tr>
<tr>
<td>• Determine amount of supplies needed and feasibility of purchasing a 6 month supply and rotating stock.</td>
</tr>
<tr>
<td>• Identify and contact usual and alternate suppliers about ability to fill surge needs</td>
</tr>
<tr>
<td>• Consider MOUs with sites/suppliers to help ensure availability.</td>
</tr>
<tr>
<td>Identify and train SMAT team members</td>
</tr>
<tr>
<td>Familiarize yourself with ethnic groups in your community and their death care practices****</td>
</tr>
<tr>
<td>• Contact spiritual leaders/clergy and discuss issues and their solutions related to increased deaths</td>
</tr>
<tr>
<td>Exercise the mass fatality plan as part of a local or regional all hazards or pandemic influenza exercise.</td>
</tr>
</tbody>
</table>

### Pandemic Alert Period

**WHO Phase 3:** Transmission to humans from birds has occurred but no human-to-human spread.

**FGR Stage 0:** New domestic animal outbreak in at-risk country

**FGR Stage 1:** Suspected human outbreak overseas

**WHO Phase 4:** Small clusters of human-to-human spread.

**FGR Stage 2:**

Begin to focus activities on specific preparations:

• Inventory community death care resources and capacity in collaboration with other death care professionals
  - Inventory of existing supply stocks
  - Place sites and suppliers on notice regarding projected needs.
    - Finalize points of contact with phone numbers and email addresses of suppliers
    - Provide alternate point of contact at your location.
    - Identify supply and resupply points

• In consultation with others (local health departments, local authorities, insurance) determine funding sources for burial and cremation

• Industry placed on alert status
  - Contact back-up volunteers
  - Contact suppliers

• Industry placed on standby status

---

Department of State Health Services  
Pandemic Influenza Plan Operational Guidelines  
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## Pandemic Period / Phase/Stage

<table>
<thead>
<tr>
<th>Confirmed human outbreak overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact back-up volunteers</td>
</tr>
<tr>
<td>Contact suppliers</td>
</tr>
</tbody>
</table>

### Pandemic Alert Period

**WHO Phase 5:**
Larger but still localized clusters of human spread suggesting that virus is better adapting to humans but may not be fully transmissible.

**FGR Stage 2:**
Continues

- Cross train staff in skills
- SMAT Team Leader will:
  - Order supplies (ID bracelets/tags, body bags, etc.)
  - Finalize transportation requirements of dead human bodies and contact transport representatives.
  - Finalize MOUs with local community for facilities including SMAT site.
  - Notify SMAT team to be on call and prepared for activation and deployment.
  - Prepare SMAT for deployment with assistance from team
  - Review mass fatality plan with other death care professionals and incident command. Edit as necessary. Make decisions regarding procedures, verify triggers.
  - Prepare supply and resupply points
  - Identify and communicate primary and secondary transportation routes and quadrant locations.
- Communication
  - Finalize communication strategy with ME and JP in collaboration with local ICM
  - Establish communication links with state and local points of contact
  - Develop 24/7 call system

### Pandemic Period

**WHO Phase 6:**
Increased and sustained transmission to humans. Indications of spread across countries.

**FGR Stage 3:**
Widespread human outbreaks overseas in multiple locations

- Contact suppliers and begin shipments
- SMAT teams will be on standby
- Place on standby:
  - volunteers
  - body storage sites
  - cemeteries
  - crematoriums
- Review plans for handling mass fatalities with other funeral directors
- Ensure communication with local EOCs and SOC
- Activate plans as necessary
Pandemic Period

WHO Phase 6: Continued

FGR Stage 4:
First human case in North America
- Fully operationalize pandemic mass fatality plan.
- Activate
  - SMAT team
  - Volunteers
  - Temporary morgues

Recovery Period

WHO Phase 6: Continues

FGR Stage 6:
Recovery and preparation for next wave (at least 2 waves are expected).
- Complete burials from first wave
- Evaluate process and outcomes related to first wave
- Make adjustments to plan and notify stakeholders
- Supply and resupply

End of pandemic and return to Interpandemic Period
- Evaluate and complete after action reports
- Submit financial report and request FEMA reimbursement

* Specific infection control practices related to influenza are not necessary as the body is not “contiguous” after death.

** In order to develop guidelines or adjust existing plans to suit the pandemic situation, the following individuals are involved in mass fatality planning:
- other funeral home directors
- cemetery managers
- crematorium managers
- medical examiners
- Justices of the Peace/coroners
- local public health authority
- local health facility representatives
- clergy/spiritual leaders
- members of community ethnic groups (including American Indian tribes)
- vital statistics registrars
- life insurance company representatives
- military emergency planners if there is a base in your community

*** Consideration must be given to post-pandemic use of storage units used as temporary morgues. Using local businesses and labeled trucks should be used as a last resort, since use for the storage of human remains may adversely affect business in the future. Refrigerated trucks can generally hold 25-30 bodies without additional shelving. If at all possible, stacking bodies should be avoided. To increase storage capacity, temporary wooden shelves can be constructed of sufficient strength to hold the bodies. Storage
of bodies above waist height is not recommended.

****A number of religious and ethnic groups have specific directives about how bodies are managed after death. Such needs must be considered as a part of pandemic planning. American Indians, Jews, Hindus, Muslims, all have specific directives for the treatment of bodies and for funerals. The wishes of the family will provide guidance. If no family is available plans need to be made to determine how decisions about body management will be made. In addition, the demands placed on the system may preclude ability to follow religious mandates. Therefore it is imperative that procedures be developed in collaboration with religious leaders that are mutually acceptable. Religious leaders should be involved in planning for funeral management and communications, particularly in ethnic communities with large numbers of people who do not speak the official languages.
APPENDIX H: Templates for Common Incident Command Forms Used During an Influenza Pandemic

(TO BE DEVELOPED)
APPENDIX I: Contacts and Resources

- Appendix I.1: Stakeholders Providing Input
- Appendix I.2: Pandemic Influenza Planning Group (PIPG)
- Appendix I.3: Disaster Preparedness Communication Protocol
- Appendix I.4: Pandemic Influenza Coordinating Council and Pandemic Influenza Committee
Appendix I.1: Stakeholders Providing Input

<table>
<thead>
<tr>
<th>Agency</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAIM representative on the Resource Council, Travis Co.</td>
<td>Mike Manor</td>
</tr>
<tr>
<td>Abilene-Taylor Co. Public Health District</td>
<td>Kay Durilla, BSN, RN—Nursing Program Manager</td>
</tr>
<tr>
<td>American Civil Liberties Union of Texas</td>
<td>Lisa Graybill, JD—Legal Director</td>
</tr>
<tr>
<td>American Red Cross</td>
<td>Wayne Brennessel, MSW—Executive Director</td>
</tr>
<tr>
<td>Asian American Cultural Center</td>
<td>Amy Wong Mok, MEd—President &amp; CEO</td>
</tr>
<tr>
<td>Austin Area Inter-religious Ministries</td>
<td>Emilee Whitehurst, Director</td>
</tr>
<tr>
<td>Baptist St. Anthony's Health System</td>
<td>Charlotte Wheeler, RN, BSN—Baptist St. Anthony's</td>
</tr>
<tr>
<td>Baylor University College of Medicine</td>
<td>Jeff Starke, MD—Professor and Vice Chair of Medicine</td>
</tr>
<tr>
<td>Baylor University Medical Center of Dallas</td>
<td>Allen Peden, RN, CEN—Infection Control Practitioner</td>
</tr>
<tr>
<td>Center for Disease Control and Prevention Global Migration and Quarantine Station at Houston</td>
<td>Steve Harris, MD</td>
</tr>
<tr>
<td>Center for Public Policy Priorities</td>
<td>Anne Dunkleberg, MPA—Assistant Director</td>
</tr>
<tr>
<td>Central Texas Veterans Health Care System</td>
<td>Elicia Berry, MSN, RN, CIC, CPQH—Assistant Chief Infection Control</td>
</tr>
<tr>
<td>CHRISTUS Santa Rosa Health Care</td>
<td>Nancy Mendicino, MSN, RN, CIC—Infection Control Manager/Officer</td>
</tr>
<tr>
<td>City of Laredo Health Department</td>
<td>Blanca Gonzalez, BSN, RN—Immunization Clinic Supervisor</td>
</tr>
<tr>
<td>City of Lubbock Health Department</td>
<td>Tigi Ward BSN, MS—Public Health Coordinator—Surveillance</td>
</tr>
<tr>
<td>Collin Co. Health Care Services</td>
<td>Janet Glowicz, RN—Epidemiologist</td>
</tr>
<tr>
<td>Consumers Union, Southwest Regional Office</td>
<td>Reggie James—Director</td>
</tr>
<tr>
<td>Cook Children’s Medical Center</td>
<td>Don Murphey, MD—Director of Occupational Health, Pediatric Infectious Diseases</td>
</tr>
<tr>
<td>Del Sol Medical Center</td>
<td>Pat Foret, RN, CPHQ—Director of Infection Control &amp; Employee Health</td>
</tr>
<tr>
<td>Dept of Aging and Disability Services</td>
<td>Leslie Cortes, MD, Director Medical Quality Assurance, Quality Assurance/Quality Improvement</td>
</tr>
<tr>
<td>Dept of Assistive and Rehabilitative Services</td>
<td>Keisha Rowe Nunn, MHA Consumer and External Affairs Specialist</td>
</tr>
<tr>
<td>Dept of Family &amp; Protective Services, Child Protective Services &amp; Adult Protective Services</td>
<td>Maria Cervania, MPH(c)—Cross Program Improvement Analyst</td>
</tr>
<tr>
<td>Stakeholder Category</td>
<td>Contact Person</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Dept of Family &amp; Protective Services, Child Protective Services &amp; Adult Protective Services</td>
<td>James Yocum, MS—Innovation Analyst</td>
</tr>
<tr>
<td>DSHS Center for Consumer and External Affairs</td>
<td>Rebecca Herron</td>
</tr>
<tr>
<td>DSHS Community Preparedness</td>
<td>Vince Fonseca, MD, State Epidemiologist</td>
</tr>
<tr>
<td>DSHS Community Preparedness</td>
<td>Barry Sharp, MS, CHES—Exercise Coordinator</td>
</tr>
<tr>
<td>DSHS Community Preparedness</td>
<td>Evelyn Shewmaker—Program Resource Coordinator</td>
</tr>
<tr>
<td>DSHS Community Preparedness</td>
<td>Martha Gonzalez, BA—Preparedness Plans Coordinator</td>
</tr>
<tr>
<td>DSHS Division for Mental Health &amp; Substance Abuse</td>
<td>John Keppler, MD</td>
</tr>
<tr>
<td>DSHS Health Service Region 1</td>
<td>Barry Wilson, BS—Deputy Regional Dir.</td>
</tr>
<tr>
<td>DSHS Health Service Region 11</td>
<td>Brian Smith, MD, MPH—Regional Director</td>
</tr>
<tr>
<td>DSHS Health Service Region 2/3</td>
<td>Shelley Stonecipher, DVM, MPH—CDC/Career Epidemiology Field Officer, LCDR/ U.S. Public Health Service</td>
</tr>
<tr>
<td>DSHS Health Service Region 7</td>
<td>James K. Morgan, MD, MPH</td>
</tr>
<tr>
<td>DSHS Health Service Region 8</td>
<td>Sandra Guerra-Cantu, MD, MPH</td>
</tr>
<tr>
<td>DSHS Health Service Region 9/10</td>
<td>Charles Gaiser, DVM, MPH, ACVPM—Deputy Regional Director/Zoonosis Control Veterinarian</td>
</tr>
<tr>
<td>DSHS Infectious Disease Control Unit</td>
<td>Ernest Oertli, DVM</td>
</tr>
<tr>
<td>DSHS Infectious Disease Control Unit</td>
<td>Jeff Taylor, MPH</td>
</tr>
<tr>
<td>DSHS Infectious Disease Control Unit</td>
<td>Tom Sidwa, DVM</td>
</tr>
<tr>
<td>DSHS Infectious Disease Control Unit</td>
<td>LCDR Richard Taylor, PhD USPHS—CDC/COTPER/Career Epidemiology Field Officer</td>
</tr>
<tr>
<td>DSHS Infectious Disease Control Unit</td>
<td>Marilyn Felkner, PhD</td>
</tr>
<tr>
<td>DSHS Office for Elimination of Health Disparities</td>
<td>Kimberly McCoy-Daniels, MPH—Director</td>
</tr>
<tr>
<td>DSHS Office for Elimination of Health Disparities</td>
<td>Larry Cuellar, BS—Program Specialist</td>
</tr>
<tr>
<td>DSHS Office of Border Health</td>
<td>R.J. Dutton, PhD—Director</td>
</tr>
<tr>
<td>DSHS Radiation Safety Licensing Branch</td>
<td>Cathy McGuire—Environmental Specialist and Technical Writer</td>
</tr>
<tr>
<td>DSHS Regional and Local Services</td>
<td>Debra Edwards, MSN</td>
</tr>
<tr>
<td>DSHS Youth Focused Group</td>
<td>Anita Wheeler, BSN, RN, CPN—School Health Coordinator/School Nurse Consultant</td>
</tr>
<tr>
<td>Geriatric Consultants of Central Texas, PA</td>
<td>David A. Smith, MD, FAAFP, CMD—American Medical Directors Association Current President</td>
</tr>
</tbody>
</table>
### Appendix 1.1: Stakeholders Providing Input

<table>
<thead>
<tr>
<th>Organization/Department</th>
<th>Name and Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governor's Committee on People with Disabilities</td>
<td>Angela English, MS, LPC, LMFT, CPHQ—Accessibility &amp; Disability Rights Coordinator</td>
</tr>
<tr>
<td>Governor's Committee on People with Disabilities</td>
<td>Pat Pound, BA—Executive Director</td>
</tr>
<tr>
<td>Grass Roots Neighborhood member, Waco</td>
<td>Lisa Ware</td>
</tr>
<tr>
<td>Harris Co. Public Health &amp; Environmental Services</td>
<td>Elizabeth Love, MPH—Chief, Office of Policy and Planning</td>
</tr>
<tr>
<td>Health and Human Services Commission</td>
<td>Debra Glover, MS—Development Specialist</td>
</tr>
<tr>
<td>Texas Information &amp; Referral Network</td>
<td></td>
</tr>
<tr>
<td>211 Texas Integrated Help Line</td>
<td></td>
</tr>
<tr>
<td>Hidalgo Co. Health Department</td>
<td>Lydia Serna, RN—Director of Nursing</td>
</tr>
<tr>
<td>Hill Country Memorial Hospital</td>
<td>Robin Duderstadt, RN, BSN, CIC—Infection Control Practitioner</td>
</tr>
<tr>
<td>Houston Council on Alcohol and Drug Abuse</td>
<td>Jennifer Helley, MHA, MBA—Director Women’s and Children’s Services</td>
</tr>
<tr>
<td>Influenza Research Center, Baylor College of Medicine</td>
<td>W. Paul Giezen, MD—Study Chair; Professor of Molecular Virology and Microbiology, Baylor College of Medicine</td>
</tr>
<tr>
<td>JPS Health Network</td>
<td>Adonna Lowe, R.N., M.A., CHE—Vice President Patient Care/CNO</td>
</tr>
<tr>
<td>Llano Memorial Health care System</td>
<td>Linda Meredith, RN, CS, NP-C—Chief Compliance Officer</td>
</tr>
<tr>
<td>McKenna Hospital New Braunfels</td>
<td>Susan Holm, RN, Infection Control Nurse</td>
</tr>
<tr>
<td>Northwest Texas Health care System</td>
<td>Gwen Campbell, RNC, BSN, CIC—Epidemiology Coordinator</td>
</tr>
<tr>
<td>Permian Regional Medical Center</td>
<td>Brenda Foster, RN—Director of Infection</td>
</tr>
<tr>
<td>Providence Memorial Hospital</td>
<td>Toni Moreland, MSN, RN—Infection Control</td>
</tr>
<tr>
<td>San Antonio Metropolitan Health District</td>
<td>John Nava</td>
</tr>
<tr>
<td>San Antonio Metropolitan Health District</td>
<td>Edmund Baca, Jr.—Acting Executive Assistant</td>
</tr>
<tr>
<td>Sanofi-Pasteur</td>
<td>Mr. Sandy Kaufman</td>
</tr>
<tr>
<td>Scott and White Memorial Hospital</td>
<td>Greg Bond, MSN, RN, CIC—Infection Control Manager</td>
</tr>
<tr>
<td>Scott and White Temple</td>
<td>Manjusha Gaglani, MD</td>
</tr>
<tr>
<td>Seton Health care Network, Brackenridge Hospital</td>
<td>Lynda Watkins RN, BSN, CIC—Infection Control Practitioner</td>
</tr>
<tr>
<td>Seton Highland Lakes Medical Center</td>
<td>Janet Keyser, RN, ICL—Infection Control Liaison &amp; Director of Diagnostics and Therapeutics</td>
</tr>
<tr>
<td>Sheppard Air Force Base Clinic</td>
<td>Elaine Marie Dekker, Maj, USAF, NC—Course Supervisor, Infection Control</td>
</tr>
<tr>
<td>St. Luke’s Episcopal Hospital</td>
<td>Margaret F. Price, PhD, CIC—Infection Control Co-Coordinator</td>
</tr>
</tbody>
</table>
Appendix I.1: Stakeholders Providing Input

<table>
<thead>
<tr>
<th>Organization</th>
<th>Contact Person</th>
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</thead>
<tbody>
<tr>
<td>Tarrant Co. Public Health</td>
<td>Elvin Adams, MD, MPH, FACP—Health Authority/Medical Director</td>
</tr>
<tr>
<td>Texas A&amp;M School of Rural Public Health, Center for Rural PH Preparedness</td>
<td>Barbara Quiram, PhD—Director of the Office of Special Programs; Principal Investigator, USA Center for Rural Public Health Preparedness</td>
</tr>
<tr>
<td>Texas A&amp;M University System Health Science Center College of Medicine, Department of Medical Microbiology &amp; Immunology</td>
<td>John M Quarles, PhD—Professor Microbiology and Immunology</td>
</tr>
<tr>
<td>Texas A&amp;M University System Health Science Center College of Medicine, Department of Medical Microbiology and Immunology (Formerly with the CDC Influenza Program)</td>
<td>Nancy Arden, M.N.—Epidemiologist and Program Coordinator</td>
</tr>
<tr>
<td>Texas A&amp;M, Poultry Science Department, Egg Production Waste Management</td>
<td>John B. Carey, PhD—Professor and Assoc. Head for Extension Services</td>
</tr>
<tr>
<td>Texas Academy of Family Physicians</td>
<td>Andrew Eisenberg, MD, MHA—Chair TMA Council on Public Health</td>
</tr>
<tr>
<td>Texas American Indian Information and Resource Network</td>
<td>Chebon Tiger, EMT-LP</td>
</tr>
<tr>
<td>Texas Association of Health Plans</td>
<td>Barry Lachman, MD—Medical Director</td>
</tr>
<tr>
<td>Texas Association of Local Health Officials</td>
<td>Lee Lane—Executive Director</td>
</tr>
<tr>
<td>Texas Children’s Hospital</td>
<td>Lori Upton, BSN, RN—Assistant Director of Emergency Services, Co-Chair Disaster Mitigation Committee</td>
</tr>
<tr>
<td>Texas College of Emergency Room Physicians</td>
<td>Brian Zachariah, M.D, MBA, FACEP—Medical Director, Division of Emergency Medicine</td>
</tr>
<tr>
<td>Texas Council of Developmental Disabilities</td>
<td>Beth Stalvey, PhD, MPH—Public Policy Director</td>
</tr>
<tr>
<td>Texas Health Care Association</td>
<td>Dorothy Crawford—Director of Policy &amp; Regulatory Analysis</td>
</tr>
<tr>
<td>Texas Hospital Association</td>
<td>Ernie Schmid, MSHP, FACHE—Senior Health Care Policy Analyst</td>
</tr>
<tr>
<td>Texas Hospital Association</td>
<td>Jennifer Banda, JD—Director of Government Affairs</td>
</tr>
<tr>
<td>Texas Medical Association</td>
<td>Chip Riggins, MD</td>
</tr>
<tr>
<td>Texas Medical Association</td>
<td>Gayle Love—Director, Public Health Department</td>
</tr>
<tr>
<td>Texas Medical Association</td>
<td>Nancy B. Bjerke, BSN, RN, MPH, CIC—Co-Chair, EHDG Infectious Disease Committee</td>
</tr>
<tr>
<td>Texas Municipal League</td>
<td>Bennett Sandlin, JD—General Counsel</td>
</tr>
<tr>
<td>Texas Pediatric Society</td>
<td>Martin Myers, MD—Professor of Pediatrics, University of Texas Medical Branch</td>
</tr>
<tr>
<td>Texas Poultry Federation</td>
<td>James Grimm—Executive Vice President</td>
</tr>
<tr>
<td>Texas Society of Infection Control Practitioners</td>
<td>Michelle Peninger, BSMT, CIC—President</td>
</tr>
</tbody>
</table>
### Appendix 1.1: Stakeholders Providing Input

<table>
<thead>
<tr>
<th>Institution</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas State Board of Pharmacy</td>
<td>Allison Benz, RPh., M.S.—Director of Professional Services</td>
</tr>
<tr>
<td>Texas Veterinary Medical Diagnostic Laboratory</td>
<td>Gayne Fearneyhough, DVM—Head, Diagnostic Services and Informatics</td>
</tr>
<tr>
<td>The Methodist Hospital</td>
<td>Kathryn M. Hawkins, M.S., C.I.C.—Director, Infection Control &amp; Environmental Safety</td>
</tr>
<tr>
<td>Trinity Mother Francis Health System</td>
<td>Sylvia Radcliffe, RN, CIC—Director Infection Control</td>
</tr>
<tr>
<td>University Health System San Antonio</td>
<td>Thomas Peters, Vice President</td>
</tr>
<tr>
<td>University Heath System</td>
<td>Jan Patterson, MD</td>
</tr>
<tr>
<td>University of Texas at Austin</td>
<td>Russ Hooverman, MD, PhD</td>
</tr>
<tr>
<td>University of Texas Health Science Center at Houston School of Public Health</td>
<td>Scott Lillibridge, MD</td>
</tr>
<tr>
<td>University of Texas Health Science Center at Houston School of Public Health Epidemiology and Infectious Diseases</td>
<td>Herbert L. DuPont, MD—Professor, Director of the Center for Infectious Diseases</td>
</tr>
<tr>
<td>University of Texas Medical Branch at Galveston</td>
<td>Glen Mayhall, MD</td>
</tr>
<tr>
<td>University of Texas Medical Branch, Institute for the Medical Humanities</td>
<td>Kirk Smith, MD, PhD</td>
</tr>
<tr>
<td>University of Texas Medical Branch, Institute for the Medical Humanities</td>
<td>Ronald Carson, PhD</td>
</tr>
<tr>
<td>U.S. Department of Agriculture Animal and Plant Health Inspection Service</td>
<td>Joe Garrett, DVM, MPH—Area Emergency Coordinator</td>
</tr>
<tr>
<td>UT Harris Co. Psychiatric Center</td>
<td>Susan Parnell, MSN, MPH, RN, COHN-S, CIC—Infection Control Officer</td>
</tr>
<tr>
<td>Uvalde Memorial Hospital</td>
<td>Jacqueline Gilliatt, BSN, RN—Infection Control &amp; Employee Health Coordinator</td>
</tr>
<tr>
<td>VA North Texas Health Care System</td>
<td>Beverly Gray, MS, CIC—Infection Control Officer</td>
</tr>
<tr>
<td>Valley Baptist Medical Center-Harlingen</td>
<td>Alyson G. Hight, BSN, RN, CIC—Infection Control Nurse</td>
</tr>
<tr>
<td>Waco-McLennan Co. Public Health District</td>
<td>Kelly Craine, BA—Community Relations Coordinator</td>
</tr>
<tr>
<td>Wichita Falls-Wichita Co. Public Health District</td>
<td>Lou Franklin, BSN, RN—Assistant Director of Health</td>
</tr>
<tr>
<td>William Beaumont Army Medical Center</td>
<td>Lynn B. McNicol, BSN, MPH, CIC—Infection Control &amp; Prevention</td>
</tr>
</tbody>
</table>
Appendix I.2: Pandemic Influenza Planning Group (PIPG)

PIPG composition shall be determined by the Pandemic Influenza Program Lead in consultation with the CPS Director and will be based on the organizational structure of the Texas Department of State Health Services.

In addition to appropriate expertise within DSHS, PIPG also may include representatives from such groups as local health departments, animal health advocates (e.g., the Texas Animal Health Commission), and the GDEM. Specialized workgroups of internal and external stakeholders may be formed to develop specific plan elements.

The following list reflects participants involved in developing the 2004 draft and/or the 2007 draft.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apodaca, Ray</td>
<td>Hospital Preparedness &amp; Community Response Group Manager, CPS</td>
</tr>
<tr>
<td>Bastis, David</td>
<td>Emergency Preparedness and Response Specialist, Williamson Co. and Cities Health District</td>
</tr>
<tr>
<td>Betz, Tom</td>
<td>Physician, Infectious Disease Control Unit</td>
</tr>
<tr>
<td>Bradford, Calandra</td>
<td>Program Specialist, CPS</td>
</tr>
<tr>
<td>Cantrell, Johnna</td>
<td>Homeland Security Plans and Policy Unit Supervisor, GDEM</td>
</tr>
<tr>
<td>Clark, Tom</td>
<td>Pharmacist, Pharmacy Branch, Disease Prevention &amp; Intervention Section</td>
</tr>
<tr>
<td>Curry, Nick</td>
<td>Deputy Commissioner, Prevention, Preparedness, and Regulatory Services</td>
</tr>
<tr>
<td>Davis, Lisa</td>
<td>CDC Public Health Advisor, Immunization Branch, Adult Immunization Coordinator</td>
</tr>
<tr>
<td>Davlin, Stacy</td>
<td>Influenza Surveillance Coordinator, Infectious Disease Control Unit</td>
</tr>
<tr>
<td>Drumgoole, Rahsaan</td>
<td>Microbiologist, Laboratory Operations Unit</td>
</tr>
<tr>
<td>Fonken, Eric</td>
<td>Veterinarian, Zoonosis Control Group, Infectious Disease Control Unit</td>
</tr>
<tr>
<td>Gonzalez, Martha</td>
<td>Planning Team Lead, Program Planning Branch, CPS</td>
</tr>
<tr>
<td>Greenberg, Mike</td>
<td>Attorney, Office of General Counsel</td>
</tr>
<tr>
<td>Jones, Russ</td>
<td>Epidemiologist, Health Service Region 7—Temple</td>
</tr>
<tr>
<td>Maldonado, Ed</td>
<td>Assistant Coordinator, Disaster Mental Health Services, CPS, Response, Recovery Branch</td>
</tr>
<tr>
<td>Mansolo, Leslie</td>
<td>Strategic Sciences Group Lead, CPS</td>
</tr>
<tr>
<td>McGaha, Paul</td>
<td>Director, Health Service Region 4/5N</td>
</tr>
<tr>
<td>Morgan, Cynthia</td>
<td>Pandemic Influenza Program Coordinator, CPS</td>
</tr>
<tr>
<td>Nash, Robert</td>
<td>Pharmacist, Pharmacy Branch Manager, Disease Prevention &amp; Intervention Section</td>
</tr>
<tr>
<td>Palmer, Emily</td>
<td>Assistant Press Officer, Communications Unit, Center for Consumer and External Affairs</td>
</tr>
<tr>
<td>Pascoe, Neil</td>
<td>Nurse Epidemiologist, Infectious Disease Control Unit</td>
</tr>
<tr>
<td>Patterson, Mary Ann</td>
<td>Laboratory Operations Unit, Microbiology Science Branch</td>
</tr>
<tr>
<td>Penfield, Susan</td>
<td>Infectious Disease Control Unit Manager</td>
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Department of State Health Services
Pandemic Influenza Plan Operational Guidelines
Appendix I.2: Pandemic Influenza Planning Group (PIPG)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Ray, Beverly</td>
<td>Manager, Response and Recovery Branch, CPS</td>
</tr>
<tr>
<td>Ritter, Mark</td>
<td>CDC Public Health Advisor, Immunization Branch</td>
</tr>
<tr>
<td>Sessions, Wendy</td>
<td>Microbiologist, Laboratory Operations Unit, Microbiology Science Branch</td>
</tr>
<tr>
<td>Sharp, Barry</td>
<td>Exercise Coordinator, Program Planning Branch, CPS</td>
</tr>
<tr>
<td>Stabeno, Debra</td>
<td>Assistant Commissioner, Division for Prevention and Preparedness Services</td>
</tr>
<tr>
<td>Suarez, Lucina</td>
<td>Chief, Epidemiology Research Services Branch, CPS</td>
</tr>
<tr>
<td>Walker, John</td>
<td>Acting Preparedness Medical Director, Pandemic Influenza Lead, Infectious Disease Control Unit</td>
</tr>
</tbody>
</table>
Appendix I.3: Disaster Preparedness Communication Protocol

All emergency after-hours contact information, including emergency after-hours contact information for infectious disease specialists/influenza experts, will be kept in 3 secure places:

1. The Web-based PHIN online searchable database, which can be accessed via the Internet by PHIN username and password
2. Back-up contact database spreadsheets, which will be kept in the on-call notebooks carried by the DSHS Physician On-Call Team for Public Health Emergencies. These spreadsheets can be used if the Internet has slowed or is unavailable for whatever reason.
3. Back-up regional contact information, which will be kept on file at the DSHS Health Service Region. This information can be obtained via consultation with the DSHS Regional Epidemiologist On-Call by contacting the 24/7 Public Health Preparedness Reporting telephone number for each Health Service Region (HSR). The 24/7 telephone number can be obtained by contacting each HSR office. A list of offices can be found at http://www.dshs.state.tx.us/regions/default.shtml.

The existing statewide PHIN database of contact information for 96 infectious disease specialists/influenza experts is continually updated by local PHIN Administrators. In addition, the leadership of the Texas Infectious Disease Society has agreed to request approval from the Texas Infectious Disease Society membership for adding contact information for their members to the existing PHIN database.
Appendix I.4: Pandemic Influenza Coordinating Council and Pandemic Influenza Committee
Appendix I.5: Links to Web-based Resources

(UNDER DEVELOPMENT)
APPENDIX J: Planning Guidelines for Non-Pharmaceutical Interventions

This companion document can be found on the Pandemic Influenza page of the Community Preparedness website.
Appendix K: The Antiviral Allocation, Distribution and Storage Planning Guidelines (AADS)

APPENDIX K: Antiviral Allocation, Distribution and Storage Planning Guidelines (AADS)

This companion document can be found on the Pandemic Influenza page of the Community Preparedness website.
APPENDIX L: Vaccine Allocation, Distribution and Storage Planning Guidelines (VADS)

This companion document can be found on the Pandemic Influenza page of the Community Preparedness website.
APPENDIX M: Allocation of Limited Resources

During the FY08-09, DSHS plans to form an ethics committee to wrestle with the difficult decisions around allocation of scarce resources. This committee will be comprised of public health which is population-focused; hospital care and ambulatory care which will include representation from a Federally Qualified Community Health Center as well as a community health care provider. In addition, ethicists and scientists will be sought to complete the committee. Following is a basic discussion of issues relating to allocation of limited resources which is meant to serve as an introduction to the issue.

Hick, et al have emphasized that given the wide variety of possible events and agents that may result in large numbers of patients requiring critical care, no single tool or scale can be expected to provide adequate decision-making power for allocating scarce resources in a disaster. For many injury and disease states (such as pandemic influenza), decision tools will have to be developed and validated during the event.

Because specific decision support tools may be event-driven, the focus should be on establishing the process that will be followed at the health care facility and within the geographic region in a resource-scarce situation. Regardless of the origin of the decision tool (federal, state, local/regional government, specialty medical society) implementation occurs at the community level.

Table 1. Essential Planning Groups

<table>
<thead>
<tr>
<th>Essential Planning Groups That Hospitals Must Discuss and Pre-Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A well-practiced incident management system (for example, Hospital Incident Command System) that aligns with the National Incident Management System should be in place in area health care facilities and public safety entities. A similar standard of care both within the institution and in the affected geographic area is achieved only by prioritizing resource allocation and cooperatively working with local public health and other agencies in an incident management framework.</td>
</tr>
<tr>
<td>2. A clinical care committee (or other similar group within the planning section) must work with the institution’s incident commander on a daily basis. This group will determine which services a health care facility will provide and what adaptations must be made to provide these critical services based on demand and resources available.</td>
</tr>
<tr>
<td>3. A small triage team of individuals with expertise in critical care and relevant disciplines (for example, infectious disease during a pandemic) will determine how best to allocate available scarce resources such as ventilators. For example, the team can examine data from patients currently being ventilated and those who require ventilation.</td>
</tr>
<tr>
<td>4. Decision tools developed to assist the above teams in making decisions should be used to most fairly allocate scarce resources such as ventilators.</td>
</tr>
</tbody>
</table>
Appendix M: Allocation of Limited Resources

5. An ethics committee should develop formal processes and recommendations for removing life supportive, palliative, and end-of-life care at the institution.

In addition to a summary of essential planning teams that hospital leadership must discuss and pre-define (Table 1), this interim guidance for allocating scarce resources in Texas communities also includes:

- Sample Roster of Clinical Care Committee Members (Table 2);
- Sample Process for Health Care Facility Response During Resource-Scarce Situations (Table 3);
- Checklist of Key Ethical and Operational Goals (Table 4);
- Comparison of Decision-Making Criteria for Limiting Medical Care in Resource-Adequate Versus Resource-Poor Situations (Table 5);
- Example of a Decision Matrix for Ventilator Allocation During Resource-Poor Situations (Table 6).²

**Table 2. Sample Roster of Clinical Care Committee Members**

<table>
<thead>
<tr>
<th>Clinical Care Committee Members¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>A clinical care committee, with members predetermined for toxic, infectious, and trauma situations, is convened. During a pandemic, for example, this committee might consist of some or all of the following at a large facility:</td>
</tr>
</tbody>
</table>

| • Administrator or designee |
| • Medical director |
| • Infection control expert |
| • Infectious disease expert |
| • Critical care practitioner |
| • Emergency medicine practitioner |
| • Pediatric practitioner |
| • Nursing Supervisor |

| • Social worker |
| • Respiratory care supervisor |
| • Hospital ethicist |
| • Legal counsel |
| • Community representative with role similar to person on Institutional Review Board |
| • Other personnel from areas such as lab, radiology, bioelectronics, and pharmacy |

**Table 3. Sample Process for Health Care Facility Response during Resource-Poor Situations**

<table>
<thead>
<tr>
<th>Healthcare Facility Response During Resource-Poor Situations¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Incident commander recognizes that systematic changes are or will be required to allocate scarce facility resources and that no regional resources are available to offset demand.</td>
</tr>
</tbody>
</table>
2. Planning chief gathers guidelines, epidemiologic information, resource information, and regional hospital information.

3. Clinical care committee reviews facility/regional situation and examines the following:
   - Pre-planned alternate care sites – Which additional areas of the building or external sites can be used for patient care? (See Appendix N)
   - Medical care adaptations (for example, use of non-invasive ventilation techniques, changes in medication administration techniques, and use of oral medications and fluids instead of intravenous).
   - Changes in staff responsibilities to allow specialized staff to redistribute workload (for example, floor nurses provide basic patient care in the intensive care unit while critical care nurses “float” and troubleshoot) and/or incorporate other health care providers, lay providers, or family members.
   - Triage plan describing how scarce resources at the facility (emergency department [ED] resources, beds, operating rooms, and ventilators) will be allocated. (What level of severity will receive care? What tool or process will be used to make decisions when there are competing demands for the same resource?)
   - Community/regional strategies to cope with the situation and how the institutional response contributes to those efforts.
   - Committee summarizes recommendations for next operational period and determines meeting and review cycles for subsequent periods (may involve conference calls or similar means to avoid face-to-face meetings during a pandemic).

4. Incident commander approves committee recommendations as part of incident action plan. Plan is operationalized. Public information officer communicates updates to staff, patients, families, partners/stakeholders and the public.

5. Current inpatients, patients presenting to the hospital, and their family members are given verbal and printed information (ideally by the triage nurse in the ED or, for inpatients, by their primary nurse or physician) explaining the situation and that resources may have to be reallocated, even once assigned, to provide care to those who will most benefit. A mechanism for responding to patient/family questions and concerns should also be detailed.

6. Security and behavioral health response plans should be implemented.
7. Triage plan implemented:
   - ED/outpatient screening of patients (and denial of service to patients either too sick or too well to benefit from evaluation/admission) based on guidance from clinical care team.
   - Tertiary triage team (ideally NOT the physicians directly providing the patients’ care and ideally two physicians of equal “rank” in the institution) considers situations in which there are competing patient demands for a scarce resource.
   General rules for assigning scarce resources are:
     * When two patients have essentially equal claim to the resource, a “first-come, first-served” policy should be used.
     * When, according to guidelines or the triage team’s clinical experience, the claim to the resource is clearly not equal, the patient with a more favorable prognosis/prediction shall receive the resource.
     * A decision model should be developed in advance for each scarce resource to guide the process (See Table 6).
   - The triage team should ask for and receive patient information needed to make a decision but should NOT consider subjective assessments of the quality of the patients’ life or value to society and, in fact, should ideally be blinded to such information when possible.

8. A “bed czar” (inpatient unit leader under the Hospital Incident Command System) should be appointed to make final decisions on bed assignments. This individual should be a clinician who has access to real-time inpatient and outpatient system status and, when needed, patient clinical information.

9. Whenever a decision is made to reallocate a ventilator or similar critical resource, the treating physician and family should be given the grounds for the decision (documented for the record at the facility) and a rapid appeals process if there is additional or new information that the family or a treating physician feels would affect the decision.
Table 4. Checklist of Key Ethical and Operational Goals

<table>
<thead>
<tr>
<th>Key Ethical and Operational Goals¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In a disaster situation, the focus of medical care shifts from the needs of the individual (autonomy) to the needs of the community (distributive justice) so that the “greatest good for the greatest number” is the goal. Application of this ethical principle is complex and the subject of current debate and interpretation. It is customary for the critical care physician to heavily weigh patient and family wishes and subjective considerations in determining “futile care.” This calculus is reversed during a disaster so that the weight is on objective prognostic criteria and less on subjective and individual patient factors. This shift in priorities will require significant pre-event education and training for critical care staff and the public.</td>
</tr>
<tr>
<td>2. An additional overall goal—which has received inadequate attention—should be to provide patients as much comfort and dignity as the situation allows regardless of other interventions available.</td>
</tr>
<tr>
<td>3. If a life-saving or potentially life-saving scarce resource is not available in sufficient quantity to meet patient demand despite all efforts to obtain adequate resources from other local, regional, and national partners in a timely manner and</td>
</tr>
<tr>
<td>- No other measures are available (for example, when manual ventilation is not an option) and</td>
</tr>
<tr>
<td>- Resource cannot be “titrated” (for example, drugs or oxygen) or substituted (for example, oral instead of intravenous antibiotics) and</td>
</tr>
<tr>
<td>- All available resources (for example, bi-level positive airway pressure and anesthesia machines) have been repurposed to manage respiratory failure but efforts are inadequate to meet the demand, then</td>
</tr>
</tbody>
</table>

The overarching goal is to allocate facility resources to those likeliest to benefit, taking into consideration:

* Medical prognosis,
* Underlying disease,
* Expected duration of resource need,
* Duration of benefit,
* Quality of life after intervention.

Any other subjective considerations (for example, the role of the patients, including health care workers, in the community) must be determined by public discussion, and a means for a lay panel/team to assess these factors must be available if the community determines that this is important. This stance is consistent with the American Medical Association position on scarce-resource allocation.
4. Because of government control of practitioner licensure and liability, any system of resource allocation should be part of a planned state/regional or national government response to an overwhelming emergency. As part of this planned response, medical providers must be protected legally when making these difficult decisions. No health care facility should be in a position to make systematic triage decisions without activation of state or national emergency health powers to enable legal protection for providers who in good faith are complying with pre-existing response plans or event-specific state and jurisdictional directives.

Table 5. Comparison of Decision-Making Criteria for Limiting Care in Resource-Adequate Versus Resource-Poor Situations

<table>
<thead>
<tr>
<th>Comparison of Decision-Making Criteria¹</th>
<th>Resource-Adequate Situations</th>
<th>Resource-Poor Situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Patient Autonomy</td>
<td>Community Needs</td>
</tr>
<tr>
<td>Relationships</td>
<td>Caregivers Invested With Family</td>
<td>Caregivers Unknown to Family</td>
</tr>
<tr>
<td>Patient Condition</td>
<td>End of Life</td>
<td>NOT at End of Life</td>
</tr>
<tr>
<td>Decision Made</td>
<td>Days to Weeks</td>
<td>Hours</td>
</tr>
<tr>
<td>Prior Care</td>
<td>Exhaustive</td>
<td>Little to None</td>
</tr>
<tr>
<td>Subjective Inputs</td>
<td>Critical</td>
<td>Minimal</td>
</tr>
<tr>
<td>Key Decision-Maker</td>
<td>Family and Caregivers</td>
<td>Triage Physician or Team</td>
</tr>
</tbody>
</table>

Table 6. Decision Matrix for Ventilator Allocation during Resource-Poor Situations

| Decision Matrix for Ventilator Allocation |
|-------------------------------------------|-------------------------------------|
|                                            | Bioventilator depletion             | Ventilator re-allocated       |
|                                            | Intermediate potential for death according to predictive model¹ | Low potential for death according to predictive model¹ |
| Organ system failure                      | High potential for death according to predictive model¹ | Indeterminate / intermediate prognosis based on epidemiology of specific disease / injury |
| Duration of benefit / prognosis           | Poor prognosis based on epidemiology of specific disease / injury (e.g. pandemic influenza) | Severe underlying disease with poor short-term prognosis¹ |
| Severe underlying disease                | Severe underlying disease with poor long-term prognosis and/or ongoing resource demand (e.g. home O₂ dependent, or dialysis) | Good prognosis based on epidemiology of disease / injury |
|                                          |                                     | No severe underlying disease  |
Appendix M: Allocation of Limited Resources

<table>
<thead>
<tr>
<th>duration of need</th>
<th>dependent</th>
<th>dependent</th>
<th>dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long duration, e.g. respiratory distress syndrome, particularly with pre-existing lung disease (estimate &gt;7 days on ventilator)</td>
<td>Moderate duration, e.g. pneumonia in a healthy patient (estimate 3-7 days on ventilator)</td>
<td>Short duration, e.g. flash pulmonary edema, chest trauma, other condition anticipating &lt;3 days on ventilator</td>
<td></td>
</tr>
<tr>
<td>Response to mechanical ventilation</td>
<td>Worsening ventilatory parameters over time</td>
<td>Stable ventilatory parameters over time (judged by clinician as failure to improve after adequate trial of mechanical ventilation based on disease process)</td>
<td>Improving ventilatory parameters</td>
</tr>
</tbody>
</table>

a. The SOFA (Sequential Organ Failure Assessment) score is currently preferred scoring system based on type of data required and ease of calculation.

b. Examples of underlying disease that predict poor short-term survival include, but are not limited to, congestive heart failure with an ejection fraction <25% (or persistent ischemia unresponsive to therapy with pulmonary edema); acute renal failure requiring hemodialysis (due to illness); severe chronic lung disease including pulmonary fibrosis, cystic fibrosis, or obstructive or restrictive diseases including continuous home oxygen before acute illness; immunodeficiency disease with evidence of opportunistic pathogen infection; central nervous system, solid organ, or hematopoietic malignancy with poor prognosis for recovery; cirrhosis with ascites; history of variceal bleeding, fixed coagulopathy or encephalopathy; acute hepatic failure with hyperammonemia; acute and chronic and irreversible neurologic impairment that makes the patient dependent for all personal care (e.g. severe stroke, congenital syndrome, persistent vegetative state, and severe dementia).

c. Changes in oxygenation index (OI) over time may provide comparative data, though of uncertain prognostic significance. OI = MAWP x FiO2 / PaO2, where MAWP is mean airway pressure, FiO2 is inspired oxygen concentration, and PaO2 is arterial oxygen pressure. PaO2 may be estimated from peripheral oxygen concentration saturation by using the oxygen dissociation curve if blood gas measurements are unavailable.

The American Medical Association (AMA) has identified five criteria to consider when the allocation of scarce resources is required:

- Likelihood of benefit,
- Change in quality of life,
- Duration of benefit,
- Urgency of need,
- Amount of resources required.

Because a decision to terminate life-sustaining scarce resources such as mechanical ventilation will result in the death of the patient, the difference in criteria should be clear-cut for ventilator reassignment to occur. If there is no clear difference in the criteria between patients, then resources should be allocated on a “first come, first served” basis.

Determining which patients shall receive scarce resources such as mechanical ventilation will be a difficult process from both a clinical and a psychological perspective. Pre-event community planning is essential to establish the process that will be followed at the health care facility and within the geographic region in a resource-scarce situation.
Appendix M: Allocation of Limited Resources

It is important to remember that situations change based on changes in the epidemiology of the disease such as severity of illness, populations at risk, waxing and waning of pandemic waves, and resource availability. Therefore decisions related to scarce resources must be regularly re-evaluated.

References


3. American Medical Association ... 


Appendix N: Alternate Care for Medical Surge

APPENDIX N: Alternate Care for Medical Surge

- Appendix N.1: Determining Need for Alternate Care
- Appendix N.2: Site Selection and Design
- Appendix N.3: Staffing
- Appendix N.4: Equipment, Consumable, and Disposable Supplies for Alternate Care
- Appendix N.5: Stock Medications
Appendix N.1: Determining Need for Alternate Care

Appendix N.1: Determining Need for Alternate Care

In Texas, beginning discussions have occurred within acute care. Public health has not been an active participant. During FY08-09, DSHS plans to assess how communities are coming to terms with the potential need, who the involved parties are, what planning has taken place, and what information has been disseminated. No decisions have been made. The information presented below serves as to frame the situation and stimulate discussions.

Introduction

The health care system has worked hard to prepare for mass casualty events (MCE). Much of the planning in this area focuses on increasing the surge capacity of affected delivery systems through rapid mobilization and deployment of additional resources from the community, state, regional, or national levels to the affected area. However, few of these plans specifically address a situation in which the delivery system is unable to respond according to established standards of care because of the scope and magnitude of the mass casualty event (Health Systems Research, Inc., 2005).

CDC has estimated the impact of a pandemic at 30% and 50% attack rates. Tables 1 and 2 demonstrate the number of ill people, types of care required, and expected deaths for various sized communities. CDC has developed software to assist local pandemic planners in estimating the potential impact of the next pandemic in their community. This software may be downloaded from www.cdc.gov/flu/tools/fluaid/index.htm.

Table 1: Moderate attack rate of 30%

<table>
<thead>
<tr>
<th>HHS estimates of Percent of Population Affected by next Pandemic</th>
<th>Number affected Example (Pop. 650,000)</th>
<th>Number affected in your Community (Pop. 350,000)</th>
<th>Number affected in your Community (Pop.80,000)</th>
<th>Number affected in your Community (Pop. 5,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 30% of pop. will become ill with flu</td>
<td>195,000</td>
<td>105,000</td>
<td>24,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Up to 15% of pop. will require outpatient visits</td>
<td>97,500</td>
<td>52,500</td>
<td>12,000</td>
<td>750</td>
</tr>
<tr>
<td>Up to 0.3% of pop. will require hospitalization</td>
<td>1,950</td>
<td>1,050</td>
<td>240</td>
<td>15</td>
</tr>
<tr>
<td>Up to 0.1% of pop. will die of flu-related causes</td>
<td>650</td>
<td>350</td>
<td>80</td>
<td>5</td>
</tr>
</tbody>
</table>
Table 2: Severe attack rate of 50%

<table>
<thead>
<tr>
<th>HHS estimates of Percent of Population Affected by next Pandemic</th>
<th>Number affected in your Example (Pop. 650,000)</th>
<th>Number affected in your Community (Pop. 350,000)</th>
<th>Number affected in your Community (Pop. 80,000)</th>
<th>Number affected in your Community (Pop. 5,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 30% of pop. will become ill with flu</td>
<td>375,000</td>
<td>175,000</td>
<td>40,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Up to 15% of pop. will require outpatient visits</td>
<td>162,500</td>
<td>87,500</td>
<td>20,000</td>
<td>1,250</td>
</tr>
<tr>
<td>Up to 0.3% of pop. will require hospitalization</td>
<td>19,500</td>
<td>10,500</td>
<td>2,400</td>
<td>150</td>
</tr>
<tr>
<td>Up to 0.1% of pop. will die of flu-related causes</td>
<td>16,250</td>
<td>8,700</td>
<td>2,000</td>
<td>125</td>
</tr>
</tbody>
</table>

Texas major metropolitan area hub cities have the capacity to provide medical care shelters to support victims during an emergency. During Hurricanes Katrina and Rita, human resources were available to provide health and medical care in a mass care environment. Physicians, nurses, allied health professionals, mental health professionals, and others volunteered and were able to get medical supplies, medications, and durable medical equipment to support patient care. For example, from September 1 to 6, 2005, 23,231 persons displaced by Hurricane Katrina were registered to receive evacuee services in Dallas. A system of alternate-care-site surge capacity absorbed large patient volumes while minimizing impact on routine hospital operations.

However, if in any emergency a large number of people need hospitalization at any one time, area hospitals quickly reach capacity and are forced to send patients to nearby hospitals. During a national public health emergency such as a pandemic affecting large geographic areas, transferring patients to other hospitals is not an option. In 2006, the Institute of Medicine’s examination of hospital-based emergency departments revealed that emergency services are functioning at full or near full capacity. As such, they are not prepared to function during a MCE.

Health Systems Research studied this issue extensively in 2005 under contract with the Agency for Health Care Research and Quality, reporting in the publication, *Altered Standards of Care in Mass Casualty Events*. A Blue Ribbon Panel of experts in ethics, emergency medicine, emergency management, health law, health policy, and public health convened to address the issue of providing care in MCEs. Medical issues identified included alterations of standards of care; assistance with planning, guidance, and tools; allocating scarce resources; and protocols for triage. A number of non-medical issues were also identified including: authority to activate altered standards of care; legal issues to liability, licensing, and mutual aid agreements; financial issues related to reimbursement; transportation of patients; issues related to services for special needs populations; and effective communication with the public.

The panel’s recommendations for action were to:

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Appendix N.1: Determining Need for Alternate Care

- Develop and implement a process to address non-medical issues such as finance and communication related to delivery of health and medical care during a mass casualty event;
- Create strategies to ensure health and medical leadership and coordination for the health and medical aspects of system response during a mass casualty event;
- Continue and expand efforts to train providers and others to respond effectively in a mass casualty event;
- Identify, analyze, and consider modification of federal, state, and local laws and regulations that affect the delivery of health and medical care during a mass casualty event;
- Develop and support a research agenda specific to health and medical care standards for a mass casualty event; and
- Develop a *Community-Based Planning Guide for Mass Casualty Care* to assist preparedness planners in their efforts.

Other recommendations that are in process and/or completed in Texas are to:
- Develop a comprehensive strategy for risk communication with the public before, during, and after a mass casualty event;
- Develop practical tools, such as searchable databases, for verifying credentials of medical and other health personnel prior to and onsite during a mass casualty event;
- Identify and support states, health systems, communities, and regions to develop mass casualty health and medical care response plans; and
- Develop general and event-specific guidance for allocating scarce health and medical care resources during a mass casualty event.

Another important consideration is the goal of care. The Blue Ribbon Panel suggested that the goal of care should focus on maximizing the number of lives saved. To do this requires that those with the least chance of survival are cared for last. The objective of triage would be to identify and reserve immediate treatment for individuals who have a critical need for treatment but are most likely to survive. Resources would be allocated to maximize the number of lives saved. Complicating conditions, such as underlying chronic disease, may affect an individual’s ability to survive.

Acute care facilities should consider ways of maximizing capacity before opening an alternate care site. Suggestions are offered in Table 3. If these tactics are not successful in providing adequate capacity, alternate care sites for triage and in-patient care may be required. With limited hospital space and limited health care providers, suspending or altering standards of care must be considered.
Appendix N.1: Determining Need for Alternate Care

**Table 3: Actions That Increase Capacity and/or Decrease Admissions**

Develop plans to maximize hospital space that include:
- Rapid patient discharge;
- Cancellation of elective surgeries;
- Classification of hospitals according to influenza status;¹
- Addition of beds/cots to open areas.

Increase staff capacity through schedule changes, staff sharing, and promotion of home care.

Increase access to supplies through contracts/agreements with commercial vendors.

Plan administrative coverage to facilitate processes.

Develop triage plans early to maximize in-hospital care for those most likely to survive.

Plan palliative care options for those with limited chance of survival.

Information sharing:
- Work with DSHS to improve communication regarding hospital status during a pandemic.
- Plan messages to be given through hospital help lines in collaboration with other health-care entities to ensure similar recommendations are being made.

¹ Large hospital systems might consider identifying hospitals as to influenza status rather than treating both influenza and other illnesses/surgeries in the same facility.

Caring for large numbers of patients will be a challenge. Current professional and legal restrictions molding practice parameters in health care will be impossible to follow. The Model State Emergency Health Powers Act (MSEHPA), adopted by many state legislatures, grants state and local public health agencies and their public and private sector partners a number of extraordinary powers once a state of public health emergency has been declared. These include the ability to waive state professional licensing and certification requirements for volunteer health professionals participating in emergency response efforts, liability protections for medical personnel, and expedited procedures to acquire essential supplies and personnel. While this works well for localized emergencies, it provides minimal assistance for pandemics. Easing restrictions must go further to include suspension of usual practice standards, broadening the scope of practice for nursing and other staff, training non-professional staff and volunteers to do treatments usually reserved for licensed staff, allocation of scarce resources, use of alternate care sites that will not meet the Joint Commission’s standards, altered staffing models, and reducing documentation standards. Texas’ public and private health systems are collaboratively working on these issues.

**Texas’ Medical Surge Capability**

Of the approximately 600 hospitals located within Texas, 448 have the medical surge capacity to maintain 3,507 patients in negative pressure isolation. Of hospitals with an emergency department, 90% can maintain at least one patient in negative pressure isolation whereas only 68% of hospitals without an emergency department can maintain at least one patient in negative pressure isolation.

Most Texas hospitals can increase bed capacity and support the physical infrastructure (e.g., HVAC, oxygen, and negative pressure capabilities) during a pandemic disaster. About 60% of
hospitals have a bed expansion plan in place; and local health departments, city and county governments, and other entities have created plans and processes to open medical shelters if needed. Alternative plans and procedures for increasing physical infrastructure capacity have been developed (e.g., discharging patients to make room for pandemic disaster victims).

Texas hospitals have developed plans to augment staffing during an emergency. These plans include developing databases of available personnel, developing callback lists, and working with state medical and nursing organizations to identify and recruit individuals who are available during an emergency. In Texas, 66 percent of hospitals reported having a database of credentialed clinicians while 53 percent reported having a database of other health professionals to contact during a surge event. The Medical Reserve Corps has been identified as a potential resource to augment personnel and is considered a local asset. Reported capacity for access to mental health assistance and crisis counseling for first responders is low. Only 36 percent of hospitals report having a Critical Incident Stress Debriefing capability while local health departments reported varying levels of success with training individuals to provide worker crisis counseling. Additionally, a few local health departments have implemented mutual aid agreements with other jurisdictions to provide crisis counseling.

Equipment and Supplies

Plans to augment resources are being developing. A Texas Pharmaceutical Blue Ribbon Task Force, made up of representatives from the Department of State Health Services (DSHS), Texas Building and Procurement Commission (TBPC), State Pharmacy Board, Pharmacy Association, Federation of Drug Stores, Society of Health-System Pharmacists, Pharmaceutical Wholesalers, and Children’s Health Insurance Program (CHIP)/Medicaid Vendors, is developing an integrated plan for distribution of pharmaceuticals, pharmacy services, and medical supplies. Planning also includes identification of resources; a comprehensive communication system; and receiving, distribution, and coordination systems.

About half the hospitals statewide report having enough personal protective equipment (PPE) including powered air-purifying respirators, N95 masks, gloves, gowns, and hand sanitizers for healthcare personnel. Of those hospitals that have respirators and N95 masks, not all hospital employees are trained to properly wear and use PPE. While most urban emergency services departments have adequately outfitted their emergency response staff and Emergency Medical Services (EMS) employees with appropriate PPE, volunteer and rural emergency services departments often lack funds to purchase even basic PPE.

Pandemic planning includes careful consideration of the potential shortage of ventilators, based on the estimates for the number needed and on federal plans. There is a federal government stockpile of ventilators, but its use is limited for any one locality; there are not enough ventilators to be distributed if many regions need them at once.

Alternate Care Sites

Pandemic influenza planning in Texas has been primarily guided by the U.S. Centers for Disease Control and Prevention (CDC) Pandemic Influenza Public Health Emergency Preparedness (PHEP) funding. This work in large part has been dedicated to planning activities at the state,
Appendix N.1: Determining Need for Alternate Care

Regional, and local levels. Approximately 90 percent of the Office of Assistant Secretary for Preparedness and Response (OASPR) Hospital Preparedness Program (HPP) funds is allocated to trauma service areas (TSA) (Map 2.). Regional hospital planning committees/steering committees for each TSA are currently locating alternate care sites and identifying needed staffing and supplies.

DSHS Pandemic Influenza Plan Operational Guidelines (PIPOG) was developed in cooperation with many stakeholders including representatives from Texas hospitals. Assumptions in the plan regarding response to the demand for services and hospital surge will rely on implementing non-standard approaches including:

- Discharge of all but critically ill hospital patients;
- Expansion of hospital “capacity” by using all available space and “less than code compliant beds;”
- Increase of patient ratio to hospital staff;
- Recruitment of volunteers who can provide custodial services under the general supervision of health and medical workers;
- Relaxation of practitioner licensure requirements as deemed appropriate; and
- Use of general purpose and special needs shelters as temporary health facilities.

Other assumptions include the establishment of Disaster Medical Assistance and State Mortuary Assistance Teams to supplement local resources.

The state’s involvement with hospital medical surge is limited to planning and data collection. Approximately 600 hospitals in Texas are in locations ranging from cities with populations larger than most small states to rural, frontier-like areas whose residents seek service in a 10-bed general hospital in a town 20 miles away. DSHS encourages local health departments (LHDs) to work with healthcare stakeholders to develop community-specific plans based on guidance offered in the PIPOG. Responsibilities at the state level are to:

- Update and/or inventory state medical supplies, in coordination with local Epidemiological Response Teams and Texas Building and Procurement Commission;
- Collaborate with appropriate agencies to inventory and identify statewide resources;
- View major elements of the health sector and essential non-health sector response plans;
- Estimate the impact of pandemic influenza on essential services including hospitals; and
- Develop and maintain an inventory of available beds in nursing facilities and non-traditional settings that might house sick patients as hospital overflow.

In addition to DSHS activities, TBPC will assist in locating and contracting for pandemic influenza-related resources and alternate use facilities, to include locating appropriate lodging and transportation resources for pandemic influenza response operations.

Regional hospital planning/steering committee in collaboration with regional and local public health is responsible to:
Appendix N.1: Determining Need for Alternate Care

- Coordinate data collection, collect data from appropriate sources, including Metropolitan Medical Response Systems (MMRS), and adjust for data duplication to maintain a statewide inventory of:
  - Medical personnel, including but not limited to currently licensed physicians, physician assistants, registered nurses, licensed practical nurses, medical assistants, and other people who may be trained in the event of an emergency (e.g., people with previous patient care experience who currently work outside of patient care);
  - Facility resources such as beds (hospital and long-term care), Intensive Care Unit (ICU) capacity, pharmacy, laboratory, and contingency medical facilities (within jurisdiction);
  - Supplies such as ventilators, PPE (e.g., masks, gloves), specimen collection and transport materials, and sources of supplies;
  - Mortuary and funeral services;
  - Social services, disaster mental health services, and faith services;
  - Sources of medical supplies (e.g., syringes), and
  - Limited English proficiency interpreter services.

- Identify locations of relative quiet/calm to be used for overflow patient care including those presenting with anxiety, psychosomatic or stress related/induced symptoms, and strategies for the management of overflow locations such as advance-planning protocols to triage overflow locations.

- Estimate the impact of an influenza pandemic related to hospitalizations, outpatient visits and deaths using FluAid.

In addition to inpatient care support, health service regions (HSRs) and LHDs also collaborate with the health-care system on triage planning. Although triage planning is the primary responsibility of the health-care system, all preparedness partners assist in:

- Planning for triage (e.g., initial patient evaluation) and admission of patients during a pandemic;
- Developing methods to specifically track admissions and discharges of patients with pandemic influenza; and
- Developing criteria and protocols for modifying admission criteria on the basis of current bed capacity, closing the facility to new admissions and referrals to other facilities, and limiting or restricting visitors to the hospital, including specific plans for communicating with patients’ families about hospital rules for visiting hospitalized family members.

Medical surge planning accomplishments so far include the following:

- Criteria developed for determining when to cancel elective admissions and surgeries.
- Plans developed for shifting healthcare services away from the hospital, e.g., to home care or pre-designated alternative care facilities, have been discussed with local, state, tribal, or regional planning contacts.
- Ethical issues addressed concerning how decisions will be made in the event healthcare services must be prioritized and allocated (e.g., decisions based on probability of survival) have been discussed.
Appendix N.1: Determining Need for Alternate Care

- Procedure developed for communicating changes in hospital status to health authorities and the public.
- Plans developed for utilizing non-facility volunteer staff, such as those who may be made available through a state Emergency System for Advanced Registration of Volunteer Health Professionals (ESAR-VHP) to provide patient care when the hospital reaches a staffing crisis.
- Contingency staffing plan to consider how health professions students assigned to the facility will be utilized.
  - The contingency staffing plan includes a strategy for training non-facility volunteers (e.g., retired clinicians, trainees) and includes a procedure for rapid credentialing/privileging and badging for easy identification by security and access to the facility when deployed.
  - The contingency staffing plan includes a strategy for cross-training and reassignment of personnel to support critical services.
  - The contingency staffing plan considers alternative strategies for scheduling work shifts to enable personnel to work longer hours without becoming overtired.
- Responsibility assigned for conducting a daily assessment of staffing status and needs during an influenza pandemic.
- Strategies developed for supporting personnel whose family and/or personal responsibilities or other barriers prevent them from coming to work (e.g., strategies that take into account the principles of social distancing when schools are closed, care of elders, transportation, reasonable accommodation or state governmental mandate).
- Staffing plan to include strategies for collaborating with local and regional planning and response groups to address widespread healthcare staffing shortages during a crisis, including the development of memoranda of advanced agreement (MAAs) and memoranda of understanding (MOUs) with regional and tribal health-care partners.

Assumptions

- Alternate care sites may be in operation intermittently for 12 months or longer in the event of an influenza pandemic. Sites need to be selected based on the ability to operate for this length of time.
- The pandemic may occur in two or more phases and alternate care sites may open, close, and re-open depending on community needs.
- Selecting and staffing the alternate care site should be done in collaboration with local health care providers and hospitals, but it should not be assumed that local providers will be able to totally staff the site.
- Assistance will not be available outside the community such as from other states or the federal government.
- Family members and well community members will be providing care and will need specialized training.
- Suspension of licensing regulations and certification requirement will need to be in effect.
- Care givers will need legal protection.

The following discussion details actions important alternative care site concepts, strategies, and actions that planners need to incorporate into their preparedness planning for pandemic
Appendix N.1: Determining Need for Alternate Care

influenza. The information is arranged according to the three World Health Organization (WHO) Pandemic Periods.

Inter-Pandemic Period

This period is where most of the advance planning for a pandemic needs to occur. Governmental agencies at any level may be able to offer policy guidance, decision tools, and some relief from regulatory obligations, but the operational decisions regarding limited resources and associated liabilities will be the responsibility of individual hospital systems and communities. Those involved in planning ACSs should collaborate in the development of pre-pandemic decision blueprints with legal counsel.

First Level of Response

An overview of issues and activities that community planners need to consider before activating an alternate site and while developing alternative care sites is listed below.

- Define ownership, command, and control of alternate care sites (ACS).
- Determine number of alternate care sites needed in each community using CDC’s FluSurge or another patient estimation program.
- Perform site selection based on best estimates of need.
- Decide on the scope of care to be provided in the ACS.
- Establish functional requirements based on the level of care to be provided.
- Acquire supplies, equipment, and pharmaceuticals (including communications equipment) or know how to obtain them from storage caches.
- Establish a pandemic influenza Continuity of Operations Plan (COOP) identifying critical job functions and developing backup plans for these. Perform staffing planning, taking into account absentee rates from potential sources of staff members.
- Develop Memoranda of Understanding (MOU) for operational support of the ACS.
  Include housing for health care workers.
- Develop policies of operation for the ACS, including:
  - Incident command
  - Criteria for admission, discharge, and transfer
  - Clinical roles and responsibilities
  - Infection control pharmacy and medication control
  - Safety and security
  - Housekeeping
  - Food service
  - Finances and documentation
- Develop a health care risk communication message, including criteria for seeking health care, such as postponement of non-emergency procedures or surgeries.
- Develop criteria for hospital decompression.

Pandemic Alert Period

Planning activities to consider in this period are listed below.

- Formalize agreements with facilities to serve as alternate care sites (Appendix N.2).
Appendix N.1: Determining Need for Alternate Care

- Perform resource assessment for activating an ACS (Appendix N.2).
  - Intensify location and acquisition of additional necessary equipment, consumable, and disposable supplies.
- Finalize policies of operation for the ACS.
- Exercise the ACS if possible
  - As early as possible, explore the legal issues around activating an ACS for full functional exercise with patients.
- Test communications.
- Identify and roster the ACS staff and volunteers.
- Establish a process of immunization and prophylaxis of potential staff members.
- Develop a patient transport plan for movement of AC patients to and from area hospitals.

Pandemic Period

Federal Response Stage 3: Widespread human outbreaks in multiple locations overseas

During Federal Response Stage 3 of the Pandemic Period, planners need to consider the following activities:

- Establish incident command structure for ACS. Planners should ensure that ACS is integrated with community, regional and State incident command systems.
- Unpack and inventory supplies at the selected site(s).
- Enable the security protection systems of the ACS to protect the supplies.
- Train individuals in skill sets and ACS operational protocols as needed.
- Ensure all ACSs are fully operational.
- Investigate the need for establishing other functional sites for ambulatory care, inpatient care, quarantine, and/or palliative care.
- Establish criteria for terminating operation of the ACSs as the pandemic passes.

Federal Response Stage 4-5: First human case in North America and spread throughout the United States

During Federal Response Stages 4 and 5, planners need to consider the following activities:

- Activate alternate care sites based on disease epidemiology and medical surge reports from ambulatory care, emergency rooms, and hospital bed availability.

Federal Response Stage 6: Recovery and preparation for subsequent stages

- Write an after-action report identifying what went well and what did not with suggested mitigation strategies.
- Examine policies and procedure and change according to after-action report findings.
- Examine staffing patterns, burn-out, and recruitment of persons who had the flu and survived.
- Re-supply consumables and disposables. Examine equipment and complete repairs.
Appendix N.2: Site Selection and Design

Appendix N.2: Site Selection and Design

General Considerations

- Communities should consider a number of facilities that in total can accommodate beds for the people who become ill enough to require professionally supervised supportive care such as IV solutions for hydration.
- In all cases, the building selected should be code compliant for its currently designated building type.
- Building requirements for alternate care sites should consider the following:
  - Patient care area/beds 3 feet apart
  - Accessibility
  - Security
  - Food/feeding
  - Laundry
  - Toileting/showers
  - Waste disposal to include bio-hazardous material
  - Water and heat
  - Telephone
  - Transportation
  - Ventilation
  - Storage
  - Space for clerks/record keeping
  - Lab specimen storage/processing
  - Pharmacy
  - Space for ancillary services, including case management, social workers and other mental health professionals
- Potential sites should be evaluated during the pre-pandemic period.
  - Evaluation template follows
Appendix N.2: Site Selection and Design

**SITE LOCATION**

**NAME:**

**ADDRESS:**

**CITY:**

**ZIP CODE:**

**PHONE:**

**EMAIL:**

Can the site be opened within 6 hours of request? YES ☐ NO ☐

Is the site available 24/7? YES ☐ NO ☐

Is a map to the site available? YES ☐ NO ☐

Can the map be posted on the Internet? YES ☐ NO ☐

Are clear directions to the site available? YES ☐ NO ☐

Is the site familiar to the local population? YES ☐ NO ☐

**CONTACT INFORMATION**

First Contact:

**NAME:**

**POSITION IN ORGANIZATION:**

**PHONE NUMBER:**

**CELL NUMBER:**

**EMAIL ADDRESS:**

Can the first contact person be contacted after hours and on holidays? YES ☐ NO ☐

If YES, what is the best way to contact this person after hours and on holidays? __________________
Appendix N.2: Site Selection and Design

Second Contact:
NAME: 

POSITION IN ORGANIZATION: 

PHONE NUMBER: _______________  CELL NUMBER: 

EMAIL ADDRESS: 

Can the second contact person be contacted after hours and on holidays? YES □ NO □

If YES, what is the best way to contact this person after hours and on holidays? 

### FACILITY’S PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>BUILDING INFRASTRUCTURE</th>
<th>COMMENTS &amp; NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ability to lockdown</strong></td>
<td></td>
</tr>
<tr>
<td>• To monitor patient traffic</td>
<td>YES □ NO □ Building and perimeter security</td>
</tr>
<tr>
<td>• To control entry/exit</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td>• To secure perimeter</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td><strong>Doors</strong></td>
<td></td>
</tr>
<tr>
<td>• At least 42” wide for gurney</td>
<td>YES □ NO □ One door to enter the building with separate door to enter patient care areas</td>
</tr>
<tr>
<td>• Entry and inside doors ADA compliant</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td><strong>Floors</strong></td>
<td></td>
</tr>
<tr>
<td>• Tile or hard cleanable surfaces in patient care areas</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td><strong>Loading Dock</strong></td>
<td></td>
</tr>
<tr>
<td>• Supply delivery area able to accommodate multiple large delivery vehicles at one time</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td>• Forklift, pallet jack, and operator accessible</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td><strong>Parking</strong></td>
<td></td>
</tr>
<tr>
<td>• Number of stalls available at the facility</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td>• Adjacent lots available, enter number of stalls</td>
<td></td>
</tr>
<tr>
<td>• Parking lots well lighted and safe</td>
<td>YES □ NO □</td>
</tr>
<tr>
<td><strong>Mechanical Ventilation</strong></td>
<td></td>
</tr>
<tr>
<td>• System capacity based on minimal air exchange per maximum capacity</td>
<td>YES □ NO □</td>
</tr>
</tbody>
</table>
### Toilets and Showers – Men’s Room
- **Total # of urinals / # ADA compliant**
- **Total # of toilets / # ADA compliant**
- **Total # of showers / # ADA compliant**

### Toilets and Showers – Women’s Room
- **Total # of toilets / # ADA compliant**
- **Total # of showers / # ADA compliant**

### Family / Unisex
- **Total # of toilets / # ADA compliant**
- **Total # of showers / # ADA compliant**

### Optional
- Separate area for staff toilets
- Toilets for staff and family members

### UTILITIES

#### Electrical Power
- Sufficient to meet demands of ACF
- Backup generator must supply power to all areas including HVAC system and hot water heaters

#### Air Conditioning and Heating
- Meets standards based on raw square footage of facility
- In good operating condition

#### Water
- Hot and cold running water available
- Gallon capacity of water heaters
- Potable drinking water available

#### Refrigeration
- Type and size available
- Temperature controlled

#### Lighting
- Dimmer switch in sleeping area
- Lighting is sufficient

#### Fire Safety
- Sprinklers
- Number of fire alarms
- Number of smoke detectors
- Exit doors meet fire safety standards

At a minimum, 10 stalls per 300 users
## TOTAL SPACE AND LAYOUT

<table>
<thead>
<tr>
<th>Auxiliary Rooms</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chapel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Counseling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Family rest area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Patient waiting area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Triage area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Incident command area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mortuary Holding Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Refrigerated space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Space in parking lot for refrigerated trucks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secured Medical Storage Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secured Equipment and Supply Storage Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Large enough to conduct supply distribution and inventory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secured Pharmacy Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Open Bed Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laundry Facilities</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Food Supply and Preparation Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Full commercial kitchen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Warming kitchen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Partial kitchen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Walk-in refrigerator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Walk-in freezer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff Break Area</th>
<th>YES □</th>
<th>NO □</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Quiet and isolated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Staff bathrooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Staff sleeping area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMUNICATIONS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• # of digital and analog phones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• # of available ports per room / area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• # fax machines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strong cell phone signal available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No interference with cell phone signal or signal shielding which could affect connectivity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Radio Capabilities
- Two-way 800 mhz Radio: YES  NO
- Ham Radio: YES  NO

### Wired for IT and Internet Services
- Number of ports available: YES  NO
- Capacity to add additional ports: YES  NO
- Wireless capable with no interference or signal shielding which could affect connectivity: YES  NO

### OTHER SERVICES

#### Accessibility / Proximity to:
- Public transportation: YES  NO
- Distance to closest bus/public transportation stop:
- Distance to hospital:
- Distance to high risk populations:

#### Medical Supply Delivery Capabilities
- Storage and/or servicing capabilities for O2 bottles: YES  NO

#### Facilities Services
- Waste Removal
  - Name: YES  YES
- Janitorial Services
  - Name: YES  YES
- Food Delivery Services
  - Name: YES  YES
- Restroom Maintenance
  - Name: YES  YES
- Security
  - Name: YES  YES

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**ATTACH FACILITY LAYOUT AND FLOOR PLAN**

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On separate sheet
Appendix N.3: Staffing

General Considerations

- Staffing considerations should be made using professionals not currently working in acute care, allied health professionals, and non-professional care and comfort providers.
- In many smaller communities, the care and comfort providers are going to be the family members themselves.
- Emergency Medical staff should not be considered as first-line staff for ACSs because they will be providing emergency medical services and hospital patient transportation.
- In situations in which immunization or prophylaxis is available, consideration should be given to community volunteers who have been trained to provide care/comfort at the alternate care sites.

(UNDER DEVELOPMENT)
Appendix N.4: Equipment, Consumable, and Disposable Supplies for Alternate Care

Appendix N.4: Equipment, Consumable, and Disposable Supplies for Alternate Care

Following are guidelines for the types and amounts of supplies required for a 50-bed ACS to use as a guideline for planning purposes only. This configuration is not the only one that will be recommended. This configuration assumes care will simulate hospital care. Fewer supplies will be used if the ACS is used for supportive care with health care professional supervising family caregiving of the ill.

Three important elements must be considered as planning for ACSs begins:
- Purchasing supplies
- Storing supplies
- Transporting supplies

(UNDER DEVELOPMENT)
Appendix N.5: Stock Medications

Patients will present with a myriad of co-existing conditions. Local communities must decide how the issue of personal medications will be handled. Options are:

- Patients bring own medications into ACS;
- ACSs have needed medications on hand.

The following table is a suggested list of medications to stock for ACSs to meet the need of patients on long-term medication therapy, complications of influenza, and emergency situations might develop.

(UNDER DEVELOPMENT)
Appendix O: International Travel

APPENDIX O: Guidelines for Monitoring International Travel

{Under development}

This companion document will be found at a later date on the Pandemic Influenza page of the Community Preparedness website.
Glossary

GLOSSARY

Antiviral medication: A medication that destroys or inhibits the growth and reproduction of viruses.

Attack rate: The proportion of an exposed population at risk who becomes infected or who develops clinical illness during a defined period of time.

Accessibility: (a) physical accessibility: compliance with the portions of the Texas Accessibility Standards pertaining to parking, path of travel, entrances, restrooms, and fire alarms; (b) social accessibility: availability of adequate, appropriate services related to factors such as geographic isolation (including transportation), cultural appropriateness, ability to pay, and language and comprehension issues; and (c) communications accessibility: access to information resources comparable to those available to individuals without disabilities.

CDC Intervals:

- Pre-pandemic Intervals
  - “Investigation” Interval – Investigation of Novel Influenza Cases: This pre-pandemic interval represents the time period when sporadic cases of novel influenza may be occurring overseas or within the United States. During this interval, public health authorities will use routine surveillance and epidemiologic investigations to identify human cases of novel influenza and assess the potential for the strain to cause significant disease in humans. Investigations of animal outbreaks also will be conducted to determine any human health implications. During this interval, pandemic preparedness efforts should be developed and strengthened. Case-based control measures (i.e., antiviral treatment and isolation of cases and antiviral prophylaxis of contacts) are the primary public health strategy for responding to cases of novel influenza infection. The national case definition for novel influenza is located at http://www.cdc.gov/ncphi/disss/mdss/casedef/novel_influenzaA.htm.
  - “Recognition” Interval – Recognition of Efficient and Sustained Transmission: This interval occurs when clusters of cases of novel influenza virus in humans are identified and there is confirmation of sustained and efficient human-to-human transmission indicating that a pandemic strain has emerged overseas or within the United States. During the recognition interval, public health officials in the affected country and community will attempt to contain the outbreak and limit the potential for further spread in the original community. Case-based control measures, including isolation and treatment of cases and voluntary quarantine of contacts, will be the primary public health strategy to contain the spread of infection; however, addition of rapid implementation of community-wide antiviral prophylaxis may be attempted to fully contain an emerging pandemic.

- Pandemic Intervals:
  - “Initiation” Interval – Initiation of the Pandemic Wave: This interval begins with the identification and laboratory-confirmation of the first human case due to pandemic

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influenza virus in the United States. If the United States is the first country to recognize the emerging pandemic strain, then the “Recognition” and “Initiation” intervals are the same for affected states. As this interval progresses, continued implementation of case-based control measures (i.e., isolation and treatment of cases, voluntary prophylaxis and quarantine of contacts) will be important, along with enhanced surveillance for detecting potential pandemic cases to determine when community mitigation interventions will be implemented.

- **“Acceleration” Interval – Acceleration of the Pandemic Wave**: This interval begins in a State when public health officials have identified that containment efforts have not succeeded, onward transmission is occurring, or there are two or more laboratory-confirmed cases in the State that are not epidemiologically linked to any previous case. It will be important to rapidly initiate community mitigation activities such as school dismissal and childcare closures, social distancing, and the efficient management of public health resources. Isolation and treatment of cases along with voluntary quarantine of contacts should continue as a key mitigation measure. Historical analyses and mathematical modeling indicate that early institution of combined, concurrent community mitigation measures may maximize reduction of disease transmission (and subsequent mortality) in the affected areas.

- **“Peak/Established Transmission” Interval – Transmission is Established and Peak of the Pandemic Wave**: This interval encompasses the time period when there is extensive transmission in the community and the state has reached its greatest number of newly identified cases. The ability to provide treatment when the healthcare system is overburdened will be particularly challenging. To reduce the societal effects of the pandemic, available resources must be optimized to maintain the critical infrastructure and key resources in the face of widespread disease.

- **“Deceleration” Interval – Deceleration of the Pandemic Wave**: During this interval, it is evident that the rates of pandemic infection are declining. The decline provides an opportunity to begin planning for appropriate suspension of community mitigation activities and recovery. State health officials may choose to rescind community mitigation intervention measures in selected regions within their jurisdiction, as appropriate; however, mathematical models suggest that cessation of community mitigation measures are most effective when new cases are not occurring or occur very infrequently.

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10 Davey VJ, Glass RJ. Rescinding Community Mitigation Strategies in an Influenza Pandemic. *Emerging*
Glossary

- **“Resolution” Interval – Resolution of the Pandemic Wave**: In this interval, pandemic cases are occurring only sporadically. The primary actions to be taken during this interval include discontinuing all community mitigation interventions, facilitating the recovery of the public health and healthcare infrastructure, resuming enhanced surveillance protocols to detect possible subsequent waves, and preparing for next waves of infection should they occur.

**Case fatality rate**: The proportion of people with a particular disease who die of the disease. This number will be significantly higher than the mortality rate.

**Chemoprophylaxis**: See prophylaxis.

**Confirmed case**: A laboratory-confirmed influenza virus infection in a person with influenza-like illness. A diagnosis of influenza is usually made on a clinical basis, particularly if influenza has been reported in the community.

**Community containment measures**: Separation of infected or exposed people from non-infected people by use of isolation, quarantine, or other restrictions on movement and activity.

**Community health worker**: A person serving with or without compensation who provides services within the unique culture of the community. Using their personal understanding of the experiences, language, traditions, and values of the people they serve, community health workers function as mediators between western allopathic medicine and the traditional healing practices of the community. Included in the title are promotor(a) (Hispanic communities) and community health representative (American Indian tribal communities).

**Contact**: A person who has been exposed to an influenza case in some way during the infectious period. A close contact is a person who has had direct exposure to respiratory secretions or body fluids of a person with confirmed influenza or has touched or talked to a person with confirmed influenza within 3 feet. For instance, a person who has cared for or lived with an influenza patient is considered a close contact. A household contact is a type of close contact where direct exposure occurs through such additional actions as kissing, hugging, and sharing eating or drinking utensils. Working in the same building, walking by, or sitting across a room from a person with influenza is NOT considered a direct exposure and therefore is considered contact only.

**Control measures**: Standard emergency containment practices in public health that aim to control exposure to both infected and potentially infected people. Practices may be voluntary (agreed to) or compelled (enforced by public health authorities) and can be applied on an individual or population level. The Communicable Disease Prevention and Control Act is a comprehensive statute—codified as Chapter 81, Texas Health and Safety Code—that provides for numerous control measures to be made available for use in protecting the public health. Control measures are actions necessary to control and prevent communicable disease. They include, but are not limited to, immunization, detention, restriction, disinfection, decontamination, isolation, quarantine, disinfection, chemoprophylaxis, preventive therapy, prevention, and education. However, the law does not limit control measures only to these measures. Texas law allows control measures to be imposed on a person, property, areas, or

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_Infectious Diseases_, (2008);14 (3): 365-372. Available at:
http://www.cdc.gov/eid/content/14/3/365.htm?cid=eid365_cit
common carriers. A complete description of control measures and statutory authority are
discussed in Communicable Disease Control Measures in Texas: A Guide for Health Authorities,
2004.

- **Isolation:** Separation and restriction of movement of people with a specific communicable
disease to contain the spread of that illness to susceptible people. People in isolation may be
cared for in their homes, in hospitals, at designated health care facilities, or other dedicated
facilities.

- **Quarantine:** Separation and restriction of movement of well people who may have been
exposed to an infectious agent and may be infected but are not yet ill. Quarantine usually
occurs in the home but can be in a dedicated facility or hospital. The term "quarantine" also
can be applied to restrictions of movement into or out of buildings, other structures, and
public conveyances. In addition, specific areas or communities may be quarantined. The
Centers for Disease Control and Prevention (CDC) also is empowered to detain, medically
examine, or conditionally release people suspected of carrying certain communicable
diseases at points of arrival in and departure from the U.S. or across state lines.

**EMResource™**: Real Time Emergency Resource Management (Internet-based) application. An
internet-based application accessible from any PC or wireless device with and internet
connection and a web-browser. Authorized users securely access, review, and update daily
hospital emergency status, mass casualty event resource information, and public health incident
alerts. EMResource delivers emergency resource management and streamlines communications
between medical response teams and healthcare providers by monitoring healthcare assets,
behavioral health, and dialysis bed status and facilitates NDMS reporting and broadcasting.

**EMSyster®**: A leading provider of real-time communications and resource management
solutions that enhance preparedness and response to medical emergencies, mass casualty events,
and public health incidents. The company provides emergency department status tracking,
patient tracking, mass casualty incident support, syndromic surveillance, hospital bed tracking,
and public health alerting solutions. (Retrieved 2/27/08 from http://info.emsystem.com/)

**Epidemiology Response Teams (ERT):** An identified epidemiology team in each of the Health
Service regional offices. The ERTs serve as a rapid-response resource for all hazard incidents,
and collaborates with local health departments’ epidemiologists. Two epidemiologists, a public
health nurse, and a public health technician comprise each team

**Frontier County:** A special definition of rural to mean a sparsely populated county with less
than 7 individuals per square mile and no urban center. In Texas, 133 counties do not meet the
criteria for metro- or micropolitan classification. Of these counties, 64 meet the criterion for
classification as “frontier” (Jane Meier, personal communication, 10/7/05).

**Health authority:** A physician designated to administer state and local laws relating to public
health under the Local Public Health Reorganization Act, Health and Safety Code, Chapter 121.
The health authority, for purposes of these sections, may be:

- A local health authority who is the director of a local health department (LHD) or a
  physician appointed by the Commissioner of Health, if there is no LHD director;

  OR
Glossary

- A health service region director of the Texas Department of State Health Services (DSHS), if no physician has been appointed by the Commissioner of Health as a local health authority.

**Health care worker:** Any employee working in the health care field (e.g., inpatient, outpatient, or public health) or temporarily assigned to patient-related activities (transport) who may have close contact, within 3 feet, of individuals with influenza-like-illnesses (ILI). Contact may occur directly with individuals, care items, waste, or specimens in locations such as patient rooms, procedure areas, physician offices, homes, clinics, workplaces, or laboratories.

**Homeland Security Exercise and Evaluation Program (HSEEP):** A capabilities-based exercise program that includes a cycle, mix, and range of exercise activities of varying degrees of complexity and interaction. The purpose is to build self-sustaining exercise programs and provide a standardized methodology for designing, developing, conducting, and evaluating all exercises.

**ImmunTrac:** The Texas immunization registry developed by the Texas Department of State Health Services (DSHS). ImmunTrac is a free, confidential registry designed to consolidate immunization records from multiple providers and store a child’s immunization information electronically in one secure central system. ImmunTrac offers physicians and other healthcare providers and authorized users easy online access to a child’s immunization history. In 2007, ImmunTrac was approved by Senate Bill 11 to include adults and children for emergency vaccinations and medications. First responders can opt to have all immunizations recorded. (Retrieved 2/27/08 from http://www.dshs.state.tx.us/immunize/immmtrac/default.shtm)

**Incident Command System (ICS):** The combination of facilities, equipment, personnel, procedures, and communications operating within a standardized organizational structure, designed to aid in domestic incident management activities.

**Incubation period:** The time from exposure to an infectious disease to symptom onset. The incubation period for influenza is usually 2 days but can vary from 1 day to 5 days.

**Infection control measures:** Actions taken to decrease the risk for transmission of infectious agents. Precautions are typed according to mode of transmission:

- **Standard precautions:** Practices resulting from the combination and expansion of Universal Precautions and Body Substance Isolation. Actions are based on the principle that all blood, body fluids, secretions, excretions except sweat, non-intact skin, and mucous membranes may contain transmissible infectious agents. Practices required for standard precautions include proper hand hygiene, appropriate handling of clinical waste, and use of personal protective equipment (PPE) to reduce the spread of infectious agents. PPE includes gloves, gowns, surgical masks, and goggles or face shields. Also, equipment or items in the patient environment likely to have been contaminated with infectious fluids must be handled in a manner to prevent transmission of infectious agents, (e.g., wear gloves for handling, contain heavily soiled equipment, properly clean and disinfect or sterilize reusable equipment before use on another patient). The U.S. Department of Health and Human Services (DHHS) Pandemic Influenza Strategic Plan, Part 2, Supplement 4 provides a full discussion about application.

- **Contact precautions:** Practices designed to reduce the risk of disease transmission by direct or indirect contact with an infectious person. Direct contact transmission involves a
direct body surface-to-body surface contact and physical transfer of infectious agents from an infected person to a susceptible host. Indirect-contact transmission involves contact of a susceptible host with a contaminated intermediate object (e.g., instruments or dressings, unwashed hands, or gloves that are not changed between patients) or environment. With contact precautions, greater spatial separation (e.g., single-patient room or >3 feet between beds in multi-patient rooms) of the infected/colonized patient from other patients is preferred. Health care personnel caring for patients on contact precautions wear a gown and gloves for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment. Contact precautions apply where the presence of excessive wound drainage, fecal incontinence, or other discharges from the body suggest an increased transmission risk. In addition, contact precautions may apply to patients known or suspected to be infected or colonized (as locally defined) with epidemiologically important microorganisms that can be transmitted by direct or indirect contact, (e.g., multiple drug resistant organisms). The DHHS Pandemic Influenza Strategic Plan, Part 2, Supplement 4 provides a full discussion about application.

- **Droplet precautions**: reduce the risk of droplet transmission of infectious agents from close respiratory or mucous membrane contact (e.g., <3 feet) with large-particle droplets (larger than 5 μm in size) as described in I.B.3.b. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission. However, masks (respirators are not necessary) are indicated for close contact with the patient. Indirect evidence suggests that masks are effective in preventing transmission of influenza virus (Bridges, 2003). It is important to change masks when they become moist because they are considered contaminated and to dispose after use. Droplet precautions apply to patients known or suspected to be infected with pathogens that can be transmitted by infectious droplets, such as the influenza virus (Bridges, 2003). Some experiences have suggested that the distance for droplet precautions be extended to 6 feet (Wong, 2004), but this issue remains unresolved. Placing masks on upon entry into a room would protect the HCW in situations where droplets are propelled > 3 feet. The DHHS Pandemic Influenza Strategic Plan, Part 2, Supplement 4 provides a full discussion about application.

**Influenza-like illness**: A combination of symptoms that include (1) a fever ≥ 100°F AND (2) cough and/or sore throat in the absence of a known cause.

**Influenza pandemic**: A worldwide outbreak of a novel influenza virus causing sudden, pervasive illness that can severely affect even otherwise healthy people in all age groups. Influenza pandemics occur infrequently and at irregular intervals and have the potential for substantial impact resulting in increased morbidity and mortality, significant social disruption, and severe economic costs.

**Isolation**: See Control measures.

**Limited English proficiency**: People who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English. They may be eligible to receive language assistance with respect to a particular type of service, benefit, or encounter, such as sign language interpreters (retrieved 9/19/05 from www.hhs.gov/ocr/lep).

**Multi-Agency Coordination Center (MACC)**: Serves as the location of the DSHS Incident
Glossary

Command.

**Metropolitan:** A county or area that has at least one urban center including suburbs of at least 50,000 individuals that is the driving force behind the area’s economic stability and development. Texas has 25 metropolitan statistical areas incorporating 79 counties (Office of the State Demographer. 2005).

**Micropolitan:** A county or area that is too urban to be called rural and too rural to be called urban; a location where a small urban center of at least 10,000 individuals mixes socially and economically with the rural area that surrounds it and visa versa. Texas has 40 micropolitan statistical areas incorporating 42 counties (Office of the State Demographer. 2005).

**Morbidity and Mortality rates:** The risk of becoming ill (morbidity) or dying (mortality) from a specific disease, expressed as a percentage or proportion (e.g., number per 1,000 or 100,000 thousand) of the general population of the area concerned (state, nation). (See also **Standardized mortality rate**.)

**Multidisciplinary teams:** Teams that may include representatives from hospitals, clinics, private practice, Recognized Community Health Providers, Community Health Workers, military, veterans, nongovernmental organizations, churches, disability organizations, and grass roots representatives.

**National Incident Management System (NIMS):** A system mandated by Homeland Security Presidential Directive 5 that provides a consistent nationwide approach for governments, the private sector, and non-governmental organizations, to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among state, local, and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. HSPD-5 identifies these as the ICS; multiagency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking, and reporting of incident information and incident resources. (Retrieved 2/27/08 from http://www.fema.gov/nims/nist/Glossary.do)

**Non-Pharmaceutical interventions:** Interventions that reduce transmission of disease at an individual or population level that are not pharmaceutically based.

**Outbreak:** A sudden increase in the number of cases of a specific disease or clinical symptom.

**Pandemic:** Any international outbreak of a disease.

**Pandemic Influenza Shelf Kits:** A compendium of literature specific to pandemic influenza that may be shared with the public and sent to media sources in the event of a flu pandemic. Topics for materials currently included in the kit: (1) Internal communications and response materials, (2) Summary sheets, (3) Public information, and (4) Media templates. For additional information, please call Texas Department of State Health Services Communications Unit, (512) 458-7400.

**Pandemic Response Team (PRT):** Members of the Texas DSHS Pandemic Influenza Planning Group (PIPG) who provide DSHS Pandemic Influenza Planning Operational Guidelines (PIPOG) expertise to the Incident Commander (IC).

**Pathogenicity:** The ability of the agent to induce disease.
Glossary

**Personal protective equipment (PPE):** Barrier protection, used alone or in combination, to protect mucous membranes, skin, and clothing from contact with infectious agents. PPE may include gowns, gloves, masks (surgical or procedural), goggles, face shields, or respirators (N-95 or air-purified). The type of mask or respirator is disease-specific and defined in the type of precautions. The DHHS Pandemic Influenza Strategic Plan, Part 2, Supplement 4 provides a full discussion about PPE use.

**Prophylaxis:** Prevention of or protective treatment for a disease.
- **Chemoprophylaxis:** Use of vaccines, antiviral medications or other chemical agents to prevent the spread of disease.

**Public health disaster:** a declaration by the governor of a state of disaster; and a determination by the commissioner of health that there exists an immediate threat from a communicable disease that:
- Poses a high risk of death or serious long-term disability to a large number of people; and
- Creates a substantial risk of public exposure because of the disease’s high level of contagion or the method by which the disease is transmitted.

A declaration may not continue longer than 30 days and may be renewed once for an additional 30 days.

**Public Health Information Network (PHIN):** Network designed to increase communication capabilities in and among HSRs and LHDs and to ensure the health department's ability to broadcast and receive health bulletins. PHIN reaches jurisdictions covering approximately 87% of the population in Texas through email, voice, and fax capabilities. In addition, all DSHS main and sub offices are online with broadband access and email at all 138 locations. There are more than 10,000 key contact records in the PHIN database that are continually updated. Also, direct communication channels have been developed with GDEM and the Governor's Office of Homeland Security. Moreover, PHIN's ability to alert more than 13,000 physicians has been greatly enhanced through collaboration with the Texas Medical Association (TMA). Note: As of January 2008, the DSHS Mental Health and Substance Abuse Section is not part of PHIN and would need to be a part of this group and effort preferably before an event.

The PHIN team also maintains a database of emergency contacts that receive health alerts. While some LHDs receive health alerts directly from CDC, the majority relies upon PHIN to disseminate any CDC or DSHS generated alert. The PHIN office has created 4 Texas PHIN email accounts that also receive health alerts from CDC. These accounts have rules applied to them to auto-forward health alerts to LHD staff, HSR staff, DSHS central office staff, GDEM, Texas Commission on Environmental Quality, Texas Hospital Association (THA), TMA, and TOMA.

LHDs maintain their own records in the PHIN contact database and re-send health alerts to their local contact distribution lists. All state and LHDs maintain redundant communication system(s). PHIN also maintains an Emergency Operations Center software application (WebEOC) to manage communication during short and long term critical events, and PHIN provides EMResource™ to public health professionals statewide. The web-based application EMResource™ is used by most Texas hospitals to monitor and report capacity and diversion statuses.
Glossary

Quarantine: See Control measures.

Recognized community health providers: Providers who are identified by various groups as healers within the cultural contexts of their communities.

Respirator: Personal protective devices worn by health care personnel over the nose and mouth to protect them from acquiring airborne infectious diseases by inhaling infectious airborne particles that are \(<12\mu\) in size. These include infectious droplet nuclei from patients with M. tuberculosis, variola virus (smallpox), SARS-CoV, and dust particles that contain infectious particles such as spores of environmental fungi (e.g., Aspergillus sp.). The CDC National Institute for Occupational Safety and Health certifies respirators used in industry. These standards are applied to health care settings. The N-95 disposable particulate, air purifying, respirator is the type used most commonly by health care personnel. Other respirators used include N-99 and N-100 particulate respirators, powered air-purifying respirators with high efficiency filters; and non-powered full-face piece elastomeric negative pressure respirators. A listing of NIOSH-approved respirators is available. Respirators must be used in conjunction with a complete respiratory protection program, as required by the Occupational Safety and Health Administration that includes fit testing, training, proper selection of respirators, medical clearance and respirator maintenance. The DHHS Pandemic Influenza Strategic Plan, Part 2, Supplement 4 provides a full discussion about use of respirators for influenza.

Respiratory hygiene and cough etiquette: A combination of individual activities designed to minimize the transmission of respiratory pathogens via droplet or airborne routes. The components of respiratory hygiene/cough etiquette in the community are: (1) covering the mouth and nose during coughing and sneezing, (2) using tissues to contain respiratory secretions with prompt disposal into a waste receptacle, (3) turning the head away from others and maintaining spatial separation, ideally >3 feet, when coughing. In health care settings, an additional component is added. A surgical mask should be offered to individuals who are coughing to decrease contamination of the surrounding environment. In health care facilities, these measures are targeted to all patients with symptoms of respiratory infection and their accompanying family members or friends beginning at the point of initial encounter with a health care setting (e.g., reception/triage in emergency departments, ambulatory clinics, health care provider offices). The DHHS Pandemic Influenza Strategic Plan, Part 2, Supplement 4 provides a full discussion about application.

Rural: Counties in Texas that do not meet the U.S. Office of Management and Budget criteria for classification as metropolitan or micropolitan areas. 133 counties in Texas do not meet the criteria for metro- or micropolitan classification. Of these counties, 64 meet the criterion for classification as frontier leaving the remaining 69 counties classified as “rural” (Jane Meier, personal communication, 10/7/05).

Special populations: Underserved groups of people including, but not limited to, those who are children, elderly, homeless, homebound, or geographically isolated; those who have varying cultural backgrounds, limited English proficiency, or very low income; and those with physical, psychological, or cognitive disabilities who may be underserved in disasters.

Stakeholders: Public- or private-sector individuals and organizations that have a stake in or may be affected by a particular approach to managing an influenza pandemic in Texas.

Standardized mortality rate: A mortality rate that is weighted by applying current group-
specific rates to a standardized population distribution of that attribute (such as age) so the contribution from changes in population’s distribution of the confounding attribute can be controlled and real changes to the mortality rate over time can be compared more accurately.

**Strategic National Stockpile (SNS):** The national repository of antibiotics, antivirals, vaccines, antitoxins, chemical antidotes, life-support medications, IV administration supplies, airway maintenance supplies and medical/surgical equipment items. SNS is designed to supplement and re-supply state and local public health agencies in the event of a national emergency. The SNS Program is committed to have 12-hour Push Packages delivered anywhere in the United States or its territories within 12 hours of a federal decision to deploy.

**Surge capacity:** The ability to respond to transient, sudden rises in demand for services following an incident; the ability of a health system to expand beyond normal operations to meet a sudden increased demand for service.

**Surveillance:** Systematic collection, analysis, interpretation, and dissemination of health data on an ongoing basis; the documentation of patterns of the occurrence of and potential for adverse health conditions. Surveillance provides essential information that enables health departments to plan and implement effective, efficient prevention and control efforts locally, statewide, and nationally.

**Syndromic Surveillance:** Monitoring changes in expected patterns in markers (e.g., increased sales of cold and flu medications from pharmacies, increase in diarrheal illness in infants) that might indicate an increase in some currently unidentified disease. Syndromic surveillance is broader than other types of surveillance in that investigators typically focus on changes in patterns for sets of symptoms which could indicate a range of diseases rather than a specific disease.

**Vaccine:** Any biologically derived substance that brings about a protective immune response when given to a susceptible host.

**Vendor-managed inventory:** A means of optimizing supply chain performance in which the pharmaceutical manufacturer is responsible for maintaining the distributor’s inventory levels. The manufacturer has access to the distributor’s inventory data and is responsible for generating purchase orders. Under this private sector system, providers (physicians, clinics) order pharmaceuticals directly from distributors.

**Volunteer:** Any person accepted to perform services by an agency and/or volunteer organization (e.g., Ready Texans and Texas Ready Nurse) that has authority to accept volunteer services, when the person performs services without promise, expectations, or receipt of compensation for services performed.

- **Employee on voluntary assignment:** A state agency employee who, with written supervisory approval, volunteers to provide and is subsequently tasked to perform a task outside the standard job description during a state and/or federal emergency. The employee may be considered as being on temporary assignment (HHSC Human Resource Manual, Chapter 3) to perform disaster assistance duties.

**Vulnerable population:** groups whose needs are not fully addressed by traditional service providers and who may have difficulty safely accessing and using the standard resources offered in disaster preparedness, relief and recovery. They include, but are not limited to, those who are visually, hearing, cognitively, or physically impaired; have limited English or are non-English speaking; are geographically or culturally isolated; medically or chemically dependent; have a
Glossary

low income or are homeless; the frail, the elderly and children.

**WebEOC**: Web Based Emergency Operations Center is the original web-enabled crisis information management system and provides secure real-time information sharing to help managers make sound decisions quickly. Originally developed for public safety and emergency management officials, WebEOC is now also used also for routine operations in private corporations, public utilities, domestic and international airlines, healthcare associations, and universities, as well as by government at every level---city, county and state agencies nationwide and NASA, EPA, and other federal agencies within the Departments of Defense, Energy, Agriculture, and Health & Human Services.

**Web-based Communications Systems**. Communication systems accessed through the Internet. Examples include **PHIN, WebEOC®, EMResource™, EMSystems®, Immtrac®.**
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WebMD. Influenza Home Treatment. Obtained 10/22/05 from http://my.webmd.com/hw/cold_and_flu/hw122190.asp


END NOTES

\( ^1 \) Composition of the Pandemic Response Team has not been determined.
\( ^2 \) The Pandemic Influenza Lead has not been named.
\( ^3 \) The template includes
- Mass clinic flow template
- Job action sheets (staffing duties)
- Provisions for limited English proficiency interpreter services
- Vaccine and antiviral distribution system
- Protocols for proper storage of vaccines and antivirals
- Suggested list of supplies needed for clinic operations
- Other materials as necessary
\( ^4 \) To access the template please log on to the PHIN, enter the document sharing folder, and it will be located in the SNS folder. If you have trouble accessing the file, please contact your PHIN administrator for assistance.
\( ^5 \) Check with the HHSC to obtain lists of participants in such programs as:
- Medicaid long term care
- Community Based Alternatives
- Community Attendant Services
- Community Living Assistance and Support Services
- Deaf-Blind/Multiple Disabilities Program
- Home and Community-Based Services
- Medically Dependent Children Program
- Texas Home Living Waiver
- Hospice
\( ^6 \) Access: 1) Locating clinics on public transportation routes; 2) Locating services in at-risk communities, and 3) Co-locating clinics with safety-net programs. Language: 1) Ensure pertinent documents and educational materials are culturally appropriate and available in dominant languages spoken throughout the jurisdiction; 2) Ensure educational materials and media announcements also address the needs for persons who are visually and hearing challenged; 3) Ensure availability of just-in-time translation services for languages spoken within the jurisdiction, but are not considered common; and 4) Ensure health related services have staff available with appropriate language skills.
\( ^7 \) Barriers to vaccination (e.g., culture, disability, rural or frontier location, immigration status, and damage to infrastructure)
\( ^8 \) The unauthorized Mexican migrant population in Texas is estimated at 1.54M (Passel, 2005). Other unauthorized
migrants come mostly from El Salvador, Guatemala, Columbia, Honduras, China, and Ecuador. Unauthorized migrants from any country are entitled to public health assistance (not including any assistance under Title XIX of the Social Security Act [42 USC 1396 et seq.]) for immunizations with respect to immunizable diseases and for testing and treatment of symptoms of communicable diseases whether or not such symptoms are caused by a communicable disease (8USC1611, paragraph b.1.C).

The DSHS publication, Communicable Disease Control Measures In Texas, A Guide for Health Authorities in a Public Health Emergency (April 2004) summarizes these issues.

The primary point of contact will be DSHS DMDG, which maintains a database of licensee information including product codes that generally identify the products handled by the firm. Although it is possible to identify firms that may have specific kinds of products needed to supply clinics in the affected area(s), the database is searchable by product code, but not by specific item. The SNS Push Pack and VMI will be secondary sources of supplies.

Although influenza vaccination levels increased substantially during the 1990s, further improvements in vaccine coverage levels are needed, chiefly among individuals aged <65 years who are at increased risk for influenza-related complications among all racial and ethnic groups, among Blacks and Hispanics aged ≥65 years, among children aged 6–23 months. Season 2003-2004 coverage levels among selected groups were as follows: children 6–23 months old (48%), children 2–17 years old with one or more medical condition (35%), pregnant women without underlying medical conditions (13%), Blacks (48%), Hispanics (45%), adults 19–49 years old with underlying medical conditions (24%), adults over age 50 with chronic underlying medical conditions (46%), and adults over age 65 (66%) (MMWR, 7/29/05). The goal for vaccination coverage is 90% for adults over age 64, 60% for adults aged 50–64, and 60% for anyone at high risk who is younger than 50 years of age.

- Consider vaccinating children in schools and child care centers to protect susceptible children and to reduce transmission to family members and others who may be at high risk for influenza complications.
- Distribute written materials developed in coordination with the Communications Unit in the Center for Consumer and External Affairs to health care providers that include a summary of the most current year’s influenza vaccine recommendations issued by the Advisory Committee on Immunization Practices (ACIP); suggestions on strategies that have been successful in reaching special populations; and listing of other resources to help promote and deliver adult vaccines. Include information on expected physiological and emotional impact as well as treatment recommendations.

Currently in development by the Funeral Director’s Association and Texas Funeral Commission.

Texas Department of State Health Services
Planning Guidelines for Non-pharmaceutical Interventions
Pandemic Influenza Plan Operational Guidelines
Appendix J

Version 1.1
June 2, 2008
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Rationale

Community intervention strategies cannot prevent a pandemic, but they might decrease the odds of exposure to the virus, limit demands for hospital beds, and lessen economic impact because fewer people would be ill at the same time. Non-pharmaceutical intervention strategies that target individuals, families and communities will be critical in preparing for, responding to, and recovering from an influenza pandemic—especially if vaccine and antiviral drugs are unavailable, in limited supply, or ineffective. Mathematical modeling suggests that use of mitigation strategies in a targeted, multi-layered approach—including both pharmaceutical and non-pharmaceutical interventions—will be useful in limiting the spread of an influenza pandemic (Germann, et. al, 2006).

Overview

The Planning Guidelines for Non-pharmaceutical Interventions are comprehensive and multi-faceted. A strong seasonal influenza program provides the framework for the development of pandemic influenza-containment strategies. Providing prevention education, increasing seasonal influenza vaccination rates, improving surveillance, and developing best practices for treatment are crucial to strong seasonal and pandemic influenza programs. This document is intended to help guide staff in Local Health Departments (LHDs) and Health Service Regions (HSRs) as they develop their own Community Containment Plans for Pandemic Influenza.

Non-pharmaceutical intervention strategies reduce the risk of transmission by decreasing the probability of contact between infected and uninfected people and by decreasing the probability that contact will result in infection. These strategies can be applied at the individual or community level. Individual measures may include isolating ill patients (those with symptoms), quarantining well persons who have had contact with ill persons, good hand and respiratory hygiene/cough etiquette, and using personal protective equipment (e.g., masks or respirators, hand sanitizer). Community-based measures include community activity restrictions such as restricting mass gatherings and closing schools and/or businesses.

The non-pharmaceutical intervention strategies outlined in this document are intended to be scalable for use in local communities. Guided by surveillance and laboratory, epidemiologic and clinical data, the Texas Department of State Health Services (DSHS) and LHDs will identify and implement the most appropriate measures at each phase of the pandemic to minimize both disease transmission and impact on individual freedom of movement.

Further planning guidance can be found in the Pandemic Influenza Plan Operating Guidelines (PIPOG), the Antiviral Allocation, Distribution, and Storage Plan Guidelines (AADS), the Vaccine Allocation, Distribution, and Storage Plan Guidelines (VADS), and Appendix 7 to Annex H of the State Emergency Management Plan.

Foundation for Texas Nonpharmaceutical Intervention Strategies

Goals of Non-pharmaceutical Intervention Strategies

Goals for using non-pharmaceutical interventions for containing a community-wide epidemic are to:

- Delay the onset of new cases of disease as long as possible in order to provide time for the production and distribution of a well-matched pandemic strain vaccine (Figure 1);
- Decrease the number of deaths and illness among individuals at any given time in order to minimize the burden on the health care system and critical infrastructure for the state and communities;
- Reduce the amount of social disruption;
- Minimize economic costs.

**Figure 1. Goals of Community Mitigation**

*From Community Strategy for Pandemic Influenza Mitigation (CDC, February 2007)*

**Assumptions**

- An effective response to an influenza pandemic will require multi-faced, layered community- and individual-level interventions.
- The coordination of the community response should take an all-hazards approach that might require use of the Incident Command System.
- Local communities will implement the most appropriate interventions based on the local situation and epidemiology of the pandemic.
- Improving the prevention and control of seasonal influenza will advance preparation for pandemic influenza.
- Since the severity of a pandemic is unknown, plans should include various scenarios based on pandemic severity.
- Planning for the use of non-pharmaceutical intervention measures appropriate for the severity of the pandemic will allow for the most effective and most feasible interventions to be implemented.
- In addition to effectiveness, the selection of non-pharmaceutical intervention strategies will depend on feasibility, potential for implementation within existing infrastructures, impact and acceptance by the public.
- Implementing non-pharmaceutical intervention measures might minimize illness and death, prevent or delay the geographic spread of the pandemic, prevent significant compromise of infrastructure, and ensure the integrity of the healthcare and public health infrastructure to allow for an adequate response.
- Once sustained human-to-human transmission is widespread, some strategies will be less effective and will be dropped to conserve resources.
REDUCING PANDEMIC EFFECTS THROUGH COMMUNITY-LEVEL INTERVENTIONS

Even though an influenza pandemic will be caused by a new influenza virus and might have severe and sustained consequences in a community, it will be transmitted in the same manner as seasonal influenza. Therefore many of the measures that are used for controlling seasonal flu will also be used to help control pandemic flu. By taking steps today to control seasonal flu, Texas is more prepared to control pandemic flu.

Implementing the following activities now—before a pandemic begins—can make a difference in reducing the impact of both seasonal and pandemic flu.

- Encourage hand hygiene and respiratory hygiene/cough etiquette for everyone.
- Recommend policies that support seasonal flu vaccine for workers who
  - Maintain critical infrastructure (e.g., key positions within waste disposal, police, fire, utilities, social services, emergency management, and government);
  - Provide patient care (e.g., nurses, mortuary, maintenance, physicians and some administrative staff);
  - Work in group settings (e.g., schools, prisons, and residential living centers); and
  - Work with wild or domestic birds.
- Encourage seasonal flu vaccine for everyone.
- Support policies and practices that encourage ill people to stay home from school or work.
- Adopt community level reporting strategies and surveillance practices that help to show seasonal influenza in the community.
- During flu season reduce or eliminate, when possible, crowded, group settings.

PANDEMIC SEVERITY INDEX

The *Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza in the United States—Early, Targeted, Layered Use of Non-pharmaceutical Interventions* (HHS and CDC, 2007) introduces the Pandemic Severity Index (CDC, 2007) that defines pandemic severity in five distinct categories. This index assumes a 30% illness rate and varies according to case fatality ratio. DSHS has adopted this index for use in Texas. Figure 2 describes the various pandemic categories and estimates the number of deaths in Texas for each.

Figure 2. Pandemic Severity Index
USE OF NONPHARMACEUTICAL INTERVENTIONS BY PANDEMIC SEVERITY INDEX

The Centers for Disease Control and Prevention (CDC) recommendations for community level intervention strategies by pandemic severity index have been adopted by Texas and are summarized in Table 1. Interventions should be combined with infection control practices. Additional guidance on infection control measures are available online at www.pandemicflu.gov.

A array of possible non-pharmaceutical interventions can be used by communities to prepare for, respond to, and recover from an influenza pandemic. Some of these interventions can be used regardless of pandemic severity, while other more extreme measures would be used only during severe pandemics. Each community experience will be different (e.g. waves may peak at different times). The Pandemic Severity Index can help communities to make critical strategic decisions that reflect these differences.

Category 1 Pandemics (Case Fatality Ratio <0.1%)

During a Category 1 influenza pandemic, fewer than 7,200 Texans are expected to die given a 30% illness rate and a case fatality ratio of less than 0.1%. Voluntary isolation is always recommended for anyone ill with influenza. People who are ill are encouraged to stay home, away from others, until their illness passes. Voluntary quarantine of household members in homes with ill persons and other social distancing measures are generally not recommended during a Category 1 pandemic; however, communities should base their recommendations on the local experience with the disease.

Category 2–3 Pandemics (Case Fatality Ratio 0.1% to <1.0%)

During a Category 2 pandemic, possible 7,200–36,000 deaths are estimated statewide; during a Category 3 pandemic 36,000–72,000 deaths are estimated. Again, planning for voluntary isolation of ill persons is recommended, whereas other measures (voluntary quarantine of household contacts, social distancing measures for children and adults) might be implemented in some communities based on local decisions.

Category 4–5 Pandemics (Case Fatality Ratio ≥1.0%)

The number of deaths among Texans during a Category 4 pandemic is expected to be between 72,000 and 144,000 (assuming a case fatality ratio of 1.0% to <2.0%). The expected number of deaths rises to more than 144,000 Texans during a Category 5 pandemic (assuming a case fatality ratio of at least 2.0%). Because of the increased risk of death among those who become ill, it is recommended that communities plan to implement all non-pharmaceutical interventions listed in Table 1 during a Category 4 or Category 5 pandemic. Under these severe conditions, communities should prepare to enforce these recommendations throughout the initial and subsequent pandemic waves. These interventions may include dismissal of students from schools and school-based activities and closure of childcare programs for up to 12 weeks during a particular wave.
Table 1. Intervention Strategies by Setting and Pandemic Severity and Phase.

<table>
<thead>
<tr>
<th>Interventions* by Setting</th>
<th>Pandemic Severity Index</th>
<th>1</th>
<th>2 and 3</th>
<th>4 and 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Home</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary isolation of ill at home (adults and children); combine with use of antiviral treatment as available and indicated</td>
<td>Recommend</td>
<td>Recommend</td>
<td>Recommend</td>
<td></td>
</tr>
<tr>
<td>Voluntary quarantine of household members in homes with all ill persons (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>Recommend</td>
<td></td>
</tr>
<tr>
<td><strong>School</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child social distancing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▶ Dismissal of students from schools and school-based activities, and closure of child care programs</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>≤ 12 weeks</td>
<td></td>
</tr>
<tr>
<td>▶ Reduce out-of-school social contacts and community mixing</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>≤ 12 weeks</td>
<td></td>
</tr>
<tr>
<td><strong>Workplace/Community</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult social distancing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▶ Decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>Recommend</td>
<td></td>
</tr>
<tr>
<td>▶ Increase distance between persons (e.g., reduce density in public transit, workplace)</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>Recommend</td>
<td></td>
</tr>
<tr>
<td>▶ Modify, postpone, or cancel selected public gatherings to promote social distance (e.g., postpone indoor stadium events, theatre performances)</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>Recommend</td>
<td></td>
</tr>
<tr>
<td>▶ Modify, workplace schedules and practices (e.g., telework, staggered shifts)</td>
<td>Generally not recommended</td>
<td>Consider</td>
<td>Recommend</td>
<td></td>
</tr>
</tbody>
</table>

**Generally not recommended** = Unless there is a compelling rationale for specific populations or jurisdictions, measures are generally not recommended for entire populations because consequences may outweigh benefits. **Consider** = Important to consider these alternatives as part of a prudent planning strategy, considering characteristics of the pandemic, such as age-specific illness rate, geographic distribution, and the magnitude of adverse consequences. These factors may vary globally, nationally, and locally. **Recommended** = Generally recommended as an important component of the planning strategy.

*All these interventions should be used in combination with other infection control measures, including hand hygiene, respiratory hygiene/cough etiquette, and personal protective equipment such as face masks. Additional information on infection control measures is available at www.pandemicflu.gov.

†This intervention may be combined with the treatment of sick individuals using antiviral medications and with vaccine campaigns, if supplies are available.

‡Many sick individuals who are not critically ill may be managed safely at home.

§The contribution made by contact with asymptomatically infected individuals to disease transmission is unclear. Household members in homes with ill persons may be at increased risk of contracting pandemic disease from an ill household member. These household members may have asymptomatic illness and may be able to shed influenza virus that promotes community disease transmission. Therefore, people living in homes with sick individuals should be advised to stay home.

**To facilitate compliance and decrease risk of household transmission, this intervention may be combined with provision of antiviral medications to household contacts, depending on drug availability, feasibility of distribution, and effectiveness; policy recommendations for antiviral prophylaxis are addressed in a separate guidance document.

††Consider short-term implementation of this measure—that is, less than 4 weeks.

§§Plan for prolonged implementation of this measure—that is, 1 to 3 months; actual duration may vary depending on transmission in the community as the pandemic wave is expected to last 6–8 weeks.

Note: From *Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation* (CDC, February 2007)
CRITICAL ISSUES FOR THE USE OF NONPHARMACEUTICAL INTERVENTIONS

It is expected that the timely adoption of community- and individual-level non-pharmaceutical interventions will reduce the number of people who become ill and die in a community. Historical data from the 1918 pandemic suggests that the death rates experienced within communities is associated with how quickly and how long they maintained the non-pharmaceutical interventions. Cities that concurrently implemented school closures and public gathering bans for a median duration of four weeks had significant reductions in excess pneumonia and influenza deaths (Markel et. al, 2007). In addition those cities that implemented non-pharmaceutical interventions early in the pandemic took longer to reach peak death rates and experienced lower numbers of total deaths compared to cities that took longer to implement them (Markel et. al, 2007).

Experience demonstrates that relaxing community mitigation strategies was directly associated with increasing deaths due to pneumonia and influenza. It is not known how long any particular waves of disease will last within a community. Estimates show it could be 6–8 weeks or longer. The length of time a community mandates non-pharmaceutical interventions will depend on many factors including the severity of the pandemic and the duration of the pandemic wave in the community. However, early implementation of non-pharmaceutical interventions may slow the movement of the virus through the community, thereby increasing the duration of the pandemic wave in the community. Therefore, communities should be prepared to maintain these measures for up to 12 weeks during a Category 4 or 5 pandemic and be ready to re-establish them quickly during subsequent waves.

As long as susceptible individuals are present in large numbers, spread of disease will continue. Immunity to infection with a pandemic strain can only occur after natural infection and subsequent recovery or after immunization with an effective vaccine. Thus, while non-pharmaceutical interventions may limit or slow community transmission, persisting pandemic virus circulating in a community with a susceptible population is a risk factor for re-emergence of the pandemic. Monitoring deaths, case fatality ratios, or other markers over time will be important for determining both the optimal duration of implementation and the need to resume these countermeasures.

TEXAS LEADERSHIP DECISION MATRIX FOR NON-PHARMACEUTICAL INTERVENTION STRATEGIES

Taking into account the complex issues associated with implementing various non-pharmaceutical interventions, DSHS has created a Leadership Social Distancing Decision Matrix (Table 2) to help clarify issues and guide decision-makers. This matrix outlines critical non-pharmaceutical intervention strategies that could be implemented, provides the person (or persons) who has the authority and the responsibility to implement the given strategy, and suggests the level at which the strategy might be implemented according to the World Health Organization Pandemic Phase, Federal Government Response Stage, or Centers for Disease Control (CDC) Intervals. (Appendix A). For example, the purple/black highlight indicates a Category 4 or 5 pandemic. At a WHO Phase 6 Federal Stage 3, the governor and health commissioner should be on standby to make the decision to declare a public health disaster. If the stage evolves to stage 4, they might want to consider declaring a public health emergency. At Stage 5, it is recommended that they make a declaration.

When WHO declares Pandemic Period (Phase 6) and the U.S. Government identifies Stage 3, 4, or 5, the CDC’s Director shall designate the category of the emerging pandemic based on the Pandemic Severity Index and consideration of other available information. Pending this announcement, communities facing the imminent arrival of pandemic disease will be able to define which pandemic interventions are most indicated for implementation based on the level of pandemic severity.
Other epidemiologic features that are relevant in overall analysis of prevention, mitigation, and containment plans include total illness rate, age-specific illness and mortality rates, the reproductive number, intergeneration time, and incubation period. Case fatality ratio and excess mortality rates may be used as a measure of the potential severity of a pandemic.

All of these suggest the appropriate non-pharmaceutical tools; however, alone, they are not suitable trigger points for action. The primary activation trigger for initiating interventions will be the arrival and transmission of pandemic virus. This trigger is best defined by a laboratory-confirmed cluster of infections with a novel influenza virus and evidence of community transmission (i.e., epidemiologically linked cases from more than one household).

Other factors that will guide decision-making by public health officials include the average number of new infections that a typical infectious person will produce during the course of his/her infection ($R_0$) and the illness rate. In *Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States*, trigger points for action assume an $R_0$ of 1.5–2.0 and an illness rate of 20 percent for adults and 40 percent for children. In this context, in all categories of pandemic severity, it is recommended that State health authorities activate appropriate interventions when a laboratory-confirmed human pandemic influenza case cluster is reported in each State or region (as appropriate) and there is evidence of community transmission.
<table>
<thead>
<tr>
<th>Decision</th>
<th>Governor</th>
<th>Health Commissioner</th>
<th>HSR Director</th>
<th>LHD Health Authority</th>
<th>District Court Judge</th>
<th>County Judge/ City Council</th>
<th>School Board</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration of Public Health Disaster</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Restrictions of Movement</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation of Person</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation of Person: Court Ordered</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarantine of Person</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Quarantine</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area Quarantine</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restriction of movement (isolation / quarantine) in the absence of a declared emergency</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curfew</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td>Loc Govt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declare a curfew</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td>Loc Govt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curfew enforcement</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td>Loc Govt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declaring a curfew in the absence of a declared emergency</td>
<td>R, A</td>
<td>R, A</td>
<td></td>
<td></td>
<td>R, A</td>
<td>Loc Govt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter-jurisdiction Cooperation and Restricting Movement of Persons</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision to cooperate with other jurisdictions</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision to cooperate in the absence of a declared emergency</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>R, A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass Prophylaxis Readiness</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Decision Matrix Footnotes:

1. The Regional Director of the Department of State Health Services (Department) acts as a local health authority where none has been appointed locally. (Health and Safety Code §121.007(c), or may serve as the designee of the Commissioner or the Department.

2. Health and Safety Code §81.003(7) requires a declaration of disaster by the governor and a finding of a specific serious communicable disease threat by the Commissioner.

3. Public health control measures may be initiated by the local health authority or the Department [of State Health Services].

4. Health and Safety Code, Chapter 81, Subchapter G.

5. Law Enforcement Officer

6. Control measures on persons, places, and common carriers are imposed by the health authority. Non compliance with these orders is judicially enforced.

7. Most types of control measures may be imposed by the “Department,” but an area quarantine specifies the “Commissioner.”

8. Area quarantine may be imposed by the local health authority or the Commissioner. If imposed by the local health authority, the must consult with the department and each county and municipality in the affected area (§ 81.085).

9. The presiding officer of the governing body of a political subdivision may declare a local state of disaster (Government Code (§ 418.108(a)) The county judge or the mayor of a municipality may control ingress to and egress from a disaster area under the jurisdiction and authority of the county judge or mayor and control the movement of persons and the occupancy of premises in that area (Government Code (§ 418.108(g)).

10. The Governor has implied authority under the Disaster Act (Government Code Chapter 418) and explicit authority under the Emergency Act (Gov’t Code Chapter 433)

11. The Commissioner may impose additional control measures within an area affected by area quarantine.

12. Ordinance authority; Local Government Code Chapter 54.


14. Most of the curfew statutes mentioned here have criminal penalties that would be enforced by Law Enforcement Officers.

15. Health Authority may impose other restrictions with an area covered by an Area Quarantine (§ 81.085(c)).

16. Title 25 Texas Administrative Code (§97.6(g)).

17. The Texas Education Code gives full authority to local school boards, but authority for day-to-day decisions is, in practice, delegated to the school superintendent.

18. See footnote 9 above. The authority to control “occupancy of premises” could be used to cancel public events.
TRIGGERS FOR INITIATING USE OF NONPHARMACEUTICAL INTERVENTIONS

Case fatality ratio and excess mortality rates might be used as pandemic severity indicators, thereby providing triggers for the initiation of appropriate non-pharmaceutical tools. However, mortality estimates alone are not suitable trigger points for public health action. The primary activation trigger for initiating the strategies outlined in this document is the arrival and transmission of a novel influenza virus as verified by a laboratory-confirmed case—or cluster of cases—and evidence of person-to-person or community transmission (i.e. epidemiologically-linked cases from more than one household).

Other factors that might contribute to the adoption of individual-level and community-level non-pharmaceutical interventions include the ability of the virus to cause infection (infectivity), the ability of the virus to cause disease (virulence), and the severity of the disease after the infection occurs (pathogenicity). In this context, in all categories of pandemic severity, DSHS, in coordination with local jurisdictions, will activate appropriate interventions when a laboratory-confirmed human pandemic influenza case is reported in any region in Texas and there is evidence of community transmission.

WHO Phases and Federal Government Response Stages reflect categories rather than specific actions. CDC developed Pandemic Intervals in order to operationalize these Phases and Stages. Intervals allow for better placement of triggers and actions, provide a framework for resource planning, and allow for a synchrony of response. Seven intervals have been identified. The first two Intervals are pre-pandemic. "Investigation" consists of surveillance and laboratory activities that identify early cases of novel virus influenza in individuals. The effort is investigation, early detection, and containment. During the "Recognition" interval, the focus is demonstration of sustained and efficient human-to-human transmission through evaluation of clusters. Identification of early cases is the goal. The first laboratory-confirmed case of pandemic influenza triggers the "Initiation" interval. Outbreak control with voluntary isolation and quarantine of individuals are employed as intervention strategies. Two or more laboratory-confirmed cases without identifiable epidemiological links trigger the "Acceleration" interval. During this interval, increasing numbers of cases will eventually exceed resources to provide case-based control measures. However the individual-focused strategies introduced during the "Initiation," interval will continue. In addition, population focused social distancing strategies will be employed including consideration of school dismissal and cancellation of large group activities. The "Peak" interval is triggered when >10% of random specimens from patients with ILI are positive for the pandemic influenza strain and/or regional influenza activity is reported and/or the health care system has exceeded surge capacity. The "Deceleration" interval begins when <10% of random samples are laboratory confirmed and health care reports are below surge capacity. Individual control measures continue. Depending upon the severity of the pandemic, relaxation of population-focused social distancing limitations may be considered. The "Resolution" interval begins when only sporadic laboratory confirmed cases are identified. Surveillance and movement back to an individual level focus for laboratory identification regain importance during the "Deceleration" and "Resolution" intervals to identify locations, trends, and determine when the wave has resolved. Since the pandemic will affect jurisdictions differently, leadership from Local health departments in consultation with Health Service Regions will determine when population-focused interventions can be relaxed.

The timing of initiation and relaxation of non-pharmaceutical interventions is critical to control. The Pandemic Severity Index combined with the CDC intervals serve as triggers to determine when non-pharmaceutical social distancing strategies should be employed and suspended. Table 3 depicts social distancing triggers as they relate to virus location, WHO Phases, Federal Government Response Stages, and CDC Intervals. Two scenarios are offered: Virus isolated in Texas and Texas unaffected.
Table 3. Social distancing triggers based on Phases, Stages, and Intervals

<table>
<thead>
<tr>
<th>WHO Pandemic Period</th>
<th>Inter-pandemic Period</th>
<th>Pandemic Alert Period</th>
<th>Pandemic Period</th>
<th>Federal Government Response Stage (FGRS)</th>
<th>CDC Pandemic Intervals (CDCI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pandemic Phase</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Pre-Pandemic Intervals</td>
<td>Investigation</td>
<td>Recognition</td>
<td>Initiation</td>
<td>Acceleration</td>
<td>Peak Transmission</td>
</tr>
<tr>
<td>Pandemic Severity Index</td>
<td>Community Mitigation Triggers—Influenza Virus in Texas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td>Activate</td>
<td>Activate/Standby</td>
</tr>
<tr>
<td>2</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td>Activate</td>
<td>Activate/Standby</td>
</tr>
<tr>
<td>3</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td>Activate</td>
<td>Activate/Standby</td>
</tr>
<tr>
<td>4</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td>Activate</td>
<td>Activate/Standby</td>
</tr>
<tr>
<td>5</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td>Activate</td>
<td>Activate/Standby</td>
</tr>
<tr>
<td>Pandemic Severity Index</td>
<td>Community Mitigation Triggers—Texas Unaffected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Alert</td>
<td>Standby</td>
<td>Activate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESPONSIBILITIES FOR NONPHARMACEUTICAL INTERVENTIONS

The following section divides planning responsibilities for non-pharmaceutical interventions according to the World Health Organization Pandemic Phases, related Federal Government Response Stages, and corresponding CDC Pandemic Intervals (Appendix A).

INTERPANDEMIC PERIOD PHASES 1 & 2 (Federal Government Response Stage 0; CDC Pandemic Interval Investigation)
New domestic animal outbreaks in at-risk-countries

Department of State Health Services Responsibilities

Central Office:
1. Collaborate with local entities, other states, military, and federal partners in non-pharmaceutical intervention planning for a pandemic.
2. Encourage local jurisdictions to identify community partners such as universities, high schools, public stadiums, business owners, faith-based organizations, etc. that they may be impacted by the implementation of social distancing strategies during a pandemic.
3. Under leadership of the DSHS Office of the General Counsel, perform an annual review of procedures for, forms, laws, and statutes related to suspension of rules and necessary limitations of freedoms to contain the pandemic.
4. Assist the Texas Education Agency (TEA), Texas Association of School Boards (TASB), Texas School Safety Center, and Texas Association of School Administrators (TASA) regarding pandemic influenza planning in:
   a. Triggers for school closure,
   b. Plans for parental notification,
   c. Business continuity planning,
   d. School distance learning,
   e. Education of staff, parents, and students (e.g. distribution of educational materials, information on social distancing and disease prevention),
   f. Continued communications during dismissal period, and
   g. The continuation or dismissal of extramural school activities.
5. Brief governor and state legislature leadership as requested.

Central Office and Health Service Regions:
1. Identify non-pharmaceutical interventions relevant to jurisdictional needs including:
   a. Personal protection strategies, including need for masks and other resources.
   b. Institutional/Community/Population-Level intervention strategies.
2. Conduct educational efforts at the state level that facilitate understanding of these strategies (e.g. giving presentations or trainings as needed).
3. Support efforts at the local level to develop and disseminate educational information and materials about social distancing strategies.
4. Work with healthcare providers to:
   a. Increase the number of individuals receiving seasonal influenza vaccine, especially among target groups including those identified for maintaining critical infrastructure, health care workers, school children, and persons at high risk for secondary infections.
   b. Encourage pneumococcal vaccine among those for whom it is recommended.
5. Collaborate with state agencies, business, educators, faith-based organizations, and others in planning and implementing community social distancing practices (e.g. continuity of operations planning (COOP) and school closures).
6. Coordinate with partners and stakeholders who may be involved in enforcing isolation or quarantine orders in future pandemic phases.
   a. Work with CDC quarantine stations to develop travel-related containment measures to include drafting Ports of Entry (POE) communicable disease response plans. Plans should include: quarantine facilities, screening of passengers, providing treatment and referral to ill persons, conditional release of exposed persons, and coordinating public and media communication.

7. Continue to develop and implement additional flu surveillance activities.

8. Brief governor and state legislature leadership as requested.

Local Health Department and Health Service Regions (serving in the LHD capacity) Responsibilities

1. Identify non-pharmaceutical interventions relevant to jurisdictional needs including:
   a. Personal protection strategies
   b. Institutional/Community/Population-Level intervention strategies

2. Work with local healthcare providers (e.g. community hospitals) to develop plans for management of community containment strategies to include:
   a. Publicizing the community information hotline number
   b. Education about when and how to seek emergency and non-emergency medical care
   c. Tools for triage for both professionals and the general public regarding follow-up of known or suspected cases.
   d. Educating household contacts of a known or suspected case of pandemic influenza about providing care to ill household contacts, voluntary quarantine, and seeking medical care.
   e. Developing interview forms with demographic characteristics of household members (both ill and contacts).
   f. Routine monitoring of ill households including contacts.

3. Identify and educate local partners that may be impacted by the implementation of social distancing strategies including public gatherings.

4. Develop informational materials and conduct public education at the local level which facilitate understanding of social distancing strategies within their jurisdictions (e.g. giving presentations or trainings as requested).
   a. Distribute informational materials pertaining to social distancing strategies for the workplace and community

5. Work with appropriate partners to develop Standard Operating Procedures (SOPs) for ensuring the availability and distribution of medications, vaccine, and other subsistence items to households in isolation or quarantine in the jurisdiction.

   a. Revise strategies, plans, and SOPs as appropriate based on after-action reports of the exercises.

7. Collaborate with local school districts regarding pandemic influenza, including
   a. triggers for school closure,
   b. plans for parental notification,
   c. business continuity planning,
   d. school distance learning,
   e. education of staff, parents, and students (e.g. distribution of educational materials, information on social distancing and disease prevention),
   f. continued communications during dismissal period
   g. the continuation or dismissal of extramural school activities

8. Review the Crisis and Emergency Risk Communications (CERC) Guidelines for guidance on processes for communicating with the public about voluntary quarantine.

9. Brief local elected officials as requested.
PANDEMIC ALERT PERIOD PHASE 3 AND 4 (Federal Government Response Stages 0, 1, and 2; CDC Pandemic Intervals Investigation/Recognition)

Pandemic Influenza in small clusters has been identified somewhere in the world.

Department of State Health Services Responsibilities

Central Office:
1. Update presumptive pandemic influenza case definition per latest clinical and epidemiological information in coordination with CDC. Educate providers and public about the definition, using educational measures appropriate to the audience.
2. Assist other state agencies in planning for needs of clients under their care/jurisdiction who may have inadequate resources.
3. Consult Texas Military Forces (TMF) regarding their nonpharmaceutical supply needs during a pandemic.
4. Continue working with other state agencies to develop and exercise their COOP plans.
5. Brief governor and legislature as requested.

Central Office and Health Service Regions:
1. Expedite completion of Interpandemic preparations.
2. Encourage public adoption of personal protective strategies (social distancing, hand hygiene, respiratory hygiene/cough etiquette), including use in the workplace.
3. Work with businesses to develop education materials for employees regarding not attending work until they are no longer infectious.
4. Implement appropriate Pandemic Alert Phases 3 and 4 strategies (Table 1).
5. Provide testing supplies to local jurisdictions, hospitals, and providers for influenza and rapid testing.
6. Develop agreements with laboratories for rapid diagnostic testing on 24/7 basis.
7. Update other educational materials for the public and other entities.
8. Publicize the numerous on-line educational resources that are available through the federal government’s online resources at www.pandemicflu.gov.

Local Health Department and Health Service Regions (serving in the LHD capacity) Responsibilities

1. Expedite completion of Interpandemic preparations.
2. Encourage public adoption of personal protective strategies and family preparation.
3. Notify local businesses that there may be a public surge on food and personal protective supplies.
4. Implement appropriate Pandemic Alert Phases 3 and 4 strategies (Table 1).
5. Finalize plans for influenza screening, including training for persons who may be doing remote screening or who may be non-clinical workers; training for triage; for screening for alternate care facilities for those who cannot be cared for at home or hospitalized.
6. Assist community agencies (e.g. food banks, churches, other non-profits, state agencies working with vulnerable populations) in planning for subsistence needs of patients with inadequate resources.
7. Encourage public adoption of personal protective strategies (social distancing, hand hygiene, respiratory hygiene/cough etiquette), including use in the workplace.
8. Publicize care strategies for families to implement as appropriate if a family member becomes ill.
9. Identify potential hotlines (e.g. 2-1-1) in local jurisdictions and work to ensure coordinated and consistent messages are provided.
   a. Work with emergency management officials to ensure training for volunteers or other personnel who will staff the official emergency hotline.
10. Brief local elected officials as requested.

**PANDEMIC ALERT PERIOD PHASE 5 (Federal Government Response Stage 2; CDC Pandemic Interval Recognition)**

Confirmed human outbreak of large clusters overseas, but not in the United States

**Department of State Health Services Responsibilities**

**Central Office:**
1. Notify state agencies to place COOP plans on standby.
2. Brief governor and state legislature leadership as requested.
3. Consult and coordinate with Quarantine Stations and appropriate HSRs to heighten international travel surveillance plans.

**Central Office and Health Service Regions:**
1. Encourage public adoption of personal protective strategies (social distancing, hand hygiene, respiratory hygiene/cough etiquette, use of surgical masks in crowds), including use in the workplace.
2. Standby COOP plans; begin social distancing strategies in the workplace.
3. Encourage the public to stockpile foods and other essential items.
4. Implement appropriate Pandemic Alert Phase 5 strategies (Table 1).
5. Publicize care strategies for households to implement as appropriate for ill household members.

**Local Health Department and Health Service Regions (serving in the LHD capacity) Responsibilities**

1. Encourage public adoption of personal protective strategies including hand washing and respiratory hygiene/cough etiquette, social distancing, and use of masks in crowded places.
2. Standby COOP plans; begin social distancing strategies in the workplace.
3. Encourage public stockpiling of food and other essential items.
4. Notify local businesses that there may be a public surge on food and personal protective supplies.
5. Implement appropriate Pandemic Alert Phase 5 strategies (Table 1).
6. Publicize care strategies for households to implement as appropriate if a household member becomes ill.
7. Brief local elected officials as requested.

**PANDEMIC PERIOD PHASE 6 (Federal Government Response Stage 3; Federal Government Response Stage 3; CDC Pandemic Interval Recognition)**

International Identification – widespread human outbreaks in multiple locations overseas.

**Department of State Health Services Responsibilities**

**Note:** Guidance for implementation of non-pharmaceutical interventions may be updated throughout the course of an influenza pandemic to reflect current epidemiologic and laboratory data.

**Central Office:**
1. Coordinate appropriate non-pharmaceutical strategies with other pandemic intervention measures such as antivirals and vaccines (when available) and other measures (See AADS Guidelines).
2. Communicate with other state agencies and TMF regarding implementation of their pandemic influenza continuity of operations plans.
3. Update, as needed, presumptive pandemic influenza case definition per latest clinical and epidemiological information in coordination with CDC. Educate providers and public about the definition, using educational measures appropriate to the audience.
4. Brief governor and state legislature leadership as requested.
5. Consult and coordinate with Quarantine stations and appropriate HSRs regarding activation of international pandemic travel surveillance procedures.
6. Activate COOP plan as appropriate.

Central Office and Health Service Regions:
1. Implement appropriate Pandemic Period strategies.
2. Activate COOP plan as appropriate.
3. Actively encourage public adoption of personal protective strategies.
4. Publicize care strategies for families to implement as appropriate if a family member becomes ill.
5. Begin active influenza-like illness surveillance (see PIPOG surveillance section).
6. Alert volunteers to prepare to be activated as per business continuity plans.
7. Use the Decision Matrix (Table 2) for non-pharmaceutical intervention triggers as appropriate.

Local Health Department and Health Service Regions (serving in the LHD capacity) Responsibilities

1. Implement appropriate Pandemic Alert Period strategies (if not already in place).
2. Encourage adoption of personal protective strategies.
3. Work with hospitals to educate public on:
   a. Care strategies for households to implement as appropriate for ill household members
   b. Appropriate care seeking activities
   c. Hotline number that can be called for information on care strategies as well as seeking medical care
4. Coordinate with local hospitals, schools, and businesses on these measures and forward placement of antivirals.
5. Implement use of the Decision Matrix (Table 2) for non-pharmaceutical intervention triggers as appropriate.
6. Brief local elected officials as requested.

**PANDEMIC PERIOD PHASE 6 (Federal Government Response Stages 4 and 5; CDC Pandemic Interval Initiation/Peak Transmission/Deceleration)**

North American and/or Texas circulation of Pandemic Influenza

Department of State Health Services Responsibilities

Central Office:
1. Update DSHS Website with latest information.
2. Brief governor and state legislature leadership as requested.

Central Office and Health Service Regions:
1. Implement use of the Decision Matrix (Table 2) for non-pharmaceutical intervention triggers as appropriate.
2. Encourage adoption of personal protective strategies.
3. Continue to publicize care strategies for families to implement as appropriate if a family member becomes ill.
4. Work with hospitals, media, and other entities to encourage appropriate care seeking, such as staying home with illness unless it is severe and calling 211 for help with triage and to find appropriate care site if needed.
5. Publicize 2-1-1 as a resource for finding appropriate care.
6. Refer to the Texas Antiviral Allocation, Distribution, and Storage (AADS) Plan Guidelines for guidance on coordinating non-pharmaceutical intervention measures with allocation and distribution of antivirals and implementation of other measures.
7. Continue with activities of previous stages as appropriate to the unfolding pandemic situation.

Local Health Department and Health Service Regions (serving in the LHD capacity)
Responsibilities

1. Encourage adoption of personal protective strategies.
2. Continue to publicize care strategies for households and families to implement as appropriate if a household or family member becomes ill.
3. Continue to work with hospitals, media, and other entities to encourage appropriate care seeking, such as to stay home with illness unless it is severe and to call hotline for help with triage and to find appropriate care site if needed.
4. Refer to the Texas Antiviral Allocation, Distribution, and Storage (AADS) Plan Guidelines for guidance on coordinate non-pharmaceutical intervention measures with allocation and distribution of antivirals and implementation of other measures.
5. Implement use of the Decision Matrix (Table 2) for non-pharmaceutical intervention triggers as appropriate
6. Activate local SOPs/SOGs to ensure availability and distribution of medications, vaccine, and other subsistence items to households in isolation or quarantine.
7. Participate in activation of the Strategic National Stockpile as appropriate (See Texas SNS Plan).
8. Brief local elected officials as requested.

PANDEMIC PERIOD PHASE 6 (Federal Government Response Stage 6; CDC Pandemic Interval Resolution)
Recovery and preparation for subsequent waves)

Department of State Health Services Responsibilities

Central Office:
1. Update the Planning Guidelines for Non-pharmaceutical Interventions (this document) to reflect new science and lessons learned.
2. Assist state agencies in adjusting COOP plans and social distancing practices as requested.
3. Brief governor and state legislature leadership as requested.

Central Office and Health Service Regions:
1. Place COOP plans on standby as appropriate.
2. Evaluate state-wide response to the pandemic wave in order to identify successes and opportunities for improvement in decision-making and implementing of non-pharmaceutical interventions.
3. Assess remaining supplies of PPE and augment if possible in preparation for subsequent waves. Consider needs of critical service providers.
4. Remove restrictions implemented by DSHS and inform community partners to resume normal activities as appropriate to the unique community experience.
5. Keep public and partners informed.

Local Health Department and Health Service Regions (serving in the LHD capacity)
Responsibilities

1. Evaluate local response to the pandemic wave identifying successes and opportunities for improvement in decision-making and implementing of non-pharmaceutical interventions and report to DSHS.
2. Identify those who have recovered from pandemic influenza and seek their willingness to volunteer for critical activities during subsequent waves.
3. Remove restrictions implemented by LHD as appropriate.
4. Resume normal activities in the community as appropriate.
5. Assist local partners in adjusting COOP plans and social distancing practices as requested.
6. Keep public and partners informed.
7. Brief local elected officials as requested.
# APPENDIX A

## WHO Global Pandemic Phases

### WHO Periods and Phases and Corresponding Federal Government Response Stages

<table>
<thead>
<tr>
<th>WHO Phases</th>
<th>Federal Government Response Stages</th>
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</thead>
<tbody>
<tr>
<td><strong>INTER-PANDEMIC PERIOD</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1</strong> No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused a human infection may be present in animals. If present in animals, the risk of human disease is considered to be low.</td>
<td>0 New domestic animal outbreak in at-risk country</td>
</tr>
<tr>
<td><strong>2</strong> No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza subtype poses a substantial risk of human disease.</td>
<td></td>
</tr>
<tr>
<td><strong>PANDEMIC ALERT PERIOD</strong></td>
<td></td>
</tr>
<tr>
<td><strong>3</strong> Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.</td>
<td>0 New domestic animal outbreak in at-risk country</td>
</tr>
<tr>
<td></td>
<td>1 Suspected human outbreak overseas</td>
</tr>
<tr>
<td><strong>4</strong> Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.</td>
<td>2 Confirmed human outbreak overseas</td>
</tr>
<tr>
<td><strong>5</strong> Larger cluster(s) but human-to-human spread still localized suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).</td>
<td></td>
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<tr>
<td><strong>PANDEMIC PERIOD</strong></td>
<td></td>
</tr>
<tr>
<td><strong>6</strong> Pandemic phase increased and sustained transmission in general population</td>
<td>3 Widespread human outbreaks in multiple locations overseas</td>
</tr>
<tr>
<td></td>
<td>4 First human case in North America</td>
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<tr>
<td></td>
<td>5 Spread throughout United States</td>
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<tr>
<td></td>
<td>6 Recovery and preparation for subsequent waves</td>
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</tbody>
</table>
GLOSSARY

**Antiviral medications:** Medications presumed to be effective against potential pandemic influenza virus strains and that may be useful to treat influenza-infected persons or persons that have been exposed to influenza to prevent them from becoming ill. These antiviral medications include the neuraminidase inhibitors oseltamivir (Tamiflu®) and zanamivir (Relenza®).

**Case fatality ratio:** Proportion of deaths among ill persons.

**Childcare:** Childcare programs discussed in this guidance include 1) centers or facilities that provide care to any number of children in a nonresidential setting, 2) large family childcare homes that provide care for seven or more children in the provider's home, and 3) small family childcare homes that provide care to six or fewer children in the provider’s home.

**Children:** In this document children are defined as 17 years of age or younger unless an age is specified or 12 years of age or younger if teenagers are specified.

**Community mitigation strategy:** A strategy for the implementation at the community level of interventions designed to slow or limit the transmission of a pandemic virus.

**Continuity of Operations Plan:** Preparation made by businesses and agencies to maintain survival of the operation during catastrophic event.

**Critical infrastructure:** Systems and assets, whether physical or virtual, so vital to the United States that the incapacitation or destruction of such systems and assets would have a debilitating impact on national security, economy, or public health and/or safety, either alone or in any combination. Specifically, it refers to the critical infrastructure sectors identified in Homeland Security Presidential Directive 7 (HSPD-7).

**Early, targeted, and layered non-pharmaceutical intervention strategy:** A strategy for using combinations of selected community-level non-pharmaceutical interventions implemented early and consistently to slow or limit community transmission of a pandemic virus.

**Generation time:** Average number of days taken for an ill person to transmit the infection to another person.

**Hand hygiene:** Hand washing with either plain soap or antimicrobial soap and water or use of alcohol-based products (gels, rinses, foams containing an emollient) that do not require water.

**Homeland Security Exercise and Evaluation Program (HSEEP):** Capabilities and performance-based exercise program that provides a standardized policy, methodology, and language for designing, developing, conducting, and evaluating all exercises.

**Incident Command System (ICS):** The combination of facilities, equipment, personnel, procedures, and communications operating within a standardized organizational structure, designed to aid in domestic incident management activities.

**Illness rate or clinical attack rate:** Proportion of people in a community who develop illness (symptomatic cases + population size).

**Incubation period:** The interval (in hours, days, or weeks) between the initial, effective exposure to an infectious organism and the first appearance of symptoms of the infection.

**Infection control practices:** Hygiene and protective measures to reduce the risk of transmission of an infectious agent from an infected person to uninfected persons (e.g., hand hygiene, respiratory
hygiene/cough etiquette, use of personal protective equipment, such as face masks and respirators, and disinfection).

**Infectivity:** The ability of the virus to cause infection in a susceptible host.

**Influenza pandemic:** A worldwide epidemic caused by the emergence of a new or novel influenza strain to which humans have little or no immunity and that develops the ability to infect and be transmitted efficiently between people.

**Isolation of people who are ill:** Separation or restriction of movement of persons ill with an infectious disease in order to prevent transmission to others.

**Masks:** Disposable face shields that cover the nose and mouth. Two types of facial shields are recommended by CDC: **Surgical masks** and **N-95 respirators**. Surgical masks help to prevent spread of droplets by persons wearing them. They will not protect the wearer from inhaling small particles. An N-95 respirators protect the wearer from inhaling small particles and should be worn by those who will likely be exposed to sick patients. CDC recommends that: Surgical facemasks should be considered for use by individuals who enter crowded settings, both to protect their nose and mouth from other people’s coughs and to reduce the wearers' likelihood of coughing on others. N-95 masks should be considered for use by individuals for whom have a high likelihood of exposure to sick people. To function properly, N-95 masks should be fit-tested.

**Mortality rate:** Number of deaths in a community divided by population size of community over a specific period of time (e.g., 20 deaths per 100,000 persons per week).

**N-95 Respirators:** Disposable face shields that should be used by individuals during activities that have a high likelihood of generating infectious respiratory aerosols including procedures such as intubation, nebulizer treatments, or suctioning; resuscitation; or providing direct care for patients with suspected or confirmed pandemic influenza. Fit testing is required to assure the respirator appropriately fits the wearer.

**Non-pharmaceutical intervention (NPI):** Mitigation measure implemented to reduce the spread of an infectious disease (e.g., pandemic influenza) that does not include pharmaceutical products, such as vaccines and medicines. Examples include social distancing and infection control practices.

**Pandemic vaccine:** Vaccine for a specific influenza virus strain that has evolved the capacity for sustained and efficient human-to-human transmission. This vaccine can only be developed once the pandemic strain emerges.

**Pathogenicity:** The ability of the agent to induce disease.

**Personal protective equipment (PPE):** PPE is any type of clothing, equipment, or respiratory protection device (respirators) used to protect workers against hazards they encounter while doing their jobs. PPE can include protection for eyes, face, head, torso, and extremities. Gowns, face shields, gloves, face masks, and respirators are examples of PPE commonly used within healthcare facilities. When PPE is used in a workplace setting to protect workers against workplace hazards, its use must be consistent with regulations issued by the Occupational Safety and Health Administration (http://www.osha.gov/index.html).

**Pandemic Influenza Plan Operational Guidelines (PIPOG):** The operating guidelines for the Texas Pandemic Influenza Plan. The PIPOG is available on the DSHS Community Preparedness Website.
**Post-exposure prophylaxis:** The use of antiviral medications in individuals exposed to others with influenza to prevent disease transmission.

**Prophylaxis:** Prevention of disease or of a process that can lead to disease. With respect to pandemic influenza, this specifically refers to giving antiviral medications to healthy individuals to prevent influenza.

**Quarantine:** A restraint upon the activities or communication (e.g., physical separation or restriction of movement within the community/work setting) of individuals who have been exposed to an infection but are not yet ill to prevent the spread of disease. Quarantine may be applied voluntarily (preferred) or on compulsory basis dependent on legal authority.

**Respiratory hygiene/cough etiquette:** a term that has been adopted by the Centers for Disease Control and Prevention (CDC) to describe measures that can be taken to decrease the risk of spreading respiratory pathogens.

**R0 ("reproductive number"):** Average number of infections resulting from a single case in a fully susceptible population without interventions.

**Schools:** Refers to public and private elementary, middle, secondary, and post-secondary schools (colleges and universities).

**Seasonal influenza:** Influenza virus infections in familiar annual patterns.

**Second- and third-order consequences:** Chains of effects that may arise as a consequence of intervention and that may require additional planning and intervention to mitigate. These terms generally refer to foreseeable unintended consequences of intervention. For example, dismissing students from schools may lead to workplace absenteeism for child care. Subsequent workplace closings due to high absenteeism may lead to loss of income for employees, a third-order effect that could be detrimental to families living at or near subsistence levels.

**Sector:** A subdivision (sociological, economic, or political) of society.

**Social distancing:** Measures to increase the space between people and decrease the frequency of contact among people.

**Strategic National Stockpile (SNS):** National repository of antibiotics, chemical antidotes, antitoxins, life-support medications, IV administration, airway maintenance supplies, and medical/surgical items. The SNS is designed to supplement and re-supply state and local public health agencies in the event of a national emergency anywhere and at anytime within the U.S. or its territories.

**Surge capacity:** Refers to the ability to expand provision of services beyond normal capacity to meet transient increases in demand. Surge capacity within a medical context includes the ability of healthcare or laboratory facilities to provide care or services above their usual capacity and to expand manufacturing capacity of essential medical materiel (e.g., vaccine) to meet increased demand.

**Surgical mask:** A disposable face mask that covers the mouth and nose and comes in two basic types. The first type is affixed to the head with two ties and typically has a flexible adjustment for the nose bridge. This type of surgical mask may be flat/pleated or duck-billed in shape. The second type of surgical mask is pre-molded, or cup shaped, and adheres to the head with a single elastic strap and usually has a flexible adjustment for the nose bridge. Surgical masks are used to prevent the transmission of large particles. Fit testing is not required for surgical masks.
**Surveillance:** The ongoing systematic collection and analysis of data and the provision of information which leads to action being taken to prevent and control a disease, usually one of an infectious nature.

**Viral shedding:** Discharge of virus from an infected person.

**Virulence:** The severity of the disease after infection occurs.

**Voluntary:** Acting or done of one’s own free will without legal compulsion (e.g., voluntary household quarantine).
REFERENCES

