

HHS Pandemic Influenza Plan



U.S. Department
of Health and
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Statement by Health and Human Services Secretary Mike Leavitt:

One of the most important public health issues our Nation and the world faces is the threat of a global disease outbreak called a pandemic. No one in the world today is fully prepared for a pandemic -- but we are better prepared today than we were yesterday - and we will be better prepared tomorrow than we are today.

This *HHS Pandemic Influenza Plan* provides a blueprint from which to prepare for the challenges that lie ahead of us. Being prepared and responding effectively involves everyone: individuals, communities, businesses, States, Federal agencies, international countries and organizations. Here at home, we can use this *Plan* to create a seamless preparedness network where we are all working together for the benefit of the American people.

In the century past, we have experienced influenza pandemics three times: as recently as 1968 and 1957 and what has been called the Great Influenza in 1918, a pandemic that killed 40-50 million people worldwide. At some point in our nation's future another virus will emerge with the potential to create a global disease outbreak. History teaches us that everything we do today to prepare for that eventuality will have many lasting benefits for the future. We will realize important advances in healthcare, and we will be better prepared for other types of emergencies.

I am humbled by the enormity of the challenge that the global community confronts should there be a pandemic. Public cooperation and global partnerships will be essential tools in fighting back and creating a constant state of readiness. If together we take the steps necessary, we will be able to save the lives of millions of people in our country and all around the world.

Mike Leavitt
Health and Human Services Secretary



preface

Adequate planning for a pandemic requires the involvement of every level of our nation, and indeed, the world. The ubiquitous nature of an influenza pandemic compels federal, state and local governments, communities, corporations, families and individuals to learn about, prepare for, and collaborate in efforts to slow, respond to, mitigate, and recover from a potential pandemic. The development, refinement, and exercise of pandemic influenza plans by all stakeholders are critical components of preparedness.

This document, the **HHS Pandemic Influenza Plan**, serves as a blueprint for all HHS pandemic influenza preparedness planning and response activities. This plan updates the August 2004 draft HHS Pandemic Influenza Preparedness and Response Plan and features important additions and refinements. The Plan integrates changes made in the 2005 World Health Organization (WHO) classification of pandemic phases and expansion of international guidance and now is consistent with the National Response Plan (NRP) published in December 2004.

The **HHS Pandemic Influenza Plan** has three parts, the first two of which are contained in this document. Part 1, the **Strategic Plan** outlines federal plans and preparation for public health and medical support in the event of a pandemic. It identifies key roles of HHS and its agencies in a pandemic and provides planning assumptions for federal, state and local governments and public health operations plans. Part 2, **Public Health Guidance for State and Local Partners**, provides detailed guidance to state and local health departments in 11 key areas. Parts 1 and 2 will be regularly updated and refined. These documents will serve as tools for continued engagement with stakeholders, state and local partners.

Part 3, which is currently under development, will consist of **HHS Agencies' Operational Plans**. Each HHS component will prepare, maintain, update and exercise an operational plan that itemizes their specific roles and responsibilities in the event of a pandemic. These individual plans will also include detailed continuity of operations plans such as strategies for ensuring that critical everyday functions of each operating division are identified and maintained in the presence of the expected decreased staffing levels of a pandemic event. In addition to operations, these plans will elaborate on coordination, command and control, logistics, and planning, as well as financial and administration considerations.

Recognizing that an influenza pandemic has the capacity to cause disruptions across all levels of governments and in all communities, pandemic influenza preparedness is a shared responsibility. The following list includes some of the additional plans that will be required to mitigate the impact of a pandemic and to ensure continuity of essential services:

All plans should remain living documents. They should be updated periodically in the time before, during, and after a pandemic. All plans should be exercised to identify weaknesses and promote effective implementation.

■ International and Global Planning

Every nation should develop comprehensive strategies and contingency plans for a global pandemic. These plans should be coordinated regionally and at the global level. The opportunity to contain an initial outbreak can only be realized in the presence of a sophisticated global strategy.

■ National Strategy for Pandemic Influenza

The National Strategy provides a framework for future U.S. Government planning efforts. It acknowledges that the Nation must have a system of plans at all levels of government and in all sectors outside of government, that can be integrated to address the pandemic threat.

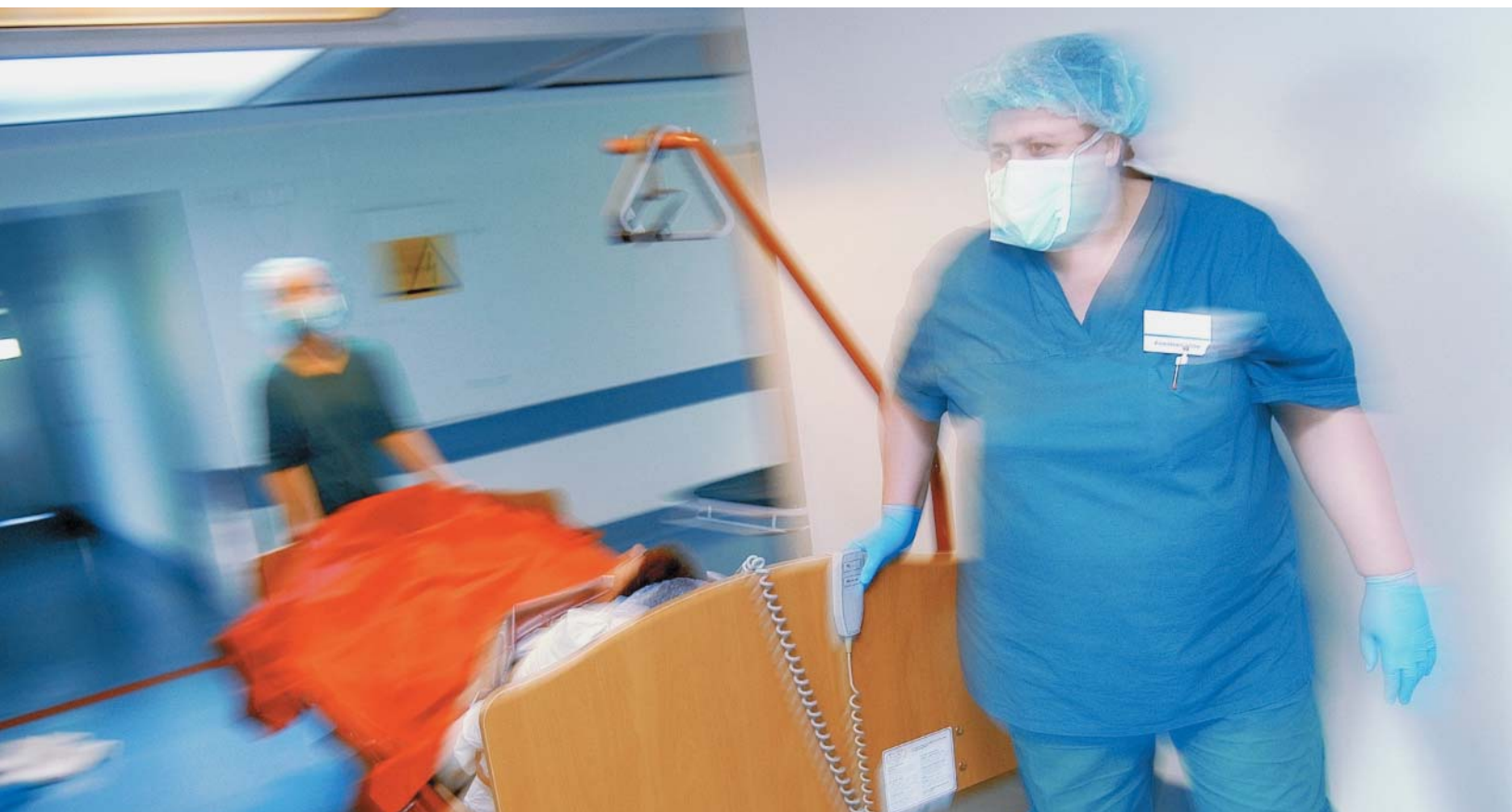
■ State and Local Pandemic Influenza Plans

These plans should detail how health departments and other agencies of state and local governments and tribal nations will prevent, mitigate, respond and recover from an influenza pandemic. They should be community specific where appropriate and should contemplate specific local and community needs.

■ Corporate, Infrastructure and Critical Service Provider Plans

School systems, hospitals, healthcare providers, community infrastructure providers and employers should develop plans that identify how they will respond in the event of an influenza pandemic.

All plans should remain living documents. They should be updated periodically in the time before, during, and after a pandemic. All plans should be exercised to identify weaknesses and promote effective implementation. Pandemic influenza response can be optimized by effectively engaging stakeholders during all phases of pandemic planning and response.



Although the timing, nature and severity of the next pandemic cannot be predicted with any certainty, preparedness planning is imperative to lessen the impact of a pandemic.



executive summary

An influenza pandemic has the potential to cause more death and illness than any other public health threat. If a pandemic influenza virus with similar virulence to the 1918 strain emerged today, in the absence of intervention, it is estimated that 1.9 million Americans could die and almost 10 million could be hospitalized over the course of the pandemic, which may evolve over a year or more. Although the timing, nature and severity of the next pandemic cannot be predicted with any certainty, preparedness planning is imperative to lessen the impact of a pandemic. 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 country for a sustained period of time. Therefore, minimizing social and economic disruption will require a coordinated response. Governments, communities, and other public and private sector stakeholders will need to anticipate and prepare for a pandemic by defining roles and responsibilities and developing continuity of operations plans.

This document, the **HHS Pandemic Influenza Plan**, serves as a blueprint for all HHS pandemic influenza preparedness and response planning. Part 1, the **Strategic Plan**, describes a coordinated public health and medical care strategy to prepare for, and begin responding to, an influenza pandemic. Part 2, **Public Health Guidance for State and Local Partners** provides guidance on specific aspects of pandemic influenza planning and response for the development of state and local preparedness plans.

Part 1 – Strategic Plan

Part 1 describes the pandemic influenza threat and outlines planning assumptions and doctrine for the HHS pandemic influenza response. In addition, it identifies key pandemic response actions and the necessary capabilities for effective implementation. Finally, the **Strategic Plan** assigns lead roles and responsibilities for response actions to specific HHS agencies and offices.

The Pandemic Influenza Threat

A pandemic occurs when a novel influenza virus emerges that can infect and be efficiently transmitted among individuals because of a lack of pre-existing immunity in the population. The extent and severity of a pandemic depends on the specific characteristics of the virus.

Although a novel influenza virus could emerge from anywhere in the world at any time, scientists are particularly concerned about the avian influenza (H5N1) currently circulating in Asia and parts of Europe.



Outbreaks of influenza H5N1 have occurred among poultry in several countries in Asia since 1997. The H5N1 avian influenza virus is widespread in the region and has become endemic in migratory birds and several other animal species. As of October 2005, cases of human H5N1 infection have been reported in Thailand, Vietnam, Cambodia, and Indonesia. The reported death rate for these cases has been about 50 percent, although the true number of people who have been exposed to and infected by the H5N1 virus is unknown. While most of the reported cases seem to have occurred from direct contact with infected poultry or contaminated surfaces, the source of infection has not been documented in every instance. Of additional concern are the few instances where secondary transmission from person to person may have occurred. Given these events, we are currently in a Pandemic Alert Phase 3, defined by WHO as "human infections with a new subtype but no human-to-human spread or at most rare instances of spread to a close contact."¹

Pandemic Planning Assumptions

As a result of the widespread emergence and spread of the H5N1 virus among birds, public health experts and government officials are escalating and intensifying their pandemic preparedness planning. Uncertainty about the magnitude of the next pandemic mandates planning for a severe pandemic such as occurred in 1918. Characteristics of an influenza pandemic that must be considered in strategic planning include:

- The ability of the virus to spread rapidly worldwide;
- The fact that people may be asymptomatic while infectious;
- Simultaneous or near-simultaneous outbreaks in communities across the U.S., thereby limiting the ability of any jurisdiction to provide support and assistance to other areas;
- Enormous demands on the healthcare system;
- Delays and shortages in the availability of vaccines and antiviral drugs; and
- Potential disruption of national and community infrastructures including transportation, commerce, utilities and public safety due to widespread illness and death among workers and their families and concern about on-going exposure to the virus.

¹ <http://www.who.int/csr/resources/publications/influenza/whoedscsredc991.pdf>

Doctrine for HHS Pandemic Influenza Planning and Response

The ongoing outbreaks of avian influenza in Asia and the progression from the interpandemic period (the period prior to human infections) to a pandemic alert (once human infections have occurred) have prompted HHS to enhance its preparedness planning and activities. In addition to the characteristics of a pandemic noted above, HHS' preparedness planning and response activities are guided by the following principles:

1. Preparedness will require coordination among federal, state and local government and partners in the private sector.
2. An informed and responsive public is essential to minimizing the health effects of a pandemic and the resulting consequences to society.
3. Domestic vaccine production capacity sufficient to provide vaccine for the entire U.S. population is critical, as is development of vaccine against each circulating influenza virus with pandemic potential and acquisition of sufficient quantities to help protect first responders and other critical personnel at the onset of a pandemic.
4. Quantities of antiviral drugs sufficient to treat 25% of the U.S. population should be stockpiled.
5. Sustained human-to-human transmission anywhere in the world will be the triggering event to initiate a pandemic response by the United States.
6. When possible and appropriate, protective public health measures will be employed to attempt to reduce person-to-person viral transmission and prevent or delay influenza outbreaks.
7. At the onset of a pandemic, vaccine, which will initially be in short supply, will be procured by HHS and distributed to state and local health departments for immunization of pre-determined priority groups.
8. At the onset of a pandemic, antiviral drugs from public stockpiles will be distributed to health care providers for administration to pre-determined priority groups.

Sustained human-to-human transmission anywhere in the world will be the triggering event to initiate a pandemic response by the United States.

Key Pandemic Response Elements and Capabilities for Effective Implementation

The nature of the HHS response will be guided by the epidemiologic features of the virus and the course of the pandemic. An influenza pandemic will place extraordinary and sustained demands not only on public health and health care providers, but also on providers of essential services across the United States and around the globe. Realizing that pandemic influenza preparedness is a process, not an isolated event, to most effectively implement key pandemic response actions, specific capabilities must be developed through preparedness activities implemented before the pandemic occurs. This plan outlines key actions for an effective pandemic response, involving surveillance, investigation, protective public health measures; vaccines and antiviral drug production; healthcare and emergency response; and communications and public outreach. In addition, the **Strategic Plan** sorts these actions by the WHO Pandemic phases. Recognizing that this potential public health catastrophe can occur at any time, HHS has aggressively embarked on preparing for a pandemic.

Surveillance, Investigation, Protective Public Health Measures

Aggressive surveillance measures ensure early detection and isolation of novel virus strains. Since a new virus could emerge anywhere in the world, surveillance activities must be conducted globally. To date, working with our international partners, HHS has greatly intensified its U.S. and global surveillance activities. In addition, HHS is developing comprehensive infection control strategies.





Once sustained human infection is documented, early in a pandemic, especially before a vaccine is available or during a period of limited supply, HHS may implement travel-related and community-based public health strategies in order to impede the spread of the virus and reduce the number of people infected. In particular, travel advisories and precautions, screening of persons arriving from affected areas, closing schools, restricting public gatherings, quarantine of exposed persons and isolation of infected persons may be implemented with the intent of slowing introduction and transmission of the virus. The use and continuation of these interventions will be determined by assessments of their effectiveness.

Vaccines and Antiviral Drugs

Vaccines and antiviral drugs have the potential to significantly reduce morbidity and mortality during a pandemic. In addition, vaccines and antiviral drugs may also limit viral spread. Although antiviral drugs can be stockpiled, a pandemic vaccine can only be made once the pandemic virus is identified. HHS is currently initiating vaccine development and clinical testing leading toward a vaccine that may provide complete or partial protection against potential pandemic viral strains and also increasing and diversifying antiviral medicines in the Strategic National Stockpile (SNS), a cache of medical and pharmaceutical supplies maintained by HHS. FDA is currently working with industry to facilitate the development, licensure/approval, production and availability of pandemic influenza countermeasures.

At the onset of a pandemic, HHS will accelerate its ongoing work with industry to facilitate the production and distribution of antiviral drugs and pandemic vaccines. HHS will continue to monitor antiviral drug and pandemic vaccine distribution effectiveness, and adverse events. Since vaccine and antiviral drugs are likely to be in short supply at the onset of an influenza pandemic, identification of predefined groups in which these medications will be used will be discussed as part of federal planning activities. HHS will work with state and local governments to develop guidelines and operational plans for the distribution of available supplies of a pandemic vaccine and antiviral drugs.

Healthcare and Emergency Response

An effective healthcare and emergency response requires planning and coordination among all levels of government and providers of direct patient care and essential services. HHS is working with its state and local partners to increase health care surge capacity of medical equipment, materials and personnel.

During a pandemic, HHS will work with states and local governments, and the private sector to optimize healthcare and emergency response. Since a pandemic may unfold in an unpredictable way, HHS actions in a pandemic will be shaped by regular assessments and adjustments of its strategies.

Communications and Public Outreach

Dissemination of information to all Americans is a critical component of effective pandemic planning and response. HHS is currently developing communication and outreach materials and messages. In addition, HHS is developing strategies to address psychosocial concerns and procedures for implementation of communications plans for health care providers and the public.

During a pandemic, HHS will provide honest, accurate and timely information on the pandemic to the public. It will also monitor and evaluate its interventions and will communicate lessons learned to healthcare providers and public health agencies on the effectiveness of clinical and public health responses.

All state, local, and tribal governments must be prepared to detect the earliest cases of pandemic influenza infection and disease, to minimize illness and morbidity, and to decrease social disruption and economic loss.

Part 2 – Public Health Guidance to State and Local Partners

All state, local, and tribal governments must be prepared to detect the earliest cases of pandemic influenza infection and disease, to minimize illness and morbidity, and to decrease social disruption and economic loss. Specific guidance and recommendations for pandemic influenza preparedness for state, local and tribal governments are detailed in eleven supplements in Part 2.

- **Surveillance (Supplement 1)** provides recommendations to state and local partners on surveillance for influenza viruses and disease to monitor the health impact of influenza throughout the pandemic phases.
- **Laboratory Diagnostics (Supplement 2)** provides recommendations to state and local public health partners and other laboratories on the use of diagnostic tests to detect, characterize, and monitor novel subtypes of influenza, including avian influenza A (H5N1) and other viruses with pandemic potential.
- **Healthcare Planning (Supplement 3)** provides healthcare partners with recommendations for developing plans to respond to an influenza pandemic with a focus on planning for pandemic influenza surveillance, decision-making structures for responding to a pandemic, hospital communications, education and training, patient triage, clinical evaluation and admission, facility access, occupational health, distribution of vaccines and antiviral drugs, surge capacity, and mortuary issues. Planning for the provision of care in non-hospital settings—including residential care facilities, physicians' offices, private home healthcare services, emergency medical services, federally qualified health centers, rural health clinics, and alternative care sites—is also addressed.
- **Infection Control (Supplement 4)** provides guidance to healthcare and public health partners on basic principles of infection control for limiting the spread of pandemic influenza including the selection and use of personal protective equipment; hand hygiene and safe work practices; cleaning and disinfection of environmental surfaces; handling of laboratory specimens; and post-mortem care. The guidance also covers infection control practices related to the management of infectious patients, the protection of persons at high-risk for severe influenza or its complications, and issues concerning occupational health.
- **Clinical Guidelines (Supplement 5)** provides clinical procedures for the initial screening, assessment, and management of patients with suspected novel influenza during the Interpandemic and Pandemic Alert Periods and for patients with suspected pandemic influenza during the Pandemic Period.



Robust preparedness for the next pandemic requires coordination with state and local emergency responders.

HHS encourages all levels of government to use this plan and begin refining their own.

- **Vaccine Distribution and Use (Supplement 6)** provides recommendations to state and local partners and other stakeholders on planning for the different elements of a pandemic vaccination program, including vaccine distribution, vaccination of priority groups, monitoring of adverse events, tracking of vaccine supply and administration, vaccine coverage and effectiveness studies, communications, legal preparedness, training, data collection on use, effectiveness, safety and the development of drug resistance.
- **Antiviral Drug Distribution and Use (Supplement 7)** provides recommendations to state and local partners on the distribution and use of antiviral drugs for treatment and prophylaxis throughout the pandemic phases, including issues such as procurement, distribution to pre-defined priority groups, legal preparedness, training and data collection.
- **Community Disease Control and Prevention (Supplement 8)** provides recommendations to state and local partners on the use of disease containment strategies to prevent or decrease transmission during different pandemic phases.
- **Managing Travel-Related Risks of Disease (Supplement 9)** provides recommendations to state and local partners on travel-related containment strategies that can be used during different phases of an influenza pandemic, including strategies that range from distribution of travel health alert notices, to isolation and quarantine of new arrivals, to restriction or cancellation of nonessential travel.
- **Public Health Communications (Supplement 10)** outlines key influenza pandemic risk communications concepts including:
 - When health risks are uncertain, as likely will be the case during an influenza pandemic, people need information about what is known and unknown, as well as interim guidance to formulate decisions to help protect their health and the health of others;
 - An influenza pandemic will generate immediate, intense, and sustained demand for information from the public, healthcare providers, policy makers, and news media;
 - Timely and transparent dissemination of clear, accurate, science-based, culturally competent information about pandemic influenza and the progress of the response can build public trust and confidence;
 - Coordination of message development and release of information among federal, state, and local health officials is critical to help avoid confusion that can undermine public trust, raise fear and anxiety, and impede response measures;
 - Information to public audiences should be technically correct and sufficiently complete to encourage support of policies and official actions.
- **Workforce Support: Psychosocial Considerations and Information Needs (Supplement 11)** focuses on the institutionalization of psychosocial support services that will help workers manage emotional stress during the response to an influenza pandemic and resolve related personal, professional, and family issues.

Robust preparedness for the next pandemic also requires coordination with state and local emergency responders. HHS encourages all levels of government to use this plan and begin refining their own. To this end, HHS plans to engage all stakeholders in an ongoing dialogue to refine and better coordinate preparedness plans.

